FINAL
NOVEMBER 2011 (N=30) GROUNDWATER, SURFACE-WATER, AND METHANE MONITORING REPORT

FOR

LONGSTREET ROAD MSW LANDFILL
NCDENR LANDFILL PERMIT #26-02

FORT BRAGG, NORTH CAROLINA

Prepared by:

US Army Corps of Engineers
Savannah District
Hazardous, Toxic & Radioactive Waste Section
CESAS-EN-GH
110 W. Oglethorpe Avenue
Savannah, GA 31401

March 2012

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SIGNATURE OF CERTIFIED PROFESSIONAL GEOLOGIST	
Kevin G. Haborak, P. G. Professional License Numbers: Georgia # 1683	Date

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LIST OF ACRONYMS

C&D	Construction and Demolition
COCs	Chemicals of Concern
DPW	Directorate of Public Works
IDW	Investigation Derived Waste
LCID	Land Clearing and Inert Debris
µg/L	Micrograms Per Liter
MSWLF	Municipal Solid Waste Landfill Facility
NC2L	North Carolina Administrative Code, Title 15A, Subchapter 2L
NCDENR	North Carolina Department of Environmental and Natural Resources
RCRA	Resource Conservation and Recovery Act
SAP	Sampling and Analysis Plan
SSI	Statistically Significant Increase
USACE	US Army Corps of Engineers
VOCs	Volatile Organic Compounds

NOVEMBER 2011 (N=30) GROUNDWATER, SURFACE-WATER, AND METHANE MONITORING REPORT FOR LONGSTREET ROAD MSW LANDFILL NCDENR LANDFILL PERMIT #26-02 FORT BRAGG, NORTH CAROLINA

1.0 INTRODUCTION

The report for the groundwater, surface-water, and methane monitoring for the Longstreet Landfill (Figure 1) was performed by the United States Army Corps of Engineers (USACE), Savannah District in November 2011. The monitoring is required by the North Carolina Department of Environmental and Natural Resources (NCDENR) Solid Waste Management Division. This is the twenty-ninth (N=30) monitoring event for the site. This report summarizes the methods used for the groundwater, surface-water, and methane monitoring and presents the results of the sampling event.

1.1 Project Background

The Longstreet Road landfill is a Municipal Solid Waste Landfill Facility (MSWLF) located north of Longstreet Road at Fort Bragg in Cumberland County, North Carolina. Figure 1 is a map of the site location. The United States Army Corps of Engineers (USACE), Savannah District has been contracted by the Fort Bragg Directorate of Public Works (DPW) to conduct water quality and methane sampling for the Environmental Branch to satisfy the permit and the Sampling and Analysis Plan (SAP) requirements. Groundwater, surface-water, and methane monitoring locations are shown on Figure 2. The current SAP, approved by NCDENR, includes sampling nine monitoring wells and two surface-water stations. The monitoring wells are SLMW-6, SLMW-7, SLMW-8, SLMW-9, SLMW-10, SLMW-11R, SLMW-12AR, SLMW-12BR, and SLMW-13, and the surface-water stations are SW-1 & SW-2. Monitoring well SLMW-11R is a replacement well that was installed in July 2008. The replacement well was installed because well SLMW-11 had been dry for several events. All sampling was conducted according to North Carolina Solid Waste Management Guidelines.

1.2 Project Scope

The scope for this project included collecting nine groundwater samples for all Appendix I and triggered Appendix II constituents, collecting two surface-water samples for all Appendix I & II constituents, performing methane monitoring at 14 selected methane monitoring wells and 4 buildings on site, evaluating the analytical results, and reporting the results of the investigation. The groundwater sampling and data analyses included obtaining field parameter measurements (i.e. pH, temperature, etc.), measuring water levels at the monitoring well locations, determining groundwater flow directions, validating laboratory analytical data, performing statistical analyses for each detected constituent as required by NC regulations, and determining the concentration changes of chemicals of concern (COCs) with time.

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2.0 PROJECT HISTORY

2.1 Site Description

The MSWLF is located north of Longstreet Road at Fort Bragg in Cumberland County, North Carolina. Figures 1 and 2 show the site location and layout. The MSWLF is west of the main post and east of Cooleyconch Mountain. Cooleyconch Mountain is the prominent terrain feature west of the main post. A vehicle washing facility borders the site to the east, the Lamont Road LCID and C&D Landfills are approximately 1.5 miles east of the site (on the west side of Cooleyconch Mountain).

2.2 General Site Geology and Hydrology

Lithologic descriptions of soil borings and monitoring well borings from previous investigations at Fort Bragg indicate that in general Fort Bragg is underlain by alternating sands, silty sands, clayey sands, sandy clays, and clays, likely belonging to the Middendorf Formation. The sands and silty sands range in thickness from approximately 2 to 22 ft and are coarse grained. The clay units range in thickness from approximately 2 to 7 ft and are typically plastic.

2.3 Previous Investigation and Results

Several sampling events have been conducted at the Landfill. Initially, four monthly sampling events were conducted in July, August, September, and October 1996 by R,S & H Architect, Engineering, & Planning, Inc. Law & Company, Inc. conducted two sampling events in March and September, 1999 in conjunction with the installation of new wells. Then until 2005, sampling events were conducted by BPA Environmental & Engineering, Inc. The USACE has monitored the site since 2005.

The previous sampling event, held in June 2011 for Longstreet Landfill, was conducted by the USACE, Savannah District. Low levels of VOCs, SVOCs, pesticides and Appendix II inorganics were detected, but most detections were at estimated levels

and/or were below NC2L standards. Benzene and Vinyl Chloride were detected above their NC2L standard at monitoring wells SLMW-7, SLMW-8, and SLMW-10. Cis-1,2-dichloroethene was detected above its NC2L standard at monitoring well SLMW-8. Monitoring well SLMW-10 had detections of 1,2-dichloroethene and 1,2-dichloropropane above their NC2L standard.

METHODS

2.4 Methane Monitoring

Methane monitoring was performed at 14 wells and 4 buildings. The monitoring included measuring levels of methane, carbon dioxide, and oxygen at each of the locations. The results of the monitoring are summarized in Table 1 and are also presented on Figure 3.

2.5 Water-Level Gauging

During this sampling event, USACE personnel measured the water levels in 9 monitoring wells. Measured water levels and calculated groundwater elevations are presented in Table 2. A Potentiometric map was developed based on the groundwater elevations; the map is presented as Figure 4. The map shows that the general direction of the groundwater flow at the Longstreet Landfill is towards the south-southeast.

2.6 Groundwater and Surface-Water Sampling

The groundwater sampling was conducted in accordance with the SAP for the Longstreet Road MSWLF (NCDENR Landfill Permit #26-02, which has been updated to reflect the most recent SAP). Groundwater samples were collected from nine monitoring wells and two surface-water stations. Water quality parameters pH, specific conductivity, temperature, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured during the purge cycle of each well and prior to sampling the surface-water stations. The measurements are summarized in Table 3.

The surface-water sample was collected using a peristaltic pump. The water to be collected for VOC analysis was not allowed to pass through the head of the pump, instead the tubing was filled and the flow was reversed to fill the bottles. Groundwater samples were collected using a low-flow purge method with a bladder pump. Immediately before purging a well, the static water level below the top of the well casing and the total depth of the well were measured to the nearest 0.01 foot and recorded in the field notebook.

The volume of water in the well was calculated based on the static water level and the well construction information. Well volume calculations were placed in the field notebook. The inlet of the sampling pump was placed at the mid-point of the screened interval. This level was adjusted for wells where the static water level is within the well screen. The monitoring wells were purged using a variable-flow bladder pump at a rate of 500 ml/min or less.

The wells were purged until the water quality had stabilized or five purge volumes were removed. The wells were considered stable when the following requirements were met for three consecutive readings: turbidity values within 10% or lower than 10 Nephelometric Turbidity Units (NTUs), temperature values within a range of 0.5 degrees Celcius, pH readings within 0.1 Standard Units (SU), ORP values within a range of 10 milivolts (mV), and conductivity values within 3%, and DO values within 10%.

The rate of pumping was determined and noted in the field notebook. The purge rate was adjusted, as necessary, to avoid purging any well to dryness and to equal the recharge of the aquifer. All sampling equipment was protected from contaminated soil surfaces to prevent contamination of the samples (e.g., equipment may be placed on disposable polyethylene plastic sheeting). Groundwater samples were collected after purging was complete. The tubing was disconnected from the flow through cell and the samples were collected from the pump outlet. The samples were labeled and placed into an ice-filled cooler for preservation.

Groundwater sampling data (including sample number, location, quantity of water purged, field parameters, site conditions, etc.) were documented in the field notebook. Water samples for Resource Conservation and Recovery Act (RCRA) metal analyses were un-filtered. The results of the groundwater sampling are presented in Table 4 and on Figure 5. The groundwater sampling field data logs are presented in Appendix A.

2.7 Investigation Derived Wastes Handling

The investigation derived wastes (IDW), including the waste water from well

purging and decontamination water, were containerized in 55-gallon drums. Those drums were appropriately labeled, sealed, and staged within designated areas until analytical results had been received and reviewed. Based on the analytical results of the groundwater samples, the IDW was classified as non-hazardous. With the concurrence of the Fort Bragg Installation Restoration Program Manager, the IDW was disposed of at an appropriate disposal facility.

3.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSIS

3.1 Analytical Data Summary

Groundwater samples were analyzed for VOCs, SVOCs, Pesticides, PCBs, Organophosphorus Pesticides, and Appendix II Inorganics. The surface-water samples were analyzed for all Appendix I and Appendix II constituents. The summary of detections of the COCs is presented in Table 4. Figure 5 shows the distribution of the detections and their concentrations from this sampling event. The reports of chemical data quality assessment prepared by the Project Chemist are included as Appendix B. The laboratory reports of analytical results are included as Appendix C. For comparison, the analytical results of previous investigations are also presented in the Statistical Analyses Summary Report included in Appendix D.

In accordance with North Carolina guidance, analytical results are compared to North Carolina Groundwater 2L Standards (NC2L standards). The analytical data of the first 2011 sampling event indicated that some VOCs and inorganics were detected at low levels, and most detections were below NC2L standards (Table 4). Six sampling locations had detections exceeding the NC2L standards: wells SLMW-6, SLMW-7, SLMW-8, SLMW-9, SLMW-10 and SW-1. The analytical results for each of those wells are shown below:

- Well SLMW-6

  One compound was detected above the 2L standard as listed below:

Compound	2L	Concentration
Dibromochloromethane	0.41 µg/L	0.71 J µg/L

  No other constituents were above their 2L standards.

- Well SLMW-7

  Two compounds were detected above the 2L standard as listed below:

Compound	2L	Concentration
Benzene	1 µg/L	1.1 µg/L
Vinyl Chloride	0.015 µg/L	0.44 J µg/L

No other constituents were above their 2L standards.

- Well SLMW-8

Two compounds were detected above the 2L standard as listed below:

Compound	2L		Concentration	
Benzene	1	µg/L	2.9	µg/L
Vinyl Chloride	0.015	µg/L	13	µg/L

No other constituents were above their 2L standards.

- Well SLMW-9

Two compounds were detected above the 2L standard as listed below:

Compound	2L		Concentration	
Bis(2ethylhexyl)phthalate	1	µg/L	6.7 J	µg/L
Vinyl Chloride	0.015	µg/L	0.94 J	µg/L

No other constituents were above their 2L standards.

- Well SLMW-10

Four compounds were detected above the 2L standard as listed below:

Compound	2L		Concentration	
1,2-dichloroethane	0.38	µg/L	0.41 J	µg/L
1,2-dichloropropane	0.56	µg/L	3.3	µg/L
Benzene	1	µg/L	1.3	µg/L
Vinyl Chloride	0.015	µg/L	2.2	µg/L

No other constituents were above their 2L standard.

- SW-1

Five compounds were detected above the 2L standard as listed below:

Compound	2L		Concentration	
1,2-dichloroethane	0.38	µg/L	0.5 J	µg/L
1,2-dichloropropane	0.56	µg/L	0.74 J	µg/L
Benzene	1	µg/L	2.9	µg/L
Vinyl Chloride	0.015	µg/L	3.3	µg/L
Tetrachloroethene	0.7	µg/L	1.1	

No other constituents were above their 2L standard.

Though wells had constituent detections above method detection limits, all other detections were below the respective NC2L standard and most are estimated values that

were detected above the method detection limits but below the reporting limit (Table 4).

3.2 Statistical Analysis Results

A statistical test predicts the average behavior (distribution) of a random variable by comparing the means (normal distribution) or medians (lognormal and non-parametric distributions) of the compliance well data to background well data. Different statistical tests were used as appropriate for the different distributional patterns that occur within the data. Prior to testing for statistical significance, the distribution of each parameter was determined to be normal, lognormal, or non-normal.

If the data were non-normally distributed, or the fraction of nondetects exceeded 15% but were less than 90%, then the Kruskal-Wallis Test was applied. However, the Kruskal-Wallis test is prone to false positives. Therefore, additional statistical analyses were used to determine the validity of the positive results. If the fraction of non-detects exceeded 90%, then the Non-Parametric Prediction Limit was applied. Intra-well comparisons of data from a single well to previous data from the same well were performed to confirm if a trend of increasing concentration is occurring. The Mann-Kendall Trend Analysis and the Shewhart-CUSUM Control Chart statistical tests were selected for these additional analyses.

A detailed discussion of the statistical methods is presented in Appendix D. The results of the analysis indicated that the samples collected at the Longstreet Road Municipal Solid Waste Landfill did not exhibit any evidence of statistically significant increases (SSIs) in the analytical results future analytical results will be evaluated using the same procedures.

According to North Carolina Administrative Code Title 15A Chapter 13 Subchapter B Section 1634 paragraph f [15A NC3AC 13B.1634 (f)], assessment monitoring shall continue if Appendix II parameters are detected at statistically significant levels above background but below established groundwater protection standards. Assessment monitoring will have to continue at the landfill until the presence of no SSIs is confirmed in the next monitoring event.

3.3 Methane Monitoring Results

The methane levels were measured at 18 locations at Longstreet. The results of the monitoring are summarized in Table 1 and are also presented on Figure 3. Nine methane monitoring wells contained high levels of methane (> 5% Methane by Volume) with seven readings at or above 20.4% methane by volume. Methane vent flares were recommended for this landfill in the 2005 Report.

4.0 CONCLUSIONS AND RECOMMENATIONS

The annual monitoring program consists of two sampling events (this was the first of 2011) conducted six months apart. This was the N=30 sampling event for the Longstreet Road Landfill. Low levels of VOCs, SVOCs, and Appendix II inorganics were detected, but most detections were at estimated levels and/or were below NC2L standards. Benzene was detected above its NC2L standard at monitoring wells SLMW-7, SLMW-8, SLMW-10, and SW-1. Vinyl chloride was detected above the NC2L standard at monitoring wells SLMW-7, SLMW-8, SLMW-9, SLMW-10, and SW-1. Bis(2ethylhexyl) phthalate was detected above its NC2L standard at monitoring well SLMW-9. 1,2-Dichloroethane and 1,2-Dichloropropane were also detected at SLMW-10 above their respective NC2L standard. 1,2-Dichloroethane, 1,2-Dichloropropane, and Tetrachloroethene were also detected above their respective NC2L standards at SW-1.

According to the Statistical Analysis of groundwater Data (Appendix D), the results of the analysis indicated that the samples collected at the Longstreet Road Municipal Solid Waste Landfill did not exhibit any evidence of SSIs in the analytical results.

According to North Carolina Administrative Code Title 15A Chapter 13 Subchapter B Section 1634 paragraph f [15A NC3AC 13B.1634 (f)], assessment monitoring shall continue if Appendix II parameters are detected at statistically significant levels above background but below established groundwater protection standards. No SSIs were identified during this event, assessment monitoring will continue until the lack of SSIs is confirmed in the N=31 sampling event. Long-term monitoring should continue at the Longstreet Road Landfill because it is still an active site and NC Solid Waste Regulations require it.

The methane levels were measured at 18 locations at Longstreet. Nine methane monitoring wells showed high levels of methane (> 5%) with seven readings at or above 20.4% methane by volume. Methane vent flares were recommended for this landfill in the 2005 Report.

5.0 REFERENCES

North Carolina Administrative Code, Title 15A, Department of Environment, Health, and Natural Resources, Division of Solid Waste, Management, Subchapter 13B, Solid Waste Management, Section .1600 (January 4, 1994).

North Carolina Administrative Code, Title 15A, Department of Environment, Health, and Natural Resources, Division of Solid Waste, Management, SubchapterNC2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993): from the Environmental Management Commission, Raleigh, North Carolina.

FIGURES

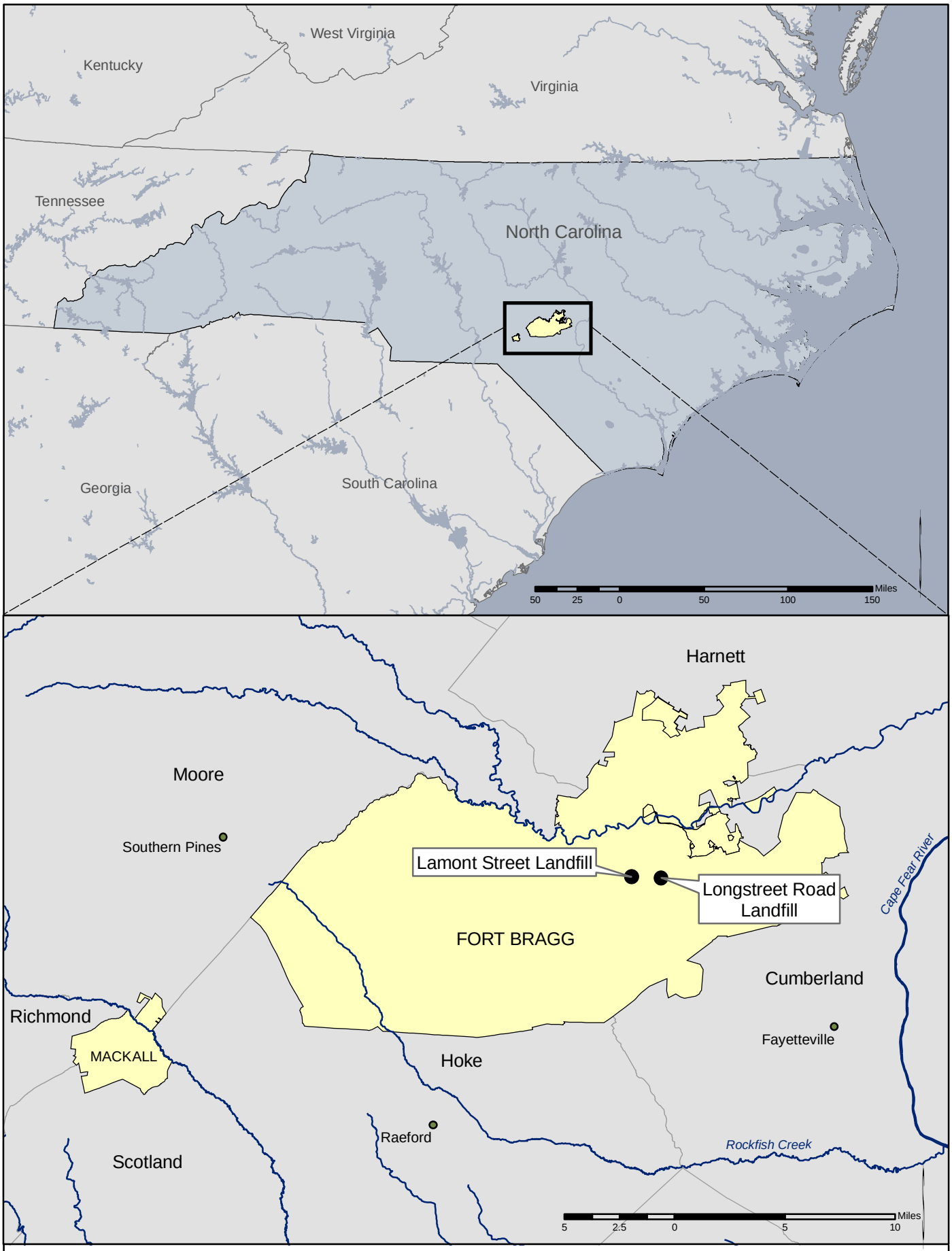

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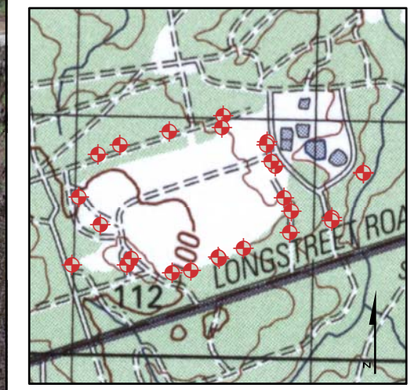
Figure 1

Site Map -- Ft. Bragg, NC



METHANE SAMPLE
SURFACE-WATER SAMPLE
MONITORING WELL
STREAM
PAVED ROAD
DIRT ROAD
BUILDING

1 inch = 320 feet

0 160 320 640'

N

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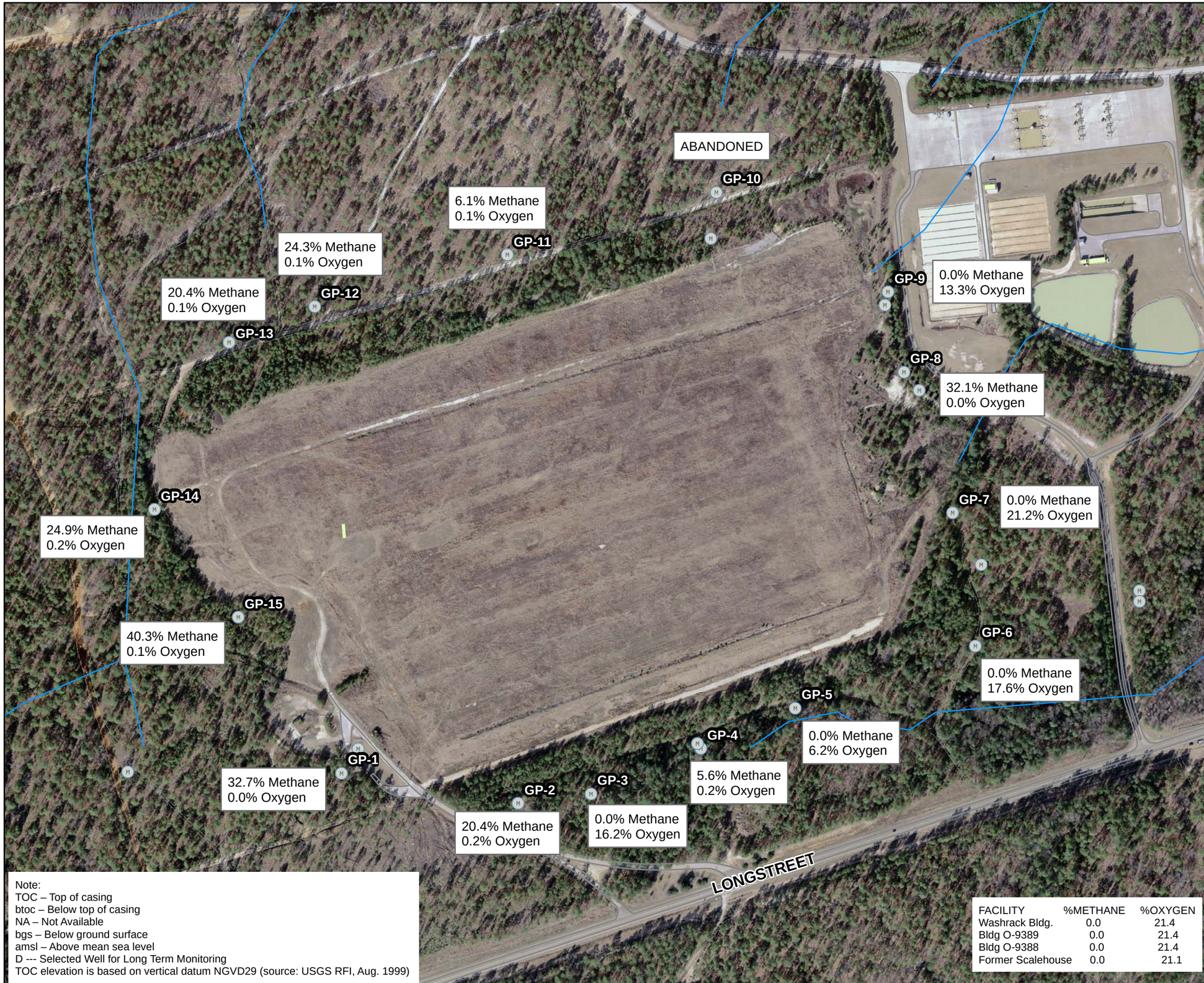
LOCATION MAP- LONGSTREET RD LANDFILL

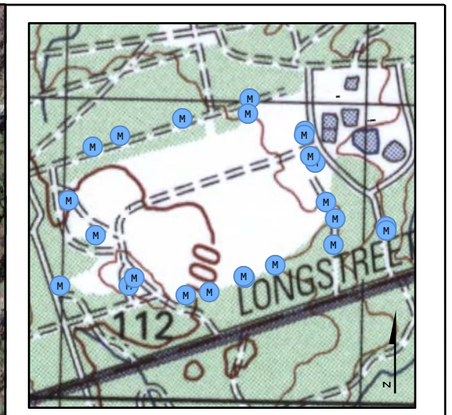
FT. BRAGG, NC

DATE: MARCH 2012 | FIGURE 2



Note:
TOC – Top of casing
btoc – Below top of casing
NA – Not Available
bgs – Below ground surface
amsl – Above mean sea level
D --- Selected Well for Long Term Monitoring
TOC elevation is based on vertical datum NGVD29 (source: USGS RFI, Aug. 1999)

FACILITY	%METHANE	%OXYGEN
Washrack Bldg.	0.0	21.4
Bldg O-9389	0.0	21.4
Bldg O-9388	0.0	21.4
Former Scalehouse	0.0	21.1



METHANE SAMPLE
STREAM
BUILDING
ROAD
TRAIL

1 inch = 333 feet
0 175 350 700'
N

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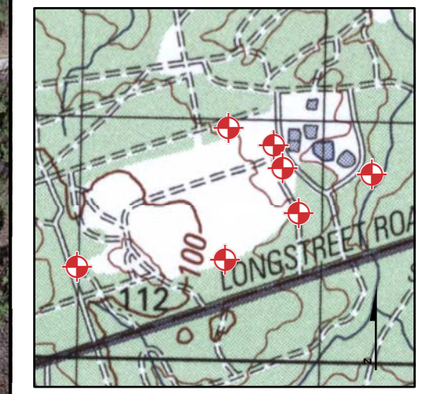
METHANE MONITORING RESULTS

LONGSTREET LANDFILL
FT. BRAGG, NC

DATE: MARCH 2012 | FIGURE 3



Longstreet Wells

Groundwater Contour

Note: Monitoring wells used for potentiometric surface are displayed with elevations in feet above MSL in parenthesis below the label.

1 inch = 333 feet

0 160 320 640'

N

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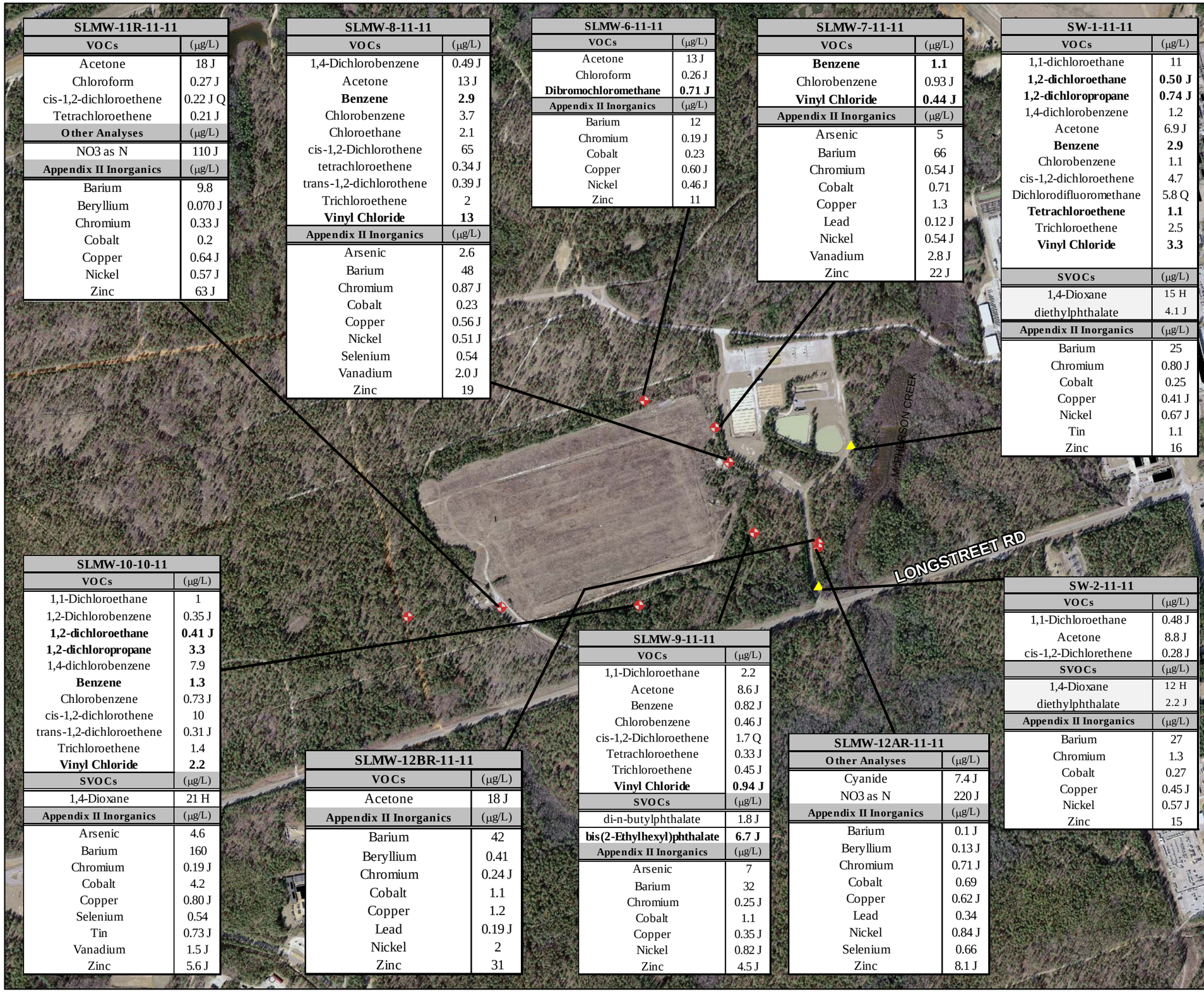
LONGSTREET LANDFILL, FORT BRAGG, NC

POTENTIOMETRIC MAP

DATE: MARCH 2012

FIGURE 4



SLMW-11R-11-11	
VOCs	(µg/L)
Acetone	18 J
Chloroform	0.27 J
cis-1,2-dichloroethene	0.22 J Q
Tetrachloroethene	0.21 J
Other Analyses	(µg/L)
NO3 as N	110 J
Appendix II Inorganics	(µg/L)
Barium	9.8
Beryllium	0.070 J
Chromium	0.33 J
Cobalt	0.2
Copper	0.64 J
Nickel	0.57 J
Zinc	63 J

SLMW-8-11-11	
VOCs	(µg/L)
1,4-Dichlorobenzene	0.49 J
Acetone	13 J
Benzene	**2.9**
Chlorobenzene	3.7
Chloroethane	2.1
cis-1,2-Dichlorothene	65
tetrachloroethene	0.34 J
trans-1,2-dichlorothene	0.39 J
Trichloroethene	2
Vinyl Chloride	**13**
Appendix II Inorganics	(µg/L)
Arsenic	2.6
Barium	48
Chromium	0.87 J
Cobalt	0.23
Copper	0.56 J
Nickel	0.51 J
Selenium	0.54
Vanadium	2.0 J
Zinc	19

SLMW-6-11-11	
VOCs	(µg/L)
Acetone	13 J
Chloroform	0.26 J
Dibromochloromethane	**0.71 J**
Appendix II Inorganics	(µg/L)
Barium	12
Chromium	0.19 J
Cobalt	0.23
Copper	0.60 J
Nickel	0.46 J
Zinc	11

SLMW-7-11-11	
VOCs	(µg/L)
Benzene	**1.1**
Chlorobenzene	0.93 J
Vinyl Chloride	**0.44 J**
Appendix II Inorganics	(µg/L)
Arsenic	5
Barium	66
Chromium	0.54 J
Cobalt	0.71
Copper	1.3
Lead	0.12 J
Nickel	0.54 J
Vanadium	2.8 J
Zinc	22 J

SW-1-11-11	
VOCs	(µg/L)
1,1-dichloroethane	11
1,2-dichloroethane	**0.50 J**
1,2-dichloropropane	**0.74 J**
1,4-dichlorobenzene	1.2
Acetone	6.9 J
Benzene	**2.9**
Chlorobenzene	1.1
cis-1,2-dichloroethene	4.7
Dichlorodifluoromethane	5.8 Q
Tetrachloroethene	**1.1**
Trichloroethene	2.5
Vinyl Chloride	**3.3**
SVOCs	(µg/L)
1,4-Dioxane	15 H
diethylphthalate	4.1 J
Appendix II Inorganics	(µg/L)
Barium	25
Chromium	0.80 J
Cobalt	0.25
Copper	0.41 J
Nickel	0.67 J
Tin	1.1
Zinc	16

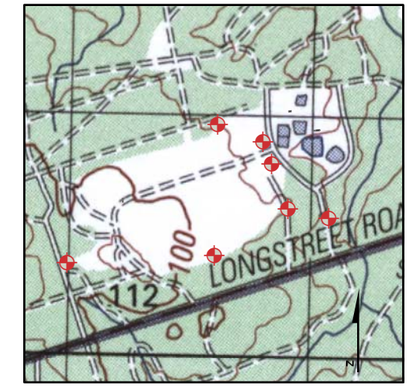
SLMW-10-10-11	
VOCs	(µg/L)
1,1-Dichloroethane	1
1,2-Dichlorobenzene	0.35 J
1,2-dichloroethane	**0.41 J**
1,2-dichloropropane	**3.3**
1,4-dichlorobenzene	7.9
Benzene	**1.3**
Chlorobenzene	0.73 J
cis-1,2-dichlorothene	10
trans-1,2-dichloroethene	0.31 J
Trichloroethene	1.4
Vinyl Chloride	**2.2**
SVOCs	(µg/L)
1,4-Dioxane	21 H
Appendix II Inorganics	(µg/L)
Arsenic	4.6
Barium	160
Chromium	0.19 J
Cobalt	4.2
Copper	0.80 J
Selenium	0.54
Tin	0.73 J
Vanadium	1.5 J
Zinc	5.6 J

SLMW-12BR-11-11	
VOCs	(µg/L)
Acetone	18 J
Appendix II Inorganics	(µg/L)
Barium	42
Beryllium	0.41
Chromium	0.24 J
Cobalt	1.1
Copper	1.2
Lead	0.19 J
Nickel	2
Zinc	31

SLMW-9-11-11	
VOCs	(µg/L)
1,1-Dichloroethane	2.2
Acetone	8.6 J
Benzene	0.82 J
Chlorobenzene	0.46 J
cis-1,2-Dichloroethene	1.7 Q
Tetrachloroethene	0.33 J
Trichloroethene	0.45 J
Vinyl Chloride	**0.94 J**
SVOCs	(µg/L)
di-n-butylphthalate	1.8 J
bis(2-Ethylhexyl)phthalate	**6.7 J**
Appendix II Inorganics	(µg/L)
Arsenic	7
Barium	32
Chromium	0.25 J
Cobalt	1.1
Copper	0.35 J
Nickel	0.82 J
Zinc	4.5 J

SLMW-12AR-11-11	
Other Analyses	(µg/L)
Cyanide	7.4 J
NO3 as N	220 J
Appendix II Inorganics	(µg/L)
Barium	0.1 J
Beryllium	0.13 J
Chromium	0.71 J
Cobalt	0.69
Copper	0.62 J
Lead	0.34
Nickel	0.84 J
Selenium	0.66
Zinc	8.1 J

SW-2-11-11	
VOCs	(µg/L)
1,1-Dichloroethane	0.48 J
Acetone	8.8 J
cis-1,2-Dichlorethene	0.28 J
SVOCs	(µg/L)
1,4-Dioxane	12 H
diethylphthalate	2.2 J
Appendix II Inorganics	(µg/L)
Barium	27
Chromium	1.3
Cobalt	0.27
Copper	0.45 J
Nickel	0.57 J
Zinc	15



Monitoring Well

Surface-Water Sample

NOTE: Only detected analytes shown.
Well labels show total well depth below ground surface in parenthesis.
NA - Not Available
U - Target analytes were not detected above the reporting limits
J - Analyte was present but concentration is an estimated value.
B - Observed in Method Blank
Bold - Concentrations exceed NC 2L standards.
*IMAC - Interim maximum allowable concentration
**PRG based on carcinogenic factor.

1 inch = 833 feet

0 410 820 1,640'

N

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

LONGSTREET RD LANDFILL, FORT BRAGG, NC

GROUNDWATER
ANALYTICAL RESULTS

DATE: MARCH 2012

FIGURE 5

TABLES

Table 1. Methane Monitoring Results
Longstreet Landfill, Ft. Bragg, NC

Well ID	Date Sampled	Time Sampled	% Methane by Volume	% Oxygen	% CO2
Gas-MW-1	19-NOV-2011	13:43	32.7%	0.0%	35.2%
Gas-MW-2	19-NOV-2011	14:14	20.4%	0.2%	19.8%
Gas-MW-3	19-NOV-2011	14:11	0.0%	16.2%	5.7%
Gas-MW-4	19-NOV-2011	14:04	5.6%	0.2%	19.6%
Gas-MW-5	19-NOV-2011	14:06	0.0 %	6.2%	10.7%
Gas-MW-6	19-NOV-2011	14:20	0.0 %	17.6%	3.9%
Gas-MW-7	19-NOV-2011	14:23	0.0%	21.2%	0.3%
Gas-MW-8	19-NOV-2011	13:50	32.1%	0.0%	28.7%
Gas-MW-9	19-NOV-2011	13:54	0.0%	13.3%	8.7%
Gas-MW-10**	N/A	N/A	N/A	N/A	N/A
Gas-MW-11	19-NOV-2011	13:28	6.1%	0.1%	9.9%
Gas-MW-12	19-NOV-2011	13:25	24.3%	0.1%	26.7%
Gas-MW-13	19-NOV-2011	13:22	20.4%	0.1%	26.8%
Gas-MW-14	19-NOV-2011	13:35	24.9%	0.2%	24.5%
Gas-MW-15	19-NOV-2011	13:39	40.3%	0.1%	32.5%
Former Scalehouse	19-NOV-2011	13:45	0.0%	21.1%	0.0%
Wash Rack Bldg.	19-NOV-2011	14:31	0.0%	21.4%	0.0 %
Bldg O-9388	19-NOV-2011	14:37	0.0%	21.4%	0.0 %
Bldg 0-9389	19-NOV-2011	14:37	0.0%	21.4%	0.0 %

Note:
TOC – Top of casing, btoc – Below top of casing, NA – Not Available
bgs – Below ground surface, amsl – Above mean sea level
Δ --- Selected Well for Long Term Monitoring
TOC elevation is based on vertical datum NGVD29 (source: USGS RFI, Aug. 1999)
**MW10 Abandoned

Table 2. Groundwater Elevation Data
Longstreet Landfill, Ft. Bragg, NC

Well ID	TOC Elev. (ft. amsl)	Water Level (ft. btoc) 11/08	Water Elev. (ft. amsl) 11/08	Water Level (ft. btoc) 06/09	Water Elev. (ft. amsl) 06/09	Water Level (ft. btoc) 11/09	Water Elev. (ft. amsl) 11/09	Water Level (ft. btoc) 06/10	Water Elev. (ft. amsl) 06/10	Water Level (ft. btoc) 11/10	Water Elev. (ft. amsl) 11/10	Water Level (ft. btoc) 6/11	Water Level (ft. amsl) 6/11	Water Level (ft. btoc) 11/11	Water Level (ft. amsl) 11/11
SLMW-6	293.55	26.27	267.28	26.11	267.44	28.22	265.33	25.08	268.47	28.02	265.53	30.31	263.24	31.55	262.00
SLMW-7	290.5	20.76	269.74	20.59	269.91	22.19	268.31	20.43	270.07	22.14	268.36	21.86	268.64	22.06	268.44
SLMW-8	290.34	22.91	267.43	23.03	267.31	24.21	266.13	22.91	267.43	24.31	266.03	24.00	266.34	24.3	266.04
SLMW-9	289.54	38.31	251.23	37.3	252.24	38.72	250.82	36.66	252.88	38.34	251.2	40.20	249.34	41.75	247.79
SLMW-10	305.99	19.42	286.57	19.59	286.4	20.39	285.6	19.7	286.29	20.59	285.4	20.57	285.42	20.87	285.12
SLMW-11	357.8	78.96	278.84	77.62	280.18	79.2	278.6	74.31	283.49	76.42	281.38	81.12	276.68	82.13	275.67
SLMW-12AR	243.36	8.45	234.91	9.03	234.33	9.53	233.83	8.75	234.61	9.44	233.92	8.65	23.71	9.6	233.76
SLMW-12BR	243.42	9.23	234.19	8.09	235.33	9.2	234.22	8.79	234.63	9.19	234.23	9.25	234.17	9.61	233.81
SLMW-13	340.02	53.14	286.88	51.9	288.12	53.29	286.73	50.58	289.44	53.05	286.97	55.07	284.95	56.91	283.11

Note:
TOC – Top of casing
bgs – Below ground surface,
Δ --- Selected Well for Long Term Monitoring
TOC elevation is based on vertical datum NGVD29 (source: USGS RFI, Aug. 1999)
btoc – below top of casing
amsl – above mean sea level

Table 3. Field Parameter Measurements
Longstreet Landfill, Fort Bragg, NC

Well ID	Sample Identification	pH	Specific Conductivity (µs/cm)	Temperature (°C)	Turbidity (N.T.U.)	Dissolved Oxygen (mg/L)	ORP
SLMW-6	GW-SLMW-6-11-11	4.96	0.022	20.5	2.80	5.94	311.7
SLMW-7	GW-SLMW-7-11-11	5.76	0.238	21.3	6.05	1.53	-51.4
SLMW-8	GW-SLMW-8-11-11	6.19	0.818	22.3	7.76	1.20	-73.9
SLMW-9	GW-SLMW-9-11-11	5.85	0.419	15.9	5.00	0.19	-150.2
SLMW-10	GW-SLMW-10-11-11	6.50	0.747	19.6	0.50	0.37	-58.5
SLMW-11R	GW-SLMW-11-11-11	3.85	0.021	16.6	3.28	0.39	312.6
SLMW-12AR	GW-SLMW-12AR-11-11	4.40	0.041	20.7	8.27	1.89	312.9
SLMW-12BR	GW-SLMW-12BR-11-11	4.77	0.081	20.1	2.32	7.68	297.9
SLMW-13	GW-SLMW-13-11-11	NS	NS	NS	NS	NS	NS
SW-1	SW-1-11-11	--	--	--	--	--	--
SW-2	SW-2-11-11	--	--	--	--	--	--

Note:

N.T.U. --- Nephelometric Turbidity Unit

ORP --- Oxidation Reduction Potential

NS - Not Sampled

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SLMW-6 0405	SLMW-6 1005	SLMW-6 406	SLMW-6 1106	SLMW-6 0507	SLMW-6 1107	SLMW-6 1108	SLMW-6 0609	SLMW-6 1109	SLMW-6 0610	SLMW-6 1110	SLMW-6 1110	SLMW-7 0405	SLMW-7 1005	SLMW-7 406	SLMW-7 1106	SLMW-7 0507	SLMW-7 1107	SLMW-7 1108	SLMW-7 0609	SLMW-7 1109	SLMW-7 0610	SLMW-7 1110	SLMW-7 1111	SLMW-8 0405	SLMW-8 1005	SLMW-8 406	SLMW-8 1106	GW-SLMW-8 0607	GW-SLMW-8 1107	GW-SLMW-8 1108	SLMW-8 0609	SLMW-8 1109	SLMW-8 0610	SLMW-8 1110	SLMW-8 1111	SLMW-9 1005	SLMW-9 406	SLMW-9 1106	GW-SLMW-9 0607	GW-SLMW-9 1107	GW-SLMW-9 1108	SLMW-9 0609	SLMW-9 1109	SLMW-9 710	SLMW-9 1110	SLMW-9 1111	SLMW-10 0405	SLM-DUP1 0405	SLMW-10 1005	SLMW-10 406	SLMW-10 Dup 406	SLMW-10 1106	SLMW-10 0507
VOCs (EPA 8260B)																																																										
1,1,2,2-tetrachloroethane	0.17	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-dichloroethane	700	810*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.91 J	3.43	2.11	2.86	<2	4.11	3.08	5.2	NS	2.5	2.4	2.5	2.04	1.38J	1.39J	<2	3.170	3.11	7.6	4.8	4.6	3.8	2.2	1.25 J	1.41 J	1.6J	1.91J	1.85J	1.12J	<2
1,2,3-trichloropropane	0.005	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromoethane	0.0004	0.05	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichlorobenzene	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloroethane	0.38	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.24 J	**0.44 J**	<2	<2	<2	<2	<2	<2	<2	**0.58J**	**0.61J**	<2	<2
1,2-dichloropropane	0.56	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	.23J	<2	<2	<2	0.33 J	0.37 J	0.25 J	<2	**2.12**	**2.28**	**3.32**	**3.97**	**3.72**	**2.93**	<2
1,4-dichlorobenzene	75	75	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.28J	0.36J	0.43J	<2	0.28 J	0.31	0.62 J	NS	<2	0.76 J	0.49 J	0.54J	0.43J	0.4J	<2	.660J	<2	<2	<2	0.97 J	<2	<2	2.75	2.63	3.99	5.6	4.7	3.9	4.1
1,4-dioxane	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4-isopropyltoluene	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	700	NA	NA	2.2	<2	<2	<2	<2	<2	7.6 J	<2	<2	<2	13 J	NA	6.97	<2	1.34J	<2	<2	24	52	6 J	<2	8.6 J	<2	NA	1.27J	<2	<2	<2	<2	9.72	9.8 J	NS	5.3 J	<2	13 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	8.6 J	NA	NA	<2	<2	<2	<2
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
benzene	1	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.51J	0.68J	0.36J	**1.2**	0.50 J	1.01 J	0.73 J	<2	0.72 J	0.60 J	**1.1**	**3.22**	**4.99**	**2.54**	**4.03**	**3.2**	**4.5**	**2.72**	**3.6**	NS	**2.1**	**2.9**	**2.9**	**1.09J**	0.71J	0.8J	**2.2**	**1.54 J**	**1.35 J**	**1.9**	**1.4**	**1.8**	**1.2**	0.82 J	**1.8 J**	**1.72 J**	**1.32J**	**1.31J**	**1.24J**	0.96J	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.24J	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.54J	<2
chlorobenzene	50	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.29 J	<2	<2	0.59 J	0.36 J	0.93 J	1.78 J	2.75	1.69J	3.46	2.2	3.36	2.18	4.8	NS	1.9	4.4	3.7	0.34J	0.25J	0.28J	1.1	0.740 J	0.65 J	0.81 J	0.8 J	1.4	1	0.46 J	0.33 J	0.35 J	0.43J	0.59J	0.50J	0.4J	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.74	1.47J	2.27	0.72J	<2	0.98 J	1.23 J	<2	<2	<2	<2	<2	0.76 J	0.96J	0.30J	0.38J	<2	<2	1.10 J	9.1	NS	<2	1.9	2.1	<2	<2	0.22J	<2	0.530 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	70	80	0.24 J	<2	<2	<2	0.27 J	0.21 J	0.31 J	<2	0.44 J	0.51 J	0.26 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.13	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-dichloroethene	70	70	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.21 J	<2	<2	<2	<2	0.24 J	<2	<2	<2	<2	<2	<2	55.9	**105**	42.5	42.4	25	60.9	35	39	NS	43	58	65	1.26J	0.88J	0.71J	3.0	1.570 J	1.79 J	2.3	<2	2.3	1.8	1.7 Q	9.33	10	13.4	15.8	15.5	8.96	9.1
dibromochloromethane	0.41	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**0.71 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.61J	0.58J	<2	<2	<2	1.9	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.96	3.5	2.13	1.5J	1.18J	0.62J	<2
diisopropyl ether	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.43 J	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.54 J	0.56 J	1.04J	1.15J	1.22J	0.88J	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	<2	<2	<2	0.21 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.26	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.75J	<2	0.43 J	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	0.200 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MTBE	200	13*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.54J	<2	0.21J	<2	0.39 J	<2	<2	NS	<2	<2	<2	0.39J	0.22J	<2	<2	<2	0.29 J	<2	<2	<2	<2	<2	<2	0.2 J	0.2 J	0.37J	0.44J	0.42J	0.28J	<2
naphthalene	21	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.24 J	0.71J	0.41J	0.46J	<2	0.27 J	0.29	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.33 J	<2	<2	<2	<2	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	0.230 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.28J	0.22J	0.21J	<2
tetrachloroethene	0.7	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**5.34**	**2.18**	**2.4**	**2.69**	<2	0.54 J	0.65	**0.80 J**	NS	0.24 J	<2	0.34 J	0.32J	0.29J	0.21J	<2	0.280 J	0.41 J	0.39 J	0.58 J	0.68 J	0.53 J	0.33 J	**0.75 J**	0.45 J	**0.71J**	**0.96J**	**0.74J**	0.55J	<2
toluene	1000	1000	<2	<2	0.43J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.26J	0.39J	0.51J	<2	0.27 J	0.29 J	<2	<2	<2	<2	<2	0.22 J	0.55J	0.58J	0.49J	1.2 J	0.85 J	1.34	1	NS	0.39 J	0.44 J	<2	<2	0.46J	<2	<2	0.200 J	0.33 J	0.35 J	<2	<2	<2	<2	<2	<2	<2	0.35J	0.55J	<2	<2
trans-1,2-dichloroethene	70	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.28 J	0.52J	0.28J	3.65	<2	0.55 J	0.25	<2	NS	0.24 J	0.23 J	0.39 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.24 J	0.23 J	0.24J	0.29J	0.30J	0.59J	<2
trichloroethene	2.8	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.29	**6.66**	2.22	**3.54**	1.6	**4.18**	1.3	1.3	NS	0.87 J	1.9	2	<2	0.45J	0.43J	0.6 J	0.740 J	0.6 J	0.67 J	0.73 J	0.68 J	0.71 J	0.45 J	0.88 J	1.01 J	1.15J	1.27J	1.29J	0.89J	<2
trichlorofluoromethane	2100	1300*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	10.1	<2	NS	<2	<2	<2	0.53J	<2	<2	<2	<2	<2	<2	<2	0.31 J	<2	<2	<2	<2	<2	<2	<2	<2
vinyl chloride	0.015	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**0.52 J**	**0.36J**	**0.64J**	**0.35J**	<2	<2	**0.58 J**	<2	<2	<2	0.29 J	**0.44 J**	**59**	**54.2**	**24.6**	**36.6**	**19**	**33.2**	**10.1**	**12**	NS	**10**	**10**	**13**	**1.45J**	**0.69J**	**0.73J**	<2	**1.71 J**	**1.41 J**	**2**	**1.2**	**2.1**	**1.9**	**0.94 J**	**1.91 J**	**3.58**	**2.48**	**2.8**	**2.62**	**1.7**	<2
SVOCs (EPA 8270C)																																																									
1,4-dichlorobenzene (para)	1.4	75	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	0.54 J	<10	<10	<10	<10	<10	1.31 J	1.57 J	1.75J	2.79J	2.62J	**2.7J**	**1.94 J**
1,4-Dioxane	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-methylphenol (p-cresol)	3.5	180*	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.87 J	<10	**14.6**	<10	**13.5**	<10	38.3	**12**	<10	**26**	<10	<10	**7.44 J**	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	2.1 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
benzoic acid	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	8.4 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
benzyl alcohol	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
diethylphthalate	5000	29000*	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.06J	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	2.55 J	1.44 J	<10	0.95 J	<10	<10	0.92 J	<10	<10	<10	<10	<10	<10	<10	<10
di-n-butylphthalate	700	3600*	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	<10	3 J	<10	<10	1.8 J	<10	<10	<10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	2.5	6	<10	<10	3.62	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**6.7 J**	<10	<10	<10	5.02	<10	<10	<10
phenol	300	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	2.89 J	<10	4.42 J	1.7J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	NS	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**<10**	<10	<10	<10
Pesticides (EPA 8081)																																																									
delta-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.043	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	015 PJ	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
alpha-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
beta-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.065	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
gamma-BHC	0.2	0.2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	.0207J	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
alpha-Chlordane*	0.1	2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	**0.1**	<.0505
gamma-Chlordane*	0.1	2	<.0505	<.0505	<.0505	.0202J	.0202J	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	**0.11J**	<.0505
Aldrin	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
Dieldrin	0.0022	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	NS	NS	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505
Endosulfan I	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<.0505	<.0505	<.0505	<.0505	<0.0505	<0.025	<0.025	<0.025	<0.025	.0143	<.0505	<0.025	<.0505	<0.025	<.0505	<.0505	<0.0505	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NS	NS	NS	<0.0505	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.

Longstreet

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SLMW-10 Dup 0507	SLMW-10 1107	SLMW-10 1108	SLMW-10 DUP 1108	SLMW-10 0609	SLMW-10 1109	SLMW-10 7/10	SLMW-10 11/10	SLMW-10 11/11	SLMW-11 0405	SLMW-11 1005	SLMW-11 1406	SLMW-11 1106	GW-SLMW-11 0607	GW-SLMW-11 1107	GW-SLMW-11R 1108	SLMW-11R 06-09	SLMW-11R 11-09	SLMW-11R 0610	SLMW-11R 11/10	SLMW-11R 11/11	SLMW-12A 0405	SLMW-12B 0405	SLMW-12AR 0405	SLMW-12AR 1005	SLMW-12AR Dup 1005	SLMW-12AR 406	SLMW-12AR 1106	SLMW-12AR 0507	SLMW-12AR 1107	SLMW-12AR-DUP 1107	SLMW-12ARI 1108	SLMW-12AR 0609	SLMW-12AR 1109	SLMW-12AR 0610	SLMW-12AR 11/10	SLMW-12AR 11/11	SLMW-12BR 0405	SLMW-12BR Dup 0405	SLMW-12BR 1005	SLMW-12BR 406	SLMW-12BR 1106	SLMW-12BR 0507	SLMW-12BR 1107	SLMW-12BR 1108	SLMW-12BR 0609	SLMW-12BR 1109	SLMW-12BR 0610	SLMW-12BR 11/10	SLMW-12BR 11/11	SLMW-13 0405	SLMW-13 1005	SLMW-13 406	SLMW-13 1106	GW-SLMW-13 0607
VOCs (EPA 8260B)																																																											
1,1,2,2-tetrachloroethane	0.17	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-dichloroethane	700	810*	<2	1.35 J	0.92 J	0.9 J	0.97 J	1.1	0.49 J	0.71 J	1	3.86	2.18	1.68J	2.07	<2	4.05	0.56 J	2.9	0.42 J	2.9	<2	<2	<2	4.25	<2	1.21J	1.22J	1.39J	0.83J	<2	1.15 J	1.0 J	0.62 J	<2	0.35 J	<2	1	<2	1.41J	1.39J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,3-trichloropropane	0.005	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	0.43 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromoethane	0.0004	0.05	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichlorobenzene	NA	NA	<2	<2	<2	<2	0.51 J	<2	0.24 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloroethane	0.38	5	<2	**0.42 J**	**0.48 J**	<2	<2	**0.45 J**	0.20 J	0.35 J	**0.41 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloropropane	0.56	5	<2	**3.78**	**3.27**	**3.09**	**2.2**	**2.8**	**1.7**	**3**	**3.3**	**1.3 J**	<2	0.5J	**0.6J**	<2	**.950 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.23 J	<2	<2	<2	<2	<2	<2	<2	0.42J	0.45J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-dichlorobenzene	75	75	3.4	5.99	<2	<2	3.4	6.9 J	5.2	8.6	7.9	<2	<2	<2	<2	<2	.300 J	<2	0.48 J	<2	0.37 J	<2	<2	<2	1.11 J	<2	1.05J	0.94J	1.14J	0.84J	<2	0.78 J	0.67 J	0.49 J	<2	<2	<2	0.61 J	<2	1.07J	1.15J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-dioxane	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	9.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.29J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4-isopropyltoluene	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	700	NA	<2	<2	<2	<2	<2	26	<2	<2	NA	<2	<2	13.9	100	100	<2	<2	<2	<2	<2	<2	18 J	NA	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	18 J	NA	<2	<2
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
benzene	1	5	<2	**1.38 J**	1.0 J	1.0 J	**1**	**1.3**	0.94 J	**1.3**	**1.3**	**4.58**	**1.54J**	0.83J	0.93J	**2.1**	**1.30 J**	<2	0.59 J	<2	0.81 J	<2	<2	<2	<2	<2	**1.03J**	0.95J	**1.04J**	0.76J	<2	0.84 J	0.72 J	0.53 J	<2	0.26 J	<2	0.73 J	<2	**1.11J**	**1.15J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chlorobenzene	50	100	<2	0.59 J	0.62 J	0.61 J	0.45 J	0.63 J	<2	0.69 J	0.73 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.01 J	<2	0.57J	0.53J	0.62J	0.53J	<2	0.56 J	0.51 J	0.4 J	<2	<2	<2	0.73 J	<2	0.58J	0.6J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.42J	0.56J	0.82J	<2	.200 J	<2	<2	<2	<2	<2	<2	<2	0.4 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	70	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.22 J	<2	0.23 J	<2	0.18 J	0.27 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	0.45 J	<2	<2	<2	<2	<2	<2	<2	2.44	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.05	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-dichloroethene	70	70	8.9	13.6	11.8	11.6	9	<2	5.8	8.6	10	9.47	4.56	2.88	1.71J	5.7	3.24	<2	1.3	<2	1.6	<2	0.22 J Q	<2	10.7	<2	2.9	2.58	3.19	1.09J	<2	1.22 J	1.08 J	0.83 J	<2	<2	<2	0.92 J	<2	3.79	4.02	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dibromochloromethane	0.41	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	<2	<2	<2	4.85	0.8J	<2	0.68J	<2	.410 J	1.64 J	1.3	1.1	<2	<2	<2	<2	3.73	<2	5.11	5.15	4.41	3.61	<2	1.81 J	1.78 J	<2	<2	<2	<2	<2	<2	10.2	11.6	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
diisopropyl ether	70	NA	<2	1.13 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0280 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.5 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	0.64 J	<2	<2	<2	<2	<2	<2	0.23J	<2	<2	<2	.510 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	0.28 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	.230 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.21 J	0.27 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.25 J	<2	<2	<2	<2	<2	<2	<2	<2	<2
MTBE	200	13*	<2	0.39 J	0.57 J	0.54 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.32J	0.35J	0.31J	<2	<2	0.22 J	0.21 J	<2	<2	<2	<2	<2	<2	0.36J	0.38J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
naphthalene	21	NA	<2	<2	<2	0.95 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	530#	10000#	<2	<2	<2	0.33 J	<2	<2	<2	<2	<2	0.34 J	0.26J	<2	<2	<2	.470 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
tetrachloroethene	0.7	5	<2	0.31 J	0.25 J	0.26 J	<2	0.29 J	<2	<2	**2.64**	0.46J	<2	0.49J	<2	0.380J	0.4 J	**2.3**	0.3 J	**1.2**	<2	0.21 J	<2	0.42 J	<2	0.32J	0.3J	0.35J	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.16 J	<2	0.4J	0.38J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
toluene	1000	1000	<2	<2	<2	0.24 J	<2	<2	<2	<2	<2	<2	<2	3.16	<2	<2	.550 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.37J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.24J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.15J	<2	<2
trans-1,2-dichloroethene	70	100	<2	0.28 J	0.21 J	0.22 J	<2	0.27 J	<2	<2	0.31 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.22 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichloroethene	2.8	5	<2	1.00 J	0.91 J	0.89 J	0.59 J	0.94 J	0.52 J	0.86 J	1.4	**3.01**	1.28J	0.59J	0.96J	2.0	1.01 J	0.29 J	1.5	0.22 J	1.4	<2	<2	<2	2.14	<2	0.64J	0.52J	0.55J	0.35J	<2	0.45 J	0.37 J	0.23 J	<2	0.13 J	<2	0.27 J	<2	0.71J	0.68J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichlorofluoromethane	2100	1300*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.28J	<2	<2	<2	<2	0.2 J	<2	<2	0.54 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
vinyl chloride	0.015	2	<2	**2.59 J**	**1.58 J**	**1.72 J**	**1.3**	**1.5**	<2	**1.6**	**2.2**	**3.57**	**0.9J**	**0.78J**	**0.8J**	<2	**0.48 J**	<2	<2	<2	<2	<2	<2	<2	**5.41**	<2	**2.08**	**1.82J**	**2.44**	**1.17**	<2	**0.97 J**	**0.77 J**	**0.52 J**	<2	<2	<2	**0.58 J**	<2	**3.25**	**3.5**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SVOCs (EPA 8270C)																																																											
1,4-dichlorobenzene (para)	1.4	75	**1.75 J**	<10	**3.37 J**	**4.25 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.98J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,4-Dioxane	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	21 H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-methylphenol (p-cresol)	3.5	180*	<10	<10	<10	1.95 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**13.1**
benzoic acid	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
benzyl alcohol	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
diethylphthalate	5000	29000*	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	3.49 J	<10	1.51J	1.23J	<10	1.15J	1.28 J	<10	<10	<10	<10	<10	<10	<10	<10	1.46J	2.2J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
di-n-butylphthalate	700	3600*	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.06J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	2.5	6	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4.41	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.5 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
phenol	300	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pesticides (EPA 8081)																																																											
delta-BHC	NA	NA	<.0505	<.0505	0.124	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505
alpha-BHC	NA	NA	<.0505	<.0505	0.05	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	0.0255J	<.0505
beta-BHC	NA	NA	<.0505	<.0505	0.123	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505
gamma-BHC	0.2	0.2	<.0505	<.0505	0.05	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505
alpha-Chlordane*	0.1	2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	0.0306J
gamma-Chlordane*	0.1	2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	0.0255J
Aldrin	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.1	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	#####	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	0.0306J
Dieldrin	0.0022	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.

Table 4. Summary of GroundWater Detections Longstreet Landfill, Fort Bragg, NC

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	GW-SLMW-13 11/07	GW-SLMW-13 11/08	SLMW-13 06/09	SLMW-13 11/09	SLMW-13 06/10	SLMW-13 11/10	SLMW-13 11/11	SW-1 04/05	SW-1 10/05	SW-1 04/06	SW-1 10/06	SW-1 06/07	SW-1 11/07	SW-1 11/08	SW-1 06/09	SW-1 11/09	SW-1 06/10	SW-1 11/10	SW-1 11/11	SW-2 04/05	SW-2 10/05	SW-2 04/06	SW-2 10/06	SW-2 06/07	SW-2 11/07	SW-2 11/08	SW-2 06/09	SW-2 11/09	SW-2 06/10	SW-2 11/10	SW-2 11/11
VOCs (EPA 8260B)																																	
1,1,2,2-tetrachloroethane	0.17	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,1-dichloroethane	700	810*	<2	<2	<2	<2	<2	<2	NS	<2	7.64	7.8	3.93	7.7	7.36	7.73	10	0.46 J	<2	0.32 J	11	<2	<2	<2	<2	<2	0.20 J	0.31 J	<2	<2	NS	8.2	0.48 J
1,2,3-trichloropropane	0.005	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2-dibromoethane	0.0004	0.05	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2-dichlorobenzene	NA	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2-dichloroethane	0.38	5	<2	<2	<2	<2	<2	<2	NS	<2	<2	0.41J	<2	<2	<2	<2	0.34 J	<2	<2	<2	**0.50 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2
1,2-dichloropropane	0.56	5	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	0.44 J	0.058 J	0.44 J	<2	<2	<2	**0.74 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	0.51 J
1,4-dichlorobenzene	75	75	<2	<2	<2	<2	<2	<2	NS	<2	0.76J	0.96J	0.51J	<2	0.71 J	<2	0.62 J	<2	<2	<2	1.2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	1.3
1,4-dioxane	NA	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	4.8 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	7.7 J	NS	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.78J	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
4-isopropyltoluene	NA	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.21 J	<2	<2	NS	<2	<2
acetone	700	NA	<2	<2	<2	<2	<2	<2	NS	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	6.9 J	NA	3.5	<2	<2	<2	4.29 J	<2	<2	<2	NS	<2	8.8 J
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.59J	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
benzene	1	5	<2	<2	<2	<2	<2	<2	NS	<2	**1.59J**	**1.72J**	0.87J	**1.6**	**1.45 J**	**1.88 J**	**1.7**	<2	<2	<2	**2.9**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	**2.2**	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.28J	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
chlorobenzene	50	100	<2	<2	<2	<2	<2	<2	NS	<2	0.35J	0.37J	<2	<2	0.22 J	0.42 J	<2	<2	<2	<2	1.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	0.85 J	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	NS	<2	0.51J	0.52J	0.23J	<2	0.38 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
chloroform	70	80	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	0.43 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	<2	<2	NS	<2	0.51J	0.52J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
cis-1,2-dichloroethene	70	70	<2	<2	<2	<2	<2	<2	NS	<2	5.02	5.01	1.79J	6.1	4.73	5.24	4.8	<2	<2	0.20 J	4.7	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	4.7	0.28 J
dibromochloromethane	0.41	80	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	NS	<2	10.4	7.07	5.78	8.4	5.77	5.1	4.2	<2	<2	<2	5.8 Q	<2	<2	<2	<2	<2	<2	0.23 J	<2	<2	NS	3.2	<2
diisopropyl ether	70	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	NS	<2	0.2J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	0.30 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.22 J	<2	<2	<2	NS	<2	<2
MTBE	200	13*	<2	<2	<2	<2	<2	<2	NS	<2	1.2J	0.86J	<2	<2	0.56 J	0.66 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
naphthalene	21	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
o-xylene	530#	10000#	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	0.20 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
tetrachloroethene	0.7	5	<2	<2	<2	<2	<2	<2	NS	<2	**1.41 J**	**1.36 J**	**0.77 J**	<2	**0.88 J**	**1.32 J**	**1.1**	<2	<2	<2	**1.1**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	**1.2**	<2
toluene	1000	1000	<2	<2	<2	<2	<2	<2	NS	<2	<2	0.42J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.62J	<2	<2	<2	<2	<2	<2	NS	<2	<2
trans-1,2-dichloroethene	70	100	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	0.27J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
trichloroethene	2.8	5	<2	<2	<2	<2	<2	<2	NS	<2	2.36	2.21	1.12J	<2	2.14	2.3	1.9	<2	<2	<2	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	2	<2
trichlorofluoromethane	2100	1300*	<2	<2	<2	<2	<2	<2	NS	<2	0.59J	0.54J	<2	<2	0.30 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	0.57 J	<2
vinyl chloride	0.015	2	<2	<2	<2	<2	<2	<2	NS	<2	**2.78**	**3.52**	**1.89J**	<2	**3.24**	**2.98**	**2.8**	<2	<2	<2	**3.3**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	**2.8**	<2
SVOCs (EPA 8270C)																																	
1,4-dichlorobenzene (para)	1.4	75	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	0.91 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	**1.87 J**	<10	<10	<10	<10	NS	<10	<10
1,4-Dioxane	NA	NA	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	15 H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12 H
4-methylphenol (p-cresol)	3.5	180*	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10
benzoic acid	NA	NA	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10
benzyl alcohol	NA	NA	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	2.2 J
diethylphthalate	5000	29000*	<10	<10	<10	<10	<10	<10	NS	<10	2.81J	3.19J	2.02J	2.51 J	1.79 J	1.98	<10	<10	<10	<10	4.1 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	2.5 J	<10
di-n-butylphthalate	700	3600*	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10
bis(2-Ethylhexyl)phthalate	2.5	6	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.35J	<10	<10	<10	<10	<10	NS	<10	<10
phenol	300	NA	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10
Pesticides (EPA 8081)																																	
delta-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.038 J	NS	<.0505	<0.0505
alpha-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.04 J	NS	<.0505	<0.0505
beta-BHC	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.042	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	0.03	<.0505	0.051 J	NS	<.0505	<0.0505
gamma-BHC	0.2	0.2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
alpha-Chlordane*	0.1	2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
gamma-Chlordane*	0.1	2	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	0.0354J	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
Aldrin	NA	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	0.131	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
Dieldrin	0.0022	NA	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	**0.0505J**	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	**0.0306J**	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
Endosulfan I	NA	NA	<0.025	<0.025	<0.025	<.0505	<.0505	<.0505	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<.0505	<.0505	<.0505	<0.0505	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NS	<.0505	<0.0505
Heptachlor	0.0078	0.4	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<0.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	<.0505	NS	<.0505	<0.0505
PCBs (EPA 8082)																																	
No Detections																																	
Organophosphorus Pesticides (EPA 8141A)																																	
No Detections																																	
Appendix II Inorganics (EPA 6010B/6020A)																																	
Antimony	NA	6	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1
Arsenic	10	10	<2	<2	<2	<2	<2	<2	NS	<2	2.37	3.89	5.69	**14.0**	**27.7**	**14.4**	6.6	1.2	0.57 J	9	<2	<2	1.09J	1.08J	<2	1.18 J	1.85 J	5.79	0.53 J	0.76 J	NS	9.2	<2
Barium	2000	2000	7	8.3	9	6.9	9.9	9	NS	10.2	31.7	20	22	35.0	21	28	26	8.2	22	120	25	10.3	15.6	10	11.6	9.3	20	22	23	15	NS	39	27
Beryllium	NA	4	<4	<4	<4	<4	<4	<4	NS	<4	<4	<4	<4	<4	<4	19	<4	<4	<4	1.3	<4	<4	<4	<4	<4	<4	<4	<4	0.36 J	0.094 J	NS	<4	<4
Cadmium	5	5	<1	<1	<1	<1	<1	<1	NS	<1	0.774J	<1	<1	<1	<1	<1	<1	<1	<1	0.31 J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1
Chromium	50	100	<5	<5	0.17 J	0.19 J	<5	0.26 J	NS	<5	<5	<5	<5	<5	<5	<5	0.16 J	0.74 J	0.38 J	6.6	0.80 J	<5	<5	<5	<5	<5	<5	<5	<5	1.4 B	NS	<5	1.3
Cobalt	NA	NA	<1	<1	0.11 J	0.083 J	0.10 J	0.11 J	NS	<1	<1	<1	<1	<1	<1	<1	0.19 J	0.18 J	0.23	4.4	0.25	<1	<1	<1	<1	<1	<1	<1	0.26	0.3	NS	0.19 J	0.27
Copper	1000	1000	<1	<1	0.50 J	0.3 J	0.35 J	<1	NS	<1	<1	<1	<1	7.68 J	<1	<1	0.39 J	4.4	1.5	9.2	0.41 J	<1	<1	<1	<1	<1	5.4	<1	0.51 J	1.8	NS	<1	0.45 J
Iron	300	NA	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1	<1	<1	<1	<1	<1	<1	**5400**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1
Lead	15	15	<1	<1	<1	<1	<1	0.12 J	NS	<1	1.08	<1	<1	1.85	<1	<1	0.12 J	0.51	0.15 J	11	<1	<1	<1	2.36	0.56J	<1	<1	<1	0.19 J	0.72	NS	0.12 J	<1
Manganese	50	NA	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1	<1	<1	<1	<1	<1	<1	24	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS	<1	<1
Nickel	100	730*	<50	<50	0.36 J	0.42 J	<50	<50	NS	<50	22.9J	<50	<50	<50	<50	<50	0.54 J	1.7	0.55 J	3.3	0.67 J	<50	<50	<50	<50	<50	<50	<50	0.6	1.2	NS	<50	0.57 J
Selenium	50	50	<2	<2	<2	<2	<2	<2	NS	<2	1.07J	1.16J	<2	<2	<2	<2	<2	<2	<2	0.83	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2
Silver	18	100*	<30	<30	<30	<30	<30	<30	NS	<30	10.1J	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	NS	<30	<30
Thallium	NA	2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	0.15 J	<2
Tin	NA	NA	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	1.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	0.50 J	<5
Vanadium	NA	260*	<30	<30	<30	<30	<30	<30	NS	<30	10.1J	<30	<30	13.1	11	11	<30	<30	<30	25	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	NS	<30	<30
Zinc	2100	5000	<60	<60	14	3.4 J	4.6 J	5.7	NS	<60	55.3J	<60	5.73J	117	42 J	<60	20	15	370	280	16	37.1 J	<60	0.02J	34.5	24.5 J	<60	<60	12	24	NS	16	15
Other Analyses																																	
Sulfide (EPA 376.1)	250.000	250.000	<200	<200	<200	<200	<200	#####	NS	NA	<200	<200	<200	<200	<200	<200	<200	<200	#####	#####	<10	NA	<200	<200	<200	<200	<200	<200	<200	<200	NS	#####	<10
Cyanide (EPA 335.2)	154	200	<20	<20	<20	2.6 J	<20	<20	NS	NA	<20	<20	<20	18 J	<20	<20	<20	4.2 J	2.5	2.5	<5	NA	<20	<20	<20	18 J	<20	<20	<20	2.7 J	NS	2.5	<5
Mercury	1.05	2	<20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.091	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	<0.20	<0.091
Nitrate/Nitrite (SM 4500 - NO3-E)	10,000	10,000	387	151	420	<40	610 J	560 J	NS	NA	78	0.058J	0.03J	11 J	<40	541	NA	<40	1,700	360	<7.5	NA	<40	0.331J	0.492	68	<40	<40	880	<40	NS	360	<7.5

APPENDICES

APPENDIX A

GROUNDWATER SAMPLING LOGS

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME :0940**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-10-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	27.71	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	20.87	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.12	(gallons)
Flow Rate:	260	(ml/min)	Purge Vol:	2.8	(gallons)
Length of Time Purged:	40	(minutes)	Purge Time:	900	
Amount Purged:	2.8	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	0915	0925	0930	0935		
pH	6.53	6.50	6.49	6.50		
Sp. Cond	0.825	0.754	0.746	0.747		
Temp. °C	19.3	19.4	19.5	19.6		
Turbidity	1.02	0.70	0.64	0.50		
DO	0.95	0.32	0.35	0.37		
ORP	-64.8	-57.7	-52.1	-58.5		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/17/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1325**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-11R-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump LOW FLOW: ☐ YES ☐ NO
☒ Bladder Pump DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	87.65	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	82.13	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.91	(gallons)
Flow Rate:	310	(ml/min)	Purge Vol:	3.7	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	1515	
Amount Purged:	3.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1300	1310	1315	1320		
pH	3.88	3.89	3.84	3.85		
Sp. Cond	0.023	0.022	0.022	0.021		
Temp. °C	16.9	16.2	16.7	16.6		
Turbidity	9.61	4.25	2.33	3.28		
DO	0.80	0.45	0.42	0.39		
ORP	293.2	301.6	312.6	312.6		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina
SAMPLED BY: R.Hill, G.Louis
WEATHER CONDITIONS: Cloudy, warm

DATE: 11/15/2011
TIME :1135

Location: Longstreet Landfill	**Sample ID: SLMW-12AR-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	19.95	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	9.6	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.70	(gallons)
Flow Rate:	250	(ml/min)	Purge Vol:	6.0	(gallons)
Length of Time Purged:	90	(minutes)	Purge Time:	1005	
Amount Purged:	6	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1035	1050	1100	1115	1130	
pH	4.51	4.42	4.40	4.40	4.40	
Sp. Cond	0.042	0.041	0.041	0.041	0.041	
Temp. °C	20.5	20.3	20.5	20.6	20.7	
Turbidity	23.7	16.3	12.9	10.1	8.27	
DO	2.28	1.89	1.86	1.89	1.89	
ORP	246.5	281.3	288.3	309.5	312.9	
Water Level						

5. NOTES: SLMW-DUP1-11-11 @ 1150

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina
SAMPLED BY: R.Hill, G.Louis
WEATHER CONDITIONS: Sunny, warm

DATE: 11/16/2011
TIME : 1645

Location: Longstreet Landfill	**Sample ID: SLMW-12BR-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	65	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	9.61	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				9.08	(gallons)
Flow Rate:	150	(ml/min)	Purge Vol:	3.6	(gallons)
Length of Time Purged:	90	(minutes)	Purge Time:	1515	
Amount Purged:	3.6	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1530	1545	1600	1610	1625	1630
pH	4.76	4.77	4.78	4.71	4.76	4.77
Sp. Cond	0.079	0.080	0.081	0.081	0.080	0.081
Temp. °C	20.7	21.4	22.1	19.9	19.9	20.1
Turbidity	2.60	2.00	1.79	1.35	2.17	2.32
DO	6.53	2.18	1.49	4.38	7.58	7.68
ORP	266.2	299.3	299.1	306.8	302.8	297.9
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME :**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-13-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	58	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	56.91	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.18	(gallons)
Flow Rate:		(ml/min)	Purge Vol:	0.0	(gallons)
Length of Time Purged:		(minutes)	Purge Time:		
Amount Purged:		(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES: No sample , attempted to purge well > 30 min could not get water to rise.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1245**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-6-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	37.79	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	31.55	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.02	(gallons)
Flow Rate:	350	(ml/min)	Purge Vol:	3.2	(gallons)
Length of Time Purged:	35	(minutes)	Purge Time:	1210	
Amount Purged:	3.2	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1220	1225	1235	1240		
pH	4.98	4.95	4.95	4.96		
Sp. Cond	0.022	0.022	0.023	0.022		
Temp. °C	21.7	20.6	20.4	20.5		
Turbidity	4.83	3.60	2.73	2.80		
DO	5.84	5.95	5.80	5.94		
ORP	285.9	304.7	310.1	311.7		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1645**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-7-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	26.96	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	22.06	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.80	(gallons)
Flow Rate:	100	(ml/min)	Purge Vol:	1.7	(gallons)
Length of Time Purged:	65	(minutes)	Purge Time:	1540	
Amount Purged:	1.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1550	1600	1610	1625	1630	1635
pH	5.79	5.83	5.81	5.78	5.78	5.73
Sp. Cond	0.313	0.305	0.278	0.255	0.244	0.233
Temp. °C	21.5	21.4	21.5	21.3	21.3	21.2
Turbidity	10.5	5.15	3.12	2.87	2.78	4.52
DO	1.74	0.69	1.28	0.68	1.74	1.57
ORP	-25.0	-40.6	-45.1	-44.3	-45.7	-43.6
Water Level						

5. NOTES: Purged dry, allow to recharge overnite. Collected 1 ea 8270,8151,8141,8081/8082 @ 0800 11/16/2011.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1645**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-7-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	26.96	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	22.06	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.80	(gallons)
Flow Rate:	100	(ml/min)	Purge Vol:	1.7	(gallons)
Length of Time Purged:	65	(minutes)	Purge Time:	1540	
Amount Purged:	1.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1640					
pH	5.76					
Sp. Cond	0.238					
Temp. °C	21.3					
Turbidity	6.05					
DO	1.53					
ORP	-51.4					
Water Level						

5. NOTES: Purged dry, allow to recharge overnite. Collected 1 ea 8270,8151,8141,8081/8082 @ 0800 11/16/2011.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1430**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-8-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	27.17	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	24.3	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.47	(gallons)
Flow Rate:	140	(ml/min)	Purge Vol:	1.1	(gallons)
Length of Time Purged:	30	(minutes)	Purge Time:	1400	
Amount Purged:	1.1	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1410	1415	1420			
pH	6.12	6.19	6.19			
Sp. Cond	0.842	0.835	0.818			
Temp. °C	22.6	22.7	22.3			
Turbidity	22.9	38.0	7.76			
DO	1.00	1.11	1.20			
ORP	-96.9	-87.7	-73.9			
Water Level						

5. NOTES: 1 ea 8270,8151,8141,8081/8082

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/17/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1520**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-9-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	48.5	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	41.75	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.11	(gallons)
Flow Rate:	260	(ml/min)	Purge Vol:	3.1	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	1435	
Amount Purged:	3.1	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1445	1500	1510	1515		
pH	5.37	5.81	5.87	5.85		
Sp. Cond	0.435	0.416	0.421	0.419		
Temp. °C	16.5	15.9	16.0	15.9		
Turbidity	19.0	11.4	3.74	5.00		
DO	0.92	0.21	0.20	0.19		
ORP	-87.7	-143.9	-152.3	-150.2		
Water Level						

5. NOTES: SLMW-BLK-11-11 @ 1630

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 0930**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SW-1-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):		(ft)	Diameter (d):		(in)
Depth to Water (dw):		(ft)	Diameter (d):		(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			0.00	(gallons)
	Flow Rate:	(ml/min)	Purge Vol:		(gallons)
Length of Time Purged:		(minutes)	Purge Time:		
Amount Purged:		(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 0800**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SW-2-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):		(ft)	Diameter (d):		(in)
Depth to Water (dw):		(ft)	Diameter (d):		(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			0.00	(gallons)
	Flow Rate:		(ml/min)	Purge Vol:	(gallons)
Length of Time Purged:			(minutes)	Purge Time:	
Amount Purged:			(gallons)	Pump Depth:	

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES: DUP2-11-11 @ 0820

APPENDIX B

DATA VALIDATION REPORTS

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME :0940**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-10-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	27.71	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	20.87	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.12	(gallons)
Flow Rate:	260	(ml/min)	Purge Vol:	2.8	(gallons)
Length of Time Purged:	40	(minutes)	Purge Time:	900	
Amount Purged:	2.8	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	0915	0925	0930	0935		
pH	6.53	6.50	6.49	6.50		
Sp. Cond	0.825	0.754	0.746	0.747		
Temp. °C	19.3	19.4	19.5	19.6		
Turbidity	1.02	0.70	0.64	0.50		
DO	0.95	0.32	0.35	0.37		
ORP	-64.8	-57.7	-52.1	-58.5		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/17/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1325**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-11R-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump LOW FLOW: ☐ YES ☐ NO
☒ Bladder Pump DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	87.65	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	82.13	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.91	(gallons)
Flow Rate:	310	(ml/min)	Purge Vol:	3.7	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	1515	
Amount Purged:	3.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1300	1310	1315	1320		
pH	3.88	3.89	3.84	3.85		
Sp. Cond	0.023	0.022	0.022	0.021		
Temp. °C	16.9	16.2	16.7	16.6		
Turbidity	9.61	4.25	2.33	3.28		
DO	0.80	0.45	0.42	0.39		
ORP	293.2	301.6	312.6	312.6		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina
SAMPLED BY: R.Hill, G.Louis
WEATHER CONDITIONS: Cloudy, warm

DATE: 11/15/2011
TIME :1135

Location: Longstreet Landfill	**Sample ID: SLMW-12AR-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	19.95	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	9.6	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.70	(gallons)
Flow Rate:	250	(ml/min)	Purge Vol:	6.0	(gallons)
Length of Time Purged:	90	(minutes)	Purge Time:	1005	
Amount Purged:	6	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1035	1050	1100	1115	1130	
pH	4.51	4.42	4.40	4.40	4.40	
Sp. Cond	0.042	0.041	0.041	0.041	0.041	
Temp. °C	20.5	20.3	20.5	20.6	20.7	
Turbidity	23.7	16.3	12.9	10.1	8.27	
DO	2.28	1.89	1.86	1.89	1.89	
ORP	246.5	281.3	288.3	309.5	312.9	
Water Level						

5. NOTES: SLMW-DUP1-11-11 @ 1150

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina
SAMPLED BY: R.Hill, G.Louis
WEATHER CONDITIONS: Sunny, warm

DATE: 11/16/2011
TIME : 1645

Location: Longstreet Landfill	**Sample ID: SLMW-12BR-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	65	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	9.61	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				9.08	(gallons)
Flow Rate:	150	(ml/min)	Purge Vol:	3.6	(gallons)
Length of Time Purged:	90	(minutes)	Purge Time:	1515	
Amount Purged:	3.6	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1530	1545	1600	1610	1625	1630
pH	4.76	4.77	4.78	4.71	4.76	4.77
Sp. Cond	0.079	0.080	0.081	0.081	0.080	0.081
Temp. °C	20.7	21.4	22.1	19.9	19.9	20.1
Turbidity	2.60	2.00	1.79	1.35	2.17	2.32
DO	6.53	2.18	1.49	4.38	7.58	7.68
ORP	266.2	299.3	299.1	306.8	302.8	297.9
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME :**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-13-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	58	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	56.91	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.18	(gallons)
Flow Rate:		(ml/min)	Purge Vol:	0.0	(gallons)
Length of Time Purged:		(minutes)	Purge Time:		
Amount Purged:		(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES: No sample , attempted to purge well > 30 min could not get water to rise.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/16/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1245**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-6-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	37.79	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	31.55	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.02	(gallons)
Flow Rate:	350	(ml/min)	Purge Vol:	3.2	(gallons)
Length of Time Purged:	35	(minutes)	Purge Time:	1210	
Amount Purged:	3.2	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1220	1225	1235	1240		
pH	4.98	4.95	4.95	4.96		
Sp. Cond	0.022	0.022	0.023	0.022		
Temp. °C	21.7	20.6	20.4	20.5		
Turbidity	4.83	3.60	2.73	2.80		
DO	5.84	5.95	5.80	5.94		
ORP	285.9	304.7	310.1	311.7		
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1645**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-7-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	26.96	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	22.06	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.80	(gallons)
Flow Rate:	100	(ml/min)	Purge Vol:	1.7	(gallons)
Length of Time Purged:	65	(minutes)	Purge Time:	1540	
Amount Purged:	1.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1550	1600	1610	1625	1630	1635
pH	5.79	5.83	5.81	5.78	5.78	5.73
Sp. Cond	0.313	0.305	0.278	0.255	0.244	0.233
Temp. °C	21.5	21.4	21.5	21.3	21.3	21.2
Turbidity	10.5	5.15	3.12	2.87	2.78	4.52
DO	1.74	0.69	1.28	0.68	1.74	1.57
ORP	-25.0	-40.6	-45.1	-44.3	-45.7	-43.6
Water Level						

5. NOTES: Purged dry, allow to recharge overnite. Collected 1 ea 8270,8151,8141,8081/8082 @ 0800 11/16/2011.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1645**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-7-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	26.96	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	22.06	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.80	(gallons)
Flow Rate:	100	(ml/min)	Purge Vol:	1.7	(gallons)
Length of Time Purged:	65	(minutes)	Purge Time:	1540	
Amount Purged:	1.7	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1640					
pH	5.76					
Sp. Cond	0.238					
Temp. °C	21.3					
Turbidity	6.05					
DO	1.53					
ORP	-51.4					
Water Level						

5. NOTES: Purged dry, allow to recharge overnite. Collected 1 ea 8270,8151,8141,8081/8082 @ 0800 11/16/2011.

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME :1430**
WEATHER CONDITIONS: Cloudy, warm

Location: Longstreet Landfill	**Sample ID: SLMW-8-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	27.17	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	24.3	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.47	(gallons)
Flow Rate:	140	(ml/min)	Purge Vol:	1.1	(gallons)
Length of Time Purged:	30	(minutes)	Purge Time:	1400	
Amount Purged:	1.1	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1410	1415	1420			
pH	6.12	6.19	6.19			
Sp. Cond	0.842	0.835	0.818			
Temp. °C	22.6	22.7	22.3			
Turbidity	22.9	38.0	7.76			
DO	1.00	1.11	1.20			
ORP	-96.9	-87.7	-73.9			
Water Level						

5. NOTES: 1 ea 8270,8151,8141,8081/8082

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/17/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 1520**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SLMW-9-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☐ Peristaltic Pump ☒ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):	48.5	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	41.75	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.11	(gallons)
Flow Rate:	260	(ml/min)	Purge Vol:	3.1	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	1435	
Amount Purged:	3.1	(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time	1445	1500	1510	1515		
pH	5.37	5.81	5.87	5.85		
Sp. Cond	0.435	0.416	0.421	0.419		
Temp. °C	16.5	15.9	16.0	15.9		
Turbidity	19.0	11.4	3.74	5.00		
DO	0.92	0.21	0.20	0.19		
ORP	-87.7	-143.9	-152.3	-150.2		
Water Level						

5. NOTES: SLMW-BLK-11-11 @ 1630

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 0930**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SW-1-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☐ YES ☒ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):		(ft)	Diameter (d):		(in)
Depth to Water (dw):		(ft)	Diameter (d):		(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			0.00	(gallons)
	Flow Rate:	(ml/min)	Purge Vol:		(gallons)
Length of Time Purged:		(minutes)	Purge Time:		
Amount Purged:		(gallons)	Pump Depth:		

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES:

	U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT GEOLOGY and HYDROGEOLOGY	GROUNDWATER FIELD DATA LOG

1. CLIENT: Fort Bragg, North Carolina **DATE:** 11/15/2011
SAMPLED BY: R.Hill, G.Louis **TIME : 0800**
WEATHER CONDITIONS: Sunny, warm

Location: Longstreet Landfill	**Sample ID: SW-2-11-11**

PRESERVATIVE: HNO_3,NaOH,,ZnAc,
ANALYSES REQUESTED: EPA 8260B,8270,8081/8082A,8141B,8151A,6020A,9012,9034,300
 # OF CONTAINERS: 16
SAMPLING METHOD: ☒ Peristaltic Pump ☐ Bladder Pump
LOW FLOW: ☐ YES ☐ NO
DUPLICATE SAMPLE: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO

2. WATER LEVEL DATA

MEASURING POINT: ☒ Top of casing ☐ Other:
METHOD OF MEASUREMENT: Water Level Indicator

3. WELL EVACUATION DATA

Well Depth (wd):		(ft)	Diameter (d):		(in)
Depth to Water (dw):		(ft)	Diameter (d):		(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			0.00	(gallons)
	Flow Rate:		(ml/min)	Purge Vol:	(gallons)
Length of Time Purged:			(minutes)	Purge Time:	
Amount Purged:			(gallons)	Pump Depth:	

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –YSI 556XL	☒
Conductivity Meter – YSI 556XL	☒
Temperature – YSI 556XL	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – YSI 556XL	☒
ORP Meter – YSI 556XL	☒
CO_2– Hach Digital Titrator	☐

Time						
pH						
Sp. Cond						
Temp. °C						
Turbidity						
DO						
ORP						
Water Level						

5. NOTES: DUP2-11-11 @ 0820

APPENDIX C

CHAIN OF CUSTODY AND LABORATORY ANALYTICAL REPORTS

(Electronic Only)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-74533-1
Client Project/Site: Ft. Bragg Longstreet Landfill

For:
U.S. Army Corps of Engineers
PO BOX 889
Savannah, Georgia 31402-0889

Attn: Mr. Kevin Haborak

Kathryn Smith

Authorized for release by:
12/16/2011 2:24:06 PM

Kathryn Smith
Project Manager I
kathye.smith@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Certification Summary 90

Job ID: 680-74533-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-74533-1

Comments
All 8141 Organophosphate Pesticide compounds were reported by 8270D.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 221817 had 2 analytes outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCSD associated with batch 221775 had 1 analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCSD associated with batch 221669 had 2 analytes outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for batch 221486 exceeded control limits for the following analyte(s): Famphur. Famphur has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A_8082, 8081B/8082A: Two surrogates are used for this analysis. These samples did not meet DOD surrogate criteria. DOD requires all surrogates to be within control limits. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: SLMW-9-11-11 (680-74533-2). These results have been reported and qualified. Re-extraction of the samples would have been completed outside of the hold times.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Sample Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-74533-1	SLMW-11R-11-11	Water	11/17/11 13:25	11/18/11 09:32
680-74533-2	SLMW-9-11-11	Water	11/17/11 15:20	11/18/11 09:32
680-74533-3	SLMW-BLK-11-11	Water	11/17/11 16:30	11/18/11 09:32
680-74533-4	SW2-11-11	Water	11/15/11 08:00	11/18/11 09:32
680-74533-5	DUP2-11-11	Water	11/15/11 08:20	11/18/11 09:32
680-74533-6	TRIP BLK	Water	11/15/11 00:00	11/18/11 09:32
680-74533-7	SW-1-11-11	Water	11/15/11 09:30	11/18/11 09:32
680-74533-8	SLMW-12AR-11-11	Water	11/15/11 11:35	11/18/11 09:32
680-74533-9	SL DUP1-11-11	Water	11/15/11 11:50	11/18/11 09:32
680-74533-10	SLMW-8-11-11	Water	11/15/11 14:30	11/18/11 09:32
680-74533-11	SLMW-7-11-11	Water	11/16/11 08:00	11/18/11 09:32
680-74533-12	SLMW-10-11-11	Water	11/16/11 09:40	11/18/11 09:32
680-74533-13	SLMW-6-11-11	Water	11/16/11 12:45	11/18/11 09:32
680-74533-14	SLMW-12BR-11-11	Water	11/16/11 16:45	11/18/11 09:32
680-74533-15	SLMW-11R-11-11	Water	11/17/11 13:25	11/18/11 09:32
680-74533-16	SLMW-9-11-11	Water	11/17/11 15:20	11/18/11 09:32
680-74533-17	SLMW-BLK-11-11	Water	11/17/11 16:30	11/18/11 09:32

Method Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
8151A	Herbicides (GC)	SW846	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
9012B	Cyanide, Total andor Amenable	SW846	TAL SAV
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
Q	One or more quality control criteria failed.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
Q	One or more quality control criteria failed.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

GC Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
M	Manual integrated compound.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
H	Sample was prepped or analyzed beyond the specified holding time

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-11R-11-11 — Lab Sample ID: 680-74533-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	9.8		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.070	J	0.20	0.070	ug/L	1		6020A	Total/NA
Chromium	0.33	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.20		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.64	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.57	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	63	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate as N	0.11	J	0.25	0.075	mg/L	5		300.0	Total/NA

Client Sample ID: SLMW-9-11-11 — Lab Sample ID: 680-74533-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	6.7	J	9.5	1.5	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	1.8	J	9.5	0.79	ug/L	1		8270D	Total/NA
Arsenic	7.0		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	32		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.25	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	1.1		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.35	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.82	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	4.5	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-BLK-11-11 — Lab Sample ID: 680-74533-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.45	J	1.0	0.15	ug/L	1		6020A	Total/NA
Copper	1.5		1.0	0.21	ug/L	1		6020A	Total/NA
Zinc	6.2	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SW2-11-11 — Lab Sample ID: 680-74533-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.8	J	25	5.0	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.28	J	1.0	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.48	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: DUP2-11-11 — Lab Sample ID: 680-74533-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.5	J	25	5.0	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.29	J	1.0	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.45	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLK — Lab Sample ID: 680-74533-6

No Detections

Client Sample ID: SW-1-11-11 — Lab Sample ID: 680-74533-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.9	J	25	5.0	ug/L	1		8260B	Total/NA
Benzene	2.9		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	1.1		1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.7		1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: SW-1-11-11 (Continued) — Lab Sample ID: 680-74533-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.2		1.0	0.28	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	5.8	Q	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	11		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.50	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	0.74	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.1		1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	2.5		1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	3.3		1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-12AR-11-11 — Lab Sample ID: 680-74533-8

No Detections

Client Sample ID: SL DUP1-11-11 — Lab Sample ID: 680-74533-9

No Detections

Client Sample ID: SLMW-8-11-11 — Lab Sample ID: 680-74533-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	5.0	ug/L	1		8260B	Total/NA
Benzene	2.9		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	3.7		1.0	0.25	ug/L	1		8260B	Total/NA
Chloroethane	2.1		1.0	1.0	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	65		1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.49	J	1.0	0.28	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	2.5		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.34	J	1.0	0.15	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.39	J	1.0	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	2.0		1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	13		1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-7-11-11 — Lab Sample ID: 680-74533-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.93	J	1.0	0.25	ug/L	1		8260B	Total/NA
Vinyl chloride	0.44	J	1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-10-11-11 — Lab Sample ID: 680-74533-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.73	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.15	ug/L	1		8260B	Total/NA
1,3-Dichlorobenzene	6.8		1.0	0.25	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	7.9		1.0	0.28	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	1.0		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.41	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	3.3		1.0	0.13	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.31	J	1.0	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	2.2		1.0	0.18	ug/L	1		8260B	Total/NA

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-6-11-11 — Lab Sample ID: 680-74533-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	5.0	ug/L	1		8260B	Total/NA
Chloroform	0.26	J	1.0	0.14	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.71	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-12BR-11-11 — Lab Sample ID: 680-74533-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	18	J	25	5.0	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-11R-11-11 — Lab Sample ID: 680-74533-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	18	J	25	5.0	ug/L	1		8260B	Total/NA
Chloroform	0.27	J	1.0	0.14	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.22	J Q	1.0	0.15	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.21	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-9-11-11 — Lab Sample ID: 680-74533-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.6	J	25	5.0	ug/L	1		8260B	Total/NA
Benzene	0.82	J	1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.46	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.7	Q	1.0	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	2.2		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.33	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.45	J	1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	0.94	J	1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-BLK-11-11 — Lab Sample ID: 680-74533-17

No Detections

Client Sample ID: SLMW-11R-11-11
Date Collected: 11/17/11 13:25
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:10	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		11/21/11 14:57	12/03/11 19:10	1
Acetophenone	0.54	U	9.5	0.54	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
Anthracene	0.65	U	9.5	0.65	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzo[g,h,i]perylene	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1
1,1'-Biphenyl	0.55	U	9.5	0.55	ug/L		11/21/11 14:57	12/03/11 19:10	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		11/21/11 14:57	12/03/11 19:10	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:10	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.5	1.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		11/21/11 14:57	12/03/11 19:10	1
Butyl benzyl phthalate	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Chlorophenol	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		11/21/11 14:57	12/03/11 19:10	1
Chrysene	0.48	U	9.5	0.48	ug/L		11/21/11 14:57	12/03/11 19:10	1
Diallate	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:10	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:10	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:10	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:10	1
Diethyl phthalate	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:10	1
Dimethoate	0.71	U Q	9.5	0.71	ug/L		11/21/11 14:57	12/03/11 19:10	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		11/21/11 14:57	12/03/11 19:10	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		11/21/11 14:57	12/03/11 19:10	1
Di-n-butyl phthalate	0.79	U	9.5	0.79	ug/L		11/21/11 14:57	12/03/11 19:10	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/21/11 14:57	12/03/11 19:10	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1
Di-n-octyl phthalate	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:10	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/21/11 14:57	12/03/11 19:10	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/21/11 14:57	12/03/11 19:10	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:10	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:10	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/21/11 14:57	12/03/11 19:10	1
Famphur	1.0	U Q	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1

Client Sample ID: SLMW-11R-11-11
Date Collected: 11/17/11 13:25
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.70	U	9.5	0.70	ug/L		11/21/11 14:57	12/03/11 19:10	1
Fluorene	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:10	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:10	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		11/21/11 14:57	12/03/11 19:10	1
Hexachlorocyclopentadiene	2.4	U	9.5	2.4	ug/L		11/21/11 14:57	12/03/11 19:10	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:10	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:10	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:10	1
Isophorone	0.85	U	9.5	0.85	ug/L		11/21/11 14:57	12/03/11 19:10	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/21/11 14:57	12/03/11 19:10	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/21/11 14:57	12/03/11 19:10	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:10	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:10	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:10	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/21/11 14:57	12/03/11 19:10	1
Naphthalene	0.66	U	9.5	0.66	ug/L		11/21/11 14:57	12/03/11 19:10	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/21/11 14:57	12/03/11 19:10	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		11/21/11 14:57	12/03/11 19:10	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		11/21/11 14:57	12/03/11 19:10	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:10	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:10	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:10	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:10	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:10	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/21/11 14:57	12/03/11 19:10	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:10	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		11/21/11 14:57	12/03/11 19:10	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:10	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		11/21/11 14:57	12/03/11 19:10	1
Phenol	0.79	U	9.5	0.79	ug/L		11/21/11 14:57	12/03/11 19:10	1
Phorate	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:10	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/21/11 14:57	12/03/11 19:10	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:10	1
Pyrene	0.60	U	9.5	0.60	ug/L		11/21/11 14:57	12/03/11 19:10	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/21/11 14:57	12/03/11 19:10	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/21/11 14:57	12/03/11 19:10	1

Client Sample ID: SLMW-11R-11-11
Date Collected: 11/17/11 13:25
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/21/11 14:57	12/03/11 19:10	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/21/11 14:57	12/03/11 19:10	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:10	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		11/21/11 14:57	12/03/11 19:10	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/21/11 14:57	12/03/11 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*38 - 130*	*11/21/11 14:57*	*12/03/11 19:10*	*1*
2-Fluorophenol	*51*		*25 - 130*	*11/21/11 14:57*	*12/03/11 19:10*	*1*
Nitrobenzene-d5	*70*		*39 - 130*	*11/21/11 14:57*	*12/03/11 19:10*	*1*
Phenol-d5	*51*		*25 - 130*	*11/21/11 14:57*	*12/03/11 19:10*	*1*
Terphenyl-d14	*70*		*10 - 143*	*11/21/11 14:57*	*12/03/11 19:10*	*1*
2,4,6-Tribromophenol	*96*		*31 - 141*	*11/21/11 14:57*	*12/03/11 19:10*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0063	U	0.097	0.0063	ug/L		11/21/11 14:57	12/14/11 13:36	1
4,4'-DDE	0.0074	U	0.097	0.0074	ug/L		11/21/11 14:57	12/14/11 13:36	1
4,4'-DDT	0.0094	U	0.097	0.0094	ug/L		11/21/11 14:57	12/14/11 13:36	1
Aldrin	0.0068	U	0.048	0.0068	ug/L		11/21/11 14:57	12/14/11 13:36	1
alpha-BHC	0.0055	U	0.048	0.0055	ug/L		11/21/11 14:57	12/14/11 13:36	1
beta-BHC	0.0065	U	0.048	0.0065	ug/L		11/21/11 14:57	12/14/11 13:36	1
Chlordane (technical)	0.097	U	0.48	0.097	ug/L		11/21/11 14:57	12/14/11 13:36	1
Chlorobenzilate	0.48	U	0.48	0.48	ug/L		11/21/11 14:57	12/14/11 13:36	1
delta-BHC	0.0046	U	0.048	0.0046	ug/L		11/21/11 14:57	12/14/11 13:36	1
Dieldrin	0.0088	U	0.097	0.0088	ug/L		11/21/11 14:57	12/14/11 13:36	1
Endosulfan I	0.0041	U	0.048	0.0041	ug/L		11/21/11 14:57	12/14/11 13:36	1
Endosulfan II	0.0095	U	0.097	0.0095	ug/L		11/21/11 14:57	12/14/11 13:36	1
Endosulfan sulfate	0.0066	U	0.097	0.0066	ug/L		11/21/11 14:57	12/14/11 13:36	1
Endrin	0.0094	U	0.097	0.0094	ug/L		11/21/11 14:57	12/14/11 13:36	1
Endrin aldehyde	0.015	U	0.097	0.015	ug/L		11/21/11 14:57	12/14/11 13:36	1
gamma-BHC (Lindane)	0.0057	U	0.048	0.0057	ug/L		11/21/11 14:57	12/14/11 13:36	1
Heptachlor	0.0068	U	0.048	0.0068	ug/L		11/21/11 14:57	12/14/11 13:36	1
Heptachlor epoxide	0.0058	U	0.048	0.0058	ug/L		11/21/11 14:57	12/14/11 13:36	1
Isodrin	0.048	U	0.048	0.048	ug/L		11/21/11 14:57	12/14/11 13:36	1
Methoxychlor	0.013	U	0.097	0.013	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1016	0.069	U	0.97	0.069	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1232	0.11	U	0.97	0.11	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1242	0.17	U	0.97	0.17	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1248	0.35	U	0.97	0.35	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1254	0.25	U	0.97	0.25	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1260	0.19	U	0.97	0.19	ug/L		11/21/11 14:57	12/14/11 13:36	1
PCB-1262	0.23	U	0.97	0.23	ug/L		11/21/11 14:57	12/14/11 13:36	1
Toxaphene	0.48	U	4.8	0.48	ug/L		11/21/11 14:57	12/14/11 13:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*	*M*	*40 - 130*	*11/21/11 14:57*	*12/14/11 13:36*	*1*
DCB Decachlorobiphenyl	*62*		*40 - 130*	*11/21/11 14:57*	*12/14/11 13:36*	*1*

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-11R-11-11

Date Collected: 11/17/11 13:25
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-1

Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*36 - 130*	*11/21/11 14:57*	*12/14/11 13:36*	*1*
Tetrachloro-m-xylene	*69*		*36 - 130*	*11/21/11 14:57*	*12/14/11 13:36*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U	0.48	0.036	ug/L		11/21/11 07:57	12/06/11 21:23	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:23	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	12/06/11 21:23	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	12/06/11 21:23	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	12/06/11 21:23	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/21/11 07:57	12/06/11 21:23	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:23	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/21/11 07:57	12/06/11 21:23	1
MCPA	16	U	120	16	ug/L		11/21/11 07:57	12/06/11 21:23	1
Mecoprop	18	U	120	18	ug/L		11/21/11 07:57	12/06/11 21:23	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/21/11 07:57	12/06/11 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*78*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:23*	*1*
DCAA	*68*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:23*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 15:32	11/20/11 14:33	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 14:33	1
Barium	**9.8**		1.0	0.15	ug/L		11/18/11 15:32	11/20/11 14:33	1
Beryllium	**0.070**	**J**	0.20	0.070	ug/L		11/18/11 15:32	11/20/11 14:33	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 15:32	11/20/11 14:33	1
Chromium	**0.33**	**J**	1.0	0.16	ug/L		11/18/11 15:32	11/20/11 14:33	1
Cobalt	**0.20**		0.20	0.078	ug/L		11/18/11 15:32	11/20/11 14:33	1
Copper	**0.64**	**J**	1.0	0.21	ug/L		11/18/11 15:32	11/20/11 14:33	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 15:32	11/20/11 14:33	1
Nickel	**0.57**	**J**	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 14:33	1
Selenium	0.21	U J	0.50	0.21	ug/L		11/18/11 15:32	11/20/11 14:33	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 14:33	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 14:33	1
Tin	0.40	U H J	1.0	0.40	ug/L		11/30/11 14:43	11/30/11 17:01	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 15:32	11/20/11 14:33	1
Zinc	**63**	**J**	10	2.6	ug/L		11/18/11 15:32	11/20/11 14:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/28/11 09:55	11/30/11 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.11**	**J**	0.25	0.075	mg/L			11/18/11 17:51	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:14	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-9-11-11
Date Collected: 11/17/11 15:20
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:38	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		11/21/11 14:57	12/03/11 19:38	1
Acetophenone	0.54	U	9.5	0.54	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
Anthracene	0.66	U	9.5	0.66	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzo[a]pyrene	0.68	U	9.5	0.68	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzo[g,h,i]perylene	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1
1,1'-Biphenyl	0.55	U	9.5	0.55	ug/L		11/21/11 14:57	12/03/11 19:38	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		11/21/11 14:57	12/03/11 19:38	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:38	1
Bis(2-ethylhexyl) phthalate	**6.7**	**J**	9.5	1.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		11/21/11 14:57	12/03/11 19:38	1
Butyl benzyl phthalate	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Chlorophenol	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		11/21/11 14:57	12/03/11 19:38	1
Chrysene	0.49	U	9.5	0.49	ug/L		11/21/11 14:57	12/03/11 19:38	1
Diallate	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:38	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:38	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:38	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:38	1
Diethyl phthalate	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:38	1
Dimethoate	0.71	U Q	9.5	0.71	ug/L		11/21/11 14:57	12/03/11 19:38	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		11/21/11 14:57	12/03/11 19:38	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		11/21/11 14:57	12/03/11 19:38	1
Di-n-butyl phthalate	**1.8**	**J**	9.5	0.79	ug/L		11/21/11 14:57	12/03/11 19:38	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/21/11 14:57	12/03/11 19:38	1
4,6-Dinitro-2-methylphenol	9.5	U	48	9.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4-Dinitrophenol	9.5	U	48	9.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1
Di-n-octyl phthalate	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:38	1
Dinoseb	4.8	U	9.5	4.8	ug/L		11/21/11 14:57	12/03/11 19:38	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/21/11 14:57	12/03/11 19:38	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:38	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:38	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/21/11 14:57	12/03/11 19:38	1
Famphur	1.0	U Q	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1

Client Sample ID: SLMW-9-11-11
Date Collected: 11/17/11 15:20
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.70	U	9.5	0.70	ug/L		11/21/11 14:57	12/03/11 19:38	1
Fluorene	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:38	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:38	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		11/21/11 14:57	12/03/11 19:38	1
Hexachlorocyclopentadiene	2.4	U	9.5	2.4	ug/L		11/21/11 14:57	12/03/11 19:38	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:38	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:38	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:38	1
Isophorone	0.86	U	9.5	0.86	ug/L		11/21/11 14:57	12/03/11 19:38	1
Isosafrole	0.48	U	9.5	0.48	ug/L		11/21/11 14:57	12/03/11 19:38	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/21/11 14:57	12/03/11 19:38	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:38	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:38	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Methylphenol	0.85	U	9.5	0.85	ug/L		11/21/11 14:57	12/03/11 19:38	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/21/11 14:57	12/03/11 19:38	1
Naphthalene	0.67	U	9.5	0.67	ug/L		11/21/11 14:57	12/03/11 19:38	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/21/11 14:57	12/03/11 19:38	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		11/21/11 14:57	12/03/11 19:38	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		11/21/11 14:57	12/03/11 19:38	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:38	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosodiethylamine	0.89	U	9.5	0.89	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosodi-n-propylamine	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosodiphenylamine	0.88	U	9.5	0.88	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/21/11 14:57	12/03/11 19:38	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:38	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/21/11 14:57	12/03/11 19:38	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/21/11 14:57	12/03/11 19:38	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/21/11 14:57	12/03/11 19:38	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/21/11 14:57	12/03/11 19:38	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		11/21/11 14:57	12/03/11 19:38	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:38	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		11/21/11 14:57	12/03/11 19:38	1
Phenol	0.79	U	9.5	0.79	ug/L		11/21/11 14:57	12/03/11 19:38	1
Phorate	0.83	U	9.5	0.83	ug/L		11/21/11 14:57	12/03/11 19:38	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/21/11 14:57	12/03/11 19:38	1
Pronamide	0.85	U	9.5	0.85	ug/L		11/21/11 14:57	12/03/11 19:38	1
Pyrene	0.60	U	9.5	0.60	ug/L		11/21/11 14:57	12/03/11 19:38	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/21/11 14:57	12/03/11 19:38	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/21/11 14:57	12/03/11 19:38	1

Client Sample ID: SLMW-9-11-11
Date Collected: 11/17/11 15:20
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,3,4,6-Tetrachlorophenol	0.69	U	9.5	0.69	ug/L		11/21/11 14:57	12/03/11 19:38	1
Thionazin	0.87	U	9.5	0.87	ug/L		11/21/11 14:57	12/03/11 19:38	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		11/21/11 14:57	12/03/11 19:38	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		11/21/11 14:57	12/03/11 19:38	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/21/11 14:57	12/03/11 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*38 - 130*	*11/21/11 14:57*	*12/03/11 19:38*	*1*
2-Fluorophenol	*58*		*25 - 130*	*11/21/11 14:57*	*12/03/11 19:38*	*1*
Nitrobenzene-d5	*80*		*39 - 130*	*11/21/11 14:57*	*12/03/11 19:38*	*1*
Phenol-d5	*60*		*25 - 130*	*11/21/11 14:57*	*12/03/11 19:38*	*1*
Terphenyl-d14	*71*		*10 - 143*	*11/21/11 14:57*	*12/03/11 19:38*	*1*
2,4,6-Tribromophenol	*116*		*31 - 141*	*11/21/11 14:57*	*12/03/11 19:38*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0065	U	0.099	0.0065	ug/L		11/21/11 14:57	12/14/11 13:55	1
4,4'-DDE	0.0077	U	0.099	0.0077	ug/L		11/21/11 14:57	12/14/11 13:55	1
4,4'-DDT	0.0096	U	0.099	0.0096	ug/L		11/21/11 14:57	12/14/11 13:55	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		11/21/11 14:57	12/14/11 13:55	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		11/21/11 14:57	12/14/11 13:55	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		11/21/11 14:57	12/14/11 13:55	1
Chlordane (technical)	0.099	U	0.50	0.099	ug/L		11/21/11 14:57	12/14/11 13:55	1
Chlorobenzilate	0.50	U	0.50	0.50	ug/L		11/21/11 14:57	12/14/11 13:55	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		11/21/11 14:57	12/14/11 13:55	1
Dieldrin	0.0090	U	0.099	0.0090	ug/L		11/21/11 14:57	12/14/11 13:55	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		11/21/11 14:57	12/14/11 13:55	1
Endosulfan II	0.0097	U	0.099	0.0097	ug/L		11/21/11 14:57	12/14/11 13:55	1
Endosulfan sulfate	0.0068	U	0.099	0.0068	ug/L		11/21/11 14:57	12/14/11 13:55	1
Endrin	0.0096	U	0.099	0.0096	ug/L		11/21/11 14:57	12/14/11 13:55	1
Endrin aldehyde	0.016	U	0.099	0.016	ug/L		11/21/11 14:57	12/14/11 13:55	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		11/21/11 14:57	12/14/11 13:55	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		11/21/11 14:57	12/14/11 13:55	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		11/21/11 14:57	12/14/11 13:55	1
Isodrin	0.050	U	0.050	0.050	ug/L		11/21/11 14:57	12/14/11 13:55	1
Methoxychlor	0.013	U	0.099	0.013	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1016	0.071	U	0.99	0.071	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1221	0.28	U	2.0	0.28	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1232	0.11	U	0.99	0.11	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1242	0.18	U	0.99	0.18	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1248	0.36	U	0.99	0.36	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1254	0.26	U	0.99	0.26	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1260	0.20	U	0.99	0.20	ug/L		11/21/11 14:57	12/14/11 13:55	1
PCB-1262	0.24	U	0.99	0.24	ug/L		11/21/11 14:57	12/14/11 13:55	1
Toxaphene	0.50	U	5.0	0.50	ug/L		11/21/11 14:57	12/14/11 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*35*	*M J*	*40 - 130*	*11/21/11 14:57*	*12/14/11 13:55*	*1*
DCB Decachlorobiphenyl	*39*	*J*	*40 - 130*	*11/21/11 14:57*	*12/14/11 13:55*	*1*

Client Sample ID: SLMW-9-11-11

Date Collected: 11/17/11 15:20
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-2

Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*59*		*36 - 130*	*11/21/11 14:57*	*12/14/11 13:55*	*1*
Tetrachloro-m-xylene	*66*	*M*	*36 - 130*	*11/21/11 14:57*	*12/14/11 13:55*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/21/11 07:57	12/06/11 21:39	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:39	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	12/06/11 21:39	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	12/06/11 21:39	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	12/06/11 21:39	1
Dicamba	0.081	U	0.48	0.081	ug/L		11/21/11 07:57	12/06/11 21:39	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:39	1
Dinoseb	0.15	U	5.7	0.15	ug/L		11/21/11 07:57	12/06/11 21:39	1
MCPA	16	U	110	16	ug/L		11/21/11 07:57	12/06/11 21:39	1
Mecoprop	18	U	110	18	ug/L		11/21/11 07:57	12/06/11 21:39	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/21/11 07:57	12/06/11 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*81*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:39*	*1*
DCAA	*73*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:39*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 15:32	11/20/11 15:10	1
Arsenic	**7.0**		1.0	0.40	ug/L		11/18/11 15:32	11/20/11 15:10	1
Barium	**32**		1.0	0.15	ug/L		11/18/11 15:32	11/20/11 15:10	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 15:32	11/20/11 15:10	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 15:32	11/20/11 15:10	1
Chromium	**0.25**	**J**	1.0	0.16	ug/L		11/18/11 15:32	11/20/11 15:10	1
Cobalt	**1.1**		0.20	0.078	ug/L		11/18/11 15:32	11/20/11 15:10	1
Copper	**0.35**	**J**	1.0	0.21	ug/L		11/18/11 15:32	11/20/11 15:10	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 15:32	11/20/11 15:10	1
Nickel	**0.82**	**J**	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 15:10	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 15:32	11/20/11 15:10	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 15:10	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 15:10	1
Tin	0.40	U H	1.0	0.40	ug/L		11/30/11 14:43	11/30/11 17:39	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 15:32	11/20/11 15:10	1
Zinc	**4.5**	**J**	10	2.6	ug/L		11/18/11 15:32	11/20/11 15:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/28/11 09:55	11/30/11 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/18/11 18:07	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:15	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-BLK-11-11
Date Collected: 11/17/11 16:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.71	U	9.4	0.71	ug/L		11/21/11 14:57	12/03/11 20:06	1
Acenaphthylene	0.80	U	9.4	0.80	ug/L		11/21/11 14:57	12/03/11 20:06	1
Acetophenone	0.54	U	9.4	0.54	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Acetylaminofluorene	1.5	U	9.4	1.5	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Aminobiphenyl	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
Anthracene	0.65	U	9.4	0.65	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzo[a]anthracene	0.52	U	9.4	0.52	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzo[a]pyrene	0.67	U	9.4	0.67	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzo[b]fluoranthene	2.4	U	9.4	2.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzo[g,h,i]perylene	0.82	U	9.4	0.82	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzo[k]fluoranthene	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
Benzyl alcohol	1.0	U	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1
1,1'-Biphenyl	0.55	U	9.4	0.55	ug/L		11/21/11 14:57	12/03/11 20:06	1
Bis(2-chloroethoxy)methane	0.88	U	9.4	0.88	ug/L		11/21/11 14:57	12/03/11 20:06	1
Bis(2-chloroethyl)ether	1.0	U	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1
bis(chloroisopropyl) ether	0.73	U	9.4	0.73	ug/L		11/21/11 14:57	12/03/11 20:06	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.4	1.5	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Bromophenyl phenyl ether	0.72	U	9.4	0.72	ug/L		11/21/11 14:57	12/03/11 20:06	1
Butyl benzyl phthalate	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Chloro-3-methylphenol	0.94	U	9.4	0.94	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Chloronaphthalene	0.75	U	9.4	0.75	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Chlorophenol	0.82	U	9.4	0.82	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Chlorophenyl phenyl ether	0.79	U	9.4	0.79	ug/L		11/21/11 14:57	12/03/11 20:06	1
Chrysene	0.48	U	9.4	0.48	ug/L		11/21/11 14:57	12/03/11 20:06	1
Diallate	0.73	U	9.4	0.73	ug/L		11/21/11 14:57	12/03/11 20:06	1
Dibenz(a,h)anthracene	0.94	U	9.4	0.94	ug/L		11/21/11 14:57	12/03/11 20:06	1
Dibenzofuran	0.74	U	9.4	0.74	ug/L		11/21/11 14:57	12/03/11 20:06	1
3,3'-Dichlorobenzidine	28	U	56	28	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4-Dichlorophenol	1.0	U	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,6-Dichlorophenol	0.69	U	9.4	0.69	ug/L		11/21/11 14:57	12/03/11 20:06	1
Diethyl phthalate	0.83	U	9.4	0.83	ug/L		11/21/11 14:57	12/03/11 20:06	1
Dimethoate	0.70	U Q	9.4	0.70	ug/L		11/21/11 14:57	12/03/11 20:06	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
3,3'-Dimethylbenzidine	9.4	U	19	9.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4-Dimethylphenol	3.8	U	9.4	3.8	ug/L		11/21/11 14:57	12/03/11 20:06	1
Dimethyl phthalate	0.93	U	9.4	0.93	ug/L		11/21/11 14:57	12/03/11 20:06	1
Di-n-butyl phthalate	0.78	U	9.4	0.78	ug/L		11/21/11 14:57	12/03/11 20:06	1
1,3-Dinitrobenzene	0.56	U	9.4	0.56	ug/L		11/21/11 14:57	12/03/11 20:06	1
4,6-Dinitro-2-methylphenol	9.4	U	47	9.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4-Dinitrophenol	9.4	U	47	9.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4-Dinitrotoluene	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,6-Dinitrotoluene	1.0	U	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1
Di-n-octyl phthalate	1.3	U	9.4	1.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
Dinoseb	4.7	U	9.4	4.7	ug/L		11/21/11 14:57	12/03/11 20:06	1
1,4-Dioxane	3.2	U	9.4	3.2	ug/L		11/21/11 14:57	12/03/11 20:06	1
Disulfoton	0.74	U	9.4	0.74	ug/L		11/21/11 14:57	12/03/11 20:06	1
Ethyl methanesulfonate	0.90	U	9.4	0.90	ug/L		11/21/11 14:57	12/03/11 20:06	1
Ethyl Parathion	1.2	U	9.4	1.2	ug/L		11/21/11 14:57	12/03/11 20:06	1
Famphur	1.0	U Q	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1

Client Sample ID: SLMW-BLK-11-11
Date Collected: 11/17/11 16:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.70	U	9.4	0.70	ug/L		11/21/11 14:57	12/03/11 20:06	1
Fluorene	0.90	U	9.4	0.90	ug/L		11/21/11 14:57	12/03/11 20:06	1
Hexachlorobenzene	0.74	U	9.4	0.74	ug/L		11/21/11 14:57	12/03/11 20:06	1
Hexachlorobutadiene	0.58	U	9.4	0.58	ug/L		11/21/11 14:57	12/03/11 20:06	1
Hexachlorocyclopentadiene	2.3	U	9.4	2.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
Hexachloroethane	0.71	U	9.4	0.71	ug/L		11/21/11 14:57	12/03/11 20:06	1
Hexachloropropene	1.3	U	9.4	1.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
Indeno[1,2,3-cd]pyrene	0.94	U	9.4	0.94	ug/L		11/21/11 14:57	12/03/11 20:06	1
Isophorone	0.85	U	9.4	0.85	ug/L		11/21/11 14:57	12/03/11 20:06	1
Isosafrole	0.47	U	9.4	0.47	ug/L		11/21/11 14:57	12/03/11 20:06	1
Methapyrilene	2.5	U	1900	2.5	ug/L		11/21/11 14:57	12/03/11 20:06	1
3-Methylcholanthrene	1.3	U	9.4	1.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
Methyl methanesulfonate	0.56	U	9.4	0.56	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Methylnaphthalene	0.73	U	9.4	0.73	ug/L		11/21/11 14:57	12/03/11 20:06	1
Methyl parathion	0.83	U	9.4	0.83	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Methylphenol	0.84	U	9.4	0.84	ug/L		11/21/11 14:57	12/03/11 20:06	1
3 & 4 Methylphenol	1.2	U	9.4	1.2	ug/L		11/21/11 14:57	12/03/11 20:06	1
Naphthalene	0.66	U	9.4	0.66	ug/L		11/21/11 14:57	12/03/11 20:06	1
1,4-Naphthoquinone	0.58	U	9.4	0.58	ug/L		11/21/11 14:57	12/03/11 20:06	1
1-Naphthylamine	1.0	U	9.4	1.0	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Naphthylamine	1.4	U	9.4	1.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		11/21/11 14:57	12/03/11 20:06	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		11/21/11 14:57	12/03/11 20:06	1
Nitrobenzene	0.69	U	9.4	0.69	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Nitrophenol	0.71	U	9.4	0.71	ug/L		11/21/11 14:57	12/03/11 20:06	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitro-o-toluidine	1.4	U	9.4	1.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosodiethylamine	0.87	U	9.4	0.87	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosodimethylamine	2.6	U	9.4	2.6	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosodi-n-butylamine	0.90	U	9.4	0.90	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosodi-n-propylamine	0.68	U	9.4	0.68	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosodiphenylamine	0.86	U	9.4	0.86	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosomethylethylamine	3.1	U	9.4	3.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosopiperidine	0.83	U	9.4	0.83	ug/L		11/21/11 14:57	12/03/11 20:06	1
N-Nitrosopyrrolidine	0.94	U	9.4	0.94	ug/L		11/21/11 14:57	12/03/11 20:06	1
o,o',o''-Triethylphosphorothioate	0.94	U	9.4	0.94	ug/L		11/21/11 14:57	12/03/11 20:06	1
p-Dimethylamino azobenzene	0.74	U	9.4	0.74	ug/L		11/21/11 14:57	12/03/11 20:06	1
Pentachlorobenzene	0.49	U	9.4	0.49	ug/L		11/21/11 14:57	12/03/11 20:06	1
Pentachloronitrobenzene	0.73	U	9.4	0.73	ug/L		11/21/11 14:57	12/03/11 20:06	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		11/21/11 14:57	12/03/11 20:06	1
Phenacetin	1.3	U	9.4	1.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
Phenanthrene	0.72	U	9.4	0.72	ug/L		11/21/11 14:57	12/03/11 20:06	1
Phenol	0.78	U	9.4	0.78	ug/L		11/21/11 14:57	12/03/11 20:06	1
Phorate	0.82	U	9.4	0.82	ug/L		11/21/11 14:57	12/03/11 20:06	1
p-Phenylene diamine	9.4	U	1900	9.4	ug/L		11/21/11 14:57	12/03/11 20:06	1
Pronamide	0.84	U	9.4	0.84	ug/L		11/21/11 14:57	12/03/11 20:06	1
Pyrene	0.59	U	9.4	0.59	ug/L		11/21/11 14:57	12/03/11 20:06	1
Safrole, Total	0.75	U	9.4	0.75	ug/L		11/21/11 14:57	12/03/11 20:06	1
Sulfotepp	0.50	U	9.4	0.50	ug/L		11/21/11 14:57	12/03/11 20:06	1

Client Sample ID: SLMW-BLK-11-11
Date Collected: 11/17/11 16:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.71	U	9.4	0.71	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.4	0.68	ug/L		11/21/11 14:57	12/03/11 20:06	1
Thionazin	0.86	U	9.4	0.86	ug/L		11/21/11 14:57	12/03/11 20:06	1
2-Toluidine	1.3	U	9.4	1.3	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4,5-Trichlorophenol	1.1	U	9.4	1.1	ug/L		11/21/11 14:57	12/03/11 20:06	1
2,4,6-Trichlorophenol	0.80	U	9.4	0.80	ug/L		11/21/11 14:57	12/03/11 20:06	1
1,3,5-Trinitrobenzene	1.9	U	9.4	1.9	ug/L		11/21/11 14:57	12/03/11 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*38 - 130*	*11/21/11 14:57*	*12/03/11 20:06*	*1*
2-Fluorophenol	*54*		*25 - 130*	*11/21/11 14:57*	*12/03/11 20:06*	*1*
Nitrobenzene-d5	*76*		*39 - 130*	*11/21/11 14:57*	*12/03/11 20:06*	*1*
Phenol-d5	*54*		*25 - 130*	*11/21/11 14:57*	*12/03/11 20:06*	*1*
Terphenyl-d14	*67*		*10 - 143*	*11/21/11 14:57*	*12/03/11 20:06*	*1*
2,4,6-Tribromophenol	*98*		*31 - 141*	*11/21/11 14:57*	*12/03/11 20:06*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0061	U	0.095	0.0061	ug/L		11/21/11 14:57	12/14/11 14:14	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/21/11 14:57	12/14/11 14:14	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/21/11 14:57	12/14/11 14:14	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/21/11 14:57	12/14/11 14:14	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/21/11 14:57	12/14/11 14:14	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/21/11 14:57	12/14/11 14:14	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/21/11 14:57	12/14/11 14:14	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/21/11 14:57	12/14/11 14:14	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/21/11 14:57	12/14/11 14:14	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/21/11 14:57	12/14/11 14:14	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/21/11 14:57	12/14/11 14:14	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/21/11 14:57	12/14/11 14:14	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/21/11 14:57	12/14/11 14:14	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/21/11 14:57	12/14/11 14:14	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/21/11 14:57	12/14/11 14:14	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/21/11 14:57	12/14/11 14:14	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/21/11 14:57	12/14/11 14:14	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/21/11 14:57	12/14/11 14:14	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/21/11 14:57	12/14/11 14:14	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1221	0.26	U	1.9	0.26	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/21/11 14:57	12/14/11 14:14	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/21/11 14:57	12/14/11 14:14	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/21/11 14:57	12/14/11 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*	*M*	*40 - 130*	*11/21/11 14:57*	*12/14/11 14:14*	*1*
DCB Decachlorobiphenyl	*42*		*40 - 130*	*11/21/11 14:57*	*12/14/11 14:14*	*1*

Client Sample ID: SLMW-BLK-11-11

Lab Sample ID: 680-74533-3

Date Collected: 11/17/11 16:30

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*36 - 130*	*11/21/11 14:57*	*12/14/11 14:14*	*1*
Tetrachloro-m-xylene	*69*		*36 - 130*	*11/21/11 14:57*	*12/14/11 14:14*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U	0.48	0.036	ug/L		11/21/11 07:57	12/06/11 21:55	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:55	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	12/06/11 21:55	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	12/06/11 21:55	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	12/06/11 21:55	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/21/11 07:57	12/06/11 21:55	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	12/06/11 21:55	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/21/11 07:57	12/06/11 21:55	1
MCPA	16	U	120	16	ug/L		11/21/11 07:57	12/06/11 21:55	1
Mecoprop	18	U	120	18	ug/L		11/21/11 07:57	12/06/11 21:55	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/21/11 07:57	12/06/11 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*88*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:55*	*1*
DCAA	*77*		*52 - 151*	*11/21/11 07:57*	*12/06/11 21:55*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 15:32	11/20/11 15:18	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 15:18	1
Barium	**0.45**	**J**	1.0	0.15	ug/L		11/18/11 15:32	11/20/11 15:18	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 15:32	11/20/11 15:18	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 15:32	11/20/11 15:18	1
Chromium	0.16	U	1.0	0.16	ug/L		11/18/11 15:32	11/20/11 15:18	1
Cobalt	0.078	U	0.20	0.078	ug/L		11/18/11 15:32	11/20/11 15:18	1
Copper	**1.5**		1.0	0.21	ug/L		11/18/11 15:32	11/20/11 15:18	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 15:32	11/20/11 15:18	1
Nickel	0.40	U	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 15:18	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 15:32	11/20/11 15:18	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 15:18	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 15:18	1
Tin	0.40	U H	1.0	0.40	ug/L		11/30/11 14:44	11/30/11 18:02	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 15:32	11/20/11 15:18	1
Zinc	**6.2**	**J**	10	2.6	ug/L		11/18/11 15:32	11/20/11 15:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/28/11 09:55	11/30/11 18:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/18/11 18:22	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SW2-11-11

Date Collected: 11/15/11 08:00
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.8**	**J**	25	5.0	ug/L			11/22/11 17:18	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 17:18	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 17:18	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 17:18	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 17:18	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 17:18	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 17:18	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/22/11 17:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 17:18	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 17:18	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 17:18	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 17:18	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 17:18	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 17:18	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 17:18	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 17:18	1
cis-1,2-Dichloroethene	**0.28**	**J**	1.0	0.15	ug/L			11/22/11 17:18	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 17:18	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 17:18	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 17:18	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 17:18	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 17:18	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/22/11 17:18	1
1,1-Dichloroethane	**0.48**	**J**	1.0	0.25	ug/L			11/22/11 17:18	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 17:18	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 17:18	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 17:18	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 17:18	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 17:18	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 17:18	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 17:18	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 17:18	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 17:18	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 17:18	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 17:18	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 17:18	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 17:18	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 17:18	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 17:18	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 17:18	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 17:18	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 17:18	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 17:18	1

Client Sample ID: SW2-11-11

Lab Sample ID: 680-74533-4

Date Collected: 11/15/11 08:00

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 17:18	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 17:18	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 17:18	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 17:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 17:18	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 17:18	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 17:18	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 17:18	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 17:18	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 17:18	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/22/11 17:18*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*11/22/11 17:18*	*1*
Dibromofluoromethane	*107*		*70 - 130*		*11/22/11 17:18*	*1*

Client Sample ID: DUP2-11-11

Lab Sample ID: 680-74533-5

Date Collected: 11/15/11 08:20

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.5**	**J**	25	5.0	ug/L			11/22/11 17:47	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 17:47	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 17:47	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 17:47	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 17:47	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 17:47	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 17:47	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/22/11 17:47	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 17:47	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 17:47	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 17:47	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 17:47	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 17:47	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 17:47	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 17:47	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 17:47	1
cis-1,2-Dichloroethene	**0.29**	**J**	1.0	0.15	ug/L			11/22/11 17:47	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 17:47	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 17:47	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 17:47	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 17:47	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 17:47	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1

Client Sample ID: DUP2-11-11

Lab Sample ID: 680-74533-5

Date Collected: 11/15/11 08:20

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/22/11 17:47	1
1,1-Dichloroethane	**0.45**	**J**	1.0	0.25	ug/L			11/22/11 17:47	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 17:47	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 17:47	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 17:47	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 17:47	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 17:47	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 17:47	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 17:47	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 17:47	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 17:47	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 17:47	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 17:47	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 17:47	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 17:47	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 17:47	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 17:47	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 17:47	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 17:47	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 17:47	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 17:47	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 17:47	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 17:47	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 17:47	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 17:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 17:47	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 17:47	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 17:47	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 17:47	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 17:47	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 17:47	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/22/11 17:47*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*11/22/11 17:47*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*11/22/11 17:47*	*1*

Client Sample ID: TRIP BLK

Lab Sample ID: 680-74533-6

Date Collected: 11/15/11 00:00

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/27/11 16:18	1
Acetonitrile	10	U	40	10	ug/L			11/27/11 16:18	1

Client Sample ID: TRIP BLK
Date Collected: 11/15/11 00:00
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	7.4	U	20	7.4	ug/L			11/27/11 16:18	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/27/11 16:18	1
Allyl chloride	0.20	U	1.0	0.20	ug/L			11/27/11 16:18	1
Benzene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Bromochloromethane	0.14	U	1.0	0.14	ug/L			11/27/11 16:18	1
Bromodichloromethane	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/27/11 16:18	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/27/11 16:18	1
2-Butanone	1.0	U	10	1.0	ug/L			11/27/11 16:18	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/27/11 16:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/27/11 16:18	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/27/11 16:18	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/27/11 16:18	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/27/11 16:18	1
Chloroprene	0.30	U	1.0	0.30	ug/L			11/27/11 16:18	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/27/11 16:18	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/27/11 16:18	1
Dibromochloromethane	0.10	U	1.0	0.10	ug/L			11/27/11 16:18	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/27/11 16:18	1
1,2-Dibromoethane	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/27/11 16:18	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/27/11 16:18	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/27/11 16:18	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/27/11 16:18	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/27/11 16:18	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/27/11 16:18	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/27/11 16:18	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/27/11 16:18	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/27/11 16:18	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			11/27/11 16:18	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/27/11 16:18	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/27/11 16:18	1
Isobutanol	11	U	40	11	ug/L			11/27/11 16:18	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/27/11 16:18	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/27/11 16:18	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/27/11 16:18	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/L			11/27/11 16:18	1
m-Xylene & p-Xylene	0.20	U	2.0	0.20	ug/L			11/27/11 16:18	1
Naphthalene	1.0	U	5.0	1.0	ug/L			11/27/11 16:18	1
o-Xylene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
Propionitrile	4.6	U	20	4.6	ug/L			11/27/11 16:18	1
Styrene	0.11	U	1.0	0.11	ug/L			11/27/11 16:18	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/27/11 16:18	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/27/11 16:18	1

Client Sample ID: TRIP BLK

Lab Sample ID: 680-74533-6

Date Collected: 11/15/11 00:00

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/27/11 16:18	1
Toluene	0.33	U	1.0	0.33	ug/L			11/27/11 16:18	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/27/11 16:18	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/27/11 16:18	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/27/11 16:18	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/27/11 16:18	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/27/11 16:18	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/27/11 16:18	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/27/11 16:18	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/27/11 16:18	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/27/11 16:18	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/27/11 16:18	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/27/11 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 130*		*11/27/11 16:18*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*11/27/11 16:18*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*11/27/11 16:18*	*1*

Client Sample ID: SW-1-11-11

Lab Sample ID: 680-74533-7

Date Collected: 11/15/11 09:30

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**6.9**	**J**	25	5.0	ug/L			11/22/11 18:16	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 18:16	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 18:16	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 18:16	1
Benzene	**2.9**		1.0	0.25	ug/L			11/22/11 18:16	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 18:16	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 18:16	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 18:16	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/22/11 18:16	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 18:16	1
Chlorobenzene	**1.1**		1.0	0.25	ug/L			11/22/11 18:16	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 18:16	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 18:16	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 18:16	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 18:16	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 18:16	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 18:16	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 18:16	1
cis-1,2-Dichloroethene	**4.7**		1.0	0.15	ug/L			11/22/11 18:16	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 18:16	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 18:16	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 18:16	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 18:16	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SW-1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	**1.2**		1.0	0.28	ug/L			11/22/11 18:16	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
Dichlorodifluoromethane	**5.8**	**Q**	1.0	0.25	ug/L			11/22/11 18:16	1
1,1-Dichloroethane	**11**		1.0	0.25	ug/L			11/22/11 18:16	1
1,2-Dichloroethane	**0.50**	**J**	1.0	0.10	ug/L			11/22/11 18:16	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 18:16	1
1,2-Dichloropropane	**0.74**	**J**	1.0	0.13	ug/L			11/22/11 18:16	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 18:16	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 18:16	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 18:16	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 18:16	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 18:16	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 18:16	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 18:16	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 18:16	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 18:16	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 18:16	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 18:16	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 18:16	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 18:16	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 18:16	1
Tetrachloroethene	**1.1**		1.0	0.15	ug/L			11/22/11 18:16	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 18:16	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 18:16	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 18:16	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 18:16	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 18:16	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 18:16	1
Trichloroethene	**2.5**		1.0	0.13	ug/L			11/22/11 18:16	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 18:16	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 18:16	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 18:16	1
Vinyl chloride	**3.3**		1.0	0.18	ug/L			11/22/11 18:16	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/22/11 18:16*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*11/22/11 18:16*	*1*
Dibromofluoromethane	*106*		*70 - 130*		*11/22/11 18:16*	*1*

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-12AR-11-11
Date Collected: 11/15/11 11:35
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/22/11 23:12	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 23:12	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 23:12	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 23:12	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 23:12	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 23:12	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 23:12	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/22/11 23:12	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 23:12	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 23:12	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 23:12	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 23:12	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 23:12	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 23:12	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 23:12	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 23:12	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 23:12	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 23:12	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 23:12	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 23:12	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 23:12	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 23:12	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 23:12	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 23:12	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 23:12	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 23:12	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 23:12	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 23:12	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 23:12	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 23:12	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 23:12	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 23:12	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 23:12	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 23:12	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 23:12	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 23:12	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 23:12	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 23:12	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 23:12	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 23:12	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 23:12	1

Client Sample ID: SLMW-12AR-11-11

Lab Sample ID: 680-74533-8

Date Collected: 11/15/11 11:35

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 23:12	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 23:12	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 23:12	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 23:12	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 23:12	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 23:12	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 23:12	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 23:12	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 23:12	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 23:12	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*70 - 130*		*11/22/11 23:12*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*11/22/11 23:12*	*1*
Dibromofluoromethane	*109*		*70 - 130*		*11/22/11 23:12*	*1*

Client Sample ID: SL DUP1-11-11

Lab Sample ID: 680-74533-9

Date Collected: 11/15/11 11:50

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/22/11 19:26	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 19:26	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 19:26	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 19:26	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 19:26	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 19:26	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 19:26	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/22/11 19:26	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 19:26	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 19:26	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 19:26	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 19:26	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 19:26	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 19:26	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 19:26	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 19:26	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 19:26	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 19:26	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 19:26	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 19:26	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 19:26	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 19:26	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1

Client Sample ID: SL DUP1-11-11

Lab Sample ID: 680-74533-9

Date Collected: 11/15/11 11:50

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/22/11 19:26	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 19:26	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 19:26	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 19:26	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 19:26	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 19:26	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 19:26	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 19:26	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 19:26	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 19:26	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 19:26	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 19:26	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 19:26	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 19:26	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 19:26	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 19:26	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 19:26	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 19:26	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 19:26	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 19:26	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 19:26	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 19:26	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 19:26	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 19:26	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 19:26	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 19:26	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 19:26	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 19:26	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 19:26	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 19:26	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*11/22/11 19:26*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*11/22/11 19:26*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*11/22/11 19:26*	*1*

Client Sample ID: SLMW-8-11-11

Lab Sample ID: 680-74533-10

Date Collected: 11/15/11 14:30

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**13**	**J**	25	5.0	ug/L			11/22/11 19:55	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 19:55	1

Client Sample ID: SLMW-8-11-11
Date Collected: 11/15/11 14:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 19:55	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 19:55	1
Benzene	**2.9**		1.0	0.25	ug/L			11/22/11 19:55	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 19:55	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 19:55	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 19:55	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/22/11 19:55	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 19:55	1
Chlorobenzene	**3.7**		1.0	0.25	ug/L			11/22/11 19:55	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 19:55	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 19:55	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 19:55	1
Chloroethane	**2.1**		1.0	1.0	ug/L			11/22/11 19:55	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 19:55	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 19:55	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 19:55	1
cis-1,2-Dichloroethene	**65**		1.0	0.15	ug/L			11/22/11 19:55	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 19:55	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 19:55	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 19:55	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 19:55	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
1,4-Dichlorobenzene	**0.49**	**J**	1.0	0.28	ug/L			11/22/11 19:55	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/22/11 19:55	1
1,1-Dichloroethane	**2.5**		1.0	0.25	ug/L			11/22/11 19:55	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 19:55	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 19:55	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 19:55	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 19:55	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 19:55	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 19:55	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 19:55	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 19:55	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 19:55	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 19:55	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 19:55	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 19:55	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 19:55	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 19:55	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 19:55	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 19:55	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 19:55	1
Tetrachloroethene	**0.34**	**J**	1.0	0.15	ug/L			11/22/11 19:55	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 19:55	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 19:55	1
trans-1,2-Dichloroethene	**0.39**	**J**	1.0	0.20	ug/L			11/22/11 19:55	1

Client Sample ID: SLMW-8-11-11

Lab Sample ID: 680-74533-10

Date Collected: 11/15/11 14:30

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 19:55	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 19:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 19:55	1
Trichloroethene	**2.0**		1.0	0.13	ug/L			11/22/11 19:55	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 19:55	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 19:55	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 19:55	1
Vinyl chloride	**13**		1.0	0.18	ug/L			11/22/11 19:55	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/22/11 19:55*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*11/22/11 19:55*	*1*
Dibromofluoromethane	*107*		*70 - 130*		*11/22/11 19:55*	*1*

Client Sample ID: SLMW-7-11-11

Lab Sample ID: 680-74533-11

Date Collected: 11/16/11 08:00

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/23/11 04:13	1
Acetonitrile	10	U	40	10	ug/L			11/23/11 04:13	1
Acrolein	7.4	U	20	7.4	ug/L			11/23/11 04:13	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/23/11 04:13	1
Benzene	**1.1**		1.0	0.25	ug/L			11/23/11 04:13	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/23/11 04:13	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/23/11 04:13	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/23/11 04:13	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/23/11 04:13	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/23/11 04:13	1
Chlorobenzene	**0.93**	**J**	1.0	0.25	ug/L			11/23/11 04:13	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/23/11 04:13	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/23/11 04:13	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/23/11 04:13	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/23/11 04:13	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/23/11 04:13	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/23/11 04:13	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/23/11 04:13	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 04:13	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/23/11 04:13	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/23/11 04:13	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/23/11 04:13	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/23/11 04:13	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/23/11 04:13	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1

Client Sample ID: SLMW-7-11-11

Lab Sample ID: 680-74533-11

Date Collected: 11/16/11 08:00

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/23/11 04:13	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/23/11 04:13	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 04:13	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 04:13	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/23/11 04:13	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/23/11 04:13	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/23/11 04:13	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/23/11 04:13	1
Isobutyl alcohol	11	U	40	11	ug/L			11/23/11 04:13	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/23/11 04:13	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/23/11 04:13	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/23/11 04:13	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/23/11 04:13	1
Propionitrile	4.6	U	20	4.6	ug/L			11/23/11 04:13	1
Styrene	0.11	U	1.0	0.11	ug/L			11/23/11 04:13	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/23/11 04:13	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/23/11 04:13	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 04:13	1
Toluene	0.33	U	1.0	0.33	ug/L			11/23/11 04:13	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/23/11 04:13	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/23/11 04:13	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/23/11 04:13	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/23/11 04:13	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/23/11 04:13	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/23/11 04:13	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:13	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/23/11 04:13	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/23/11 04:13	1
Vinyl chloride	**0.44**	**J**	1.0	0.18	ug/L			11/23/11 04:13	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/23/11 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/23/11 04:13*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*11/23/11 04:13*	*1*
Dibromofluoromethane	*107*		*70 - 130*		*11/23/11 04:13*	*1*

Client Sample ID: SLMW-10-11-11

Lab Sample ID: 680-74533-12

Date Collected: 11/16/11 09:40

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/23/11 04:42	1
Acetonitrile	10	U	40	10	ug/L			11/23/11 04:42	1
Acrolein	7.4	U	20	7.4	ug/L			11/23/11 04:42	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/23/11 04:42	1

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.3**		1.0	0.25	ug/L			11/23/11 04:42	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/23/11 04:42	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/23/11 04:42	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/23/11 04:42	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/23/11 04:42	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/23/11 04:42	1
Chlorobenzene	**0.73**	**J**	1.0	0.25	ug/L			11/23/11 04:42	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/23/11 04:42	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/23/11 04:42	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/23/11 04:42	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/23/11 04:42	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/23/11 04:42	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/23/11 04:42	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/23/11 04:42	1
cis-1,2-Dichloroethene	**10**		1.0	0.15	ug/L			11/23/11 04:42	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/23/11 04:42	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/23/11 04:42	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/23/11 04:42	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/23/11 04:42	1
1,3-Dichlorobenzene	**6.8**		1.0	0.25	ug/L			11/23/11 04:42	1
1,4-Dichlorobenzene	**7.9**		1.0	0.28	ug/L			11/23/11 04:42	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
1,1-Dichloroethane	**1.0**		1.0	0.25	ug/L			11/23/11 04:42	1
1,2-Dichloroethane	**0.41**	**J**	1.0	0.10	ug/L			11/23/11 04:42	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/23/11 04:42	1
1,2-Dichloropropane	**3.3**		1.0	0.13	ug/L			11/23/11 04:42	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 04:42	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/23/11 04:42	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/23/11 04:42	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/23/11 04:42	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/23/11 04:42	1
Isobutyl alcohol	11	U	40	11	ug/L			11/23/11 04:42	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/23/11 04:42	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/23/11 04:42	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/23/11 04:42	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/23/11 04:42	1
Propionitrile	4.6	U	20	4.6	ug/L			11/23/11 04:42	1
Styrene	0.11	U	1.0	0.11	ug/L			11/23/11 04:42	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/23/11 04:42	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/23/11 04:42	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 04:42	1
Toluene	0.33	U	1.0	0.33	ug/L			11/23/11 04:42	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/23/11 04:42	1
trans-1,2-Dichloroethene	**0.31**	**J**	1.0	0.20	ug/L			11/23/11 04:42	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/23/11 04:42	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1

Client Sample ID: SLMW-10-11-11

Lab Sample ID: 680-74533-12

Date Collected: 11/16/11 09:40

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/23/11 04:42	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/23/11 04:42	1
Trichloroethene	**1.4**		1.0	0.13	ug/L			11/23/11 04:42	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 04:42	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/23/11 04:42	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/23/11 04:42	1
Vinyl chloride	**2.2**		1.0	0.18	ug/L			11/23/11 04:42	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/23/11 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/23/11 04:42*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*11/23/11 04:42*	*1*
Dibromofluoromethane	*107*		*70 - 130*		*11/23/11 04:42*	*1*

Client Sample ID: SLMW-6-11-11

Lab Sample ID: 680-74533-13

Date Collected: 11/16/11 12:45

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**13**	**J**	25	5.0	ug/L			11/23/11 05:11	1
Acetonitrile	10	U	40	10	ug/L			11/23/11 05:11	1
Acrolein	7.4	U	20	7.4	ug/L			11/23/11 05:11	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/23/11 05:11	1
Benzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/23/11 05:11	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/23/11 05:11	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/23/11 05:11	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/23/11 05:11	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/23/11 05:11	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/23/11 05:11	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/23/11 05:11	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/23/11 05:11	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/23/11 05:11	1
Chloroform	**0.26**	**J**	1.0	0.14	ug/L			11/23/11 05:11	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/23/11 05:11	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/23/11 05:11	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 05:11	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/23/11 05:11	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/23/11 05:11	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/23/11 05:11	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/23/11 05:11	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/23/11 05:11	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
Dichlorodifluoromethane	**0.71**	**J**	1.0	0.25	ug/L			11/23/11 05:11	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/23/11 05:11	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/23/11 05:11	1

Client Sample ID: SLMW-6-11-11

Lab Sample ID: 680-74533-13

Date Collected: 11/16/11 12:45

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 05:11	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 05:11	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/23/11 05:11	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/23/11 05:11	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/23/11 05:11	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/23/11 05:11	1
Isobutyl alcohol	11	U	40	11	ug/L			11/23/11 05:11	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/23/11 05:11	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/23/11 05:11	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/23/11 05:11	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/23/11 05:11	1
Propionitrile	4.6	U	20	4.6	ug/L			11/23/11 05:11	1
Styrene	0.11	U	1.0	0.11	ug/L			11/23/11 05:11	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/23/11 05:11	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/23/11 05:11	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 05:11	1
Toluene	0.33	U	1.0	0.33	ug/L			11/23/11 05:11	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/23/11 05:11	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/23/11 05:11	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/23/11 05:11	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/23/11 05:11	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/23/11 05:11	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/23/11 05:11	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:11	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/23/11 05:11	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/23/11 05:11	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/23/11 05:11	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/23/11 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/23/11 05:11*	*1*
4-Bromofluorobenzene	*102*		*70 - 130*		*11/23/11 05:11*	*1*
Dibromofluoromethane	*109*		*70 - 130*		*11/23/11 05:11*	*1*

Client Sample ID: SLMW-12BR-11-11

Lab Sample ID: 680-74533-14

Date Collected: 11/16/11 16:45

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**18**	**J**	25	5.0	ug/L			11/23/11 05:40	1
Acetonitrile	10	U	40	10	ug/L			11/23/11 05:40	1
Acrolein	7.4	U	20	7.4	ug/L			11/23/11 05:40	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/23/11 05:40	1
Benzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/23/11 05:40	1

Client Sample ID: SLMW-12BR-11-11
Date Collected: 11/16/11 16:45
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.80	U	1.0	0.80	ug/L			11/23/11 05:40	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/23/11 05:40	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/23/11 05:40	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/23/11 05:40	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/23/11 05:40	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/23/11 05:40	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/23/11 05:40	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/23/11 05:40	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/23/11 05:40	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/23/11 05:40	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/23/11 05:40	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 05:40	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/23/11 05:40	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/23/11 05:40	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/23/11 05:40	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/23/11 05:40	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/23/11 05:40	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/23/11 05:40	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/23/11 05:40	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 05:40	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/23/11 05:40	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/23/11 05:40	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/23/11 05:40	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/23/11 05:40	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/23/11 05:40	1
Isobutyl alcohol	11	U	40	11	ug/L			11/23/11 05:40	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/23/11 05:40	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/23/11 05:40	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/23/11 05:40	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/23/11 05:40	1
Propionitrile	4.6	U	20	4.6	ug/L			11/23/11 05:40	1
Styrene	0.11	U	1.0	0.11	ug/L			11/23/11 05:40	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/23/11 05:40	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/23/11 05:40	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/23/11 05:40	1
Toluene	0.33	U	1.0	0.33	ug/L			11/23/11 05:40	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/23/11 05:40	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/23/11 05:40	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/23/11 05:40	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/23/11 05:40	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/23/11 05:40	1

Client Sample ID: SLMW-12BR-11-11

Lab Sample ID: 680-74533-14

Date Collected: 11/16/11 16:45

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/23/11 05:40	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/23/11 05:40	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/23/11 05:40	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/23/11 05:40	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/23/11 05:40	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/23/11 05:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/23/11 05:40*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*11/23/11 05:40*	*1*
Dibromofluoromethane	*108*		*70 - 130*		*11/23/11 05:40*	*1*

Client Sample ID: SLMW-11R-11-11

Lab Sample ID: 680-74533-15

Date Collected: 11/17/11 13:25

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**18**	**J**	25	5.0	ug/L			11/24/11 17:42	1
Acetonitrile	10	U	40	10	ug/L			11/24/11 17:42	1
Acrolein	7.4	U	20	7.4	ug/L			11/24/11 17:42	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/24/11 17:42	1
Benzene	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/24/11 17:42	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/24/11 17:42	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/24/11 17:42	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/24/11 17:42	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/24/11 17:42	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/24/11 17:42	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/24/11 17:42	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/24/11 17:42	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/24/11 17:42	1
Chloroform	**0.27**	**J**	1.0	0.14	ug/L			11/24/11 17:42	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/24/11 17:42	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/24/11 17:42	1
cis-1,2-Dichloroethene	**0.22**	**J Q**	1.0	0.15	ug/L			11/24/11 17:42	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/24/11 17:42	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/24/11 17:42	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/24/11 17:42	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/24/11 17:42	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/24/11 17:42	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/24/11 17:42	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/24/11 17:42	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/24/11 17:42	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 17:42	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 17:42	1

Client Sample ID: SLMW-11R-11-11

Lab Sample ID: 680-74533-15

Date Collected: 11/17/11 13:25

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/24/11 17:42	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/24/11 17:42	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/24/11 17:42	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/24/11 17:42	1
Isobutyl alcohol	11	U	40	11	ug/L			11/24/11 17:42	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/24/11 17:42	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/24/11 17:42	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/24/11 17:42	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/24/11 17:42	1
Propionitrile	4.6	U	20	4.6	ug/L			11/24/11 17:42	1
Styrene	0.11	U	1.0	0.11	ug/L			11/24/11 17:42	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/24/11 17:42	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/24/11 17:42	1
Tetrachloroethene	**0.21**	**J**	1.0	0.15	ug/L			11/24/11 17:42	1
Toluene	0.33	U	1.0	0.33	ug/L			11/24/11 17:42	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/24/11 17:42	1
trans-1,2-Dichloroethene	0.20	U Q	1.0	0.20	ug/L			11/24/11 17:42	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/24/11 17:42	1
1,2,4-Trichlorobenzene	0.25	U Q	1.0	0.25	ug/L			11/24/11 17:42	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/24/11 17:42	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/24/11 17:42	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/24/11 17:42	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/24/11 17:42	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/24/11 17:42	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/24/11 17:42	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/24/11 17:42	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/24/11 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*11/24/11 17:42*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*11/24/11 17:42*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*11/24/11 17:42*	*1*

Client Sample ID: SLMW-9-11-11

Lab Sample ID: 680-74533-16

Date Collected: 11/17/11 15:20

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.6**	**J**	25	5.0	ug/L			11/24/11 18:11	1
Acetonitrile	10	U	40	10	ug/L			11/24/11 18:11	1
Acrolein	7.4	U	20	7.4	ug/L			11/24/11 18:11	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/24/11 18:11	1
Benzene	**0.82**	**J**	1.0	0.25	ug/L			11/24/11 18:11	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/24/11 18:11	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/24/11 18:11	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/24/11 18:11	1

Client Sample ID: SLMW-9-11-11
Date Collected: 11/17/11 15:20
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/24/11 18:11	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/24/11 18:11	1
Chlorobenzene	**0.46**	**J**	1.0	0.25	ug/L			11/24/11 18:11	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/24/11 18:11	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/24/11 18:11	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/24/11 18:11	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/24/11 18:11	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/24/11 18:11	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/24/11 18:11	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/24/11 18:11	1
cis-1,2-Dichloroethene	**1.7**	**Q**	1.0	0.15	ug/L			11/24/11 18:11	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/24/11 18:11	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/24/11 18:11	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/24/11 18:11	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/24/11 18:11	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/24/11 18:11	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/24/11 18:11	1
1,1-Dichloroethane	**2.2**		1.0	0.25	ug/L			11/24/11 18:11	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/24/11 18:11	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/24/11 18:11	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 18:11	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 18:11	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/24/11 18:11	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/24/11 18:11	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/24/11 18:11	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/24/11 18:11	1
Isobutyl alcohol	11	U	40	11	ug/L			11/24/11 18:11	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/24/11 18:11	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/24/11 18:11	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/24/11 18:11	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/24/11 18:11	1
Propionitrile	4.6	U	20	4.6	ug/L			11/24/11 18:11	1
Styrene	0.11	U	1.0	0.11	ug/L			11/24/11 18:11	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/24/11 18:11	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/24/11 18:11	1
Tetrachloroethene	**0.33**	**J**	1.0	0.15	ug/L			11/24/11 18:11	1
Toluene	0.33	U	1.0	0.33	ug/L			11/24/11 18:11	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/24/11 18:11	1
trans-1,2-Dichloroethene	0.20	U Q	1.0	0.20	ug/L			11/24/11 18:11	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/24/11 18:11	1
1,2,4-Trichlorobenzene	0.25	U Q	1.0	0.25	ug/L			11/24/11 18:11	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/24/11 18:11	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/24/11 18:11	1
Trichloroethene	**0.45**	**J**	1.0	0.13	ug/L			11/24/11 18:11	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/24/11 18:11	1

Client Sample ID: SLMW-9-11-11

Lab Sample ID: 680-74533-16

Date Collected: 11/17/11 15:20

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/24/11 18:11	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/24/11 18:11	1
Vinyl chloride	**0.94**	**J**	1.0	0.18	ug/L			11/24/11 18:11	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/24/11 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/24/11 18:11*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*11/24/11 18:11*	*1*
Dibromofluoromethane	*106*		*70 - 130*		*11/24/11 18:11*	*1*

Client Sample ID: SLMW-BLK-11-11

Lab Sample ID: 680-74533-17

Date Collected: 11/17/11 16:30

Matrix: Water

Date Received: 11/18/11 09:32

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/24/11 18:40	1
Acetonitrile	10	U	40	10	ug/L			11/24/11 18:40	1
Acrolein	7.4	U	20	7.4	ug/L			11/24/11 18:40	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/24/11 18:40	1
Benzene	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/24/11 18:40	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/24/11 18:40	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/24/11 18:40	1
Carbon disulfide	0.60	U Q	2.0	0.60	ug/L			11/24/11 18:40	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/24/11 18:40	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/24/11 18:40	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/24/11 18:40	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/24/11 18:40	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/24/11 18:40	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/24/11 18:40	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/24/11 18:40	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/24/11 18:40	1
cis-1,2-Dichloroethene	0.15	U Q	1.0	0.15	ug/L			11/24/11 18:40	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/24/11 18:40	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/24/11 18:40	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/24/11 18:40	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/24/11 18:40	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/24/11 18:40	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
Dichlorodifluoromethane	0.25	U Q	1.0	0.25	ug/L			11/24/11 18:40	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/24/11 18:40	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/24/11 18:40	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 18:40	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 18:40	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/24/11 18:40	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-BLK-11-11
Date Collected: 11/17/11 16:30
Date Received: 11/18/11 09:32

Lab Sample ID: 680-74533-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/24/11 18:40	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/24/11 18:40	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/24/11 18:40	1
Isobutyl alcohol	11	U	40	11	ug/L			11/24/11 18:40	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/24/11 18:40	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/24/11 18:40	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/24/11 18:40	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/24/11 18:40	1
Propionitrile	4.6	U	20	4.6	ug/L			11/24/11 18:40	1
Styrene	0.11	U	1.0	0.11	ug/L			11/24/11 18:40	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/24/11 18:40	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/24/11 18:40	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/24/11 18:40	1
Toluene	0.33	U	1.0	0.33	ug/L			11/24/11 18:40	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/24/11 18:40	1
trans-1,2-Dichloroethene	0.20	U Q	1.0	0.20	ug/L			11/24/11 18:40	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/24/11 18:40	1
1,2,4-Trichlorobenzene	0.25	U Q	1.0	0.25	ug/L			11/24/11 18:40	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/24/11 18:40	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/24/11 18:40	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/24/11 18:40	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/24/11 18:40	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/24/11 18:40	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/24/11 18:40	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/24/11 18:40	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/24/11 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/24/11 18:40*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*11/24/11 18:40*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*11/24/11 18:40*	*1*

Surrogate Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
680-74533-4	SW2-11-11	103	99	107
680-74533-5	DUP2-11-11	104	103	105
680-74533-6	TRIP BLK	106	103	103
680-74533-7	SW-1-11-11	102	103	106
680-74533-8	SLMW-12AR-11-11	108	101	109
680-74533-9	SL DUP1-11-11	105	101	105
680-74533-10	SLMW-8-11-11	103	101	107
680-74533-11	SLMW-7-11-11	103	105	107
680-74533-12	SLMW-10-11-11	102	105	107
680-74533-13	SLMW-6-11-11	104	102	109
680-74533-14	SLMW-12BR-11-11	104	104	108
680-74533-15	SLMW-11R-11-11	101	105	105
680-74533-16	SLMW-9-11-11	100	107	106
680-74533-17	SLMW-BLK-11-11	100	104	104
LCS 680-221669/4	Lab Control Sample	103	109	118
LCS 680-221774/8	Lab Control Sample	109	112	116
LCS 680-221775/9	Lab Control Sample	105	110	116
LCS 680-221817/4	Lab Control Sample	105	111	126
LCS 680-222046/4	Lab Control Sample	101	107	105
LCSD 680-221669/5	Lab Control Sample Dup	104	111	121
LCSD 680-221774/9	Lab Control Sample Dup	105	111	116
LCSD 680-221775/10	Lab Control Sample Dup	102	109	119
LCSD 680-221817/5	Lab Control Sample Dup	108	115	130
LCSD 680-222046/5	Lab Control Sample Dup	103	105	105
MB 680-221669/7	Method Blank	101	103	108
MB 680-221774/5	Method Blank	107	105	105
MB 680-221775/4	Method Blank	103	105	105
MB 680-221817/7	Method Blank	100	104	104
MB 680-222046/7	Method Blank	105	104	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPH	TBP
Lab Sample ID	Client Sample ID	(38-130)	(25-130)	(39-130)	(25-130)	(10-143)	(31-141)
680-74533-1	SLMW-11R-11-11	60	51	70	51	70	96
680-74533-2	SLMW-9-11-11	70	58	80	60	71	116
680-74533-3	SLMW-BLK-11-11	66	54	76	54	67	98
LCS 680-221486/10-A	Lab Control Sample	74	57	73	59	72	114
LCS 680-221486/7-A	Lab Control Sample	73	60	80	62	72	114
LCSD 680-221486/11-A	Lab Control Sample Dup	66	54	68	58	71	111
MB 680-221486/6-A	Method Blank	73	64	81	65	70	104

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(36-130)	(36-130)
680-74533-1	SLMW-11R-11-11	55 M	62	64	69
680-74533-1 MS	SLMW-11R-11-11	61 M	61 M	62	59
680-74533-1 MSD	SLMW-11R-11-11	59 M	62	68	66
680-74533-2	SLMW-9-11-11	35 M J	39 J	59	66 M
680-74533-2 MS	SLMW-9-11-11	40 M	43	68	68 M
680-74533-2 MSD	SLMW-9-11-11	39 M J	43	56	68 M
680-74533-3	SLMW-BLK-11-11	40 M	42	71	69
LCS 680-221491/11-A	Lab Control Sample	58 M	58	72	71
LCS 680-221491/5-A	Lab Control Sample	56 M	59 M	77	70
LCS 680-221491/8-A	Lab Control Sample	60 M	63	71	70
LCSD 680-221491/12-A	Lab Control Sample Dup	45 M	52	70	74
MB 680-221491/4-A	Method Blank	61 M	73 M	75	84

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(52-151)	(52-151)
680-74533-1	SLMW-11R-11-11	78	68
680-74533-2	SLMW-9-11-11	81	73
680-74533-3	SLMW-BLK-11-11	88	77
LCS 680-221466/20-A	Lab Control Sample		84
MB 680-221466/19-A	Method Blank	75	

Surrogate Legend

DCPA = DCAA

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-221669/7
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/22/11 11:18	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 11:18	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 11:18	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 11:18	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 11:18	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 11:18	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 11:18	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/22/11 11:18	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 11:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 11:18	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 11:18	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 11:18	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 11:18	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 11:18	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 11:18	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 11:18	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 11:18	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 11:18	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 11:18	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 11:18	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 11:18	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 11:18	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 11:18	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 11:18	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 11:18	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 11:18	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 11:18	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 11:18	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 11:18	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 11:18	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 11:18	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 11:18	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 11:18	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 11:18	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 11:18	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 11:18	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 11:18	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 11:18	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 11:18	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 11:18	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221669/7
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 11:18	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 11:18	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 11:18	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 11:18	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 11:18	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 11:18	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 11:18	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 11:18	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 11:18	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 11:18	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 11:18	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 130*		*11/22/11 11:18*	*1*
Dibromofluoromethane	*108*		*70 - 130*		*11/22/11 11:18*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*11/22/11 11:18*	*1*

Lab Sample ID: LCS 680-221669/4
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	127		ug/L		127	26 - 180
Benzene	50.0	51.2		ug/L		102	70 - 130
Bromoform	50.0	55.0		ug/L		110	70 - 130
Bromomethane	50.0	36.4		ug/L		73	23 - 165
2-Butanone (MEK)	100	107		ug/L		107	49 - 172
Carbon disulfide	50.0	65.8		ug/L		132	54 - 132
Chlorobromomethane	50.0	56.4		ug/L		113	70 - 130
Carbon tetrachloride	50.0	47.4		ug/L		95	70 - 130
Chlorobenzene	50.0	54.1		ug/L		108	70 - 130
Chloroethane	50.0	40.3		ug/L		81	56 - 152
Chloroform	50.0	56.3		ug/L		113	70 - 130
Chloromethane	50.0	39.3		ug/L		79	70 - 130
cis-1,2-Dichloroethene	50.0	60.2		ug/L		120	70 - 130
cis-1,3-Dichloropropene	50.0	50.9		ug/L		102	70 - 130
Chlorodibromomethane	50.0	48.4		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	48.2		ug/L		96	70 - 130
Dibromomethane	50.0	50.8		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	45.2		ug/L		90	70 - 130
1,3-Dichlorobenzene	50.0	40.8		ug/L		82	70 - 130
Dichlorobromomethane	50.0	51.8		ug/L		104	70 - 130
1,2-Dichlorobenzene	50.0	45.2		ug/L		90	70 - 130
Dichlorodifluoromethane	50.0	72.8		ug/L		146	44 - 146
1,2-Dichloroethane	50.0	48.6		ug/L		97	70 - 130
1,1-Dichloroethane	50.0	57.2		ug/L		114	70 - 130
1,1-Dichloroethene	50.0	61.6		ug/L		123	66 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221669/4
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	50.6		ug/L		101	70 - 130
2,2-Dichloropropane	50.0	59.3		ug/L		119	70 - 135
1,2-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
1,1-Dichloropropene	50.0	53.7		ug/L		107	70 - 130
Ethylbenzene	50.0	53.6		ug/L		107	70 - 130
Ethylene Dibromide	50.0	51.9		ug/L		104	70 - 130
2-Hexanone	100	99.4		ug/L		99	42 - 185
Methylene Chloride	50.0	56.5		ug/L		113	67 - 130
4-Methyl-2-pentanone (MIBK)	100	89.2		ug/L		89	70 - 130
Styrene	50.0	44.2		ug/L		88	70 - 130
1,1,1,2-Tetrachloroethane	50.0	45.8		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	50.0	53.4		ug/L		107	70 - 130
Tetrachloroethene	50.0	58.1		ug/L		116	70 - 130
Toluene	50.0	51.4		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	60.2		ug/L		120	70 - 130
trans-1,3-Dichloropropene	50.0	51.3		ug/L		103	70 - 130
1,2,4-Trichlorobenzene	50.0	58.7		ug/L		117	65 - 130
1,1,1-Trichloroethane	50.0	41.2		ug/L		82	70 - 130
1,1,2-Trichloroethane	50.0	50.5		ug/L		101	70 - 130
Trichloroethene	50.0	54.7		ug/L		109	70 - 130
Trichlorofluoromethane	50.0	62.7		ug/L		125	55 - 156
1,2,3-Trichloropropane	50.0	54.1		ug/L		108	70 - 130
Vinyl acetate	100	129		ug/L		129	60 - 176
Vinyl chloride	50.0	49.6		ug/L		99	67 - 134
Xylenes, Total	150	129		ug/L		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane	*118*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 680-221669/5
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	119		ug/L		119	26 - 180	7	50
Benzene	50.0	51.3		ug/L		103	70 - 130	0	30
Bromoform	50.0	56.1		ug/L		112	70 - 130	2	30
Bromomethane	50.0	37.0		ug/L		74	23 - 165	2	50
2-Butanone (MEK)	100	110		ug/L		110	49 - 172	2	30
Carbon disulfide	50.0	67.3	Q	ug/L		135	54 - 132	2	30
Chlorobromomethane	50.0	57.9		ug/L		116	70 - 130	3	30
Carbon tetrachloride	50.0	47.5		ug/L		95	70 - 130	0	30
Chlorobenzene	50.0	54.6		ug/L		109	70 - 130	1	30
Chloroethane	50.0	37.4		ug/L		75	56 - 152	7	40
Chloroform	50.0	57.8		ug/L		116	70 - 130	3	30
Chloromethane	50.0	42.5		ug/L		85	70 - 130	8	30
cis-1,2-Dichloroethene	50.0	62.9		ug/L		126	70 - 130	4	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221669/5
Matrix: Water
Analysis Batch: 221669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	50.0	52.7		ug/L		105	70 - 130	3	30
Chlorodibromomethane	50.0	50.2		ug/L		100	70 - 130	4	50
1,2-Dibromo-3-Chloropropane	50.0	50.5		ug/L		101	70 - 130	5	50
Dibromomethane	50.0	51.4		ug/L		103	70 - 130	1	30
1,4-Dichlorobenzene	50.0	45.6		ug/L		91	70 - 130	1	30
1,3-Dichlorobenzene	50.0	41.0		ug/L		82	70 - 130	0	30
Dichlorobromomethane	50.0	51.7		ug/L		103	70 - 130	0	30
1,2-Dichlorobenzene	50.0	45.5		ug/L		91	70 - 130	1	30
Dichlorodifluoromethane	50.0	73.8	Q	ug/L		148	44 - 146	1	50
1,2-Dichloroethane	50.0	48.6		ug/L		97	70 - 130	0	30
1,1-Dichloroethane	50.0	58.7		ug/L		117	70 - 130	3	30
1,1-Dichloroethene	50.0	63.3		ug/L		127	66 - 131	3	30
1,3-Dichloropropane	50.0	50.2		ug/L		100	70 - 130	1	30
2,2-Dichloropropane	50.0	60.5		ug/L		121	70 - 135	2	30
1,2-Dichloropropane	50.0	49.6		ug/L		99	70 - 130	1	30
1,1-Dichloropropene	50.0	53.7		ug/L		107	70 - 130	0	30
Ethylbenzene	50.0	54.6		ug/L		109	70 - 130	2	30
Ethylene Dibromide	50.0	52.1		ug/L		104	70 - 130	1	30
2-Hexanone	100	102		ug/L		102	42 - 185	3	30
Methylene Chloride	50.0	58.8		ug/L		118	67 - 130	4	30
4-Methyl-2-pentanone (MIBK)	100	90.1		ug/L		90	70 - 130	1	30
Styrene	50.0	45.2		ug/L		90	70 - 130	2	30
1,1,1,2-Tetrachloroethane	50.0	46.1		ug/L		92	70 - 130	1	30
1,1,2,2-Tetrachloroethane	50.0	53.8		ug/L		108	70 - 130	1	30
Tetrachloroethene	50.0	59.8		ug/L		120	70 - 130	3	30
Toluene	50.0	51.6		ug/L		103	70 - 130	1	30
trans-1,2-Dichloroethene	50.0	63.5		ug/L		127	70 - 130	5	30
trans-1,3-Dichloropropene	50.0	51.9		ug/L		104	70 - 130	1	50
1,2,4-Trichlorobenzene	50.0	61.2		ug/L		122	65 - 130	4	30
1,1,1-Trichloroethane	50.0	40.8		ug/L		82	70 - 130	1	30
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	70 - 130	1	30
Trichloroethene	50.0	55.8		ug/L		112	70 - 130	2	30
Trichlorofluoromethane	50.0	56.7		ug/L		113	55 - 156	10	30
1,2,3-Trichloropropane	50.0	55.0		ug/L		110	70 - 130	2	30
Vinyl acetate	100	124		ug/L		124	60 - 176	4	30
Vinyl chloride	50.0	50.0		ug/L		100	67 - 134	1	30
Xylenes, Total	150	131		ug/L		87	70 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*111*		*70 - 130*
Dibromofluoromethane	*121*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 680-221774/5
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/22/11 22:43	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221774/5
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	10	U	40	10	ug/L			11/22/11 22:43	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 22:43	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 22:43	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 22:43	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 22:43	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 22:43	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/22/11 22:43	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 22:43	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 22:43	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 22:43	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 22:43	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 22:43	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 22:43	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 22:43	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 22:43	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 22:43	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 22:43	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 22:43	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 22:43	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 22:43	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 22:43	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 22:43	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 22:43	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 22:43	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 22:43	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 22:43	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 22:43	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 22:43	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 22:43	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 22:43	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 22:43	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 22:43	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 22:43	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 22:43	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 22:43	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 22:43	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 22:43	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 22:43	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 22:43	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 22:43	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 22:43	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221774/5
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 22:43	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 22:43	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 22:43	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 22:43	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 22:43	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:43	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 22:43	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 22:43	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 22:43	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 22:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*70 - 130*		*11/22/11 22:43*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*11/22/11 22:43*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*11/22/11 22:43*	*1*

Lab Sample ID: LCS 680-221774/8
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	112		ug/L		112	26 - 180
Benzene	50.0	53.2		ug/L		106	70 - 130
Bromoform	50.0	57.2		ug/L		114	70 - 130
Bromomethane	50.0	26.7		ug/L		53	23 - 165
2-Butanone (MEK)	100	104		ug/L		104	49 - 172
Carbon disulfide	50.0	62.8		ug/L		126	54 - 132
Chlorobromomethane	50.0	55.4		ug/L		111	70 - 130
Carbon tetrachloride	50.0	47.6		ug/L		95	70 - 130
Chlorobenzene	50.0	54.9		ug/L		110	70 - 130
Chloroethane	50.0	50.0		ug/L		100	56 - 152
Chloroform	50.0	58.4		ug/L		117	70 - 130
Chloromethane	50.0	41.4		ug/L		83	70 - 130
cis-1,2-Dichloroethene	50.0	58.1		ug/L		116	70 - 130
cis-1,3-Dichloropropene	50.0	54.2		ug/L		108	70 - 130
Chlorodibromomethane	50.0	50.3		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	51.4		ug/L		103	70 - 130
Dibromomethane	50.0	54.5		ug/L		109	70 - 130
1,4-Dichlorobenzene	50.0	57.2		ug/L		114	70 - 130
1,3-Dichlorobenzene	50.0	44.5		ug/L		89	70 - 130
Dichlorobromomethane	50.0	55.1		ug/L		110	70 - 130
1,2-Dichlorobenzene	50.0	58.7		ug/L		117	70 - 130
Dichlorodifluoromethane	50.0	62.8		ug/L		126	44 - 146
1,2-Dichloroethane	50.0	52.1		ug/L		104	70 - 130
1,1-Dichloroethane	50.0	57.3		ug/L		115	70 - 130
1,1-Dichloroethene	50.0	58.6		ug/L		117	66 - 131
1,3-Dichloropropane	50.0	52.8		ug/L		106	70 - 130
2,2-Dichloropropane	50.0	53.1		ug/L		106	70 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221774/8
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	50.0	53.0		ug/L		106	70 - 130
1,1-Dichloropropene	50.0	54.0		ug/L		108	70 - 130
Ethylbenzene	50.0	44.0		ug/L		88	70 - 130
Ethylene Dibromide	50.0	53.7		ug/L		107	70 - 130
2-Hexanone	100	98.1		ug/L		98	42 - 185
Methylene Chloride	50.0	57.5		ug/L		115	67 - 130
4-Methyl-2-pentanone (MIBK)	100	95.5		ug/L		96	70 - 130
Styrene	50.0	45.2		ug/L		90	70 - 130
1,1,1,2-Tetrachloroethane	50.0	46.1		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	50.0	56.8		ug/L		114	70 - 130
Tetrachloroethene	50.0	58.4		ug/L		117	70 - 130
Toluene	50.0	53.3		ug/L		107	70 - 130
trans-1,2-Dichloroethene	50.0	59.5		ug/L		119	70 - 130
trans-1,3-Dichloropropene	50.0	51.2		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	50.0	58.5		ug/L		117	65 - 130
1,1,1-Trichloroethane	50.0	41.7		ug/L		83	70 - 130
1,1,2-Trichloroethane	50.0	53.6		ug/L		107	70 - 130
Trichloroethene	50.0	55.8		ug/L		112	70 - 130
Trichlorofluoromethane	50.0	55.9		ug/L		112	55 - 156
1,2,3-Trichloropropane	50.0	56.6		ug/L		113	70 - 130
Vinyl acetate	100	109		ug/L		109	60 - 176
Vinyl chloride	50.0	48.5		ug/L		97	67 - 134
Xylenes, Total	150	133		ug/L		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*112*		*70 - 130*
Dibromofluoromethane	*116*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 680-221774/9
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	115		ug/L		115	26 - 180	2	50
Benzene	50.0	50.8		ug/L		102	70 - 130	5	30
Bromoform	50.0	57.7		ug/L		115	70 - 130	1	30
Bromomethane	50.0	30.2		ug/L		60	23 - 165	12	50
2-Butanone (MEK)	100	107		ug/L		107	49 - 172	3	30
Carbon disulfide	50.0	61.9		ug/L		124	54 - 132	1	30
Chlorobromomethane	50.0	54.5		ug/L		109	70 - 130	2	30
Carbon tetrachloride	50.0	45.2		ug/L		90	70 - 130	5	30
Chlorobenzene	50.0	54.8		ug/L		110	70 - 130	0	30
Chloroethane	50.0	44.9		ug/L		90	56 - 152	11	40
Chloroform	50.0	57.5		ug/L		115	70 - 130	2	30
Chloromethane	50.0	41.1		ug/L		82	70 - 130	1	30
cis-1,2-Dichloroethene	50.0	58.4		ug/L		117	70 - 130	1	30
cis-1,3-Dichloropropene	50.0	52.2		ug/L		104	70 - 130	4	30
Chlorodibromomethane	50.0	49.1		ug/L		98	70 - 130	2	50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221774/9
Matrix: Water
Analysis Batch: 221774

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	50.0	53.8		ug/L		108	70 - 130	5	50
Dibromomethane	50.0	52.2		ug/L		104	70 - 130	4	30
1,4-Dichlorobenzene	50.0	56.7		ug/L		113	70 - 130	1	30
1,3-Dichlorobenzene	50.0	43.6		ug/L		87	70 - 130	2	30
Dichlorobromomethane	50.0	52.7		ug/L		105	70 - 130	4	30
1,2-Dichlorobenzene	50.0	58.2		ug/L		116	70 - 130	1	30
Dichlorodifluoromethane	50.0	64.0		ug/L		128	44 - 146	2	50
1,2-Dichloroethane	50.0	49.7		ug/L		99	70 - 130	5	30
1,1-Dichloroethane	50.0	56.4		ug/L		113	70 - 130	2	30
1,1-Dichloroethene	50.0	60.4		ug/L		121	66 - 131	3	30
1,3-Dichloropropane	50.0	52.6		ug/L		105	70 - 130	0	30
2,2-Dichloropropane	50.0	53.3		ug/L		107	70 - 135	0	30
1,2-Dichloropropane	50.0	51.2		ug/L		102	70 - 130	3	30
1,1-Dichloropropene	50.0	52.8		ug/L		106	70 - 130	2	30
Ethylbenzene	50.0	43.4		ug/L		87	70 - 130	1	30
Ethylene Dibromide	50.0	52.8		ug/L		106	70 - 130	2	30
2-Hexanone	100	98.6		ug/L		99	42 - 185	1	30
Methylene Chloride	50.0	58.1		ug/L		116	67 - 130	1	30
4-Methyl-2-pentanone (MIBK)	100	95.3		ug/L		95	70 - 130	0	30
Styrene	50.0	43.1		ug/L		86	70 - 130	5	30
1,1,1,2-Tetrachloroethane	50.0	46.0		ug/L		92	70 - 130	0	30
1,1,2,2-Tetrachloroethane	50.0	56.6		ug/L		113	70 - 130	0	30
Tetrachloroethene	50.0	57.4		ug/L		115	70 - 130	2	30
Toluene	50.0	52.0		ug/L		104	70 - 130	2	30
trans-1,2-Dichloroethene	50.0	60.3		ug/L		121	70 - 130	1	30
trans-1,3-Dichloropropene	50.0	49.5		ug/L		99	70 - 130	3	50
1,2,4-Trichlorobenzene	50.0	60.0		ug/L		120	65 - 130	2	30
1,1,1-Trichloroethane	50.0	40.5		ug/L		81	70 - 130	3	30
1,1,2-Trichloroethane	50.0	51.9		ug/L		104	70 - 130	3	30
Trichloroethene	50.0	55.5		ug/L		111	70 - 130	1	30
Trichlorofluoromethane	50.0	51.5		ug/L		103	55 - 156	8	30
1,2,3-Trichloropropane	50.0	55.0		ug/L		110	70 - 130	3	30
Vinyl acetate	100	114		ug/L		114	60 - 176	4	30
Vinyl chloride	50.0	48.2		ug/L		96	67 - 134	1	30
Xylenes, Total	150	131		ug/L		87	70 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*111*		*70 - 130*
Dibromofluoromethane	*116*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: MB 680-221775/4
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/22/11 22:28	1
Acetonitrile	10	U	40	10	ug/L			11/22/11 22:28	1
Acrolein	7.4	U	20	7.4	ug/L			11/22/11 22:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221775/4
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	7.2	U	20	7.2	ug/L			11/22/11 22:28	1
Benzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/22/11 22:28	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/22/11 22:28	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/22/11 22:28	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/22/11 22:28	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/22/11 22:28	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/22/11 22:28	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/22/11 22:28	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/22/11 22:28	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/22/11 22:28	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/22/11 22:28	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/22/11 22:28	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 22:28	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/22/11 22:28	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/22/11 22:28	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/22/11 22:28	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/22/11 22:28	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/22/11 22:28	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/22/11 22:28	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/22/11 22:28	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/22/11 22:28	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 22:28	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/22/11 22:28	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/22/11 22:28	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/22/11 22:28	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/22/11 22:28	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/22/11 22:28	1
Isobutyl alcohol	11	U	40	11	ug/L			11/22/11 22:28	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/22/11 22:28	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/22/11 22:28	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/22/11 22:28	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/22/11 22:28	1
Propionitrile	4.6	U	20	4.6	ug/L			11/22/11 22:28	1
Styrene	0.11	U	1.0	0.11	ug/L			11/22/11 22:28	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/22/11 22:28	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/22/11 22:28	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/22/11 22:28	1
Toluene	0.33	U	1.0	0.33	ug/L			11/22/11 22:28	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/22/11 22:28	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/22/11 22:28	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/22/11 22:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221775/4
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/22/11 22:28	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/22/11 22:28	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/22/11 22:28	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/22/11 22:28	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/22/11 22:28	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/22/11 22:28	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/22/11 22:28	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/22/11 22:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*70 - 130*		*11/22/11 22:28*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*11/22/11 22:28*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/22/11 22:28*	*1*

Lab Sample ID: LCS 680-221775/9
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	132		ug/L		132	26 - 180
Benzene	50.0	52.2		ug/L		104	70 - 130
Bromoform	50.0	57.1		ug/L		114	70 - 130
Bromomethane	50.0	28.1		ug/L		56	23 - 165
2-Butanone (MEK)	100	111		ug/L		111	49 - 172
Carbon disulfide	50.0	65.4		ug/L		131	54 - 132
Chlorobromomethane	50.0	48.3		ug/L		97	70 - 130
Carbon tetrachloride	50.0	47.7		ug/L		95	70 - 130
Chlorobenzene	50.0	54.9		ug/L		110	70 - 130
Chloroethane	50.0	35.1		ug/L		70	56 - 152
Chloroform	50.0	56.6		ug/L		113	70 - 130
Chloromethane	50.0	39.4		ug/L		79	70 - 130
cis-1,2-Dichloroethene	50.0	60.6		ug/L		121	70 - 130
cis-1,3-Dichloropropene	50.0	52.4		ug/L		105	70 - 130
Chlorodibromomethane	50.0	49.7		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	51.1		ug/L		102	70 - 130
Dibromomethane	50.0	51.4		ug/L		103	70 - 130
1,4-Dichlorobenzene	50.0	45.8		ug/L		92	70 - 130
1,3-Dichlorobenzene	50.0	41.9		ug/L		84	70 - 130
Dichlorobromomethane	50.0	53.3		ug/L		107	70 - 130
1,2-Dichlorobenzene	50.0	46.2		ug/L		92	70 - 130
Dichlorodifluoromethane	50.0	69.7		ug/L		139	44 - 146
1,2-Dichloroethane	50.0	50.0		ug/L		100	70 - 130
1,1-Dichloroethane	50.0	57.2		ug/L		114	70 - 130
1,1-Dichloroethene	50.0	61.0		ug/L		122	66 - 131
1,3-Dichloropropane	50.0	51.1		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	55.0		ug/L		110	70 - 135
1,2-Dichloropropane	50.0	51.2		ug/L		102	70 - 130
1,1-Dichloropropene	50.0	54.2		ug/L		108	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221775/9
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	53.1		ug/L		106	70 - 130
Ethylene Dibromide	50.0	52.7		ug/L		105	70 - 130
2-Hexanone	100	105		ug/L		105	42 - 185
Methylene Chloride	50.0	57.0		ug/L		114	67 - 130
4-Methyl-2-pentanone (MIBK)	100	93.3		ug/L		93	70 - 130
Styrene	50.0	44.1		ug/L		88	70 - 130
1,1,1,2-Tetrachloroethane	50.0	46.3		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	50.0	54.9		ug/L		110	70 - 130
Tetrachloroethene	50.0	58.3		ug/L		117	70 - 130
Toluene	50.0	50.7		ug/L		101	70 - 130
trans-1,2-Dichloroethene	50.0	61.6		ug/L		123	70 - 130
trans-1,3-Dichloropropene	50.0	52.4		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	50.0	58.7		ug/L		117	65 - 130
1,1,1-Trichloroethane	50.0	42.0		ug/L		84	70 - 130
1,1,2-Trichloroethane	50.0	51.9		ug/L		104	70 - 130
Trichloroethene	50.0	56.2		ug/L		112	70 - 130
Trichlorofluoromethane	50.0	62.1		ug/L		124	55 - 156
1,2,3-Trichloropropane	50.0	56.0		ug/L		112	70 - 130
Vinyl acetate	100	108		ug/L		108	60 - 176
Vinyl chloride	50.0	49.1		ug/L		98	67 - 134
Xylenes, Total	150	131		ug/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*70 - 130*
Dibromofluoromethane	*116*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 680-221775/10
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	123		ug/L		123	26 - 180	7	50
Benzene	50.0	50.9		ug/L		102	70 - 130	2	30
Bromoform	50.0	56.6		ug/L		113	70 - 130	1	30
Bromomethane	50.0	31.1		ug/L		62	23 - 165	10	50
2-Butanone (MEK)	100	108		ug/L		108	49 - 172	2	30
Carbon disulfide	50.0	66.9	Q	ug/L		134	54 - 132	2	30
Chlorobromomethane	50.0	48.4		ug/L		97	70 - 130	0	30
Carbon tetrachloride	50.0	47.2		ug/L		94	70 - 130	1	30
Chlorobenzene	50.0	54.0		ug/L		108	70 - 130	2	30
Chloroethane	50.0	36.2		ug/L		72	56 - 152	3	40
Chloroform	50.0	56.7		ug/L		113	70 - 130	0	30
Chloromethane	50.0	40.4		ug/L		81	70 - 130	2	30
cis-1,2-Dichloroethene	50.0	61.4		ug/L		123	70 - 130	1	30
cis-1,3-Dichloropropene	50.0	50.5		ug/L		101	70 - 130	4	30
Chlorodibromomethane	50.0	47.6		ug/L		95	70 - 130	4	50
1,2-Dibromo-3-Chloropropane	50.0	49.1		ug/L		98	70 - 130	4	50
Dibromomethane	50.0	50.0		ug/L		100	70 - 130	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221775/10
Matrix: Water
Analysis Batch: 221775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	50.0	45.3		ug/L		91	70 - 130	1	30
1,3-Dichlorobenzene	50.0	40.8		ug/L		82	70 - 130	3	30
Dichlorobromomethane	50.0	51.1		ug/L		102	70 - 130	4	30
1,2-Dichlorobenzene	50.0	44.7		ug/L		89	70 - 130	3	30
Dichlorodifluoromethane	50.0	72.6		ug/L		145	44 - 146	4	50
1,2-Dichloroethane	50.0	47.2		ug/L		94	70 - 130	6	30
1,1-Dichloroethane	50.0	58.5		ug/L		117	70 - 130	2	30
1,1-Dichloroethene	50.0	62.8		ug/L		126	66 - 131	3	30
1,3-Dichloropropane	50.0	49.8		ug/L		100	70 - 130	2	30
2,2-Dichloropropane	50.0	56.0		ug/L		112	70 - 135	2	30
1,2-Dichloropropane	50.0	49.0		ug/L		98	70 - 130	4	30
1,1-Dichloropropene	50.0	53.5		ug/L		107	70 - 130	1	30
Ethylbenzene	50.0	52.8		ug/L		106	70 - 130	1	30
Ethylene Dibromide	50.0	50.7		ug/L		101	70 - 130	4	30
2-Hexanone	100	99.9		ug/L		100	42 - 185	5	30
Methylene Chloride	50.0	57.5		ug/L		115	67 - 130	1	30
4-Methyl-2-pentanone (MIBK)	100	89.5		ug/L		90	70 - 130	4	30
Styrene	50.0	44.0		ug/L		88	70 - 130	0	30
1,1,1,2-Tetrachloroethane	50.0	45.2		ug/L		90	70 - 130	2	30
1,1,2,2-Tetrachloroethane	50.0	51.8		ug/L		104	70 - 130	6	30
Tetrachloroethene	50.0	58.2		ug/L		116	70 - 130	0	30
Toluene	50.0	50.9		ug/L		102	70 - 130	0	30
trans-1,2-Dichloroethene	50.0	63.3		ug/L		127	70 - 130	3	30
trans-1,3-Dichloropropene	50.0	49.9		ug/L		100	70 - 130	5	50
1,2,4-Trichlorobenzene	50.0	61.9		ug/L		124	65 - 130	5	30
1,1,1-Trichloroethane	50.0	41.2		ug/L		82	70 - 130	2	30
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	70 - 130	2	30
Trichloroethene	50.0	56.0		ug/L		112	70 - 130	0	30
Trichlorofluoromethane	50.0	62.4		ug/L		125	55 - 156	1	30
1,2,3-Trichloropropane	50.0	54.8		ug/L		110	70 - 130	2	30
Vinyl acetate	100	109		ug/L		109	60 - 176	0	30
Vinyl chloride	50.0	49.8		ug/L		100	67 - 134	1	30
Xylenes, Total	150	128		ug/L		85	70 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane	*119*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 680-221817/7
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/24/11 14:51	1
Acetonitrile	10	U	40	10	ug/L			11/24/11 14:51	1
Acrolein	7.4	U	20	7.4	ug/L			11/24/11 14:51	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/24/11 14:51	1
Benzene	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221817/7
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.50	U	1.0	0.50	ug/L			11/24/11 14:51	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/24/11 14:51	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			11/24/11 14:51	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/24/11 14:51	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			11/24/11 14:51	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/24/11 14:51	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/24/11 14:51	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/24/11 14:51	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/24/11 14:51	1
2-Chloro-1,3-butadiene	0.30	U	1.0	0.30	ug/L			11/24/11 14:51	1
3-Chloro-1-propene	0.20	U	1.0	0.20	ug/L			11/24/11 14:51	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/24/11 14:51	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/24/11 14:51	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			11/24/11 14:51	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/24/11 14:51	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/24/11 14:51	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/24/11 14:51	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/24/11 14:51	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/24/11 14:51	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/24/11 14:51	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 14:51	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/24/11 14:51	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/24/11 14:51	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/24/11 14:51	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/24/11 14:51	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/24/11 14:51	1
Isobutyl alcohol	11	U	40	11	ug/L			11/24/11 14:51	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/24/11 14:51	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/24/11 14:51	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/24/11 14:51	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			11/24/11 14:51	1
Propionitrile	4.6	U	20	4.6	ug/L			11/24/11 14:51	1
Styrene	0.11	U	1.0	0.11	ug/L			11/24/11 14:51	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/24/11 14:51	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/24/11 14:51	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/24/11 14:51	1
Toluene	0.33	U	1.0	0.33	ug/L			11/24/11 14:51	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/24/11 14:51	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/24/11 14:51	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/24/11 14:51	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/24/11 14:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221817/7
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/24/11 14:51	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/24/11 14:51	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/24/11 14:51	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/24/11 14:51	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/24/11 14:51	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/24/11 14:51	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/24/11 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*		*11/24/11 14:51*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*11/24/11 14:51*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/24/11 14:51*	*1*

Lab Sample ID: LCS 680-221817/4
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	87.4		ug/L		87	26 - 180
Benzene	50.0	51.5		ug/L		103	70 - 130
Bromoform	50.0	61.4		ug/L		123	70 - 130
Bromomethane	50.0	31.4		ug/L		63	23 - 165
2-Butanone (MEK)	100	84.1		ug/L		84	49 - 172
Carbon disulfide	50.0	68.8	Q	ug/L		138	54 - 132
Chlorobromomethane	50.0	57.7		ug/L		115	70 - 130
Carbon tetrachloride	50.0	48.7		ug/L		97	70 - 130
Chlorobenzene	50.0	55.7		ug/L		111	70 - 130
Chloroethane	50.0	35.4		ug/L		71	56 - 152
Chloroform	50.0	58.6		ug/L		117	70 - 130
Chloromethane	50.0	38.5		ug/L		77	70 - 130
cis-1,2-Dichloroethene	50.0	64.1		ug/L		128	70 - 130
cis-1,3-Dichloropropene	50.0	54.5		ug/L		109	70 - 130
Chlorodibromomethane	50.0	52.3		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/L		107	70 - 130
Dibromomethane	50.0	50.3		ug/L		101	70 - 130
1,4-Dichlorobenzene	50.0	47.1		ug/L		94	70 - 130
1,3-Dichlorobenzene	50.0	42.1		ug/L		84	70 - 130
Dichlorobromomethane	50.0	51.8		ug/L		104	70 - 130
1,2-Dichlorobenzene	50.0	46.8		ug/L		94	70 - 130
Dichlorodifluoromethane	50.0	75.5	Q	ug/L		151	44 - 146
1,2-Dichloroethane	50.0	48.2		ug/L		96	70 - 130
1,1-Dichloroethane	50.0	59.1		ug/L		118	70 - 130
1,1-Dichloroethene	50.0	62.8		ug/L		126	66 - 131
1,3-Dichloropropane	50.0	50.6		ug/L		101	70 - 130
2,2-Dichloropropane	50.0	62.4		ug/L		125	70 - 135
1,2-Dichloropropane	50.0	49.5		ug/L		99	70 - 130
1,1-Dichloropropene	50.0	52.8		ug/L		106	70 - 130
Ethylbenzene	50.0	54.0		ug/L		108	70 - 130
Ethylene Dibromide	50.0	52.8		ug/L		106	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221817/4
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	100	94.2		ug/L		94	42 - 185
Methylene Chloride	50.0	59.8		ug/L		120	67 - 130
4-Methyl-2-pentanone (MIBK)	100	88.0		ug/L		88	70 - 130
Styrene	50.0	44.1		ug/L		88	70 - 130
1,1,1,2-Tetrachloroethane	50.0	48.4		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	50.0	53.2		ug/L		106	70 - 130
Tetrachloroethene	50.0	62.3		ug/L		125	70 - 130
Toluene	50.0	51.7		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	64.7		ug/L		129	70 - 130
trans-1,3-Dichloropropene	50.0	52.7		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	50.0	64.5		ug/L		129	65 - 130
1,1,1-Trichloroethane	50.0	41.7		ug/L		83	70 - 130
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	70 - 130
Trichloroethene	50.0	57.1		ug/L		114	70 - 130
Trichlorofluoromethane	50.0	61.0		ug/L		122	55 - 156
1,2,3-Trichloropropane	50.0	53.9		ug/L		108	70 - 130
Vinyl acetate	100	127		ug/L		127	60 - 176
Vinyl chloride	50.0	48.6		ug/L		97	67 - 134
Xylenes, Total	150	132		ug/L		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*111*		*70 - 130*
Dibromofluoromethane	*126*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 680-221817/5
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	97.8		ug/L		98	26 - 180	11	50
Benzene	50.0	52.7		ug/L		105	70 - 130	2	30
Bromoform	50.0	62.5		ug/L		125	70 - 130	2	30
Bromomethane	50.0	29.3		ug/L		59	23 - 165	7	50
2-Butanone (MEK)	100	92.8		ug/L		93	49 - 172	10	30
Carbon disulfide	50.0	69.1	Q	ug/L		138	54 - 132	0	30
Chlorobromomethane	50.0	60.3		ug/L		121	70 - 130	4	30
Carbon tetrachloride	50.0	49.6		ug/L		99	70 - 130	2	30
Chlorobenzene	50.0	57.4		ug/L		115	70 - 130	3	30
Chloroethane	50.0	40.4		ug/L		81	56 - 152	13	40
Chloroform	50.0	60.3		ug/L		121	70 - 130	3	30
Chloromethane	50.0	40.4		ug/L		81	70 - 130	5	30
cis-1,2-Dichloroethene	50.0	65.8	Q	ug/L		132	70 - 130	2	30
cis-1,3-Dichloropropene	50.0	55.0		ug/L		110	70 - 130	1	30
Chlorodibromomethane	50.0	53.7		ug/L		107	70 - 130	3	50
1,2-Dibromo-3-Chloropropane	50.0	56.2		ug/L		112	70 - 130	5	50
Dibromomethane	50.0	52.6		ug/L		105	70 - 130	5	30
1,4-Dichlorobenzene	50.0	48.6		ug/L		97	70 - 130	3	30
1,3-Dichlorobenzene	50.0	43.3		ug/L		87	70 - 130	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221817/5
Matrix: Water
Analysis Batch: 221817

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane	50.0	53.7		ug/L		107	70 - 130	4	30
1,2-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130	3	30
Dichlorodifluoromethane	50.0	75.9	Q	ug/L		152	44 - 146	0	50
1,2-Dichloroethane	50.0	48.7		ug/L		97	70 - 130	1	30
1,1-Dichloroethane	50.0	61.1		ug/L		122	70 - 130	3	30
1,1-Dichloroethene	50.0	65.0		ug/L		130	66 - 131	3	30
1,3-Dichloropropane	50.0	52.4		ug/L		105	70 - 130	4	30
2,2-Dichloropropane	50.0	62.1		ug/L		124	70 - 135	0	30
1,2-Dichloropropane	50.0	51.7		ug/L		103	70 - 130	4	30
1,1-Dichloropropene	50.0	53.8		ug/L		108	70 - 130	2	30
Ethylbenzene	50.0	54.9		ug/L		110	70 - 130	2	30
Ethylene Dibromide	50.0	54.5		ug/L		109	70 - 130	3	30
2-Hexanone	100	101		ug/L		101	42 - 185	7	30
Methylene Chloride	50.0	61.0		ug/L		122	67 - 130	2	30
4-Methyl-2-pentanone (MIBK)	100	93.4		ug/L		93	70 - 130	6	30
Styrene	50.0	45.9		ug/L		92	70 - 130	4	30
1,1,1,2-Tetrachloroethane	50.0	49.1		ug/L		98	70 - 130	2	30
1,1,2,2-Tetrachloroethane	50.0	54.5		ug/L		109	70 - 130	3	30
Tetrachloroethene	50.0	64.1		ug/L		128	70 - 130	3	30
Toluene	50.0	53.0		ug/L		106	70 - 130	3	30
trans-1,2-Dichloroethene	50.0	66.5	Q	ug/L		133	70 - 130	3	30
trans-1,3-Dichloropropene	50.0	54.8		ug/L		110	70 - 130	4	50
1,2,4-Trichlorobenzene	50.0	68.4	Q	ug/L		137	65 - 130	6	30
1,1,1-Trichloroethane	50.0	42.5		ug/L		85	70 - 130	2	30
1,1,2-Trichloroethane	50.0	53.1		ug/L		106	70 - 130	4	30
Trichloroethene	50.0	60.1		ug/L		120	70 - 130	5	30
Trichlorofluoromethane	50.0	60.1		ug/L		120	55 - 156	1	30
1,2,3-Trichloropropane	50.0	57.2		ug/L		114	70 - 130	6	30
Vinyl acetate	100	131		ug/L		131	60 - 176	3	30
Vinyl chloride	50.0	49.5		ug/L		99	67 - 134	2	30
Xylenes, Total	150	135		ug/L		90	70 - 130	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*115*		*70 - 130*
Dibromofluoromethane	*130*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 680-222046/7
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	25	5.0	ug/L			11/27/11 12:28	1
Acetonitrile	10	U	40	10	ug/L			11/27/11 12:28	1
Acrolein	7.4	U	20	7.4	ug/L			11/27/11 12:28	1
Acrylonitrile	7.2	U	20	7.2	ug/L			11/27/11 12:28	1
Benzene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Bromoform	0.50	U	1.0	0.50	ug/L			11/27/11 12:28	1
Bromomethane	0.80	U	1.0	0.80	ug/L			11/27/11 12:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-222046/7
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	1.0	U	10	1.0	ug/L			11/27/11 12:28	1
Bromochloromethane	0.14	U	1.0	0.14	ug/L			11/27/11 12:28	1
Carbon disulfide	0.60	U	2.0	0.60	ug/L			11/27/11 12:28	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			11/27/11 12:28	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Chloroethane	1.0	U	1.0	1.0	ug/L			11/27/11 12:28	1
Chloroform	0.14	U	1.0	0.14	ug/L			11/27/11 12:28	1
Chloromethane	0.33	U	1.0	0.33	ug/L			11/27/11 12:28	1
Allyl chloride	0.20	U	1.0	0.20	ug/L			11/27/11 12:28	1
Chloroprene	0.30	U	1.0	0.30	ug/L			11/27/11 12:28	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			11/27/11 12:28	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			11/27/11 12:28	1
Dibromochloromethane	0.10	U	1.0	0.10	ug/L			11/27/11 12:28	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			11/27/11 12:28	1
Dibromomethane	0.20	U	1.0	0.20	ug/L			11/27/11 12:28	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			11/27/11 12:28	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Bromodichloromethane	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			11/27/11 12:28	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			11/27/11 12:28	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			11/27/11 12:28	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/27/11 12:28	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			11/27/11 12:28	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			11/27/11 12:28	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,2-Dibromoethane	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			11/27/11 12:28	1
Ethyl methacrylate	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			11/27/11 12:28	1
2-Hexanone	1.0	U	10	1.0	ug/L			11/27/11 12:28	1
Iodomethane	1.0	U	5.0	1.0	ug/L			11/27/11 12:28	1
Isobutanol	11	U	40	11	ug/L			11/27/11 12:28	1
Methacrylonitrile	3.3	U	20	3.3	ug/L			11/27/11 12:28	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			11/27/11 12:28	1
Methyl methacrylate	0.48	U	1.0	0.48	ug/L			11/27/11 12:28	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/L			11/27/11 12:28	1
m-Xylene & p-Xylene	0.20	U	2.0	0.20	ug/L			11/27/11 12:28	1
Naphthalene	1.0	U	5.0	1.0	ug/L			11/27/11 12:28	1
o-Xylene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
Propionitrile	4.6	U	20	4.6	ug/L			11/27/11 12:28	1
Styrene	0.11	U	1.0	0.11	ug/L			11/27/11 12:28	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			11/27/11 12:28	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			11/27/11 12:28	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			11/27/11 12:28	1
Toluene	0.33	U	1.0	0.33	ug/L			11/27/11 12:28	1
trans-1,4-Dichloro-2-butene	0.50	U	2.0	0.50	ug/L			11/27/11 12:28	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			11/27/11 12:28	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			11/27/11 12:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-222046/7
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			11/27/11 12:28	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			11/27/11 12:28	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			11/27/11 12:28	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			11/27/11 12:28	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			11/27/11 12:28	1
Vinyl acetate	0.28	U	2.0	0.28	ug/L			11/27/11 12:28	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			11/27/11 12:28	1
Xylenes, Total	0.20	U	2.0	0.20	ug/L			11/27/11 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 130*		*11/27/11 12:28*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*11/27/11 12:28*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*11/27/11 12:28*	*1*

Lab Sample ID: LCS 680-222046/4
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	104		ug/L		104	26 - 180
Benzene	50.0	48.7		ug/L		97	70 - 130
Bromoform	50.0	46.7		ug/L		93	70 - 130
Bromomethane	50.0	45.2		ug/L		90	23 - 165
2-Butanone	100	103		ug/L		103	49 - 172
Bromochloromethane	50.0	47.9		ug/L		96	70 - 130
Carbon disulfide	50.0	51.4		ug/L		103	54 - 132
Carbon tetrachloride	50.0	49.9		ug/L		100	70 - 130
Chlorobenzene	50.0	51.9		ug/L		104	70 - 130
Chloroethane	50.0	47.2		ug/L		94	56 - 152
Chloroform	50.0	52.4		ug/L		105	70 - 130
Chloromethane	50.0	48.2		ug/L		96	70 - 130
cis-1,2-Dichloroethene	50.0	53.5		ug/L		107	70 - 130
cis-1,3-Dichloropropene	50.0	51.4		ug/L		103	70 - 130
Dibromochloromethane	50.0	54.8		ug/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	46.2		ug/L		92	70 - 130
Dibromomethane	50.0	49.9		ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130
1,3-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 130
Bromodichloromethane	50.0	51.0		ug/L		102	70 - 130
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	70 - 130
Dichlorodifluoromethane	50.0	49.4		ug/L		99	44 - 146
1,2-Dichloroethane	50.0	47.4		ug/L		95	70 - 130
1,1-Dichloroethane	50.0	52.0		ug/L		104	70 - 130
1,1-Dichloroethene	50.0	51.3		ug/L		103	66 - 131
1,3-Dichloropropane	50.0	49.1		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	54.4		ug/L		109	70 - 135
1,2-Dichloropropane	50.0	49.8		ug/L		100	70 - 130
1,1-Dichloropropene	50.0	49.2		ug/L		98	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-222046/4
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	50.0	50.6		ug/L		101	70 - 130
Ethylbenzene	50.0	51.2		ug/L		102	70 - 130
Hexachlorobutadiene	50.0	49.9		ug/L		100	70 - 130
2-Hexanone	100	104		ug/L		104	42 - 185
Methylene Chloride	50.0	52.5		ug/L		105	67 - 130
4-Methyl-2-pentanone	100	101		ug/L		101	70 - 130
m-Xylene & p-Xylene	100	104		ug/L		104	70 - 130
o-Xylene	50.0	51.8		ug/L		104	70 - 130
Styrene	50.0	52.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	50.0	53.8		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	50.0	50.4		ug/L		101	70 - 130
Tetrachloroethene	50.0	51.4		ug/L		103	70 - 130
Toluene	50.0	49.8		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	52.1		ug/L		104	70 - 130
trans-1,3-Dichloropropene	50.0	52.3		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	50.0	48.6		ug/L		97	65 - 130
1,1,1-Trichloroethane	50.0	48.9		ug/L		98	70 - 130
1,1,2-Trichloroethane	50.0	49.9		ug/L		100	70 - 130
Trichloroethene	50.0	49.9		ug/L		100	70 - 130
Trichlorofluoromethane	50.0	47.3		ug/L		95	55 - 156
1,2,3-Trichloropropane	50.0	50.0		ug/L		100	70 - 130
Vinyl acetate	100	118		ug/L		118	60 - 176
Vinyl chloride	50.0	49.5		ug/L		99	67 - 134
Xylenes, Total	150	155		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 680-222046/5
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	99.0		ug/L		99	26 - 180	4	50
Benzene	50.0	48.6		ug/L		97	70 - 130	0	30
Bromoform	50.0	45.4		ug/L		91	70 - 130	3	30
Bromomethane	50.0	46.7		ug/L		93	23 - 165	3	50
2-Butanone	100	100		ug/L		100	49 - 172	3	30
Bromochloromethane	50.0	46.8		ug/L		94	70 - 130	2	30
Carbon disulfide	50.0	50.8		ug/L		102	54 - 132	1	30
Carbon tetrachloride	50.0	50.5		ug/L		101	70 - 130	1	30
Chlorobenzene	50.0	50.5		ug/L		101	70 - 130	3	30
Chloroethane	50.0	43.3		ug/L		87	56 - 152	9	40
Chloroform	50.0	51.3		ug/L		103	70 - 130	2	30
Chloromethane	50.0	48.5		ug/L		97	70 - 130	1	30
cis-1,2-Dichloroethene	50.0	52.3		ug/L		105	70 - 130	2	30
cis-1,3-Dichloropropene	50.0	51.1		ug/L		102	70 - 130	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-222046/5
Matrix: Water
Analysis Batch: 222046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	50.0	53.1		ug/L		106	70 - 130	3	50
1,2-Dibromo-3-Chloropropane	50.0	44.9		ug/L		90	70 - 130	3	50
Dibromomethane	50.0	48.6		ug/L		97	70 - 130	3	30
1,4-Dichlorobenzene	50.0	49.5		ug/L		99	70 - 130	3	30
1,3-Dichlorobenzene	50.0	49.6		ug/L		99	70 - 130	2	30
Bromodichloromethane	50.0	50.2		ug/L		100	70 - 130	2	30
1,2-Dichlorobenzene	50.0	49.2		ug/L		98	70 - 130	3	30
Dichlorodifluoromethane	50.0	49.8		ug/L		100	44 - 146	1	50
1,2-Dichloroethane	50.0	47.4		ug/L		95	70 - 130	0	30
1,1-Dichloroethane	50.0	50.8		ug/L		102	70 - 130	2	30
1,1-Dichloroethene	50.0	50.0		ug/L		100	66 - 131	2	30
1,3-Dichloropropane	50.0	48.8		ug/L		98	70 - 130	1	30
2,2-Dichloropropane	50.0	53.6		ug/L		107	70 - 135	1	30
1,2-Dichloropropane	50.0	48.5		ug/L		97	70 - 130	3	30
1,1-Dichloropropene	50.0	49.4		ug/L		99	70 - 130	0	30
1,2-Dibromoethane	50.0	50.2		ug/L		100	70 - 130	1	30
Ethylbenzene	50.0	50.5		ug/L		101	70 - 130	1	30
Hexachlorobutadiene	50.0	47.8		ug/L		96	70 - 130	4	30
2-Hexanone	100	99.4		ug/L		99	42 - 185	4	30
Methylene Chloride	50.0	51.0		ug/L		102	67 - 130	3	30
4-Methyl-2-pentanone	100	100		ug/L		100	70 - 130	1	30
m-Xylene & p-Xylene	100	102		ug/L		102	70 - 130	1	30
o-Xylene	50.0	51.1		ug/L		102	70 - 130	1	30
Styrene	50.0	50.9		ug/L		102	70 - 130	2	30
1,1,1,2-Tetrachloroethane	50.0	52.7		ug/L		105	70 - 130	2	30
1,1,2,2-Tetrachloroethane	50.0	48.9		ug/L		98	70 - 130	3	30
Tetrachloroethene	50.0	51.6		ug/L		103	70 - 130	0	30
Toluene	50.0	49.9		ug/L		100	70 - 130	0	30
trans-1,2-Dichloroethene	50.0	50.9		ug/L		102	70 - 130	2	30
trans-1,3-Dichloropropene	50.0	51.7		ug/L		103	70 - 130	1	50
1,2,4-Trichlorobenzene	50.0	47.2		ug/L		94	65 - 130	3	30
1,1,1-Trichloroethane	50.0	49.1		ug/L		98	70 - 130	1	30
1,1,2-Trichloroethane	50.0	47.6		ug/L		95	70 - 130	5	30
Trichloroethene	50.0	50.1		ug/L		100	70 - 130	0	30
Trichlorofluoromethane	50.0	47.4		ug/L		95	55 - 156	0	30
1,2,3-Trichloropropane	50.0	48.5		ug/L		97	70 - 130	3	30
Vinyl acetate	100	113		ug/L		113	60 - 176	4	30
Vinyl chloride	50.0	49.8		ug/L		100	67 - 134	1	30
Xylenes, Total	150	154		ug/L		102	70 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-221486/6-A
Matrix: Water
Analysis Batch: 222632

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		11/21/11 14:57	12/03/11 17:19	1
Acenaphthylene	0.85	U	10	0.85	ug/L		11/21/11 14:57	12/03/11 17:19	1
Acetophenone	0.57	U	10	0.57	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Acetylaminofluorene	1.6	U	10	1.6	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Aminobiphenyl	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
Anthracene	0.69	U	10	0.69	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		11/21/11 14:57	12/03/11 17:19	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		11/21/11 14:57	12/03/11 17:19	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		11/21/11 14:57	12/03/11 17:19	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		11/21/11 14:57	12/03/11 17:19	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		11/21/11 14:57	12/03/11 17:19	1
Chrysene	0.51	U	10	0.51	ug/L		11/21/11 14:57	12/03/11 17:19	1
Diallate	0.78	U	10	0.78	ug/L		11/21/11 14:57	12/03/11 17:19	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
Dibenzofuran	0.79	U	10	0.79	ug/L		11/21/11 14:57	12/03/11 17:19	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,6-Dichlorophenol	0.73	U	10	0.73	ug/L		11/21/11 14:57	12/03/11 17:19	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		11/21/11 14:57	12/03/11 17:19	1
Dimethoate	0.75	U	10	0.75	ug/L		11/21/11 14:57	12/03/11 17:19	1
7,12-Dimethylbenz(a)anthracene	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
3,3'-Dimethylbenzidine	10	U	20	10	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		11/21/11 14:57	12/03/11 17:19	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,3-Dinitrobenzene	0.60	U	10	0.60	ug/L		11/21/11 14:57	12/03/11 17:19	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4-Dinitrophenol	10	U	50	10	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
Dinoseb	5.0	U	10	5.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,4-Dioxane	3.4	U	10	3.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
Disulfoton	0.79	U	10	0.79	ug/L		11/21/11 14:57	12/03/11 17:19	1
Ethyl methanesulfonate	0.96	U	10	0.96	ug/L		11/21/11 14:57	12/03/11 17:19	1
Ethyl Parathion	1.3	U	10	1.3	ug/L		11/21/11 14:57	12/03/11 17:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221486/6-A
Matrix: Water
Analysis Batch: 222632

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
Fluoranthene	0.74	U	10	0.74	ug/L		11/21/11 14:57	12/03/11 17:19	1
Fluorene	0.96	U	10	0.96	ug/L		11/21/11 14:57	12/03/11 17:19	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		11/21/11 14:57	12/03/11 17:19	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		11/21/11 14:57	12/03/11 17:19	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		11/21/11 14:57	12/03/11 17:19	1
Hexachloroethane	0.76	U	10	0.76	ug/L		11/21/11 14:57	12/03/11 17:19	1
Hexachloropropene	1.4	U	10	1.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
Isophorone	0.90	U	10	0.90	ug/L		11/21/11 14:57	12/03/11 17:19	1
Isosafrole	0.50	U	10	0.50	ug/L		11/21/11 14:57	12/03/11 17:19	1
Methapyrilene	2.7	U	2000	2.7	ug/L		11/21/11 14:57	12/03/11 17:19	1
3-Methylcholanthrene	1.4	U	10	1.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
Methyl methanesulfonate	0.60	U	10	0.60	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		11/21/11 14:57	12/03/11 17:19	1
Methyl parathion	0.88	U	10	0.88	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Methylphenol	0.89	U	10	0.89	ug/L		11/21/11 14:57	12/03/11 17:19	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		11/21/11 14:57	12/03/11 17:19	1
Naphthalene	0.70	U	10	0.70	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,4-Naphthoquinone	0.62	U	10	0.62	ug/L		11/21/11 14:57	12/03/11 17:19	1
1-Naphthylamine	1.1	U	10	1.1	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Naphthylamine	1.5	U	10	1.5	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		11/21/11 14:57	12/03/11 17:19	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
Nitrobenzene	0.73	U	10	0.73	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		11/21/11 14:57	12/03/11 17:19	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitro-o-toluidine	1.5	U	10	1.5	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosodiethylamine	0.93	U	10	0.93	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosodimethylamine	2.8	U	10	2.8	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosodi-n-butylamine	0.96	U	10	0.96	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosomethylethylamine	3.3	U	10	3.3	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosopiperidine	0.88	U	10	0.88	ug/L		11/21/11 14:57	12/03/11 17:19	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
o,o',o''-Triethylphosphorothioate	1.0	U	10	1.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
p-Dimethylamino azobenzene	0.79	U	10	0.79	ug/L		11/21/11 14:57	12/03/11 17:19	1
Pentachlorobenzene	0.52	U	10	0.52	ug/L		11/21/11 14:57	12/03/11 17:19	1
Pentachloronitrobenzene	0.78	U	10	0.78	ug/L		11/21/11 14:57	12/03/11 17:19	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		11/21/11 14:57	12/03/11 17:19	1
Phenacetin	1.4	U	10	1.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
Phenanthrene	0.77	U	10	0.77	ug/L		11/21/11 14:57	12/03/11 17:19	1
Phenol	0.83	U	10	0.83	ug/L		11/21/11 14:57	12/03/11 17:19	1
Phorate	0.87	U	10	0.87	ug/L		11/21/11 14:57	12/03/11 17:19	1
p-Phenylene diamine	10	U	2000	10	ug/L		11/21/11 14:57	12/03/11 17:19	1
Pronamide	0.89	U	10	0.89	ug/L		11/21/11 14:57	12/03/11 17:19	1
Pyrene	0.63	U	10	0.63	ug/L		11/21/11 14:57	12/03/11 17:19	1
Safrole, Total	0.80	U	10	0.80	ug/L		11/21/11 14:57	12/03/11 17:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221486/6-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222632 — **Prep Batch: 221486**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.53	U	10	0.53	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,2,4,5-Tetrachlorobenzene	0.76	U	10	0.76	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		11/21/11 14:57	12/03/11 17:19	1
Thionazin	0.91	U	10	0.91	ug/L		11/21/11 14:57	12/03/11 17:19	1
2-Toluidine	1.4	U	10	1.4	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		11/21/11 14:57	12/03/11 17:19	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		11/21/11 14:57	12/03/11 17:19	1
1,3,5-Trinitrobenzene	2.0	U	10	2.0	ug/L		11/21/11 14:57	12/03/11 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*38 - 130*	*11/21/11 14:57*	*12/03/11 17:19*	*1*
2-Fluorophenol	*64*		*25 - 130*	*11/21/11 14:57*	*12/03/11 17:19*	*1*
Nitrobenzene-d5	*81*		*39 - 130*	*11/21/11 14:57*	*12/03/11 17:19*	*1*
Phenol-d5	*65*		*25 - 130*	*11/21/11 14:57*	*12/03/11 17:19*	*1*
Terphenyl-d14	*70*		*10 - 143*	*11/21/11 14:57*	*12/03/11 17:19*	*1*
2,4,6-Tribromophenol	*104*		*31 - 141*	*11/21/11 14:57*	*12/03/11 17:19*	*1*

Lab Sample ID: LCS 680-221486/10-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222632 — **Prep Batch: 221486**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*38 - 130*
2-Fluorophenol	*57*		*25 - 130*
Nitrobenzene-d5	*73*		*39 - 130*
Phenol-d5	*59*		*25 - 130*
Terphenyl-d14	*72*		*10 - 143*
2,4,6-Tribromophenol	*114*		*31 - 141*

Lab Sample ID: LCS 680-221486/7-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222632 — **Prep Batch: 221486**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	86.5		ug/L		86	55 - 130
Acenaphthylene	100	81.0		ug/L		81	60 - 130
Anthracene	100	84.4		ug/L		84	61 - 130
Benzo[a]anthracene	100	96.3		ug/L		96	58 - 130
Benzo[a]pyrene	100	95.1		ug/L		95	61 - 130
Benzo[b]fluoranthene	100	86.9		ug/L		87	51 - 130
Benzo[g,h,i]perylene	100	88.4		ug/L		88	54 - 130
Benzo[k]fluoranthene	100	92.9		ug/L		93	53 - 130
Benzyl alcohol	100	69.6		ug/L		70	53 - 130
1,1'-Biphenyl	100	76.2		ug/L		76	54 - 130
Bis(2-chloroethoxy)methane	100	79.5		ug/L		80	64 - 130
Bis(2-chloroethyl)ether	100	71.3		ug/L		71	56 - 130
bis(chloroisopropyl) ether	100	74.4		ug/L		74	55 - 130
Bis(2-ethylhexyl) phthalate	100	120		ug/L		120	62 - 130
4-Bromophenyl phenyl ether	100	97.4		ug/L		97	61 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221486/7-A
Matrix: Water
Analysis Batch: 222632

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Butyl benzyl phthalate	100	94.3		ug/L		94	66 - 130
4-Chloroaniline	100	69.9		ug/L		70	42 - 130
4-Chloro-3-methylphenol	100	92.1		ug/L		92	60 - 130
2-Chloronaphthalene	100	73.0		ug/L		73	53 - 130
2-Chlorophenol	100	67.8		ug/L		68	57 - 130
4-Chlorophenyl phenyl ether	100	103		ug/L		103	57 - 130
Chrysene	100	82.3		ug/L		82	59 - 130
Dibenz(a,h)anthracene	100	89.2		ug/L		89	55 - 130
Dibenzofuran	100	83.6		ug/L		84	58 - 130
3,3'-Dichlorobenzidine	100	61.4		ug/L		61	27 - 130
2,4-Dichlorophenol	100	82.6		ug/L		83	54 - 130
Diethyl phthalate	100	111		ug/L		111	70 - 130
2,4-Dimethylphenol	100	53.7		ug/L		54	40 - 130
Dimethyl phthalate	100	99.8		ug/L		100	69 - 130
Di-n-butyl phthalate	100	110		ug/L		110	66 - 130
4,6-Dinitro-2-methylphenol	100	125		ug/L		125	45 - 134
2,4-Dinitrophenol	100	161		ug/L		161	20 - 165
2,4-Dinitrotoluene	100	117		ug/L		117	63 - 130
2,6-Dinitrotoluene	100	102		ug/L		102	65 - 130
Di-n-octyl phthalate	100	105		ug/L		105	64 - 130
1,4-Dioxane	100	45.2		ug/L		45	35 - 130
Fluoranthene	100	102		ug/L		102	56 - 130
Fluorene	100	92.8		ug/L		93	61 - 130
Hexachlorobenzene	100	87.9		ug/L		88	52 - 130
Hexachlorobutadiene	100	88.5		ug/L		88	36 - 130
Hexachlorocyclopentadiene	100	30.3		ug/L		30	10 - 130
Hexachloroethane	100	67.1		ug/L		67	39 - 130
Indeno[1,2,3-cd]pyrene	100	88.2		ug/L		88	47 - 130
Isophorone	100	73.7		ug/L		74	59 - 130
2-Methylnaphthalene	100	80.8		ug/L		81	52 - 130
2-Methylphenol	100	65.2		ug/L		65	55 - 130
3 & 4 Methylphenol	100	73.1		ug/L		73	35 - 130
Naphthalene	100	74.0		ug/L		74	50 - 130
2-Nitroaniline	100	97.9		ug/L		98	60 - 130
3-Nitroaniline	100	92.5		ug/L		93	54 - 130
4-Nitroaniline	100	101		ug/L		101	54 - 130
Nitrobenzene	100	79.6		ug/L		80	56 - 130
2-Nitrophenol	100	86.4		ug/L		86	54 - 130
4-Nitrophenol	100	111		ug/L		111	38 - 130
N-Nitrosodimethylamine	100	79.8		ug/L		80	54 - 130
N-Nitrosodi-n-propylamine	100	85.3		ug/L		85	64 - 130
N-Nitrosodiphenylamine	100	87.0		ug/L		87	68 - 130
Pentachlorophenol	100	103		ug/L		103	42 - 138
Phenanthrene	100	86.4		ug/L		86	62 - 130
Phenol	100	61.8		ug/L		62	29 - 130
Pyrene	100	73.7		ug/L		74	60 - 130
2,4,5-Trichlorophenol	100	82.0		ug/L		82	61 - 130
2,4,6-Trichlorophenol	100	79.9		ug/L		80	57 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221486/7-A
Matrix: Water
Analysis Batch: 222632

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221486

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	73		38 - 130
2-Fluorophenol	60		25 - 130
Nitrobenzene-d5	80		39 - 130
Phenol-d5	62		25 - 130
Terphenyl-d14	72		10 - 143
2,4,6-Tribromophenol	114		31 - 141

Lab Sample ID: LCSD 680-221486/11-A
Matrix: Water
Analysis Batch: 222632

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221486

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	66		38 - 130
2-Fluorophenol	54		25 - 130
Nitrobenzene-d5	68		39 - 130
Phenol-d5	58		25 - 130
Terphenyl-d14	71		10 - 143
2,4,6-Tribromophenol	111		31 - 141

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-221491/4-A
Matrix: Water
Analysis Batch: 223765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		11/21/11 14:57	12/14/11 12:01	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		11/21/11 14:57	12/14/11 12:01	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		11/21/11 14:57	12/14/11 12:01	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		11/21/11 14:57	12/14/11 12:01	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		11/21/11 14:57	12/14/11 12:01	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		11/21/11 14:57	12/14/11 12:01	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		11/21/11 14:57	12/14/11 12:01	1
Chlorobenzilate	0.50	U	0.50	0.50	ug/L		11/21/11 14:57	12/14/11 12:01	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		11/21/11 14:57	12/14/11 12:01	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		11/21/11 14:57	12/14/11 12:01	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		11/21/11 14:57	12/14/11 12:01	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		11/21/11 14:57	12/14/11 12:01	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		11/21/11 14:57	12/14/11 12:01	1
Endrin	0.0097	U	0.10	0.0097	ug/L		11/21/11 14:57	12/14/11 12:01	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		11/21/11 14:57	12/14/11 12:01	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		11/21/11 14:57	12/14/11 12:01	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		11/21/11 14:57	12/14/11 12:01	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		11/21/11 14:57	12/14/11 12:01	1
Isodrin	0.050	U	0.050	0.050	ug/L		11/21/11 14:57	12/14/11 12:01	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1016	0.071	U	1.0	0.071	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1221	0.28	U	2.0	0.28	ug/L		11/21/11 14:57	12/14/11 12:01	1

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: MB 680-221491/4-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	0.11	U	1.0	0.11	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1242	0.18	U	1.0	0.18	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1248	0.36	U	1.0	0.36	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1254	0.26	U	1.0	0.26	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1260	0.20	U	1.0	0.20	ug/L		11/21/11 14:57	12/14/11 12:01	1
PCB-1262	0.24	U	1.0	0.24	ug/L		11/21/11 14:57	12/14/11 12:01	1
Toxaphene	0.50	U	5.0	0.50	ug/L		11/21/11 14:57	12/14/11 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*61*	*M*	*40 - 130*	*11/21/11 14:57*	*12/14/11 12:01*	*1*
DCB Decachlorobiphenyl	*73*	*M*	*40 - 130*	*11/21/11 14:57*	*12/14/11 12:01*	*1*
Tetrachloro-m-xylene	*75*		*36 - 130*	*11/21/11 14:57*	*12/14/11 12:01*	*1*
Tetrachloro-m-xylene	*84*		*36 - 130*	*11/21/11 14:57*	*12/14/11 12:01*	*1*

Lab Sample ID: LCS 680-221491/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*58*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*58*		*40 - 130*
Tetrachloro-m-xylene	*72*		*36 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*

Lab Sample ID: LCS 680-221491/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.200	0.193		ug/L		96	49 - 144
4,4'-DDE	0.200	0.174		ug/L		87	46 - 144
4,4'-DDT	0.200	0.175		ug/L		88	48 - 166
Aldrin	0.100	0.0871		ug/L		87	14 - 168
alpha-BHC	0.100	0.0888		ug/L		89	43 - 138
beta-BHC	0.100	0.104		ug/L		104	38 - 158
delta-BHC	0.100	0.115		ug/L		115	23 - 191
Dieldrin	0.200	0.177		ug/L		89	61 - 136
Endosulfan I	0.100	0.0919		ug/L		92	52 - 141
Endosulfan II	0.200	0.174		ug/L		87	60 - 140
Endosulfan sulfate	0.200	0.179		ug/L		89	60 - 151
Endrin	0.200	0.175		ug/L		88	66 - 150
Endrin aldehyde	0.200	0.305		ug/L		152	16 - 200
gamma-BHC (Lindane)	0.100	0.0948		ug/L		95	54 - 134
Heptachlor	0.100	0.111		ug/L		111	10 - 200
Heptachlor epoxide	0.100	0.0887		ug/L		89	49 - 142
Methoxychlor	0.200	0.180		ug/L		90	13 - 186

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-221491/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	56	M	40 - 130
DCB Decachlorobiphenyl	59	M	40 - 130
Tetrachloro-m-xylene	77		36 - 130
Tetrachloro-m-xylene	70		36 - 130

Lab Sample ID: LCS 680-221491/8-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	8.33		ug/L		83	38 - 172
PCB-1260	10.0	6.83		ug/L		68	46 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	60	M	40 - 130
DCB Decachlorobiphenyl	63		40 - 130
Tetrachloro-m-xylene	71		36 - 130
Tetrachloro-m-xylene	70		36 - 130

Lab Sample ID: LCSD 680-221491/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	45	M	40 - 130
DCB Decachlorobiphenyl	52		40 - 130
Tetrachloro-m-xylene	70		36 - 130
Tetrachloro-m-xylene	74		36 - 130

Lab Sample ID: 680-74533-1 MS — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0063		0.194	0.176		ug/L		91	49 - 144
4,4'-DDE	0.0074		0.194	0.164		ug/L		84	46 - 144
4,4'-DDT	0.0094		0.194	0.170		ug/L		87	48 - 166
Aldrin	0.0068		0.0970	0.0809		ug/L		83	14 - 168
alpha-BHC	0.0055		0.0970	0.0810		ug/L		83	43 - 138
beta-BHC	0.0065		0.0970	0.0919	J	ug/L		95	38 - 158
delta-BHC	0.0046		0.0970	0.0943		ug/L		97	23 - 191
Dieldrin	0.0088		0.194	0.163		ug/L		84	61 - 136
Endosulfan I	0.0041		0.0970	0.0735	J	ug/L		76	52 - 141
Endosulfan II	0.0095		0.194	0.163		ug/L		84	60 - 140
Endosulfan sulfate	0.0066		0.194	0.173		ug/L		89	60 - 151
Endrin	0.0094		0.194	0.160		ug/L		82	66 - 150
Endrin aldehyde	0.015		0.194	0.173		ug/L		89	16 - 200
gamma-BHC (Lindane)	0.0057		0.0970	0.0817		ug/L		84	54 - 134

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-74533-1 MS — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor	0.0068		0.0970	0.0967		ug/L		100	10 - 200
Heptachlor epoxide	0.0058		0.0970	0.0880		ug/L		91	49 - 142
Methoxychlor	0.013		0.194	0.107	M J	ug/L		55	13 - 186

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*61*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*61*	*M*	*40 - 130*
Tetrachloro-m-xylene	*62*		*36 - 130*
Tetrachloro-m-xylene	*59*		*36 - 130*

Lab Sample ID: 680-74533-1 MSD — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.0063		0.186	0.158	M	ug/L		85	49 - 144	11	50
4,4'-DDE	0.0074		0.186	0.146		ug/L		78	46 - 144	12	50
4,4'-DDT	0.0094		0.186	0.150		ug/L		81	48 - 166	12	50
Aldrin	0.0068		0.0932	0.0771		ug/L		83	14 - 168	5	50
alpha-BHC	0.0055		0.0932	0.0833		ug/L		89	43 - 138	3	50
beta-BHC	0.0065		0.0932	0.0904	J	ug/L		97	38 - 158	2	50
delta-BHC	0.0046		0.0932	0.101		ug/L		108	23 - 191	7	50
Dieldrin	0.0088		0.186	0.148		ug/L		79	61 - 136	10	50
Endosulfan I	0.0041		0.0932	0.0698	J	ug/L		75	52 - 141	5	50
Endosulfan II	0.0095		0.186	0.145		ug/L		78	60 - 140	12	50
Endosulfan sulfate	0.0066		0.186	0.156		ug/L		83	60 - 151	11	50
Endrin	0.0094		0.186	0.148		ug/L		80	66 - 150	8	50
Endrin aldehyde	0.015		0.186	0.159		ug/L		85	16 - 200	8	50
gamma-BHC (Lindane)	0.0057		0.0932	0.0808		ug/L		87	54 - 134	1	50
Heptachlor	0.0068		0.0932	0.0950		ug/L		102	10 - 200	2	50
Heptachlor epoxide	0.0058		0.0932	0.0772		ug/L		83	49 - 142	13	50
Methoxychlor	0.013		0.186	0.0978	M J	ug/L		52	13 - 186	9	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*59*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*62*		*40 - 130*
Tetrachloro-m-xylene	*68*		*36 - 130*
Tetrachloro-m-xylene	*66*		*36 - 130*

Lab Sample ID: 680-74533-2 MS — **Client Sample ID: SLMW-9-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.071		9.72	8.44		ug/L		87	38 - 172
PCB-1260	0.20		9.72	7.13		ug/L		73	46 - 138

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-74533-2 MS — **Client Sample ID: SLMW-9-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	40	M	40 - 130
DCB Decachlorobiphenyl	43		40 - 130
Tetrachloro-m-xylene	68		36 - 130
Tetrachloro-m-xylene	68	M	36 - 130

Lab Sample ID: 680-74533-2 MSD — **Client Sample ID: SLMW-9-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221491**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.071		9.24	7.72		ug/L		84	38 - 172	9	50
PCB-1260	0.20		9.24	6.47		ug/L		70	46 - 138	10	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	39	M J	40 - 130
DCB Decachlorobiphenyl	43		40 - 130
Tetrachloro-m-xylene	56		36 - 130
Tetrachloro-m-xylene	68	M	36 - 130

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 680-221466/19-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222283 — **Prep Batch: 221466**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.037	U	0.50	0.037	ug/L		11/21/11 07:57	11/27/11 04:50	1
2,4-DB	0.15	U	0.50	0.15	ug/L		11/21/11 07:57	11/27/11 04:50	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		11/21/11 07:57	11/27/11 04:50	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dalapon	0.10	U	10	0.10	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dicamba	0.085	U	0.50	0.085	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dinoseb	0.16	U	6.0	0.16	ug/L		11/21/11 07:57	11/27/11 04:50	1
MCPA	17	U	120	17	ug/L		11/21/11 07:57	11/27/11 04:50	1
Mecoprop	19	U	120	19	ug/L		11/21/11 07:57	11/27/11 04:50	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		11/21/11 07:57	11/27/11 04:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	75		52 - 151	11/21/11 07:57	11/27/11 04:50	1

Lab Sample ID: LCS 680-221466/20-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222283 — **Prep Batch: 221466**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	2.00	1.89		ug/L		95	63 - 130

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 680-221466/20-A
Matrix: Water
Analysis Batch: 222283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-DB	2.00	1.94		ug/L		97	34 - 157
2,4,5-T	2.00	1.80		ug/L		90	59 - 130
Silvex (2,4,5-TP)	2.00	1.77		ug/L		88	64 - 130
Dalapon	10.0	9.02	J	ug/L		90	24 - 130
Dicamba	2.00	1.69		ug/L		85	66 - 130
Dichlorprop	2.00	2.19		ug/L		110	65 - 152
Dinoseb	2.00	1.68	J	ug/L		84	10 - 130
MCPA	200	170		ug/L		85	40 - 130
Mecoprop	200	183		ug/L		91	53 - 130
Pentachlorophenol	1.34	1.19		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*84*		*52 - 151*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-221386/1-A
Matrix: Water
Analysis Batch: 221502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 15:32	11/20/11 14:18	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 14:18	1
Barium	0.15	U	1.0	0.15	ug/L		11/18/11 15:32	11/20/11 14:18	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 15:32	11/20/11 14:18	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 15:32	11/20/11 14:18	1
Chromium	0.16	U	1.0	0.16	ug/L		11/18/11 15:32	11/20/11 14:18	1
Cobalt	0.078	U	0.20	0.078	ug/L		11/18/11 15:32	11/20/11 14:18	1
Copper	0.21	U	1.0	0.21	ug/L		11/18/11 15:32	11/20/11 14:18	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 15:32	11/20/11 14:18	1
Nickel	0.40	U	1.0	0.40	ug/L		11/18/11 15:32	11/20/11 14:18	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 15:32	11/20/11 14:18	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 14:18	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 15:32	11/20/11 14:18	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 15:32	11/20/11 14:18	1
Zinc	2.6	U	10	2.6	ug/L		11/18/11 15:32	11/20/11 14:18	1

Lab Sample ID: LCS 680-221386/2-A
Matrix: Water
Analysis Batch: 221502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	9.68		ug/L		97	75 - 125
Arsenic	20.0	16.5		ug/L		82	75 - 125
Barium	20.0	21.5		ug/L		107	75 - 125
Beryllium	10.0	10.8		ug/L		108	75 - 125
Cadmium	10.0	10.7		ug/L		107	75 - 125
Chromium	20.0	20.5		ug/L		102	75 - 125
Cobalt	10.0	9.98		ug/L		100	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-221386/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221386**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	20.0	21.3		ug/L		107	75 - 125
Lead	10.0	10.8		ug/L		108	75 - 125
Nickel	20.0	20.9		ug/L		105	75 - 125
Selenium	20.0	20.3		ug/L		101	75 - 125
Silver	10.0	10.6		ug/L		106	75 - 125
Thallium	8.00	8.62		ug/L		108	75 - 125
Vanadium	20.0	20.4		ug/L		102	75 - 125
Zinc	20.0	21.6		ug/L		108	75 - 125

Lab Sample ID: 680-74533-1 MS — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221386**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.99	U	10.0	10.3		ug/L		103	75 - 125
Arsenic	0.40	U	20.0	18.6		ug/L		93	75 - 125
Barium	9.8		20.0	31.1		ug/L		107	75 - 125
Beryllium	0.070	J	10.0	12.1		ug/L		121	75 - 125
Cadmium	0.20	U	10.0	11.8		ug/L		118	75 - 125
Chromium	0.33	J	20.0	21.8		ug/L		107	75 - 125
Cobalt	0.20		10.0	10.2		ug/L		100	75 - 125
Copper	0.64	J	20.0	22.9		ug/L		111	75 - 125
Lead	0.080	U	10.0	11.2		ug/L		112	75 - 125
Nickel	0.57	J	20.0	22.5		ug/L		110	75 - 125
Selenium	0.21	U J	20.0	24.9		ug/L		125	75 - 125
Silver	0.10	U	10.0	10.8		ug/L		108	75 - 125
Thallium	0.10	U	8.00	8.79		ug/L		110	75 - 125
Vanadium	1.4	U	20.0	21.2		ug/L		106	75 - 125
Zinc	63	J	20.0	73.3	J	ug/L		51	75 - 125

Lab Sample ID: 680-74533-1 MSD — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221386**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.99	U	10.0	10.4		ug/L		104	75 - 125	1	20
Arsenic	0.40	U	20.0	18.5		ug/L		92	75 - 125	1	20
Barium	9.8		20.0	31.3		ug/L		107	75 - 125	1	20
Beryllium	0.070	J	10.0	11.9		ug/L		118	75 - 125	2	20
Cadmium	0.20	U	10.0	11.5		ug/L		115	75 - 125	3	20
Chromium	0.33	J	20.0	22.0		ug/L		108	75 - 125	1	20
Cobalt	0.20		10.0	9.89		ug/L		97	75 - 125	3	20
Copper	0.64	J	20.0	22.9		ug/L		111	75 - 125	0	20
Lead	0.080	U	10.0	11.0		ug/L		110	75 - 125	2	20
Nickel	0.57	J	20.0	22.7		ug/L		111	75 - 125	1	20
Selenium	0.21	U J	20.0	26.8	J	ug/L		134	75 - 125	7	20
Silver	0.10	U	10.0	10.7		ug/L		107	75 - 125	1	20
Thallium	0.10	U	8.00	8.61		ug/L		108	75 - 125	2	20
Vanadium	1.4	U	20.0	21.4		ug/L		107	75 - 125	1	20
Zinc	63	J	20.0	72.2	J	ug/L		46	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-222231/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222332 — **Prep Batch: 222231**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tin	0.40	U	1.0	0.40	ug/L		11/30/11 14:43	11/30/11 16:31	1

Lab Sample ID: LCS 680-222231/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222332 — **Prep Batch: 222231**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tin	20.0	21.4		ug/L		107	75 - 125

Lab Sample ID: 680-74533-1 MS — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222332 — **Prep Batch: 222231**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tin	0.40	U H J	20.0	28.3	H J	ug/L		142	75 - 125

Lab Sample ID: 680-74533-1 MSD — **Client Sample ID: SLMW-11R-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222332 — **Prep Batch: 222231**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tin	0.40	U H J	20.0	27.6	H J	ug/L		138	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-221908/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222247 — **Prep Batch: 221908**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/28/11 09:55	11/30/11 17:58	1

Lab Sample ID: LCS 680-221908/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222247 — **Prep Batch: 221908**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.50	2.47		ug/L		99	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-221415/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/18/11 15:33	5

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-221415/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.99	5.03		mg/L		101	90 - 110

Lab Sample ID: LCSD 680-221415/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221415

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.99	5.03		mg/L		101	90 - 110	0	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-222051/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:12	1

Lab Sample ID: LCS 680-222051/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0298	0.0311		mg/L		104	85 - 115

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 680-221672/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Lab Sample ID: LCS 680-221672/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	408	253		mg/L		62	50 - 150

GC/MS VOA

Analysis Batch: 221669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-4	SW2-11-11	Total/NA	Water	8260B	
680-74533-5	DUP2-11-11	Total/NA	Water	8260B	
680-74533-7	SW-1-11-11	Total/NA	Water	8260B	
680-74533-9	SL DUP1-11-11	Total/NA	Water	8260B	
680-74533-10	SLMW-8-11-11	Total/NA	Water	8260B	
LCS 680-221669/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-221669/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-221669/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 221774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-8	SLMW-12AR-11-11	Total/NA	Water	8260B	
LCS 680-221774/8	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-221774/9	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-221774/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 221775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-11	SLMW-7-11-11	Total/NA	Water	8260B	
680-74533-12	SLMW-10-11-11	Total/NA	Water	8260B	
680-74533-13	SLMW-6-11-11	Total/NA	Water	8260B	
680-74533-14	SLMW-12BR-11-11	Total/NA	Water	8260B	
LCS 680-221775/9	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-221775/10	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-221775/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 221817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-15	SLMW-11R-11-11	Total/NA	Water	8260B	
680-74533-16	SLMW-9-11-11	Total/NA	Water	8260B	
680-74533-17	SLMW-BLK-11-11	Total/NA	Water	8260B	
LCS 680-221817/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-221817/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-221817/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 222046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-6	TRIP BLK	Total/NA	Water	8260B	
LCS 680-222046/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-222046/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-222046/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 221486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	3520C	
680-74533-2	SLMW-9-11-11	Total/NA	Water	3520C	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	3520C	
LCS 680-221486/10-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-221486/7-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221486/11-A	Lab Control Sample Dup	Total/NA	Water	3520C	

GC/MS Semi VOA (Continued)

Prep Batch: 221486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-221486/6-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 222632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	8270D	221486
680-74533-2	SLMW-9-11-11	Total/NA	Water	8270D	221486
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	8270D	221486
LCS 680-221486/10-A	Lab Control Sample	Total/NA	Water	8270D	221486
LCS 680-221486/7-A	Lab Control Sample	Total/NA	Water	8270D	221486
LCSD 680-221486/11-A	Lab Control Sample Dup	Total/NA	Water	8270D	221486
MB 680-221486/6-A	Method Blank	Total/NA	Water	8270D	221486

GC Semi VOA

Prep Batch: 221466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	8151A	
680-74533-2	SLMW-9-11-11	Total/NA	Water	8151A	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	8151A	
LCS 680-221466/20-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-221466/19-A	Method Blank	Total/NA	Water	8151A	

Prep Batch: 221491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	3520C	
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	3520C	
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	3520C	
680-74533-2	SLMW-9-11-11	Total/NA	Water	3520C	
680-74533-2 MS	SLMW-9-11-11	Total/NA	Water	3520C	
680-74533-2 MSD	SLMW-9-11-11	Total/NA	Water	3520C	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	3520C	
LCS 680-221491/11-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-221491/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-221491/8-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221491/12-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-221491/4-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 222283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-221466/20-A	Lab Control Sample	Total/NA	Water	8151A	221466
MB 680-221466/19-A	Method Blank	Total/NA	Water	8151A	221466

Analysis Batch: 223344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	8151A	221466
680-74533-2	SLMW-9-11-11	Total/NA	Water	8151A	221466
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	8151A	221466

Analysis Batch: 223765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	8081B/8082A	221491
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	8081B/8082A	221491

GC Semi VOA (Continued)

Analysis Batch: 223765 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	8081B/8082A	221491
680-74533-2	SLMW-9-11-11	Total/NA	Water	8081B/8082A	221491
680-74533-2 MS	SLMW-9-11-11	Total/NA	Water	8081B/8082A	221491
680-74533-2 MSD	SLMW-9-11-11	Total/NA	Water	8081B/8082A	221491
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	8081B/8082A	221491
LCS 680-221491/11-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221491
LCS 680-221491/5-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221491
LCS 680-221491/8-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221491
LCSD 680-221491/12-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221491
MB 680-221491/4-A	Method Blank	Total/NA	Water	8081B/8082A	221491

Metals

Prep Batch: 221386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-2	SLMW-9-11-11	Total/NA	Water	3030C	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	3030C	
LCS 680-221386/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-221386/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 221502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	6020A	221386
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	6020A	221386
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	6020A	221386
680-74533-2	SLMW-9-11-11	Total/NA	Water	6020A	221386
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	6020A	221386
LCS 680-221386/2-A	Lab Control Sample	Total/NA	Water	6020A	221386
MB 680-221386/1-A	Method Blank	Total/NA	Water	6020A	221386

Prep Batch: 221908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	7470A	
680-74533-2	SLMW-9-11-11	Total/NA	Water	7470A	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	7470A	
LCS 680-221908/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 680-221908/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 222231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	3030C	
680-74533-2	SLMW-9-11-11	Total/NA	Water	3030C	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	3030C	
LCS 680-222231/3-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-222231/1-A	Method Blank	Total/NA	Water	3030C	

Metals (Continued)

Analysis Batch: 222247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	7470A	221908
680-74533-2	SLMW-9-11-11	Total/NA	Water	7470A	221908
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	7470A	221908
LCS 680-221908/2-A	Lab Control Sample	Total/NA	Water	7470A	221908
MB 680-221908/1-A	Method Blank	Total/NA	Water	7470A	221908

Analysis Batch: 222332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	6020A	222231
680-74533-1 MS	SLMW-11R-11-11	Total/NA	Water	6020A	222231
680-74533-1 MSD	SLMW-11R-11-11	Total/NA	Water	6020A	222231
680-74533-2	SLMW-9-11-11	Total/NA	Water	6020A	222231
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	6020A	222231
LCS 680-222231/3-A	Lab Control Sample	Total/NA	Water	6020A	222231
MB 680-222231/1-A	Method Blank	Total/NA	Water	6020A	222231

General Chemistry

Analysis Batch: 221415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	300.0	
680-74533-2	SLMW-9-11-11	Total/NA	Water	300.0	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	300.0	
LCS 680-221415/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-221415/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-221415/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 221672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	9030B	
680-74533-2	SLMW-9-11-11	Total/NA	Water	9030B	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	9030B	
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 680-221672/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 221673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	9034	221672
680-74533-2	SLMW-9-11-11	Total/NA	Water	9034	221672
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	9034	221672
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9034	221672
MB 680-221672/1-A	Method Blank	Total/NA	Water	9034	221672

Prep Batch: 222051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	9012B	
680-74533-2	SLMW-9-11-11	Total/NA	Water	9012B	
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	9012B	
LCS 680-222051/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 680-222051/1-A	Method Blank	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 222138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74533-1	SLMW-11R-11-11	Total/NA	Water	9012B	222051
680-74533-2	SLMW-9-11-11	Total/NA	Water	9012B	222051
680-74533-3	SLMW-BLK-11-11	Total/NA	Water	9012B	222051
LCS 680-222051/2-A	Lab Control Sample	Total/NA	Water	9012B	222051
MB 680-222051/1-A	Method Blank	Total/NA	Water	9012B	222051

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-11R-11-11

Lab Sample ID: 680-74533-1

Date Collected: 11/17/11 13:25

Matrix: Water

Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221486	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 19:10	CRH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	223344	12/06/11 21:23	GM	TAL SAV
Total/NA	Prep	3520C			221491	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 13:36	JK	TAL SAV
Total/NA	Prep	3030C			221386	11/18/11 15:32	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 14:33	BR	TAL SAV
Total/NA	Prep	7470A			221908	11/28/11 09:55	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222247	11/30/11 18:37	CE	TAL SAV
Total/NA	Prep	3030C			222231	11/30/11 14:43	RAM	TAL SAV
Total/NA	Analysis	6020A		1	222332	11/30/11 17:01	BR	TAL SAV
Total/NA	Analysis	300.0		5	221415	11/18/11 17:51	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:14	DAM	TAL SAV

Client Sample ID: SLMW-9-11-11

Lab Sample ID: 680-74533-2

Date Collected: 11/17/11 15:20

Matrix: Water

Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221486	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 19:38	CRH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	223344	12/06/11 21:39	GM	TAL SAV
Total/NA	Prep	3520C			221491	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 13:55	JK	TAL SAV
Total/NA	Prep	3030C			221386	11/18/11 15:32	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 15:10	BR	TAL SAV
Total/NA	Prep	7470A			221908	11/28/11 09:55	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222247	11/30/11 18:41	CE	TAL SAV
Total/NA	Prep	3030C			222231	11/30/11 14:43	RAM	TAL SAV
Total/NA	Analysis	6020A		1	222332	11/30/11 17:39	BR	TAL SAV
Total/NA	Analysis	300.0		5	221415	11/18/11 18:07	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:15	DAM	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-BLK-11-11 — Lab Sample ID: 680-74533-3

Date Collected: 11/17/11 16:30 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221486	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 20:06	CRH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	223344	12/06/11 21:55	GM	TAL SAV
Total/NA	Prep	3520C			221491	11/21/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 14:14	JK	TAL SAV
Total/NA	Prep	3030C			221386	11/18/11 15:32	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 15:18	BR	TAL SAV
Total/NA	Prep	7470A			221908	11/28/11 09:55	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222247	11/30/11 18:44	CE	TAL SAV
Total/NA	Prep	3030C			222231	11/30/11 14:44	RAM	TAL SAV
Total/NA	Analysis	6020A		1	222332	11/30/11 18:02	BR	TAL SAV
Total/NA	Analysis	300.0		5	221415	11/18/11 18:22	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:18	DAM	TAL SAV

Client Sample ID: SW2-11-11 — Lab Sample ID: 680-74533-4

Date Collected: 11/15/11 08:00 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221669	11/22/11 17:18	RB	TAL SAV

Client Sample ID: DUP2-11-11 — Lab Sample ID: 680-74533-5

Date Collected: 11/15/11 08:20 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221669	11/22/11 17:47	RB	TAL SAV

Client Sample ID: TRIP BLK — Lab Sample ID: 680-74533-6

Date Collected: 11/15/11 00:00 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	222046	11/27/11 16:18	RB	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SW-1-11-11 — Lab Sample ID: 680-74533-7

Date Collected: 11/15/11 09:30 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221669	11/22/11 18:16	RB	TAL SAV

Client Sample ID: SLMW-12AR-11-11 — Lab Sample ID: 680-74533-8

Date Collected: 11/15/11 11:35 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221774	11/22/11 23:12	WJC	TAL SAV

Client Sample ID: SL DUP1-11-11 — Lab Sample ID: 680-74533-9

Date Collected: 11/15/11 11:50 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221669	11/22/11 19:26	RB	TAL SAV

Client Sample ID: SLMW-8-11-11 — Lab Sample ID: 680-74533-10

Date Collected: 11/15/11 14:30 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221669	11/22/11 19:55	RB	TAL SAV

Client Sample ID: SLMW-7-11-11 — Lab Sample ID: 680-74533-11

Date Collected: 11/16/11 08:00 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221775	11/23/11 04:13	WJC	TAL SAV

Client Sample ID: SLMW-10-11-11 — Lab Sample ID: 680-74533-12

Date Collected: 11/16/11 09:40 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221775	11/23/11 04:42	WJC	TAL SAV

Client Sample ID: SLMW-6-11-11 — Lab Sample ID: 680-74533-13

Date Collected: 11/16/11 12:45 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221775	11/23/11 05:11	WJC	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Client Sample ID: SLMW-12BR-11-11 — Lab Sample ID: 680-74533-14

Date Collected: 11/16/11 16:45 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221775	11/23/11 05:40	WJC	TAL SAV

Client Sample ID: SLMW-11R-11-11 — Lab Sample ID: 680-74533-15

Date Collected: 11/17/11 13:25 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221817	11/24/11 17:42	WJC	TAL SAV

Client Sample ID: SLMW-9-11-11 — Lab Sample ID: 680-74533-16

Date Collected: 11/17/11 15:20 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221817	11/24/11 18:11	WJC	TAL SAV

Client Sample ID: SLMW-BLK-11-11 — Lab Sample ID: 680-74533-17

Date Collected: 11/17/11 16:30 — **Matrix: Water**
Date Received: 11/18/11 09:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	221817	11/24/11 18:40	WJC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 043535

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: FT BRAGG LONGSTREET	PROJECT NO.	PROJECT LOCATION (STATE): NC
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: KEVIN HABORAK	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 W OGLETHORPE AVE SAVANNAH, GA 31401		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ◯
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8270	8081/8082A	8141B	8151A	9034	9012	6020A	300			REMARKS
								ICE	ICE	ICE	ICE	~~ZNAC NAOH~~	~~NAOH~~	~~HNO3~~	~~ICE~~			
11-17-11	1325	SLMW-11R-11-11	G	X				2	2	2	2	2	1	1	1			
"	1530	SLMW-9-11-11	"	"				1	1	1	1	2	1	1	1			
11-17-11	1630	SLMW-BLK-11-11	G	X				2	2	2	2	2	1	1	1			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
George W Lewis Jr	11-17-11	1800	FED EX					
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
George K Lewis	11/18/11	0932	YES ◯ NO ◯		680-74533	2.4/2.9/2.6°C

TA18240-680 (1008)

Serial Number 043533

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: FT BRAGG LONGSTREET	PROJECT NO.	PROJECT LOCATION (STATE): NC
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: KEVIN HOBARAK	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 W OGLETHORPE AVE SAVANNAH, GA 31401		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 2

STANDARD REPORT DELIVERY ◯

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 8260

PRESERVATIVE: HCL

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
11-15-11	0800	SW2-11-11	G	X				3	
	0820	DUP2-11-11						3	
		TRIPBLK						2	
	0930	SW-1-11-11						3	
	1135	SLMW-12AR-11-11						3	
	1150	SCDUP1-11-11						3	
11-15-11	1430	~~SM~~ SLMW-8-11-11						3	
11-16-11	0800	SLMW-7-11-11						3	
	0940	SLMW-10-11-11						3	
	1245	SLMW-6-11-11						3	
11-16-11	1645	SLMW-12BR-11-11						3	
11-17-11		SLMW-11R-11-11	G	X				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
George W Lomax Jr	11-17-11	1800	FED EX					
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Margaret Lomax	11/18/11	0932	YES ◯ NO ◯		680-74533	2.4/2.4/2.6°C

TAL 8240-680 (1008)

Serial Number 043534

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

◯ Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: FT BRAGG LONGSTREET	PROJECT NO.	PROJECT LOCATION (STATE): NC	PAGE 2 OF 2
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.	STANDARD REPORT DELIVERY ◯
CLIENT (SITE) PM: KEVIN HABORAK	CLIENT PHONE: 912-652-6083	CLIENT FAX	DATE DUE _____
CLIENT NAME: USACE	CLIENT E-MAIL		EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
CLIENT ADDRESS: 100 W OGLETHORPE SAVANNAH, GA 31401			DATE DUE _____
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 8260

PRESERVATIVE: ICE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
11-17-11	1520	SLMW-9-11-11	G	X				3	
1	1630	SLMW-BLK-11-11	G	X				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
George W Lowry Jr	11-17-11	1800	FED EX					
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
George K Conway	11/18/11	0932	YES ◯ NO ◯		680-74533	2.4/2.9/2.6°C

TAL 8240-680 (1008)

Certification Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74533-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-74444-1
Client Project/Site: Ft. Bragg Longstreet Landfill

For:
U.S. Army Corps of Engineers
PO BOX 889
Savannah, Georgia 31402-0889

Attn: Mr. Kevin Haborak

Kathryn Smith

Authorized for release by:
12/27/2011 9:53:26 AM

Kathryn Smith
Project Manager I
kathye.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Certification Summary 64

Job ID: 680-74444-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-74444-1

Comments
All 8141 Organophosphate Pesticide compounds were reported by 8270D.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 221448 exceeded control limits for multiple analytes. All associated samples were re-extracted outside holding times and both sets of results have been reported.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A_8082, 8081B/8082A: Two surrogates are used for this analysis. These samples did not meet DOD surrogate criteria. DOD requires all surrogates to be within control limits. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: SLMW-10-11-11 (680-74444-2), SLMW-12BR-11-11 (680-74444-4), SLMW-7-11-11 (680-74444-1). These results have been reported and qualified. Re-extraction of the samples would have been completed outside of the hold times.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Sample Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-74444-1	SLMW-7-11-11	Water	11/16/11 08:00	11/17/11 09:22
680-74444-2	SLMW-10-11-11	Water	11/16/11 09:40	11/17/11 09:22
680-74444-3	SLMW-6-11-11	Water	11/16/11 12:45	11/17/11 09:22
680-74444-4	SLMW-12BR-11-11	Water	11/16/11 16:45	11/17/11 09:22

Method Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
8151A	Herbicides (GC)	SW846	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
9012B	Cyanide, Total andor Amenable	SW846	TAL SAV
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Undetected at the Limit of Detection.
Q	One or more quality control criteria failed.
M	Manual integrated compound.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

GC Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-7-11-11 — Lab Sample ID: 680-74444-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.0		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	66		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.54	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.71		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	1.3		1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.12	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.54	J	1.0	0.40	ug/L	1		6020A	Total/NA
Vanadium	2.8	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	22	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-10-11-11 — Lab Sample ID: 680-74444-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	18		9.4	3.2	ug/L	1		8270D	Total/NA
1,4-Dioxane - RE	21	H	9.5	3.2	ug/L	1		8270D	Total/NA
Arsenic	4.6		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	160		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.19	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	4.2		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.80	J	1.0	0.21	ug/L	1		6020A	Total/NA
Selenium	0.54		0.50	0.21	ug/L	1		6020A	Total/NA
Tin	0.73	J	1.0	0.40	ug/L	1		6020A	Total/NA
Vanadium	1.5	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	5.6	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-6-11-11 — Lab Sample ID: 680-74444-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	12		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.19	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.23		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.60	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.46	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	11		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-12BR-11-11 — Lab Sample ID: 680-74444-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	42		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.41		0.20	0.070	ug/L	1		6020A	Total/NA
Chromium	0.24	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	1.1		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	1.2		1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.19	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	2.0		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	31		10	2.6	ug/L	1		6020A	Total/NA

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-7-11-11
Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 01:22	1
Acenaphthylene	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 01:22	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
Anthracene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzo[g,h,i]perylene	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/16/11 01:22	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/16/11 01:22	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 01:22	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 01:22	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Chlorophenol	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/16/11 01:22	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/16/11 01:22	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 01:22	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 01:22	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 01:22	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 01:22	1
Diethyl phthalate	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 01:22	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/16/11 01:22	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/16/11 01:22	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/16/11 01:22	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 01:22	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 01:22	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 01:22	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/16/11 01:22	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/16/11 01:22	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 01:22	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 01:22	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 01:22	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-7-11-11
Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/16/11 01:22	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 01:22	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 01:22	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 01:22	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/16/11 01:22	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 01:22	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 01:22	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 01:22	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 01:22	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/16/11 01:22	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/16/11 01:22	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 01:22	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 01:22	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Methylphenol	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 01:22	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 01:22	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/16/11 01:22	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 01:22	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/16/11 01:22	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 01:22	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 01:22	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 01:22	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 01:22	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 01:22	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 01:22	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/16/11 01:22	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 01:22	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/16/11 01:22	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 01:22	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 01:22	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 01:22	1
Phorate	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 01:22	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/16/11 01:22	1
Pronamide	0.85	U	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 01:22	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/16/11 01:22	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 01:22	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/16/11 01:22	1

Client Sample ID: SLMW-7-11-11
Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 01:22	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/16/11 01:22	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 01:22	1
2,4,6-Trichlorophenol	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 01:22	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/16/11 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*38 - 130*	*11/20/11 15:30*	*12/16/11 01:22*	*1*
2-Fluorophenol	*71*		*25 - 130*	*11/20/11 15:30*	*12/16/11 01:22*	*1*
Nitrobenzene-d5	*88*		*39 - 130*	*11/20/11 15:30*	*12/16/11 01:22*	*1*
Phenol-d5	*72*		*25 - 130*	*11/20/11 15:30*	*12/16/11 01:22*	*1*
Terphenyl-d14	*76*		*10 - 143*	*11/20/11 15:30*	*12/16/11 01:22*	*1*
2,4,6-Tribromophenol	*74*		*31 - 141*	*11/20/11 15:30*	*12/16/11 01:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.69	U H	9.1	0.69	ug/L		12/12/11 14:57	12/15/11 02:57	1
Acenaphthylene	0.77	U H	9.1	0.77	ug/L		12/12/11 14:57	12/15/11 02:57	1
Acetophenone	0.52	U H	9.1	0.52	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Acetylaminofluorene	1.4	U H	9.1	1.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Aminobiphenyl	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
Anthracene	0.63	U H	9.1	0.63	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzo[a]anthracene	0.50	U H	9.1	0.50	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzo[a]pyrene	0.64	U H	9.1	0.64	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzo[b]fluoranthene	2.4	U H	9.1	2.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzo[g,h,i]perylene	0.79	U H	9.1	0.79	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzo[k]fluoranthene	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
Benzyl alcohol	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,1'-Biphenyl	0.53	U H	9.1	0.53	ug/L		12/12/11 14:57	12/15/11 02:57	1
Bis(2-chloroethoxy)methane	0.85	U H	9.1	0.85	ug/L		12/12/11 14:57	12/15/11 02:57	1
Bis(2-chloroethyl)ether	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
bis(chloroisopropyl) ether	0.71	U H	9.1	0.71	ug/L		12/12/11 14:57	12/15/11 02:57	1
Bis(2-ethylhexyl) phthalate	1.4	U H	9.1	1.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Bromophenyl phenyl ether	0.70	U H	9.1	0.70	ug/L		12/12/11 14:57	12/15/11 02:57	1
Butyl benzyl phthalate	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Chloroaniline	2.0	U H	18	2.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Chloro-3-methylphenol	0.91	U H	9.1	0.91	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Chloronaphthalene	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Chlorophenol	0.79	U H	9.1	0.79	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Chlorophenyl phenyl ether	0.76	U H	9.1	0.76	ug/L		12/12/11 14:57	12/15/11 02:57	1
Chrysene	0.46	U H	9.1	0.46	ug/L		12/12/11 14:57	12/15/11 02:57	1
Diallate	0.71	U H	9.1	0.71	ug/L		12/12/11 14:57	12/15/11 02:57	1
Dibenz(a,h)anthracene	0.91	U H	9.1	0.91	ug/L		12/12/11 14:57	12/15/11 02:57	1
Dibenzofuran	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
3,3'-Dichlorobenzidine	27	U H	54	27	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4-Dichlorophenol	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,6-Dichlorophenol	0.66	U H	9.1	0.66	ug/L		12/12/11 14:57	12/15/11 02:57	1
Diethyl phthalate	0.80	U H	9.1	0.80	ug/L		12/12/11 14:57	12/15/11 02:57	1
Dimethoate	0.68	U H	9.1	0.68	ug/L		12/12/11 14:57	12/15/11 02:57	1

Client Sample ID: SLMW-7-11-11

Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
3,3'-Dimethylbenzidine	9.1	U H	18	9.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4-Dimethylphenol	3.6	U H	9.1	3.6	ug/L		12/12/11 14:57	12/15/11 02:57	1
Dimethyl phthalate	0.90	U H	9.1	0.90	ug/L		12/12/11 14:57	12/15/11 02:57	1
Di-n-butyl phthalate	0.75	U H	9.1	0.75	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,3-Dinitrobenzene	0.54	U H	9.1	0.54	ug/L		12/12/11 14:57	12/15/11 02:57	1
4,6-Dinitro-2-methylphenol	9.1	U H	45	9.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4-Dinitrophenol	9.1	U H	45	9.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4-Dinitrotoluene	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,6-Dinitrotoluene	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
Di-n-octyl phthalate	1.3	U H	9.1	1.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
Dinoseb	4.5	U H	9.1	4.5	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,4-Dioxane	3.1	U H	9.1	3.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
Disulfoton	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
Ethyl methanesulfonate	0.87	U H	9.1	0.87	ug/L		12/12/11 14:57	12/15/11 02:57	1
Ethyl Parathion	1.2	U H	9.1	1.2	ug/L		12/12/11 14:57	12/15/11 02:57	1
Famphur	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
Fluoranthene	0.67	U H	9.1	0.67	ug/L		12/12/11 14:57	12/15/11 02:57	1
Fluorene	0.87	U H	9.1	0.87	ug/L		12/12/11 14:57	12/15/11 02:57	1
Hexachlorobenzene	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
Hexachlorobutadiene	0.56	U H	9.1	0.56	ug/L		12/12/11 14:57	12/15/11 02:57	1
Hexachlorocyclopentadiene	2.3	U H	9.1	2.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
Hexachloroethane	0.69	U H	9.1	0.69	ug/L		12/12/11 14:57	12/15/11 02:57	1
Hexachloropropene	1.3	U H	9.1	1.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
Indeno[1,2,3-cd]pyrene	0.91	U H	9.1	0.91	ug/L		12/12/11 14:57	12/15/11 02:57	1
Isophorone	0.82	U H	9.1	0.82	ug/L		12/12/11 14:57	12/15/11 02:57	1
Isosafrole	0.45	U H	9.1	0.45	ug/L		12/12/11 14:57	12/15/11 02:57	1
Methapyrilene	2.4	U H	1800	2.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
3-Methylcholanthrene	1.3	U H	9.1	1.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
Methyl methanesulfonate	0.54	U H	9.1	0.54	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Methylnaphthalene	0.71	U H	9.1	0.71	ug/L		12/12/11 14:57	12/15/11 02:57	1
Methyl parathion	0.80	U H	9.1	0.80	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Methylphenol	0.81	U H	9.1	0.81	ug/L		12/12/11 14:57	12/15/11 02:57	1
3 & 4 Methylphenol	1.2	U H	9.1	1.2	ug/L		12/12/11 14:57	12/15/11 02:57	1
Naphthalene	0.63	U H	9.1	0.63	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,4-Naphthoquinone	0.56	U H	9.1	0.56	ug/L		12/12/11 14:57	12/15/11 02:57	1
1-Naphthylamine	1.0	U H	9.1	1.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Naphthylamine	1.4	U H	9.1	1.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Nitroaniline	1.2	U H	45	1.2	ug/L		12/12/11 14:57	12/15/11 02:57	1
3-Nitroaniline	4.5	U H	45	4.5	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Nitroaniline	4.5	U H	45	4.5	ug/L		12/12/11 14:57	12/15/11 02:57	1
Nitrobenzene	0.66	U H	9.1	0.66	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Nitrophenol	0.69	U H	9.1	0.69	ug/L		12/12/11 14:57	12/15/11 02:57	1
4-Nitrophenol	1.7	U H	45	1.7	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitro-o-toluidine	1.4	U H	9.1	1.4	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosodiethylamine	0.84	U H	9.1	0.84	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosodimethylamine	2.5	U H	9.1	2.5	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosodi-n-butylamine	0.87	U H	9.1	0.87	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosodi-n-propylamine	0.65	U H	9.1	0.65	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosodiphenylamine	0.83	U H	9.1	0.83	ug/L		12/12/11 14:57	12/15/11 02:57	1

Client Sample ID: SLMW-7-11-11
Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosomethylethylamine	3.0	U H	9.1	3.0	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosopiperidine	0.80	U H	9.1	0.80	ug/L		12/12/11 14:57	12/15/11 02:57	1
N-Nitrosopyrrolidine	0.91	U H	9.1	0.91	ug/L		12/12/11 14:57	12/15/11 02:57	1
o,o',o''-Triethylphosphorothioate	0.91	U H	9.1	0.91	ug/L		12/12/11 14:57	12/15/11 02:57	1
p-Dimethylamino azobenzene	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
Pentachlorobenzene	0.47	U H	9.1	0.47	ug/L		12/12/11 14:57	12/15/11 02:57	1
Pentachloronitrobenzene	0.71	U H	9.1	0.71	ug/L		12/12/11 14:57	12/15/11 02:57	1
Pentachlorophenol	1.8	U H	45	1.8	ug/L		12/12/11 14:57	12/15/11 02:57	1
Phenacetin	1.3	U H	9.1	1.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
Phenanthrene	0.70	U H	9.1	0.70	ug/L		12/12/11 14:57	12/15/11 02:57	1
Phenol	0.75	U H	9.1	0.75	ug/L		12/12/11 14:57	12/15/11 02:57	1
Phorate	0.79	U H	9.1	0.79	ug/L		12/12/11 14:57	12/15/11 02:57	1
p-Phenylene diamine	9.1	U H	1800	9.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
Pronamide	0.81	U H	9.1	0.81	ug/L		12/12/11 14:57	12/15/11 02:57	1
Pyrene	0.57	U H	9.1	0.57	ug/L		12/12/11 14:57	12/15/11 02:57	1
Safrole, Total	0.72	U H	9.1	0.72	ug/L		12/12/11 14:57	12/15/11 02:57	1
Sulfotepp	0.48	U H	9.1	0.48	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,2,4,5-Tetrachlorobenzene	0.69	U H	9.1	0.69	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,3,4,6-Tetrachlorophenol	0.65	U H	9.1	0.65	ug/L		12/12/11 14:57	12/15/11 02:57	1
Thionazin	0.82	U H	9.1	0.82	ug/L		12/12/11 14:57	12/15/11 02:57	1
2-Toluidine	1.3	U H	9.1	1.3	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4,5-Trichlorophenol	1.1	U H	9.1	1.1	ug/L		12/12/11 14:57	12/15/11 02:57	1
2,4,6-Trichlorophenol	0.77	U H	9.1	0.77	ug/L		12/12/11 14:57	12/15/11 02:57	1
1,3,5-Trinitrobenzene	1.8	U H	9.1	1.8	ug/L		12/12/11 14:57	12/15/11 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*38 - 130*	*12/12/11 14:57*	*12/15/11 02:57*	*1*
2-Fluorophenol	*67*		*25 - 130*	*12/12/11 14:57*	*12/15/11 02:57*	*1*
Nitrobenzene-d5	*75*		*39 - 130*	*12/12/11 14:57*	*12/15/11 02:57*	*1*
Phenol-d5	*59*		*25 - 130*	*12/12/11 14:57*	*12/15/11 02:57*	*1*
Terphenyl-d14	*66*		*10 - 143*	*12/12/11 14:57*	*12/15/11 02:57*	*1*
2,4,6-Tribromophenol	*75*		*31 - 141*	*12/12/11 14:57*	*12/15/11 02:57*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0064	U	0.099	0.0064	ug/L		11/20/11 15:30	12/14/11 09:47	1
4,4'-DDE	0.0076	U	0.099	0.0076	ug/L		11/20/11 15:30	12/14/11 09:47	1
4,4'-DDT	0.0096	U	0.099	0.0096	ug/L		11/20/11 15:30	12/14/11 09:47	1
Aldrin	0.0069	U	0.049	0.0069	ug/L		11/20/11 15:30	12/14/11 09:47	1
alpha-BHC	0.0056	U	0.049	0.0056	ug/L		11/20/11 15:30	12/14/11 09:47	1
beta-BHC	0.0066	U J	0.049	0.0066	ug/L		11/20/11 15:30	12/14/11 09:47	1
Chlordane (technical)	0.099	U	0.49	0.099	ug/L		11/20/11 15:30	12/14/11 09:47	1
Chlorobenzilate	0.49	U	0.49	0.49	ug/L		11/20/11 15:30	12/14/11 09:47	1
delta-BHC	0.0047	U	0.049	0.0047	ug/L		11/20/11 15:30	12/14/11 09:47	1
Dieldrin	0.0090	U	0.099	0.0090	ug/L		11/20/11 15:30	12/14/11 09:47	1
Endosulfan I	0.0041	U	0.049	0.0041	ug/L		11/20/11 15:30	12/14/11 09:47	1
Endosulfan II	0.0097	U	0.099	0.0097	ug/L		11/20/11 15:30	12/14/11 09:47	1
Endosulfan sulfate	0.0067	U	0.099	0.0067	ug/L		11/20/11 15:30	12/14/11 09:47	1
Endrin	0.0096	U	0.099	0.0096	ug/L		11/20/11 15:30	12/14/11 09:47	1
Endrin aldehyde	0.016	U Q	0.099	0.016	ug/L		11/20/11 15:30	12/14/11 09:47	1
gamma-BHC (Lindane)	0.0058	U J	0.049	0.0058	ug/L		11/20/11 15:30	12/14/11 09:47	1

Client Sample ID: SLMW-7-11-11
Date Collected: 11/16/11 08:00
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-1
Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	0.0069	U	0.049	0.0069	ug/L		11/20/11 15:30	12/14/11 09:47	1
Heptachlor epoxide	0.0059	U	0.049	0.0059	ug/L		11/20/11 15:30	12/14/11 09:47	1
Isodrin	0.049	U	0.049	0.049	ug/L		11/20/11 15:30	12/14/11 09:47	1
Methoxychlor	0.013	U	0.099	0.013	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1016	0.070	U	0.99	0.070	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1221	0.28	U	2.0	0.28	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1232	0.11	U	0.99	0.11	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1242	0.18	U	0.99	0.18	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1248	0.35	U	0.99	0.35	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1254	0.26	U	0.99	0.26	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1260	0.20	U	0.99	0.20	ug/L		11/20/11 15:30	12/14/11 09:47	1
PCB-1262	0.24	U	0.99	0.24	ug/L		11/20/11 15:30	12/14/11 09:47	1
Toxaphene	0.49	U	4.9	0.49	ug/L		11/20/11 15:30	12/14/11 09:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*29*	*M J*	*40 - 130*	*11/20/11 15:30*	*12/14/11 09:47*	*1*
DCB Decachlorobiphenyl	*31*	*J*	*40 - 130*	*11/20/11 15:30*	*12/14/11 09:47*	*1*
Tetrachloro-m-xylene	*76*		*36 - 130*	*11/20/11 15:30*	*12/14/11 09:47*	*1*
Tetrachloro-m-xylene	*86*		*36 - 130*	*11/20/11 15:30*	*12/14/11 09:47*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/21/11 07:57	11/27/11 05:22	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:22	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:22	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:22	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	11/27/11 05:22	1
Dicamba	0.081	U	0.48	0.081	ug/L		11/21/11 07:57	11/27/11 05:22	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:22	1
Dinoseb	0.15	U	5.7	0.15	ug/L		11/21/11 07:57	11/27/11 05:22	1
MCPA	16	U	110	16	ug/L		11/21/11 07:57	11/27/11 05:22	1
Mecoprop	18	U	110	18	ug/L		11/21/11 07:57	11/27/11 05:22	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/21/11 07:57	11/27/11 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*75*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:22*	*1*
DCAA	*70*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:22*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 09:04	11/20/11 16:17	1
Arsenic	**5.0**		1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:09	1
Barium	**66**		1.0	0.15	ug/L		11/18/11 09:04	11/20/11 02:09	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 09:04	11/20/11 02:09	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 09:04	11/20/11 02:09	1
Chromium	**0.54**	**J**	1.0	0.16	ug/L		11/18/11 09:04	11/20/11 02:09	1
Cobalt	**0.71**		0.20	0.078	ug/L		11/18/11 09:04	11/20/11 02:09	1
Copper	**1.3**		1.0	0.21	ug/L		11/18/11 09:04	11/20/11 02:09	1
Lead	**0.12**	**J**	0.30	0.080	ug/L		11/18/11 09:04	11/20/11 02:09	1
Nickel	**0.54**	**J**	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:09	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 09:04	11/20/11 02:09	1

Client Sample ID: SLMW-7-11-11

Lab Sample ID: 680-74444-1

Date Collected: 11/16/11 08:00

Matrix: Water

Date Received: 11/17/11 09:22

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:09	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:09	1
Tin	0.40	U J	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:09	1
Vanadium	**2.8**	**J**	5.0	1.4	ug/L		11/18/11 09:04	11/20/11 02:09	1
Zinc	**22**	**J**	10	2.6	ug/L		11/18/11 09:04	11/20/11 02:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/23/11 12:18	11/29/11 18:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/17/11 20:18	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:19	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLMW-10-11-11

Lab Sample ID: 680-74444-2

Date Collected: 11/16/11 09:40

Matrix: Water

Date Received: 11/17/11 09:22

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.4	0.72	ug/L		11/20/11 15:30	12/16/11 01:51	1
Acenaphthylene	0.80	U Q	9.4	0.80	ug/L		11/20/11 15:30	12/16/11 01:51	1
Acetophenone	0.54	U Q	9.4	0.54	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Acetylaminofluorene	1.5	U	9.4	1.5	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Aminobiphenyl	1.1	U	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
Anthracene	0.65	U Q	9.4	0.65	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzo[a]anthracene	0.52	U Q	9.4	0.52	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzo[a]pyrene	0.67	U Q	9.4	0.67	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzo[b]fluoranthene	2.5	U	9.4	2.5	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzo[g,h,i]perylene	0.82	U Q	9.4	0.82	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzo[k]fluoranthene	1.1	U Q	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
Benzyl alcohol	1.0	U Q	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,1'-Biphenyl	0.55	U Q	9.4	0.55	ug/L		11/20/11 15:30	12/16/11 01:51	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.4	0.89	ug/L		11/20/11 15:30	12/16/11 01:51	1
Bis(2-chloroethyl)ether	1.0	U	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
bis(chloroisopropyl) ether	0.74	U	9.4	0.74	ug/L		11/20/11 15:30	12/16/11 01:51	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.4	1.5	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Bromophenyl phenyl ether	0.73	U Q	9.4	0.73	ug/L		11/20/11 15:30	12/16/11 01:51	1
Butyl benzyl phthalate	1.1	U Q	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Chloro-3-methylphenol	0.94	U Q	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Chloronaphthalene	0.76	U Q	9.4	0.76	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Chlorophenol	0.82	U Q	9.4	0.82	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Chlorophenyl phenyl ether	0.79	U Q	9.4	0.79	ug/L		11/20/11 15:30	12/16/11 01:51	1
Chrysene	0.48	U Q	9.4	0.48	ug/L		11/20/11 15:30	12/16/11 01:51	1
Diallate	0.74	U	9.4	0.74	ug/L		11/20/11 15:30	12/16/11 01:51	1
Dibenz(a,h)anthracene	0.94	U Q	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.75	U Q	9.4	0.75	ug/L		11/20/11 15:30	12/16/11 01:51	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4-Dichlorophenol	1.0	U Q	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,6-Dichlorophenol	0.69	U	9.4	0.69	ug/L		11/20/11 15:30	12/16/11 01:51	1
Diethyl phthalate	0.83	U Q	9.4	0.83	ug/L		11/20/11 15:30	12/16/11 01:51	1
Dimethoate	0.71	U	9.4	0.71	ug/L		11/20/11 15:30	12/16/11 01:51	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
3,3'-Dimethylbenzidine	9.4	U	19	9.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4-Dimethylphenol	3.8	U Q	9.4	3.8	ug/L		11/20/11 15:30	12/16/11 01:51	1
Dimethyl phthalate	0.94	U Q	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1
Di-n-butyl phthalate	0.78	U Q	9.4	0.78	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,3-Dinitrobenzene	0.57	U	9.4	0.57	ug/L		11/20/11 15:30	12/16/11 01:51	1
4,6-Dinitro-2-methylphenol	9.4	U Q	47	9.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4-Dinitrophenol	9.4	U Q	47	9.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4-Dinitrotoluene	1.1	U Q	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,6-Dinitrotoluene	1.0	U Q	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
Di-n-octyl phthalate	1.3	U Q	9.4	1.3	ug/L		11/20/11 15:30	12/16/11 01:51	1
Dinoseb	4.7	U	9.4	4.7	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,4-Dioxane	**18**		9.4	3.2	ug/L		11/20/11 15:30	12/16/11 01:51	1
Disulfoton	0.75	U	9.4	0.75	ug/L		11/20/11 15:30	12/16/11 01:51	1
Ethyl methanesulfonate	0.91	U	9.4	0.91	ug/L		11/20/11 15:30	12/16/11 01:51	1
Ethyl Parathion	1.2	U	9.4	1.2	ug/L		11/20/11 15:30	12/16/11 01:51	1
Famphur	1.0	U	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
Fluoranthene	0.70	U Q	9.4	0.70	ug/L		11/20/11 15:30	12/16/11 01:51	1
Fluorene	0.91	U Q	9.4	0.91	ug/L		11/20/11 15:30	12/16/11 01:51	1
Hexachlorobenzene	0.75	U Q	9.4	0.75	ug/L		11/20/11 15:30	12/16/11 01:51	1
Hexachlorobutadiene	0.59	U Q	9.4	0.59	ug/L		11/20/11 15:30	12/16/11 01:51	1
Hexachlorocyclopentadiene	2.4	U Q	9.4	2.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
Hexachloroethane	0.72	U	9.4	0.72	ug/L		11/20/11 15:30	12/16/11 01:51	1
Hexachloropropene	1.3	U	9.4	1.3	ug/L		11/20/11 15:30	12/16/11 01:51	1
Indeno[1,2,3-cd]pyrene	0.94	U Q	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1
Isophorone	0.85	U Q	9.4	0.85	ug/L		11/20/11 15:30	12/16/11 01:51	1
Isosafrole	0.47	U	9.4	0.47	ug/L		11/20/11 15:30	12/16/11 01:51	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/16/11 01:51	1
3-Methylcholanthrene	1.3	U	9.4	1.3	ug/L		11/20/11 15:30	12/16/11 01:51	1
Methyl methanesulfonate	0.57	U	9.4	0.57	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Methylnaphthalene	0.74	U Q	9.4	0.74	ug/L		11/20/11 15:30	12/16/11 01:51	1
Methyl parathion	0.83	U	9.4	0.83	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Methylphenol	0.84	U Q	9.4	0.84	ug/L		11/20/11 15:30	12/16/11 01:51	1
3 & 4 Methylphenol	1.2	U	9.4	1.2	ug/L		11/20/11 15:30	12/16/11 01:51	1
Naphthalene	0.66	U Q	9.4	0.66	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,4-Naphthoquinone	0.59	U	9.4	0.59	ug/L		11/20/11 15:30	12/16/11 01:51	1
1-Naphthylamine	1.0	U	9.4	1.0	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Naphthylamine	1.4	U	9.4	1.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/16/11 01:51	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 01:51	1
Nitrobenzene	0.69	U Q	9.4	0.69	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Nitrophenol	0.72	U Q	9.4	0.72	ug/L		11/20/11 15:30	12/16/11 01:51	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/16/11 01:51	1

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitro-o-toluidine	1.4	U	9.4	1.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosodiethylamine	0.88	U	9.4	0.88	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosodimethylamine	2.6	U	9.4	2.6	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosodi-n-butylamine	0.91	U	9.4	0.91	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosodi-n-propylamine	0.68	U	9.4	0.68	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosodiphenylamine	0.87	U Q	9.4	0.87	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosomethylethylamine	3.1	U	9.4	3.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosopiperidine	0.83	U	9.4	0.83	ug/L		11/20/11 15:30	12/16/11 01:51	1
N-Nitrosopyrrolidine	0.94	U	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1
o,o',o''-Triethylphosphorothioate	0.94	U	9.4	0.94	ug/L		11/20/11 15:30	12/16/11 01:51	1
p-Dimethylamino azobenzene	0.75	U	9.4	0.75	ug/L		11/20/11 15:30	12/16/11 01:51	1
Pentachlorobenzene	0.49	U	9.4	0.49	ug/L		11/20/11 15:30	12/16/11 01:51	1
Pentachloronitrobenzene	0.74	U	9.4	0.74	ug/L		11/20/11 15:30	12/16/11 01:51	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/16/11 01:51	1
Phenacetin	1.3	U	9.4	1.3	ug/L		11/20/11 15:30	12/16/11 01:51	1
Phenanthrene	0.73	U Q	9.4	0.73	ug/L		11/20/11 15:30	12/16/11 01:51	1
Phenol	0.78	U Q	9.4	0.78	ug/L		11/20/11 15:30	12/16/11 01:51	1
Phorate	0.82	U	9.4	0.82	ug/L		11/20/11 15:30	12/16/11 01:51	1
p-Phenylene diamine	9.4	U	1900	9.4	ug/L		11/20/11 15:30	12/16/11 01:51	1
Pronamide	0.84	U	9.4	0.84	ug/L		11/20/11 15:30	12/16/11 01:51	1
Pyrene	0.60	U Q	9.4	0.60	ug/L		11/20/11 15:30	12/16/11 01:51	1
Safrole, Total	0.76	U	9.4	0.76	ug/L		11/20/11 15:30	12/16/11 01:51	1
Sulfotepp	0.50	U	9.4	0.50	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.4	0.72	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.4	0.68	ug/L		11/20/11 15:30	12/16/11 01:51	1
Thionazin	0.86	U	9.4	0.86	ug/L		11/20/11 15:30	12/16/11 01:51	1
2-Toluidine	1.3	U	9.4	1.3	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4,5-Trichlorophenol	1.1	U Q	9.4	1.1	ug/L		11/20/11 15:30	12/16/11 01:51	1
2,4,6-Trichlorophenol	0.80	U Q	9.4	0.80	ug/L		11/20/11 15:30	12/16/11 01:51	1
1,3,5-Trinitrobenzene	1.9	U	9.4	1.9	ug/L		11/20/11 15:30	12/16/11 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*38 - 130*	*11/20/11 15:30*	*12/16/11 01:51*	*1*
2-Fluorophenol	*70*		*25 - 130*	*11/20/11 15:30*	*12/16/11 01:51*	*1*
Nitrobenzene-d5	*87*		*39 - 130*	*11/20/11 15:30*	*12/16/11 01:51*	*1*
Phenol-d5	*72*		*25 - 130*	*11/20/11 15:30*	*12/16/11 01:51*	*1*
Terphenyl-d14	*78*		*10 - 143*	*11/20/11 15:30*	*12/16/11 01:51*	*1*
2,4,6-Tribromophenol	*81*		*31 - 141*	*11/20/11 15:30*	*12/16/11 01:51*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 03:26	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 03:26	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
Anthracene	0.65	U H	9.5	0.65	ug/L		12/12/11 14:57	12/15/11 03:26	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 03:26	1
Benzo[a]pyrene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 03:26	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 03:26	1
Bis(2-chloroethoxy)methane	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 03:26	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
bis(chloroisopropyl) ether	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 03:26	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 03:26	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 03:26	1
Chrysene	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 03:26	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 03:26	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 03:26	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 03:26	1
3,3'-Dichlorobenzidine	28	U H	57	28	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,6-Dichlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 03:26	1
Diethyl phthalate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 03:26	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 03:26	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 03:26	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 03:26	1
4,6-Dinitro-2-methylphenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4-Dinitrophenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 03:26	1
Dinoseb	4.7	U H	9.5	4.7	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,4-Dioxane	**21**	**H**	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 03:26	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 03:26	1
Ethyl methanesulfonate	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 03:26	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 03:26	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
Fluoranthene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 03:26	1
Fluorene	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 03:26	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 03:26	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 03:26	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 03:26	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 03:26	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 03:26	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 03:26	1
Isophorone	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 03:26	1
Isosafrole	0.47	U H	9.5	0.47	ug/L		12/12/11 14:57	12/15/11 03:26	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 03:26	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 03:26	1
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 03:26	1
Methyl parathion	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Methylphenol	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 03:26	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 03:26	1
Naphthalene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 03:26	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Nitroaniline	1.2	U H	47	1.2	ug/L		12/12/11 14:57	12/15/11 03:26	1
3-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 03:26	1
Nitrobenzene	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 03:26	1
4-Nitrophenol	1.8	U H	47	1.8	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosodiethylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosodi-n-butylamine	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosodi-n-propylamine	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosodiphenylamine	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosopiperidine	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 03:26	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 03:26	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 03:26	1
Pentachlorobenzene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 03:26	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 03:26	1
Pentachlorophenol	1.9	U H	47	1.9	ug/L		12/12/11 14:57	12/15/11 03:26	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 03:26	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 03:26	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 03:26	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 03:26	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 03:26	1
Pronamide	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 03:26	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 03:26	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 03:26	1
Sulfotepp	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,3,4,6-Tetrachlorophenol	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 03:26	1
Thionazin	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 03:26	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 03:26	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 03:26	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*38 - 130*	*12/12/11 14:57*	*12/15/11 03:26*	*1*

Client Sample ID: SLMW-10-11-11
Date Collected: 11/16/11 09:40
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		25 - 130	12/12/11 14:57	12/15/11 03:26	1
Nitrobenzene-d5	86		39 - 130	12/12/11 14:57	12/15/11 03:26	1
Phenol-d5	72		25 - 130	12/12/11 14:57	12/15/11 03:26	1
Terphenyl-d14	59		10 - 143	12/12/11 14:57	12/15/11 03:26	1
2,4,6-Tribromophenol	79		31 - 141	12/12/11 14:57	12/15/11 03:26	1

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/20/11 15:30	12/14/11 10:26	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/20/11 15:30	12/14/11 10:26	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 10:26	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/20/11 15:30	12/14/11 10:26	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/20/11 15:30	12/14/11 10:26	1
beta-BHC	0.0064	U	0.047	0.0064	ug/L		11/20/11 15:30	12/14/11 10:26	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/20/11 15:30	12/14/11 10:26	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/20/11 15:30	12/14/11 10:26	1
delta-BHC	0.0046	U	0.047	0.0046	ug/L		11/20/11 15:30	12/14/11 10:26	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/20/11 15:30	12/14/11 10:26	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/20/11 15:30	12/14/11 10:26	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/20/11 15:30	12/14/11 10:26	1
Endosulfan sulfate	0.0065	U	0.095	0.0065	ug/L		11/20/11 15:30	12/14/11 10:26	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 10:26	1
Endrin aldehyde	0.015	U Q	0.095	0.015	ug/L		11/20/11 15:30	12/14/11 10:26	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/20/11 15:30	12/14/11 10:26	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/20/11 15:30	12/14/11 10:26	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/20/11 15:30	12/14/11 10:26	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/20/11 15:30	12/14/11 10:26	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/20/11 15:30	12/14/11 10:26	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/20/11 15:30	12/14/11 10:26	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/20/11 15:30	12/14/11 10:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	30	M J	40 - 130	11/20/11 15:30	12/14/11 10:26	1
DCB Decachlorobiphenyl	27	J	40 - 130	11/20/11 15:30	12/14/11 10:26	1
Tetrachloro-m-xylene	72		36 - 130	11/20/11 15:30	12/14/11 10:26	1
Tetrachloro-m-xylene	69	M	36 - 130	11/20/11 15:30	12/14/11 10:26	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/21/11 07:57	11/27/11 05:38	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:38	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:38	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:38	1

Client Sample ID: SLMW-10-11-11

Lab Sample ID: 680-74444-2

Date Collected: 11/16/11 09:40

Matrix: Water

Date Received: 11/17/11 09:22

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	11/27/11 05:38	1
Dicamba	0.081	U	0.48	0.081	ug/L		11/21/11 07:57	11/27/11 05:38	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:38	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/21/11 07:57	11/27/11 05:38	1
MCPA	16	U	120	16	ug/L		11/21/11 07:57	11/27/11 05:38	1
Mecoprop	18	U	120	18	ug/L		11/21/11 07:57	11/27/11 05:38	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/21/11 07:57	11/27/11 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*79*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:38*	*1*
DCAA	*74*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:38*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 09:04	11/20/11 16:55	1
Arsenic	**4.6**		1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:47	1
Barium	**160**		1.0	0.15	ug/L		11/18/11 09:04	11/20/11 02:47	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 09:04	11/20/11 02:47	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 09:04	11/20/11 02:47	1
Chromium	**0.19**	**J**	1.0	0.16	ug/L		11/18/11 09:04	11/20/11 02:47	1
Cobalt	**4.2**		0.20	0.078	ug/L		11/18/11 09:04	11/20/11 02:47	1
Copper	**0.80**	**J**	1.0	0.21	ug/L		11/18/11 09:04	11/20/11 02:47	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 09:04	11/20/11 02:47	1
Nickel	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:47	1
Selenium	**0.54**		0.50	0.21	ug/L		11/18/11 09:04	11/20/11 02:47	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:47	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:47	1
Tin	**0.73**	**J**	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:47	1
Vanadium	**1.5**	**J**	5.0	1.4	ug/L		11/18/11 09:04	11/20/11 02:47	1
Zinc	**5.6**	**J**	10	2.6	ug/L		11/18/11 09:04	11/20/11 02:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U J	0.20	0.091	ug/L		11/23/11 12:18	11/29/11 18:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/17/11 21:05	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:21	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLMW-6-11-11

Lab Sample ID: 680-74444-3

Date Collected: 11/16/11 12:45

Matrix: Water

Date Received: 11/17/11 09:22

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:21	1
Acenaphthylene	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/16/11 02:21	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzo[g,h,i]perylene	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/16/11 02:21	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/16/11 02:21	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:21	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 02:21	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Chlorophenol	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Chlorophenyl phenyl ether	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 02:21	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/16/11 02:21	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:21	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:21	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:21	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 02:21	1
Diethyl phthalate	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:21	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/16/11 02:21	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/16/11 02:21	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/16/11 02:21	1
Di-n-butyl phthalate	0.78	U Q	9.5	0.78	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 02:21	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:21	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/16/11 02:21	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:21	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:21	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 02:21	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/16/11 02:21	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:21	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:21	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 02:21	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/16/11 02:21	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:21	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:21	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:21	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 02:21	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/16/11 02:21	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/16/11 02:21	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:21	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:21	1
Methyl parathion	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:21	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 02:21	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 02:21	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/16/11 02:21	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 02:21	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:21	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosodimethylamine	2.6	U	9.5	2.6	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosopiperidine	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:21	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:21	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:21	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:21	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/16/11 02:21	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:21	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/16/11 02:21	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:21	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 02:21	1
Phenol	0.78	U Q	9.5	0.78	ug/L		11/20/11 15:30	12/16/11 02:21	1
Phorate	0.82	U	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 02:21	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/16/11 02:21	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:21	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/16/11 02:21	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 02:21	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 02:21	1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/16/11 02:21	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:21	1
2,4,6-Trichlorophenol	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/16/11 02:21	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/16/11 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*38 - 130*	*11/20/11 15:30*	*12/16/11 02:21*	*1*
2-Fluorophenol	*68*		*25 - 130*	*11/20/11 15:30*	*12/16/11 02:21*	*1*
Nitrobenzene-d5	*84*		*39 - 130*	*11/20/11 15:30*	*12/16/11 02:21*	*1*
Phenol-d5	*65*		*25 - 130*	*11/20/11 15:30*	*12/16/11 02:21*	*1*
Terphenyl-d14	*79*		*10 - 143*	*11/20/11 15:30*	*12/16/11 02:21*	*1*
2,4,6-Tribromophenol	*73*		*31 - 141*	*11/20/11 15:30*	*12/16/11 02:21*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:59	1
Acenaphthylene	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 21:59	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
Anthracene	0.65	U H	9.5	0.65	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzo[a]pyrene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzo[g,h,i]perylene	0.82	U H	9.5	0.82	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 21:59	1
Bis(2-chloroethoxy)methane	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 21:59	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
bis(chloroisopropyl) ether	0.74	U Q H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:59	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 21:59	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Chlorophenol	0.82	U H	9.5	0.82	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 21:59	1
Chrysene	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 21:59	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:59	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:59	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:59	1
3,3'-Dichlorobenzidine	28	U H	57	28	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,6-Dichlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:59	1
Diethyl phthalate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:59	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 21:59	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 21:59	1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 21:59	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 21:59	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 21:59	1
4,6-Dinitro-2-methylphenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,4-Dinitrophenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:59	1
Dinoseb	4.7	U H	9.5	4.7	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,4-Dioxane	3.2	U H	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 21:59	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:59	1
Ethyl methanesulfonate	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:59	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 21:59	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
Fluoranthene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 21:59	1
Fluorene	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:59	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:59	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 21:59	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 21:59	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:59	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:59	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:59	1
Isophorone	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 21:59	1
Isosafrole	0.47	U H	9.5	0.47	ug/L		12/12/11 14:57	12/15/11 21:59	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 21:59	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:59	1
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:59	1
Methyl parathion	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Methylphenol	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 21:59	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 21:59	1
Naphthalene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 21:59	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Nitroaniline	1.2	U H	47	1.2	ug/L		12/12/11 14:57	12/15/11 21:59	1
3-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 21:59	1
Nitrobenzene	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:59	1
4-Nitrophenol	1.8	U H	47	1.8	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosodiethylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosodi-n-butylamine	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosodi-n-propylamine	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosodiphenylamine	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
N-Nitrosopiperidine	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:59	1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:59	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:59	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:59	1
Pentachlorobenzene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 21:59	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:59	1
Pentachlorophenol	1.9	U H	47	1.9	ug/L		12/12/11 14:57	12/15/11 21:59	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:59	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 21:59	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 21:59	1
Phorate	0.82	U H	9.5	0.82	ug/L		12/12/11 14:57	12/15/11 21:59	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 21:59	1
Pronamide	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 21:59	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 21:59	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 21:59	1
Sulfotepp	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,3,4,6-Tetrachlorophenol	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 21:59	1
Thionazin	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 21:59	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:59	1
2,4,6-Trichlorophenol	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 21:59	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*38 - 130*	*12/12/11 14:57*	*12/15/11 21:59*	*1*
2-Fluorophenol	*68*		*25 - 130*	*12/12/11 14:57*	*12/15/11 21:59*	*1*
Nitrobenzene-d5	*83*		*39 - 130*	*12/12/11 14:57*	*12/15/11 21:59*	*1*
Phenol-d5	*68*		*25 - 130*	*12/12/11 14:57*	*12/15/11 21:59*	*1*
Terphenyl-d14	*85*		*10 - 143*	*12/12/11 14:57*	*12/15/11 21:59*	*1*
2,4,6-Tribromophenol	*64*		*31 - 141*	*12/12/11 14:57*	*12/15/11 21:59*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/20/11 15:30	12/14/11 10:44	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/20/11 15:30	12/14/11 10:44	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 10:44	1
Aldrin	0.0067	U	0.048	0.0067	ug/L		11/20/11 15:30	12/14/11 10:44	1
alpha-BHC	0.0054	U	0.048	0.0054	ug/L		11/20/11 15:30	12/14/11 10:44	1
beta-BHC	0.0064	U	0.048	0.0064	ug/L		11/20/11 15:30	12/14/11 10:44	1
Chlordane (technical)	0.095	U	0.48	0.095	ug/L		11/20/11 15:30	12/14/11 10:44	1
Chlorobenzilate	0.48	U	0.48	0.48	ug/L		11/20/11 15:30	12/14/11 10:44	1
delta-BHC	0.0046	U	0.048	0.0046	ug/L		11/20/11 15:30	12/14/11 10:44	1
Dieldrin	0.0087	U	0.095	0.0087	ug/L		11/20/11 15:30	12/14/11 10:44	1
Endosulfan I	0.0040	U	0.048	0.0040	ug/L		11/20/11 15:30	12/14/11 10:44	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/20/11 15:30	12/14/11 10:44	1
Endosulfan sulfate	0.0065	U	0.095	0.0065	ug/L		11/20/11 15:30	12/14/11 10:44	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 10:44	1
Endrin aldehyde	0.015	U Q	0.095	0.015	ug/L		11/20/11 15:30	12/14/11 10:44	1
gamma-BHC (Lindane)	0.0056	U	0.048	0.0056	ug/L		11/20/11 15:30	12/14/11 10:44	1
Heptachlor	0.0067	U	0.048	0.0067	ug/L		11/20/11 15:30	12/14/11 10:44	1
Heptachlor epoxide	0.0057	U	0.048	0.0057	ug/L		11/20/11 15:30	12/14/11 10:44	1

Client Sample ID: SLMW-6-11-11
Date Collected: 11/16/11 12:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-3
Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isodrin	0.048	U	0.048	0.048	ug/L		11/20/11 15:30	12/14/11 10:44	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1016	0.068	U	0.95	0.068	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/20/11 15:30	12/14/11 10:44	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/20/11 15:30	12/14/11 10:44	1
Toxaphene	0.48	U	4.8	0.48	ug/L		11/20/11 15:30	12/14/11 10:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*	*M*	*40 - 130*	*11/20/11 15:30*	*12/14/11 10:44*	*1*
DCB Decachlorobiphenyl	*46*		*40 - 130*	*11/20/11 15:30*	*12/14/11 10:44*	*1*
Tetrachloro-m-xylene	*50*		*36 - 130*	*11/20/11 15:30*	*12/14/11 10:44*	*1*
Tetrachloro-m-xylene	*49*		*36 - 130*	*11/20/11 15:30*	*12/14/11 10:44*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U	0.48	0.036	ug/L		11/21/11 07:57	11/27/11 05:54	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:54	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:54	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/21/11 07:57	11/27/11 05:54	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	11/27/11 05:54	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/21/11 07:57	11/27/11 05:54	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 05:54	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/21/11 07:57	11/27/11 05:54	1
MCPA	16	U	120	16	ug/L		11/21/11 07:57	11/27/11 05:54	1
Mecoprop	18	U	120	18	ug/L		11/21/11 07:57	11/27/11 05:54	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/21/11 07:57	11/27/11 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*86*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:54*	*1*
DCAA	*74*		*52 - 151*	*11/21/11 07:57*	*11/27/11 05:54*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 09:04	11/20/11 17:03	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:54	1
Barium	**12**		1.0	0.15	ug/L		11/18/11 09:04	11/20/11 02:54	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 09:04	11/20/11 02:54	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 09:04	11/20/11 02:54	1
Chromium	**0.19**	**J**	1.0	0.16	ug/L		11/18/11 09:04	11/20/11 02:54	1
Cobalt	**0.23**		0.20	0.078	ug/L		11/18/11 09:04	11/20/11 02:54	1
Copper	**0.60**	**J**	1.0	0.21	ug/L		11/18/11 09:04	11/20/11 02:54	1
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 09:04	11/20/11 02:54	1
Nickel	**0.46**	**J**	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:54	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 09:04	11/20/11 02:54	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:54	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 02:54	1

Client Sample ID: SLMW-6-11-11

Lab Sample ID: 680-74444-3

Date Collected: 11/16/11 12:45

Matrix: Water

Date Received: 11/17/11 09:22

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tin	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 02:54	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 09:04	11/20/11 02:54	1
Zinc	11		10	2.6	ug/L		11/18/11 09:04	11/20/11 02:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/23/11 12:18	11/29/11 18:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/17/11 21:20	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:22	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLMW-12BR-11-11

Lab Sample ID: 680-74444-4

Date Collected: 11/16/11 16:45

Matrix: Water

Date Received: 11/17/11 09:22

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:50	1
Acenaphthylene	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 02:50	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzo[g,h,i]perylene	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/16/11 02:50	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/16/11 02:50	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:50	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 02:50	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Chlorophenol	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/16/11 02:50	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/16/11 02:50	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:50	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:50	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:50	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/16/11 02:50	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-12BR-11-11
Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 02:50	1
Diethyl phthalate	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:50	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/16/11 02:50	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/16/11 02:50	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/16/11 02:50	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 02:50	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:50	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/16/11 02:50	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:50	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:50	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 02:50	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/16/11 02:50	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:50	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:50	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 02:50	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/16/11 02:50	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:50	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:50	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:50	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 02:50	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/16/11 02:50	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/16/11 02:50	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:50	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:50	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:50	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 02:50	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 02:50	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/16/11 02:50	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 02:50	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:50	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/16/11 02:50	1

Client Sample ID: SLMW-12BR-11-11
Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:50	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:50	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 02:50	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 02:50	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/16/11 02:50	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 02:50	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/16/11 02:50	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:50	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 02:50	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 02:50	1
Phorate	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 02:50	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/16/11 02:50	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 02:50	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/16/11 02:50	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 02:50	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 02:50	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/16/11 02:50	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 02:50	1
2,4,6-Trichlorophenol	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 02:50	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/16/11 02:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*38 - 130*	*11/20/11 15:30*	*12/16/11 02:50*	*1*
2-Fluorophenol	*59*		*25 - 130*	*11/20/11 15:30*	*12/16/11 02:50*	*1*
Nitrobenzene-d5	*77*		*39 - 130*	*11/20/11 15:30*	*12/16/11 02:50*	*1*
Phenol-d5	*53*		*25 - 130*	*11/20/11 15:30*	*12/16/11 02:50*	*1*
Terphenyl-d14	*66*		*10 - 143*	*11/20/11 15:30*	*12/16/11 02:50*	*1*
2,4,6-Tribromophenol	*66*		*31 - 141*	*11/20/11 15:30*	*12/16/11 02:50*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/16/11 11:27	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/16/11 11:27	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
Anthracene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzo[a]pyrene	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1

Client Sample ID: SLMW-12BR-11-11
Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/16/11 11:27	1
Bis(2-chloroethoxy)methane	0.90	U H	9.5	0.90	ug/L		12/12/11 14:57	12/16/11 11:27	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1
bis(chloroisopropyl) ether	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/16/11 11:27	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/16/11 11:27	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/16/11 11:27	1
Chrysene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/16/11 11:27	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/16/11 11:27	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/16/11 11:27	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/16/11 11:27	1
3,3'-Dichlorobenzidine	29	U H	57	29	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,6-Dichlorophenol	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/16/11 11:27	1
Diethyl phthalate	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/16/11 11:27	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/16/11 11:27	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/16/11 11:27	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/16/11 11:27	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/16/11 11:27	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/16/11 11:27	1
4,6-Dinitro-2-methylphenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4-Dinitrophenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/16/11 11:27	1
Dinoseb	4.8	U H	9.5	4.8	ug/L		12/12/11 14:57	12/16/11 11:27	1
1,4-Dioxane	3.2	U H	9.5	3.2	ug/L		12/12/11 14:57	12/16/11 11:27	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/16/11 11:27	1
Ethyl methanesulfonate	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/16/11 11:27	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/16/11 11:27	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1
Fluoranthene	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/16/11 11:27	1
Fluorene	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/16/11 11:27	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/16/11 11:27	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/16/11 11:27	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/16/11 11:27	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/16/11 11:27	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/16/11 11:27	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/16/11 11:27	1
Isophorone	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/16/11 11:27	1
Isosafrole	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/16/11 11:27	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/16/11 11:27	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/16/11 11:27	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-12BR-11-11
Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/16/11 11:27	1
Methyl parathion	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Methylphenol	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/16/11 11:27	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/16/11 11:27	1
Naphthalene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/16/11 11:27	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/16/11 11:27	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Nitroaniline	1.2	U H	48	1.2	ug/L		12/12/11 14:57	12/16/11 11:27	1
3-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/16/11 11:27	1
Nitrobenzene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/16/11 11:27	1
4-Nitrophenol	1.8	U H	48	1.8	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosodiethylamine	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosodi-n-butylamine	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosodi-n-propylamine	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosodiphenylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosopiperidine	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/16/11 11:27	1
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/16/11 11:27	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/16/11 11:27	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/16/11 11:27	1
Pentachlorobenzene	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/16/11 11:27	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/16/11 11:27	1
Pentachlorophenol	1.9	U H	48	1.9	ug/L		12/12/11 14:57	12/16/11 11:27	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/16/11 11:27	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/16/11 11:27	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/16/11 11:27	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/16/11 11:27	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/16/11 11:27	1
Pronamide	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/16/11 11:27	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/16/11 11:27	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/16/11 11:27	1
Sulfotepp	0.51	U H	9.5	0.51	ug/L		12/12/11 14:57	12/16/11 11:27	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,3,4,6-Tetrachlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/16/11 11:27	1
Thionazin	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/16/11 11:27	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/16/11 11:27	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/16/11 11:27	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/16/11 11:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*38 - 130*	*12/12/11 14:57*	*12/16/11 11:27*	*1*
2-Fluorophenol	*66*		*25 - 130*	*12/12/11 14:57*	*12/16/11 11:27*	*1*
Nitrobenzene-d5	*75*		*39 - 130*	*12/12/11 14:57*	*12/16/11 11:27*	*1*

Client Sample ID: SLMW-12BR-11-11

Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	*68*		*25 - 130*	*12/12/11 14:57*	*12/16/11 11:27*	*1*
Terphenyl-d14	*84*		*10 - 143*	*12/12/11 14:57*	*12/16/11 11:27*	*1*
2,4,6-Tribromophenol	*74*		*31 - 141*	*12/12/11 14:57*	*12/16/11 11:27*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/20/11 15:30	12/14/11 11:04	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/20/11 15:30	12/14/11 11:04	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 11:04	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/20/11 15:30	12/14/11 11:04	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/20/11 15:30	12/14/11 11:04	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/20/11 15:30	12/14/11 11:04	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/20/11 15:30	12/14/11 11:04	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/20/11 15:30	12/14/11 11:04	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/20/11 15:30	12/14/11 11:04	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/20/11 15:30	12/14/11 11:04	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/20/11 15:30	12/14/11 11:04	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/20/11 15:30	12/14/11 11:04	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/20/11 15:30	12/14/11 11:04	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/20/11 15:30	12/14/11 11:04	1
Endrin aldehyde	0.015	U Q	0.095	0.015	ug/L		11/20/11 15:30	12/14/11 11:04	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/20/11 15:30	12/14/11 11:04	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/20/11 15:30	12/14/11 11:04	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/20/11 15:30	12/14/11 11:04	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/20/11 15:30	12/14/11 11:04	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/20/11 15:30	12/14/11 11:04	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/20/11 15:30	12/14/11 11:04	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/20/11 15:30	12/14/11 11:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*24*	*M J*	*40 - 130*	*11/20/11 15:30*	*12/14/11 11:04*	*1*
DCB Decachlorobiphenyl	*27*	*M J*	*40 - 130*	*11/20/11 15:30*	*12/14/11 11:04*	*1*
Tetrachloro-m-xylene	*68*		*36 - 130*	*11/20/11 15:30*	*12/14/11 11:04*	*1*
Tetrachloro-m-xylene	*78*	*M*	*36 - 130*	*11/20/11 15:30*	*12/14/11 11:04*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U	0.48	0.036	ug/L		11/21/11 07:57	11/27/11 06:10	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 06:10	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	11/27/11 06:10	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/21/11 07:57	11/27/11 06:10	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/21/11 07:57	11/27/11 06:10	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/21/11 07:57	11/27/11 06:10	1

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-12BR-11-11

Date Collected: 11/16/11 16:45
Date Received: 11/17/11 09:22

Lab Sample ID: 680-74444-4

Matrix: Water

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/21/11 07:57	11/27/11 06:10	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/21/11 07:57	11/27/11 06:10	1
MCPA	16	U	120	16	ug/L		11/21/11 07:57	11/27/11 06:10	1
Mecoprop	18	U	120	18	ug/L		11/21/11 07:57	11/27/11 06:10	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/21/11 07:57	11/27/11 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*69*		*52 - 151*	*11/21/11 07:57*	*11/27/11 06:10*	*1*
DCAA	*64*		*52 - 151*	*11/21/11 07:57*	*11/27/11 06:10*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 09:04	11/20/11 17:10	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 03:02	1
Barium	**42**		1.0	0.15	ug/L		11/18/11 09:04	11/20/11 03:02	1
Beryllium	**0.41**		0.20	0.070	ug/L		11/18/11 09:04	11/20/11 03:02	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 09:04	11/20/11 03:02	1
Chromium	**0.24**	**J**	1.0	0.16	ug/L		11/18/11 09:04	11/20/11 03:02	1
Cobalt	**1.1**		0.20	0.078	ug/L		11/18/11 09:04	11/20/11 03:02	1
Copper	**1.2**		1.0	0.21	ug/L		11/18/11 09:04	11/20/11 03:02	1
Lead	**0.19**	**J**	0.30	0.080	ug/L		11/18/11 09:04	11/20/11 03:02	1
Nickel	**2.0**		1.0	0.40	ug/L		11/18/11 09:04	11/20/11 03:02	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 09:04	11/20/11 03:02	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 03:02	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 03:02	1
Tin	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 03:02	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 09:04	11/20/11 03:02	1
Zinc	**31**		10	2.6	ug/L		11/18/11 09:04	11/20/11 03:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/23/11 12:18	11/29/11 18:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/17/11 21:35	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:23	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Surrogate Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPH	TBP
Lab Sample ID	Client Sample ID	(38-130)	(25-130)	(39-130)	(25-130)	(10-143)	(31-141)
680-74444-1 - RE	SLMW-7-11-11	61	67	75	59	66	75
680-74444-1	SLMW-7-11-11	73	71	88	72	76	74
680-74444-2 - RE	SLMW-10-11-11	72	74	86	72	59	79
680-74444-2	SLMW-10-11-11	76	70	87	72	78	81
680-74444-3 - RE	SLMW-6-11-11	77	68	83	68	85	64
680-74444-3	SLMW-6-11-11	73	68	84	65	79	73
680-74444-4	SLMW-12BR-11-11	66	59	77	53	66	66
680-74444-4 - RE	SLMW-12BR-11-11	76	66	75	68	84	74
LCS 680-221448/17-A	Lab Control Sample	43	42	48	37	46	44
LCS 680-223265/12-A	Lab Control Sample	77	79	87	79	83	82
LCSD 680-221448/18-A	Lab Control Sample Dup	73	73	84	73	81	81
LCSD 680-223265/13-A	Lab Control Sample Dup	82	85	96	87	86	89
MB 680-221448/16-A	Method Blank	68	68	80	67	78	62
MB 680-223265/11-A	Method Blank	82	80	95	81	89	83

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(36-130)	(36-130)
680-74444-1	SLMW-7-11-11	29 M J	31 J	76	86
680-74444-1 MS	SLMW-7-11-11	40 M	41	78	97
680-74444-1 MSD	SLMW-7-11-11	32 M J	32 J	83	109
680-74444-2	SLMW-10-11-11	30 M J	27 J	72	69 M
680-74444-3	SLMW-6-11-11	40 M	46	50	49
680-74444-4	SLMW-12BR-11-11	24 M J	27 M J	68	78 M
LCS 680-221450/15-A	Lab Control Sample	64 M			76
LCS 680-221450/19-A	Lab Control Sample	48 M	56	71	75
LCSD 680-221450/16-A	Lab Control Sample Dup		48		75
LCSD 680-221450/20-A	Lab Control Sample Dup	61 M	73	75	77
MB 680-221450/14-A	Method Blank	56 M	59	81	81

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	DCPA1 (52-151)	DCPA2 (52-151)								
680-74444-1	SLMW-7-11-11	75	70								
680-74444-2	SLMW-10-11-11	79	74								
680-74444-3	SLMW-6-11-11	86	74								
680-74444-4	SLMW-12BR-11-11	69	64								
LCS 680-221466/20-A	Lab Control Sample	82	84								
MB 680-221466/19-A	Method Blank	75	65								

Surrogate Legend

DCPA = DCAA

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-221448/16-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
Acenaphthylene	0.85	U	10	0.85	ug/L		11/20/11 15:30	12/15/11 22:57	1
Acetophenone	0.57	U	10	0.57	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Acetylaminofluorene	1.6	U	10	1.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Aminobiphenyl	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
Anthracene	0.69	U	10	0.69	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		11/20/11 15:30	12/15/11 22:57	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		11/20/11 15:30	12/15/11 22:57	1
Chrysene	0.51	U	10	0.51	ug/L		11/20/11 15:30	12/15/11 22:57	1
Diallate	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dibenzofuran	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,6-Dichlorophenol	0.73	U	10	0.73	ug/L		11/20/11 15:30	12/15/11 22:57	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dimethoate	0.75	U	10	0.75	ug/L		11/20/11 15:30	12/15/11 22:57	1
7,12-Dimethylbenz(a)anthracene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
3,3'-Dimethylbenzidine	10	U	20	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		11/20/11 15:30	12/15/11 22:57	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,3-Dinitrobenzene	0.60	U	10	0.60	ug/L		11/20/11 15:30	12/15/11 22:57	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dinitrophenol	10	U	50	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dinoseb	5.0	U	10	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,4-Dioxane	3.4	U	10	3.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Disulfoton	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Ethyl methanesulfonate	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
Ethyl Parathion	1.3	U	10	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221448/16-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
Fluoranthene	0.74	U	10	0.74	ug/L		11/20/11 15:30	12/15/11 22:57	1
Fluorene	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachloroethane	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachloropropene	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Isophorone	0.90	U	10	0.90	ug/L		11/20/11 15:30	12/15/11 22:57	1
Isosafrole	0.50	U	10	0.50	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methapyrilene	2.7	U	2000	2.7	ug/L		11/20/11 15:30	12/15/11 22:57	1
3-Methylcholanthrene	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methyl methanesulfonate	0.60	U	10	0.60	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methyl parathion	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Methylphenol	0.89	U	10	0.89	ug/L		11/20/11 15:30	12/15/11 22:57	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
Naphthalene	0.70	U	10	0.70	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,4-Naphthoquinone	0.62	U	10	0.62	ug/L		11/20/11 15:30	12/15/11 22:57	1
1-Naphthylamine	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Naphthylamine	1.5	U	10	1.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Nitrobenzene	0.73	U	10	0.73	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitro-o-toluidine	1.5	U	10	1.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodiethylamine	0.93	U	10	0.93	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodimethylamine	2.8	U	10	2.8	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodi-n-butylamine	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosomethylethylamine	3.3	U	10	3.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosopiperidine	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
o,o',o''-Triethylphosphorothioate	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
p-Dimethylamino azobenzene	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachlorobenzene	0.52	U	10	0.52	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachloronitrobenzene	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenacetin	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenanthrene	0.77	U	10	0.77	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenol	0.83	U	10	0.83	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phorate	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
p-Phenylene diamine	10	U	2000	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pronamide	0.89	U	10	0.89	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pyrene	0.63	U	10	0.63	ug/L		11/20/11 15:30	12/15/11 22:57	1
Safrole, Total	0.80	U	10	0.80	ug/L		11/20/11 15:30	12/15/11 22:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221448/16-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223845 — **Prep Batch: 221448**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.53	U	10	0.53	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,2,4,5-Tetrachlorobenzene	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		11/20/11 15:30	12/15/11 22:57	1
Thionazin	0.91	U	10	0.91	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Toluidine	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,3,5-Trinitrobenzene	2.0	U	10	2.0	ug/L		11/20/11 15:30	12/15/11 22:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*38 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
2-Fluorophenol	*68*		*25 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Nitrobenzene-d5	*80*		*39 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Phenol-d5	*67*		*25 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Terphenyl-d14	*78*		*10 - 143*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
2,4,6-Tribromophenol	*62*		*31 - 141*	*11/20/11 15:30*	*12/15/11 22:57*	*1*

Lab Sample ID: LCS 680-221448/17-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223845 — **Prep Batch: 221448**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	45.9	Q	ug/L		46	55 - 130
Acenaphthylene	100	47.8	Q	ug/L		48	60 - 130
Anthracene	100	48.1	Q	ug/L		48	61 - 130
Benzo[a]anthracene	100	51.6	Q	ug/L		52	58 - 130
Benzo[a]pyrene	100	54.6	Q	ug/L		55	61 - 130
Benzo[b]fluoranthene	100	53.4		ug/L		53	51 - 130
Benzo[g,h,i]perylene	100	48.4	Q	ug/L		48	54 - 130
Benzo[k]fluoranthene	100	48.3	Q	ug/L		48	53 - 130
Benzyl alcohol	100	45.7	Q	ug/L		46	53 - 130
1,1'-Biphenyl	100	49.0	Q	ug/L		49	54 - 130
Bis(2-chloroethoxy)methane	100	61.3	Q	ug/L		61	64 - 130
Bis(2-chloroethyl)ether	100	67.0		ug/L		67	56 - 130
bis(chloroisopropyl) ether	100	76.4		ug/L		76	55 - 130
Bis(2-ethylhexyl) phthalate	100	57.7	Q	ug/L		58	62 - 130
4-Bromophenyl phenyl ether	100	53.7	Q	ug/L		54	61 - 130
Butyl benzyl phthalate	100	58.5	Q	ug/L		59	66 - 130
4-Chloroaniline	100	37.9	Q	ug/L		38	42 - 130
4-Chloro-3-methylphenol	100	50.4	Q	ug/L		50	60 - 130
2-Chloronaphthalene	100	42.3	Q	ug/L		42	53 - 130
2-Chlorophenol	100	43.2	Q	ug/L		43	57 - 130
4-Chlorophenyl phenyl ether	100	52.9	Q	ug/L		53	57 - 130
Chrysene	100	49.4	Q	ug/L		49	59 - 130
Dibenz(a,h)anthracene	100	48.7	Q	ug/L		49	55 - 130
Dibenzofuran	100	45.1	Q	ug/L		45	58 - 130
3,3'-Dichlorobenzidine	100	43.3	J	ug/L		43	27 - 130
2,4-Dichlorophenol	100	42.8	Q	ug/L		43	54 - 130
Diethyl phthalate	100	56.9	Q	ug/L		57	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221448/17-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dimethylphenol	100	37.0	Q	ug/L		37	40 - 130
Dimethyl phthalate	100	54.9	Q	ug/L		55	69 - 130
Di-n-butyl phthalate	100	58.0	Q	ug/L		58	66 - 130
4,6-Dinitro-2-methylphenol	100	45.4	J	ug/L		45	45 - 134
2,4-Dinitrophenol	100	45.0	J	ug/L		45	20 - 165
2,4-Dinitrotoluene	100	47.6	Q	ug/L		48	63 - 130
2,6-Dinitrotoluene	100	46.8	Q	ug/L		47	65 - 130
Di-n-octyl phthalate	100	61.6	Q	ug/L		62	64 - 130
1,4-Dioxane	100	40.8	M	ug/L		41	35 - 130
Fluoranthene	100	52.3	Q	ug/L		52	56 - 130
Fluorene	100	49.9	Q	ug/L		50	61 - 130
Hexachlorobenzene	100	46.7	Q	ug/L		47	52 - 130
Hexachlorobutadiene	100	39.4		ug/L		39	36 - 130
Hexachlorocyclopentadiene	100	27.8		ug/L		28	10 - 130
Hexachloroethane	100	39.7		ug/L		40	39 - 130
Indeno[1,2,3-cd]pyrene	100	46.2	Q	ug/L		46	47 - 130
Isophorone	100	52.8	Q	ug/L		53	59 - 130
2-Methylnaphthalene	100	44.3	Q	ug/L		44	52 - 130
2-Methylphenol	100	36.0	Q	ug/L		36	55 - 130
3 & 4 Methylphenol	100	44.2		ug/L		44	35 - 130
Naphthalene	100	42.6	Q	ug/L		43	50 - 130
2-Nitroaniline	100	61.4		ug/L		61	60 - 130
3-Nitroaniline	100	47.7	J Q	ug/L		48	54 - 130
4-Nitroaniline	100	47.9	J Q	ug/L		48	54 - 130
Nitrobenzene	100	50.6	Q	ug/L		51	56 - 130
2-Nitrophenol	100	41.9	Q	ug/L		42	54 - 130
4-Nitrophenol	100	46.8	J	ug/L		47	38 - 130
N-Nitrosodimethylamine	100	55.4		ug/L		55	54 - 130
N-Nitrosodi-n-propylamine	100	66.4		ug/L		66	64 - 130
N-Nitrosodiphenylamine	100	55.2	Q	ug/L		55	68 - 130
Pentachlorophenol	100	40.1	J Q	ug/L		40	42 - 138
Phenanthrene	100	49.9	Q	ug/L		50	62 - 130
Phenol	100	45.4		ug/L		45	29 - 130
Pyrene	100	50.3	Q	ug/L		50	60 - 130
2,4,5-Trichlorophenol	100	43.4	Q	ug/L		43	61 - 130
2,4,6-Trichlorophenol	100	43.1	Q	ug/L		43	57 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*43*		*38 - 130*
2-Fluorophenol	*42*		*25 - 130*
Nitrobenzene-d5	*48*		*39 - 130*
Phenol-d5	*37*		*25 - 130*
Terphenyl-d14	*46*		*10 - 143*
2,4,6-Tribromophenol	*44*		*31 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221448/18-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	100	78.9	Q	ug/L		79	55 - 130	53	50
Acenaphthylene	100	79.7		ug/L		80	60 - 130	50	50
Anthracene	100	80.4		ug/L		80	61 - 130	50	50
Benzo[a]anthracene	100	83.9		ug/L		84	58 - 130	48	50
Benzo[a]pyrene	100	93.7	Q	ug/L		94	61 - 130	53	50
Benzo[b]fluoranthene	100	87.2		ug/L		87	51 - 130	48	50
Benzo[g,h,i]perylene	100	80.4		ug/L		80	54 - 130	50	50
Benzo[k]fluoranthene	100	86.3	Q	ug/L		86	53 - 130	56	50
Benzyl alcohol	100	76.2		ug/L		76	53 - 130	50	50
1,1'-Biphenyl	100	82.2	Q	ug/L		82	54 - 130	51	50
Bis(2-chloroethoxy)methane	100	101		ug/L		101	64 - 130	49	50
Bis(2-chloroethyl)ether	100	109		ug/L		109	56 - 130	48	50
bis(chloroisopropyl) ether	100	124		ug/L		124	55 - 130	47	50
Bis(2-ethylhexyl) phthalate	100	95.4		ug/L		95	62 - 130	49	50
4-Bromophenyl phenyl ether	100	92.3	Q	ug/L		92	61 - 130	53	50
Butyl benzyl phthalate	100	96.6		ug/L		97	66 - 130	49	50
4-Chloroaniline	100	53.6		ug/L		54	42 - 130	34	50
4-Chloro-3-methylphenol	100	83.7		ug/L		84	60 - 130	50	50
2-Chloronaphthalene	100	70.3		ug/L		70	53 - 130	50	50
2-Chlorophenol	100	71.9		ug/L		72	57 - 130	50	50
4-Chlorophenyl phenyl ether	100	90.1	Q	ug/L		90	57 - 130	52	50
Chrysene	100	81.6		ug/L		82	59 - 130	49	50
Dibenz(a,h)anthracene	100	83.3	Q	ug/L		83	55 - 130	52	50
Dibenzofuran	100	73.8		ug/L		74	58 - 130	48	50
3,3'-Dichlorobenzidine	100	70.6		ug/L		71	27 - 130	48	50
2,4-Dichlorophenol	100	71.0		ug/L		71	54 - 130	50	50
Diethyl phthalate	100	95.0		ug/L		95	70 - 130	50	50
2,4-Dimethylphenol	100	62.5	Q	ug/L		63	40 - 130	51	50
Dimethyl phthalate	100	91.7		ug/L		92	69 - 130	50	50
Di-n-butyl phthalate	100	95.8		ug/L		96	66 - 130	49	50
4,6-Dinitro-2-methylphenol	100	82.0	Q	ug/L		82	45 - 134	57	50
2,4-Dinitrophenol	100	90.0	Q	ug/L		90	20 - 165	67	50
2,4-Dinitrotoluene	100	80.3	Q	ug/L		80	63 - 130	51	50
2,6-Dinitrotoluene	100	79.6	Q	ug/L		80	65 - 130	52	50
Di-n-octyl phthalate	100	100		ug/L		100	64 - 130	48	50
1,4-Dioxane	100	66.1	M	ug/L		66	35 - 130	47	50
Fluoranthene	100	85.4		ug/L		85	56 - 130	48	50
Fluorene	100	84.1	Q	ug/L		84	61 - 130	51	50
Hexachlorobenzene	100	80.6	Q	ug/L		81	52 - 130	53	50
Hexachlorobutadiene	100	70.5	Q	ug/L		70	36 - 130	57	50
Hexachlorocyclopentadiene	100	55.2	Q	ug/L		55	10 - 130	66	50
Hexachloroethane	100	66.4		ug/L		66	39 - 130	50	50
Indeno[1,2,3-cd]pyrene	100	73.6		ug/L		74	47 - 130	46	50
Isophorone	100	89.0	Q	ug/L		89	59 - 130	51	50
2-Methylnaphthalene	100	73.8		ug/L		74	52 - 130	50	50
2-Methylphenol	100	60.0		ug/L		60	55 - 130	50	50
3 & 4 Methylphenol	100	73.1		ug/L		73	35 - 130	49	50
Naphthalene	100	71.3		ug/L		71	50 - 130	50	50
2-Nitroaniline	100	103	Q	ug/L		103	60 - 130	51	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221448/18-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
3-Nitroaniline	100	76.4		ug/L		76	54 - 130	46	50
4-Nitroaniline	100	78.3		ug/L		78	54 - 130	48	50
Nitrobenzene	100	83.5		ug/L		84	56 - 130	49	50
2-Nitrophenol	100	72.6	Q	ug/L		73	54 - 130	54	50
4-Nitrophenol	100	83.3	Q	ug/L		83	38 - 130	56	50
N-Nitrosodimethylamine	100	92.1		ug/L		92	54 - 130	50	50
N-Nitrosodi-n-propylamine	100	106		ug/L		106	64 - 130	46	50
N-Nitrosodiphenylamine	100	91.3		ug/L		91	68 - 130	49	50
Pentachlorophenol	100	72.9	Q	ug/L		73	42 - 138	58	50
Phenanthrene	100	83.2		ug/L		83	62 - 130	50	50
Phenol	100	77.1	Q	ug/L		77	29 - 130	52	50
Pyrene	100	84.1		ug/L		84	60 - 130	50	50
2,4,5-Trichlorophenol	100	73.8	Q	ug/L		74	61 - 130	52	50
2,4,6-Trichlorophenol	100	72.8	Q	ug/L		73	57 - 130	51	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*38 - 130*
2-Fluorophenol	*73*		*25 - 130*
Nitrobenzene-d5	*84*		*39 - 130*
Phenol-d5	*73*		*25 - 130*
Terphenyl-d14	*81*		*10 - 143*
2,4,6-Tribromophenol	*81*		*31 - 141*

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
Acenaphthylene	0.85	U	10	0.85	ug/L		12/12/11 14:57	12/14/11 22:05	1
Acetophenone	0.57	U	10	0.57	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Acetylaminofluorene	1.6	U	10	1.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Aminobiphenyl	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
Anthracene	0.69	U	10	0.69	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		12/12/11 14:57	12/14/11 22:05	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		12/12/11 14:57	12/14/11 22:05	1
Chrysene	0.51	U	10	0.51	ug/L		12/12/11 14:57	12/14/11 22:05	1
Diallate	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dibenzofuran	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,6-Dichlorophenol	0.73	U	10	0.73	ug/L		12/12/11 14:57	12/14/11 22:05	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dimethoate	0.75	U	10	0.75	ug/L		12/12/11 14:57	12/14/11 22:05	1
7,12-Dimethylbenz(a)anthracene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
3,3'-Dimethylbenzidine	10	U	20	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		12/12/11 14:57	12/14/11 22:05	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,3-Dinitrobenzene	0.60	U	10	0.60	ug/L		12/12/11 14:57	12/14/11 22:05	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dinitrophenol	10	U	50	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dinoseb	5.0	U	10	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,4-Dioxane	3.4	U	10	3.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Disulfoton	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Ethyl methanesulfonate	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
Ethyl Parathion	1.3	U	10	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
Famphur	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
Fluoranthene	0.74	U	10	0.74	ug/L		12/12/11 14:57	12/14/11 22:05	1
Fluorene	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachloroethane	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachloropropene	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Isophorone	0.90	U	10	0.90	ug/L		12/12/11 14:57	12/14/11 22:05	1
Isosafrole	0.50	U	10	0.50	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methapyrilene	2.7	U	2000	2.7	ug/L		12/12/11 14:57	12/14/11 22:05	1
3-Methylcholanthrene	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methyl methanesulfonate	0.60	U	10	0.60	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methyl parathion	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Methylphenol	0.89	U	10	0.89	ug/L		12/12/11 14:57	12/14/11 22:05	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
Naphthalene	0.70	U	10	0.70	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,4-Naphthoquinone	0.62	U	10	0.62	ug/L		12/12/11 14:57	12/14/11 22:05	1
1-Naphthylamine	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Naphthylamine	1.5	U	10	1.5	ug/L		12/12/11 14:57	12/14/11 22:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	1.3	U	50	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Nitrobenzene	0.73	U	10	0.73	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitro-o-toluidine	1.5	U	10	1.5	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodiethylamine	0.93	U	10	0.93	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodimethylamine	2.8	U	10	2.8	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodi-n-butylamine	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosomethylethylamine	3.3	U	10	3.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosopiperidine	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
o,o',o''-Triethylphosphorothioate	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
p-Dimethylamino azobenzene	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachlorobenzene	0.52	U	10	0.52	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachloronitrobenzene	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenacetin	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenanthrene	0.77	U	10	0.77	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenol	0.83	U	10	0.83	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phorate	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
p-Phenylene diamine	10	U	2000	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pronamide	0.89	U	10	0.89	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pyrene	0.63	U	10	0.63	ug/L		12/12/11 14:57	12/14/11 22:05	1
Safrole, Total	0.80	U	10	0.80	ug/L		12/12/11 14:57	12/14/11 22:05	1
Sulfotepp	0.53	U	10	0.53	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,2,4,5-Tetrachlorobenzene	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		12/12/11 14:57	12/14/11 22:05	1
Thionazin	0.91	U	10	0.91	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Toluidine	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,3,5-Trinitrobenzene	2.0	U	10	2.0	ug/L		12/12/11 14:57	12/14/11 22:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*38 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
2-Fluorophenol	*80*		*25 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Nitrobenzene-d5	*95*		*39 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Phenol-d5	*81*		*25 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Terphenyl-d14	*89*		*10 - 143*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
2,4,6-Tribromophenol	*83*		*31 - 141*	*12/12/11 14:57*	*12/14/11 22:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-223265/12-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	88.1		ug/L		88	55 - 130
Acenaphthylene	100	88.3		ug/L		88	60 - 130
Anthracene	100	88.5		ug/L		88	61 - 130
Benzo[a]anthracene	100	89.3		ug/L		89	58 - 130
Benzo[a]pyrene	100	96.2		ug/L		96	61 - 130
Benzo[b]fluoranthene	100	92.1		ug/L		92	51 - 130
Benzo[g,h,i]perylene	100	89.1		ug/L		89	54 - 130
Benzo[k]fluoranthene	100	87.8		ug/L		88	53 - 130
Benzyl alcohol	100	84.3		ug/L		84	53 - 130
1,1'-Biphenyl	100	90.6		ug/L		91	54 - 130
Bis(2-chloroethoxy)methane	100	109		ug/L		109	64 - 130
Bis(2-chloroethyl)ether	100	111		ug/L		111	56 - 130
bis(chloroisopropyl) ether	100	126		ug/L		126	55 - 130
Bis(2-ethylhexyl) phthalate	100	99.8		ug/L		100	62 - 130
4-Bromophenyl phenyl ether	100	97.7		ug/L		98	61 - 130
Butyl benzyl phthalate	100	105		ug/L		105	66 - 130
4-Chloroaniline	100	66.9		ug/L		67	42 - 130
4-Chloro-3-methylphenol	100	88.4		ug/L		88	60 - 130
2-Chloronaphthalene	100	79.3		ug/L		79	53 - 130
2-Chlorophenol	100	80.2		ug/L		80	57 - 130
4-Chlorophenyl phenyl ether	100	92.7		ug/L		93	57 - 130
Chrysene	100	89.5		ug/L		89	59 - 130
Dibenz(a,h)anthracene	100	90.6		ug/L		91	55 - 130
Dibenzofuran	100	79.5		ug/L		79	58 - 130
3,3'-Dichlorobenzidine	100	68.2		ug/L		68	27 - 130
2,4-Dichlorophenol	100	82.2		ug/L		82	54 - 130
Diethyl phthalate	100	97.9		ug/L		98	70 - 130
2,4-Dimethylphenol	100	63.7		ug/L		64	40 - 130
Dimethyl phthalate	100	95.1		ug/L		95	69 - 130
Di-n-butyl phthalate	100	101		ug/L		101	66 - 130
4,6-Dinitro-2-methylphenol	100	97.2		ug/L		97	45 - 134
2,4-Dinitrophenol	100	104		ug/L		104	20 - 165
2,4-Dinitrotoluene	100	85.6		ug/L		86	63 - 130
2,6-Dinitrotoluene	100	85.7		ug/L		86	65 - 130
Di-n-octyl phthalate	100	108		ug/L		108	64 - 130
1,4-Dioxane	100	87.0		ug/L		87	35 - 130
Fluoranthene	100	94.4		ug/L		94	56 - 130
Fluorene	100	88.2		ug/L		88	61 - 130
Hexachlorobenzene	100	88.0		ug/L		88	52 - 130
Hexachlorobutadiene	100	78.8		ug/L		79	36 - 130
Hexachlorocyclopentadiene	100	29.8		ug/L		30	10 - 130
Hexachloroethane	100	72.8		ug/L		73	39 - 130
Indeno[1,2,3-cd]pyrene	100	85.8		ug/L		86	47 - 130
Isophorone	100	96.0		ug/L		96	59 - 130
2-Methylnaphthalene	100	83.0		ug/L		83	52 - 130
2-Methylphenol	100	67.1		ug/L		67	55 - 130
3 & 4 Methylphenol	100	80.7		ug/L		81	35 - 130
Naphthalene	100	82.9		ug/L		83	50 - 130
2-Nitroaniline	100	103		ug/L		103	60 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-223265/12-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Nitroaniline	100	82.0		ug/L		82	54 - 130
4-Nitroaniline	100	82.2		ug/L		82	54 - 130
Nitrobenzene	100	91.8		ug/L		92	56 - 130
2-Nitrophenol	100	84.6		ug/L		85	54 - 130
4-Nitrophenol	100	94.5		ug/L		94	38 - 130
N-Nitrosodimethylamine	100	97.8	M	ug/L		98	54 - 130
N-Nitrosodi-n-propylamine	100	106		ug/L		106	64 - 130
N-Nitrosodiphenylamine	100	97.3		ug/L		97	68 - 130
Pentachlorophenol	100	89.2		ug/L		89	42 - 138
Phenanthrene	100	94.2		ug/L		94	62 - 130
Phenol	100	87.4		ug/L		87	29 - 130
Pyrene	100	92.8		ug/L		93	60 - 130
2,4,5-Trichlorophenol	100	81.4		ug/L		81	61 - 130
2,4,6-Trichlorophenol	100	83.2		ug/L		83	57 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*38 - 130*
2-Fluorophenol	*79*		*25 - 130*
Nitrobenzene-d5	*87*		*39 - 130*
Phenol-d5	*79*		*25 - 130*
Terphenyl-d14	*83*		*10 - 143*
2,4,6-Tribromophenol	*82*		*31 - 141*

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	100	94.1		ug/L		94	55 - 130	7	50
Acenaphthylene	100	94.3		ug/L		94	60 - 130	7	50
Anthracene	100	92.3		ug/L		92	61 - 130	4	50
Benzo[a]anthracene	100	92.2		ug/L		92	58 - 130	3	50
Benzo[a]pyrene	100	98.9		ug/L		99	61 - 130	3	50
Benzo[b]fluoranthene	100	92.9		ug/L		93	51 - 130	1	50
Benzo[g,h,i]perylene	100	91.3		ug/L		91	54 - 130	2	50
Benzo[k]fluoranthene	100	91.6		ug/L		92	53 - 130	4	50
Benzyl alcohol	100	90.5		ug/L		91	53 - 130	7	50
1,1'-Biphenyl	100	96.3		ug/L		96	54 - 130	6	50
Bis(2-chloroethoxy)methane	100	117		ug/L		117	64 - 130	7	50
Bis(2-chloroethyl)ether	100	120		ug/L		120	56 - 130	8	50
bis(chloroisopropyl) ether	100	136	Q	ug/L		136	55 - 130	8	50
Bis(2-ethylhexyl) phthalate	100	101		ug/L		101	62 - 130	1	50
4-Bromophenyl phenyl ether	100	102		ug/L		102	61 - 130	4	50
Butyl benzyl phthalate	100	105		ug/L		105	66 - 130	0	50
4-Chloroaniline	100	75.6		ug/L		76	42 - 130	12	50
4-Chloro-3-methylphenol	100	97.0		ug/L		97	60 - 130	9	50
2-Chloronaphthalene	100	84.1		ug/L		84	53 - 130	6	50
2-Chlorophenol	100	88.3		ug/L		88	57 - 130	10	50
4-Chlorophenyl phenyl ether	100	98.8		ug/L		99	57 - 130	6	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene			100	94.6		ug/L		95	59 - 130	6	50
Dibenz(a,h)anthracene			100	93.1		ug/L		93	55 - 130	3	50
Dibenzofuran			100	86.0		ug/L		86	58 - 130	8	50
3,3'-Dichlorobenzidine			100	75.5		ug/L		76	27 - 130	10	50
2,4-Dichlorophenol			100	85.8		ug/L		86	54 - 130	4	50
Diethyl phthalate			100	102		ug/L		102	70 - 130	4	50
2,4-Dimethylphenol			100	69.2		ug/L		69	40 - 130	8	50
Dimethyl phthalate			100	101		ug/L		101	69 - 130	6	50
Di-n-butyl phthalate			100	103		ug/L		103	66 - 130	2	50
4,6-Dinitro-2-methylphenol			100	103		ug/L		103	45 - 134	6	50
2,4-Dinitrophenol			100	113		ug/L		113	20 - 165	8	50
2,4-Dinitrotoluene			100	89.3		ug/L		89	63 - 130	4	50
2,6-Dinitrotoluene			100	90.6		ug/L		91	65 - 130	6	50
Di-n-octyl phthalate			100	109		ug/L		109	64 - 130	1	50
1,4-Dioxane			100	92.3		ug/L		92	35 - 130	6	50
Fluoranthene			100	97.1		ug/L		97	56 - 130	3	50
Fluorene			100	94.2		ug/L		94	61 - 130	7	50
Hexachlorobenzene			100	90.7		ug/L		91	52 - 130	3	50
Hexachlorobutadiene			100	82.8		ug/L		83	36 - 130	5	50
Hexachlorocyclopentadiene			100	36.2		ug/L		36	10 - 130	19	50
Hexachloroethane			100	73.4		ug/L		73	39 - 130	1	50
Indeno[1,2,3-cd]pyrene			100	89.2		ug/L		89	47 - 130	4	50
Isophorone			100	104		ug/L		104	59 - 130	8	50
2-Methylnaphthalene			100	88.0		ug/L		88	52 - 130	6	50
2-Methylphenol			100	71.3		ug/L		71	55 - 130	6	50
3 & 4 Methylphenol			100	86.5		ug/L		87	35 - 130	7	50
Naphthalene			100	87.3		ug/L		87	50 - 130	5	50
2-Nitroaniline			100	111		ug/L		111	60 - 130	8	50
3-Nitroaniline			100	87.8		ug/L		88	54 - 130	7	50
4-Nitroaniline			100	88.4		ug/L		88	54 - 130	7	50
Nitrobenzene			100	99.8		ug/L		100	56 - 130	8	50
2-Nitrophenol			100	91.7		ug/L		92	54 - 130	8	50
4-Nitrophenol			100	100		ug/L		100	38 - 130	6	50
N-Nitrosodimethylamine			100	108		ug/L		108	54 - 130	10	50
N-Nitrosodi-n-propylamine			100	117		ug/L		117	64 - 130	9	50
N-Nitrosodiphenylamine			100	103		ug/L		103	68 - 130	6	50
Pentachlorophenol			100	91.5		ug/L		92	42 - 138	3	50
Phenanthrene			100	97.5		ug/L		97	62 - 130	3	50
Phenol			100	94.4		ug/L		94	29 - 130	8	50
Pyrene			100	95.5		ug/L		96	60 - 130	3	50
2,4,5-Trichlorophenol			100	88.6		ug/L		89	61 - 130	9	50
2,4,6-Trichlorophenol			100	90.1		ug/L		90	57 - 130	8	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*38 - 130*
2-Fluorophenol	*85*		*25 - 130*
Nitrobenzene-d5	*96*		*39 - 130*
Phenol-d5	*87*		*25 - 130*
Terphenyl-d14	*86*		*10 - 143*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*89*		*31 - 141*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-221450/14-A
Matrix: Water
Analysis Batch: 223765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221450

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		11/20/11 15:30	12/14/11 07:53	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		11/20/11 15:30	12/14/11 07:53	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		11/20/11 15:30	12/14/11 07:53	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		11/20/11 15:30	12/14/11 07:53	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		11/20/11 15:30	12/14/11 07:53	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		11/20/11 15:30	12/14/11 07:53	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		11/20/11 15:30	12/14/11 07:53	1
Chlorobenzilate	0.50	U	0.50	0.50	ug/L		11/20/11 15:30	12/14/11 07:53	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		11/20/11 15:30	12/14/11 07:53	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		11/20/11 15:30	12/14/11 07:53	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		11/20/11 15:30	12/14/11 07:53	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		11/20/11 15:30	12/14/11 07:53	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		11/20/11 15:30	12/14/11 07:53	1
Endrin	0.0097	U	0.10	0.0097	ug/L		11/20/11 15:30	12/14/11 07:53	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		11/20/11 15:30	12/14/11 07:53	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		11/20/11 15:30	12/14/11 07:53	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		11/20/11 15:30	12/14/11 07:53	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		11/20/11 15:30	12/14/11 07:53	1
Isodrin	0.050	U	0.050	0.050	ug/L		11/20/11 15:30	12/14/11 07:53	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1016	0.071	U	1.0	0.071	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1221	0.28	U	2.0	0.28	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1232	0.11	U	1.0	0.11	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1242	0.18	U	1.0	0.18	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1248	0.36	U	1.0	0.36	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1254	0.26	U	1.0	0.26	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1260	0.20	U	1.0	0.20	ug/L		11/20/11 15:30	12/14/11 07:53	1
PCB-1262	0.24	U	1.0	0.24	ug/L		11/20/11 15:30	12/14/11 07:53	1
Toxaphene	0.50	U	5.0	0.50	ug/L		11/20/11 15:30	12/14/11 07:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*	*M*	*40 - 130*	*11/20/11 15:30*	*12/14/11 07:53*	*1*
DCB Decachlorobiphenyl	*59*		*40 - 130*	*11/20/11 15:30*	*12/14/11 07:53*	*1*
Tetrachloro-m-xylene	*81*		*36 - 130*	*11/20/11 15:30*	*12/14/11 07:53*	*1*
Tetrachloro-m-xylene	*81*		*36 - 130*	*11/20/11 15:30*	*12/14/11 07:53*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-221450/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.200	0.194	M	ug/L		97	49 - 144
4,4'-DDE	0.200	0.176		ug/L		88	46 - 144
4,4'-DDT	0.200	0.181		ug/L		90	48 - 166
Aldrin	0.100	0.0942		ug/L		94	14 - 168
alpha-BHC	0.100	0.0932		ug/L		93	43 - 138
beta-BHC	0.100	0.110	J	ug/L		110	38 - 158
delta-BHC	0.100	0.117		ug/L		117	23 - 191
Dieldrin	0.200	0.178		ug/L		89	61 - 136
Endosulfan I	0.100	0.0923		ug/L		92	52 - 141
Endosulfan II	0.200	0.170	M	ug/L		85	60 - 140
Endosulfan sulfate	0.200	0.184	M	ug/L		92	60 - 151
Endrin	0.200	0.191		ug/L		96	66 - 150
Endrin aldehyde	0.200	0.311		ug/L		156	16 - 200
gamma-BHC (Lindane)	0.100	0.0967		ug/L		97	54 - 134
Heptachlor	0.100	0.132		ug/L		132	10 - 200
Heptachlor epoxide	0.100	0.0961		ug/L		96	49 - 142
Methoxychlor	0.200	0.127	M J	ug/L		64	13 - 186

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*	*M*	*40 - 130*
Tetrachloro-m-xylene	*76*		*36 - 130*

Lab Sample ID: LCS 680-221450/19-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	9.00		ug/L		90	38 - 172
PCB-1260	10.0	7.70		ug/L		77	46 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*48*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*56*		*40 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*

Lab Sample ID: LCSD 680-221450/16-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.200	0.167		ug/L		83	49 - 144	15	50
4,4'-DDE	0.200	0.156		ug/L		78	46 - 144	12	50
4,4'-DDT	0.200	0.159		ug/L		79	48 - 166	13	50
Aldrin	0.100	0.0748		ug/L		75	14 - 168	23	50
alpha-BHC	0.100	0.0789		ug/L		79	43 - 138	17	50
beta-BHC	0.100	0.0908	J	ug/L		91	38 - 158	19	50
delta-BHC	0.100	0.0951		ug/L		95	23 - 191	21	50

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCSD 680-221450/16-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dieldrin	0.200	0.154		ug/L		77	61 - 136	14	50
Endosulfan I	0.100	0.0831		ug/L		83	52 - 141	11	50
Endosulfan II	0.200	0.155		ug/L		77	60 - 140	10	50
Endosulfan sulfate	0.200	0.160		ug/L		80	60 - 151	14	50
Endrin	0.200	0.159		ug/L		79	66 - 150	19	50
Endrin aldehyde	0.200	0.169	J Q	ug/L		85	16 - 200	59	50
gamma-BHC (Lindane)	0.100	0.0843		ug/L		84	54 - 134	14	50
Heptachlor	0.100	0.0974		ug/L		97	10 - 200	31	50
Heptachlor epoxide	0.100	0.0790		ug/L		79	49 - 142	20	50
Methoxychlor	0.200	0.0942	M J	ug/L		47	13 - 186	30	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*48*		*40 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*

Lab Sample ID: LCSD 680-221450/20-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	10.0	9.07		ug/L		91	38 - 172	1	50
PCB-1260	10.0	8.48		ug/L		85	46 - 138	10	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*61*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*73*		*40 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*
Tetrachloro-m-xylene	*77*		*36 - 130*

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0064		0.198	0.202		ug/L		102	49 - 144
4,4'-DDE	0.0076		0.198	0.155		ug/L		78	46 - 144
4,4'-DDT	0.0096		0.198	0.212		ug/L		107	48 - 166
Aldrin	0.0069		0.0991	0.0693		ug/L		70	14 - 168
alpha-BHC	0.0056		0.0991	0.0783	J	ug/L		79	43 - 138
beta-BHC	0.0066		0.0991	0.203	J	ug/L		205	38 - 158
delta-BHC	0.0047		0.0991	0.133		ug/L		134	23 - 191
Dieldrin	0.0090		0.198	0.168		ug/L		85	61 - 136
Endosulfan I	0.0041		0.0991	0.0961		ug/L		97	52 - 141
Endosulfan II	0.0097		0.198	0.171		ug/L		86	60 - 140
Endosulfan sulfate	0.0067		0.198	0.218		ug/L		110	60 - 151
Endrin	0.0096		0.198	0.167		ug/L		84	66 - 150
Endrin aldehyde	0.016		0.198	0.115		ug/L		58	16 - 200
gamma-BHC (Lindane)	0.0058		0.0991	0.124		ug/L		125	54 - 134

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor	0.0069		0.0991	0.0773	J	ug/L		78	10 - 200
Heptachlor epoxide	0.0059		0.0991	0.0855		ug/L		86	49 - 142
Methoxychlor	0.013		0.198	0.0996	M J	ug/L		50	13 - 186

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*40*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*41*		*40 - 130*
Tetrachloro-m-xylene	*78*		*36 - 130*
Tetrachloro-m-xylene	*97*		*36 - 130*

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223765 — **Prep Batch: 221450**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.0064		0.181	0.202		ug/L		111	49 - 144	0	50
4,4'-DDE	0.0076		0.181	0.152		ug/L		84	46 - 144	2	50
4,4'-DDT	0.0096		0.181	0.201		ug/L		111	48 - 166	5	50
Aldrin	0.0069		0.0905	0.0693		ug/L		77	14 - 168	0	50
alpha-BHC	0.0056		0.0905	0.0800	J	ug/L		88	43 - 138	2	50
beta-BHC	0.0066		0.0905	0.232	J	ug/L		257	38 - 158	13	50
delta-BHC	0.0047		0.0905	0.131		ug/L		145	23 - 191	2	50
Dieldrin	0.0090		0.181	0.162		ug/L		89	61 - 136	4	50
Endosulfan I	0.0041		0.0905	0.0885		ug/L		98	52 - 141	8	50
Endosulfan II	0.0097		0.181	0.169		ug/L		94	60 - 140	1	50
Endosulfan sulfate	0.0067		0.181	0.220		ug/L		122	60 - 151	1	50
Endrin	0.0096		0.181	0.172		ug/L		95	66 - 150	3	50
Endrin aldehyde	0.016		0.181	0.110		ug/L		61	16 - 200	5	50
gamma-BHC (Lindane)	0.0058		0.0905	0.131	J	ug/L		145	54 - 134	6	50
Heptachlor	0.0069		0.0905	0.0791	J	ug/L		87	10 - 200	2	50
Heptachlor epoxide	0.0059		0.0905	0.0824		ug/L		91	49 - 142	4	50
Methoxychlor	0.013		0.181	0.0869	M J	ug/L		48	13 - 186	14	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*32*	*M J*	*40 - 130*
DCB Decachlorobiphenyl	*32*	*J*	*40 - 130*
Tetrachloro-m-xylene	*83*		*36 - 130*
Tetrachloro-m-xylene	*109*		*36 - 130*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 680-221466/19-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222283 — **Prep Batch: 221466**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.037	U	0.50	0.037	ug/L		11/21/11 07:57	11/27/11 04:50	1
2,4-DB	0.15	U	0.50	0.15	ug/L		11/21/11 07:57	11/27/11 04:50	1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 680-221466/19-A
Matrix: Water
Analysis Batch: 222283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.062	U	0.50	0.062	ug/L		11/21/11 07:57	11/27/11 04:50	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dalapon	0.10	U	10	0.10	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dicamba	0.085	U	0.50	0.085	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		11/21/11 07:57	11/27/11 04:50	1
Dinoseb	0.16	U	6.0	0.16	ug/L		11/21/11 07:57	11/27/11 04:50	1
MCPA	17	U	120	17	ug/L		11/21/11 07:57	11/27/11 04:50	1
Mecoprop	19	U	120	19	ug/L		11/21/11 07:57	11/27/11 04:50	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		11/21/11 07:57	11/27/11 04:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*75*		*52 - 151*	*11/21/11 07:57*	*11/27/11 04:50*	*1*
DCAA	*65*		*52 - 151*	*11/21/11 07:57*	*11/27/11 04:50*	*1*

Lab Sample ID: LCS 680-221466/20-A
Matrix: Water
Analysis Batch: 222283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	2.00	1.89		ug/L		95	63 - 130
2,4-DB	2.00	1.94		ug/L		97	34 - 157
2,4,5-T	2.00	1.80		ug/L		90	59 - 130
Silvex (2,4,5-TP)	2.00	1.77		ug/L		88	64 - 130
Dalapon	10.0	9.02	J	ug/L		90	24 - 130
Dicamba	2.00	1.69		ug/L		85	66 - 130
Dichlorprop	2.00	2.19		ug/L		110	65 - 152
Dinoseb	2.00	1.68	J	ug/L		84	10 - 130
MCPA	200	170		ug/L		85	40 - 130
Mecoprop	200	183		ug/L		91	53 - 130
Pentachlorophenol	1.34	1.19		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*82*		*52 - 151*
DCAA	*84*		*52 - 151*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-221301/1-A
Matrix: Water
Analysis Batch: 221502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221301

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 01:55	1
Barium	0.15	U	1.0	0.15	ug/L		11/18/11 09:04	11/20/11 01:55	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/18/11 09:04	11/20/11 01:55	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/18/11 09:04	11/20/11 01:55	1
Chromium	0.16	U	1.0	0.16	ug/L		11/18/11 09:04	11/20/11 01:55	1
Cobalt	0.078	U	0.20	0.078	ug/L		11/18/11 09:04	11/20/11 01:55	1
Copper	0.21	U	1.0	0.21	ug/L		11/18/11 09:04	11/20/11 01:55	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-221301/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.080	U	0.30	0.080	ug/L		11/18/11 09:04	11/20/11 01:55	1
Nickel	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 01:55	1
Selenium	0.21	U	0.50	0.21	ug/L		11/18/11 09:04	11/20/11 01:55	1
Silver	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 01:55	1
Thallium	0.10	U	0.20	0.10	ug/L		11/18/11 09:04	11/20/11 01:55	1
Tin	0.40	U	1.0	0.40	ug/L		11/18/11 09:04	11/20/11 01:55	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/18/11 09:04	11/20/11 01:55	1
Zinc	2.6	U	10	2.6	ug/L		11/18/11 09:04	11/20/11 01:55	1

Lab Sample ID: MB 680-221301/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/18/11 09:04	11/20/11 16:03	1

Lab Sample ID: LCS 680-221301/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	20.0	21.9		ug/L		110	75 - 125
Barium	20.0	21.1		ug/L		105	75 - 125
Beryllium	10.0	10.9		ug/L		109	75 - 125
Cadmium	10.0	10.8		ug/L		108	75 - 125
Chromium	20.0	21.7		ug/L		109	75 - 125
Cobalt	10.0	10.0		ug/L		100	75 - 125
Copper	20.0	22.5		ug/L		113	75 - 125
Lead	10.0	10.7		ug/L		107	75 - 125
Nickel	20.0	22.2		ug/L		111	75 - 125
Selenium	20.0	21.5		ug/L		107	75 - 125
Silver	10.0	11.0		ug/L		110	75 - 125
Thallium	8.00	8.41		ug/L		105	75 - 125
Tin	20.0	17.6		ug/L		88	75 - 125
Vanadium	20.0	21.5		ug/L		107	75 - 125
Zinc	20.0	23.1		ug/L		115	75 - 125

Lab Sample ID: LCS 680-221301/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	11.1		ug/L		111	75 - 125

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.0		20.0	23.5		ug/L		92	75 - 125
Barium	66		20.0	86.8		ug/L		104	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.070	U	10.0	10.7		ug/L		107	75 - 125
Cadmium	0.20	U	10.0	10.1		ug/L		101	75 - 125
Chromium	0.54	J	20.0	19.9		ug/L		97	75 - 125
Cobalt	0.71		10.0	9.36		ug/L		87	75 - 125
Copper	1.3		20.0	20.7		ug/L		97	75 - 125
Lead	0.12	J	10.0	9.81		ug/L		97	75 - 125
Nickel	0.54	J	20.0	19.9		ug/L		97	75 - 125
Selenium	0.21	U	20.0	17.9		ug/L		90	75 - 125
Silver	0.10	U	10.0	9.34		ug/L		93	75 - 125
Thallium	0.10	U	8.00	7.78		ug/L		97	75 - 125
Tin	0.40	U J	20.0	14.0	J	ug/L		70	75 - 125
Vanadium	2.8	J	20.0	22.1		ug/L		96	75 - 125
Zinc	22	J	20.0	36.6	J	ug/L		74	75 - 125

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.99	U	10.0	10.1		ug/L		101	75 - 125

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.0		20.0	24.2		ug/L		96	75 - 125	3	20
Barium	66		20.0	89.4		ug/L		117	75 - 125	3	20
Beryllium	0.070	U	10.0	11.5		ug/L		115	75 - 125	7	20
Cadmium	0.20	U	10.0	10.6		ug/L		106	75 - 125	4	20
Chromium	0.54	J	20.0	20.6		ug/L		100	75 - 125	3	20
Cobalt	0.71		10.0	9.65		ug/L		89	75 - 125	3	20
Copper	1.3		20.0	21.4		ug/L		101	75 - 125	3	20
Lead	0.12	J	10.0	10.4		ug/L		103	75 - 125	6	20
Nickel	0.54	J	20.0	20.7		ug/L		101	75 - 125	4	20
Selenium	0.21	U	20.0	18.6		ug/L		93	75 - 125	3	20
Silver	0.10	U	10.0	9.85		ug/L		99	75 - 125	5	20
Thallium	0.10	U	8.00	8.24		ug/L		103	75 - 125	6	20
Tin	0.40	U J	20.0	15.1		ug/L		75	75 - 125	7	20
Vanadium	2.8	J	20.0	22.9		ug/L		100	75 - 125	3	20
Zinc	22	J	20.0	40.0		ug/L		91	75 - 125	9	20

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221502 — **Prep Batch: 221301**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.99	U	10.0	10.5		ug/L		105	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-221760/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222144 — **Prep Batch: 221760**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/23/11 12:18	11/30/11 09:29	1

Lab Sample ID: LCS 680-221760/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222144 — **Prep Batch: 221760**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.50	2.67		ug/L		107	80 - 120

Lab Sample ID: 680-74444-2 MS — **Client Sample ID: SLMW-10-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222144 — **Prep Batch: 221760**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.091	U J	1.00	0.909		ug/L		91	80 - 120

Lab Sample ID: 680-74444-2 MSD — **Client Sample ID: SLMW-10-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222144 — **Prep Batch: 221760**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.091	U J	1.00	0.901		ug/L		90	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-221714/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221714

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/17/11 17:14	5

Lab Sample ID: LCS 680-221714/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221714

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.99	5.08		mg/L		102	90 - 110

Lab Sample ID: LCSD 680-221714/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221714

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.99	5.08		mg/L		102	90 - 110	0	30

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221714

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.075	U	4.99	5.18		mg/L		104	90 - 110

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221714

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.075	U	4.99	5.22		mg/L		105	90 - 110	1	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-222051/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/29/11 11:39	11/30/11 08:12	1

Lab Sample ID: LCS 680-222051/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0298	0.0311		mg/L		104	85 - 115

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0050	U	0.0308	0.0282		mg/L		92	85 - 115

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222138 — **Prep Batch: 222051**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0050	U	0.0308	0.0277		mg/L		90	85 - 115	2	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 680-221672/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 680-221672/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	408	253		mg/L		62	50 - 150

Lab Sample ID: 680-74444-1 MS — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10	U	406	224		mg/L		55	50 - 150

Lab Sample ID: 680-74444-1 MSD — **Client Sample ID: SLMW-7-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	10	U	406	233		mg/L		57	50 - 150	4	50

GC/MS Semi VOA

Prep Batch: 221448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	3520C	
680-74444-2	SLMW-10-11-11	Total/NA	Water	3520C	
680-74444-3	SLMW-6-11-11	Total/NA	Water	3520C	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	3520C	
LCS 680-221448/17-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221448/18-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-221448/16-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 223265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1 - RE	SLMW-7-11-11	Total/NA	Water	3520C	
680-74444-2 - RE	SLMW-10-11-11	Total/NA	Water	3520C	
680-74444-3 - RE	SLMW-6-11-11	Total/NA	Water	3520C	
680-74444-4 - RE	SLMW-12BR-11-11	Total/NA	Water	3520C	
LCS 680-223265/12-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-223265/13-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-223265/11-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 223700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1 - RE	SLMW-7-11-11	Total/NA	Water	8270D	223265
680-74444-2 - RE	SLMW-10-11-11	Total/NA	Water	8270D	223265
LCS 680-223265/12-A	Lab Control Sample	Total/NA	Water	8270D	223265
LCSD 680-223265/13-A	Lab Control Sample Dup	Total/NA	Water	8270D	223265
MB 680-223265/11-A	Method Blank	Total/NA	Water	8270D	223265

Analysis Batch: 223845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	8270D	221448
680-74444-2	SLMW-10-11-11	Total/NA	Water	8270D	221448
680-74444-3 - RE	SLMW-6-11-11	Total/NA	Water	8270D	223265
680-74444-3	SLMW-6-11-11	Total/NA	Water	8270D	221448
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	8270D	221448
LCS 680-221448/17-A	Lab Control Sample	Total/NA	Water	8270D	221448
LCSD 680-221448/18-A	Lab Control Sample Dup	Total/NA	Water	8270D	221448
MB 680-221448/16-A	Method Blank	Total/NA	Water	8270D	221448

Analysis Batch: 223861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-4 - RE	SLMW-12BR-11-11	Total/NA	Water	8270D	223265

GC Semi VOA

Prep Batch: 221450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	3520C	
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	3520C	
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	3520C	
680-74444-2	SLMW-10-11-11	Total/NA	Water	3520C	
680-74444-3	SLMW-6-11-11	Total/NA	Water	3520C	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	3520C	
LCS 680-221450/15-A	Lab Control Sample	Total/NA	Water	3520C	

GC Semi VOA (Continued)

Prep Batch: 221450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-221450/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221450/16-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-221450/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-221450/14-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 221466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	8151A	
680-74444-2	SLMW-10-11-11	Total/NA	Water	8151A	
680-74444-3	SLMW-6-11-11	Total/NA	Water	8151A	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	8151A	
LCS 680-221466/20-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-221466/19-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 222283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	8151A	221466
680-74444-2	SLMW-10-11-11	Total/NA	Water	8151A	221466
680-74444-3	SLMW-6-11-11	Total/NA	Water	8151A	221466
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	8151A	221466
LCS 680-221466/20-A	Lab Control Sample	Total/NA	Water	8151A	221466
MB 680-221466/19-A	Method Blank	Total/NA	Water	8151A	221466

Analysis Batch: 223765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	8081B/8082A	221450
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	8081B/8082A	221450
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	8081B/8082A	221450
680-74444-2	SLMW-10-11-11	Total/NA	Water	8081B/8082A	221450
680-74444-3	SLMW-6-11-11	Total/NA	Water	8081B/8082A	221450
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	8081B/8082A	221450
LCS 680-221450/15-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221450
LCS 680-221450/19-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221450
LCSD 680-221450/16-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221450
LCSD 680-221450/20-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221450
MB 680-221450/14-A	Method Blank	Total/NA	Water	8081B/8082A	221450

Metals

Prep Batch: 221301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	3030C	
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	3030C	
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	3030C	
680-74444-2	SLMW-10-11-11	Total/NA	Water	3030C	
680-74444-3	SLMW-6-11-11	Total/NA	Water	3030C	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	3030C	
LCS 680-221301/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-221301/1-A	Method Blank	Total/NA	Water	3030C	

Metals (Continued)

Analysis Batch: 221502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-1	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	6020A	221301
680-74444-2	SLMW-10-11-11	Total/NA	Water	6020A	221301
680-74444-2	SLMW-10-11-11	Total/NA	Water	6020A	221301
680-74444-3	SLMW-6-11-11	Total/NA	Water	6020A	221301
680-74444-3	SLMW-6-11-11	Total/NA	Water	6020A	221301
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	6020A	221301
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	6020A	221301
LCS 680-221301/2-A	Lab Control Sample	Total/NA	Water	6020A	221301
LCS 680-221301/2-A	Lab Control Sample	Total/NA	Water	6020A	221301
MB 680-221301/1-A	Method Blank	Total/NA	Water	6020A	221301
MB 680-221301/1-A	Method Blank	Total/NA	Water	6020A	221301

Prep Batch: 221760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	7470A	
680-74444-2	SLMW-10-11-11	Total/NA	Water	7470A	
680-74444-2 MS	SLMW-10-11-11	Total/NA	Water	7470A	
680-74444-2 MSD	SLMW-10-11-11	Total/NA	Water	7470A	
680-74444-3	SLMW-6-11-11	Total/NA	Water	7470A	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	7470A	
LCS 680-221760/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 680-221760/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 222144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	7470A	221760
680-74444-2	SLMW-10-11-11	Total/NA	Water	7470A	221760
680-74444-2 MS	SLMW-10-11-11	Total/NA	Water	7470A	221760
680-74444-2 MSD	SLMW-10-11-11	Total/NA	Water	7470A	221760
680-74444-3	SLMW-6-11-11	Total/NA	Water	7470A	221760
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	7470A	221760
LCS 680-221760/2-A	Lab Control Sample	Total/NA	Water	7470A	221760
MB 680-221760/1-A	Method Blank	Total/NA	Water	7470A	221760

General Chemistry

Prep Batch: 221672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	9030B	
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	9030B	
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	9030B	
680-74444-2	SLMW-10-11-11	Total/NA	Water	9030B	
680-74444-3	SLMW-6-11-11	Total/NA	Water	9030B	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	9030B	
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 680-221672/1-A	Method Blank	Total/NA	Water	9030B	

General Chemistry (Continued)

Analysis Batch: 221673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	9034	221672
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	9034	221672
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	9034	221672
680-74444-2	SLMW-10-11-11	Total/NA	Water	9034	221672
680-74444-3	SLMW-6-11-11	Total/NA	Water	9034	221672
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	9034	221672
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9034	221672
MB 680-221672/1-A	Method Blank	Total/NA	Water	9034	221672

Analysis Batch: 221714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	300.0	
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	300.0	
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	300.0	
680-74444-2	SLMW-10-11-11	Total/NA	Water	300.0	
680-74444-3	SLMW-6-11-11	Total/NA	Water	300.0	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	300.0	
LCS 680-221714/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-221714/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-221714/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 222051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	9012B	
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	9012B	
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	9012B	
680-74444-2	SLMW-10-11-11	Total/NA	Water	9012B	
680-74444-3	SLMW-6-11-11	Total/NA	Water	9012B	
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	9012B	
LCS 680-222051/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 680-222051/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 222138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74444-1	SLMW-7-11-11	Total/NA	Water	9012B	222051
680-74444-1 MS	SLMW-7-11-11	Total/NA	Water	9012B	222051
680-74444-1 MSD	SLMW-7-11-11	Total/NA	Water	9012B	222051
680-74444-2	SLMW-10-11-11	Total/NA	Water	9012B	222051
680-74444-3	SLMW-6-11-11	Total/NA	Water	9012B	222051
680-74444-4	SLMW-12BR-11-11	Total/NA	Water	9012B	222051
LCS 680-222051/2-A	Lab Control Sample	Total/NA	Water	9012B	222051
MB 680-222051/1-A	Method Blank	Total/NA	Water	9012B	222051

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-7-11-11

Lab Sample ID: 680-74444-1

Date Collected: 11/16/11 08:00

Matrix: Water

Date Received: 11/17/11 09:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 02:57	LH	TAL SAV
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	223845	12/16/11 01:22	LH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 05:22	GM	TAL SAV
Total/NA	Prep	3520C			221450	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 09:47	JK	TAL SAV
Total/NA	Prep	3030C			221301	11/18/11 09:04	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 16:17	BR	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 02:09	BR	TAL SAV
Total/NA	Prep	7470A			221760	11/23/11 12:18	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222144	11/29/11 18:26	CE	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Analysis	300.0		5	221714	11/17/11 20:18	SMP	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:19	DAM	TAL SAV

Client Sample ID: SLMW-10-11-11

Lab Sample ID: 680-74444-2

Date Collected: 11/16/11 09:40

Matrix: Water

Date Received: 11/17/11 09:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 03:26	LH	TAL SAV
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	223845	12/16/11 01:51	LH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 05:38	GM	TAL SAV
Total/NA	Prep	3520C			221450	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 10:26	JK	TAL SAV
Total/NA	Prep	3030C			221301	11/18/11 09:04	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 16:55	BR	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 02:47	BR	TAL SAV
Total/NA	Prep	7470A			221760	11/23/11 12:18	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222144	11/29/11 18:29	CE	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Analysis	300.0		5	221714	11/17/11 21:05	SMP	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:21	DAM	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Client Sample ID: SLMW-6-11-11

Lab Sample ID: 680-74444-3

Date Collected: 11/16/11 12:45
Matrix: Water
Date Received: 11/17/11 09:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223845	12/15/11 21:59	LH	TAL SAV
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	223845	12/16/11 02:21	LH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 05:54	GM	TAL SAV
Total/NA	Prep	3520C			221450	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 10:44	JK	TAL SAV
Total/NA	Prep	3030C			221301	11/18/11 09:04	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 17:03	BR	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 02:54	BR	TAL SAV
Total/NA	Prep	7470A			221760	11/23/11 12:18	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222144	11/29/11 18:39	CE	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Analysis	300.0		5	221714	11/17/11 21:20	SMP	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:22	DAM	TAL SAV

Client Sample ID: SLMW-12BR-11-11

Lab Sample ID: 680-74444-4

Date Collected: 11/16/11 16:45
Matrix: Water
Date Received: 11/17/11 09:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	223845	12/16/11 02:50	LH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223861	12/16/11 11:27	LH	TAL SAV
Total/NA	Prep	8151A			221466	11/21/11 07:57	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 06:10	GM	TAL SAV
Total/NA	Prep	3520C			221450	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223765	12/14/11 11:04	JK	TAL SAV
Total/NA	Prep	3030C			221301	11/18/11 09:04	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 17:10	BR	TAL SAV
Total/NA	Analysis	6020A		1	221502	11/20/11 03:02	BR	TAL SAV
Total/NA	Prep	7470A			221760	11/23/11 12:18	JKL	TAL SAV
Total/NA	Analysis	7470A		1	222144	11/29/11 18:42	CE	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Analysis	300.0		5	221714	11/17/11 21:35	SMP	TAL SAV
Total/NA	Prep	9012B			222051	11/29/11 11:39	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222138	11/30/11 08:23	DAM	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 043532

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: FT BRAGG LONGSTREET	PROJECT NO.	PROJECT LOCATION (STATE): NC
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: KEVIN HABORAK	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 W OGLETHORPE AVE SAVANNAH, GA 31401		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE OF

STANDARD REPORT DELIVERY ◯

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

PRELIMINARY

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8270 ICE	8081/8082A ICE	8141B ICE	8151A ICE	9034 ZNAc NaOH	9012B NaOH	6020A HNO3	300 ICE			REMARKS
11-16-11	0800	SLMW-7-11-11	G	X				1	1	1	1	2	1	1	1			
	0940	SLMW-10-11-11						2	2	2	2	2	1	1	1			
	1245	SLMW-6-11-11						2	2	2	2	2	1	1	1			
11-16-11	1645	SLMW-12BR-11-11	G	X				2	2	2	2	2	1	1	1			

NUMBER OF CONTAINERS SUBMITTED

NOTHING FOLLOWS

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
George W Lowe Jr	11-16-11	1900	FED-EX					
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
George			YES ◯ NO ◯		680-74444	0.8/2.6/0.2/1.2

TAL 8240-680 (1008)

Certification Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74444-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-74406-1
Client Project/Site: Ft. Bragg Longstreet Landfill

For:
U.S. Army Corps of Engineers
PO BOX 889
Savannah, Georgia 31402-0889

Attn: Mr. Kevin Haborak

Kathryn Smith

Authorized for release by:
12/27/2011 9:54:00 AM

Kathryn Smith
Project Manager I
kathye.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 680-74406-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-74406-1

Comments
8141 Organophosphate Pesticide compounds were reported by 8270D.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 221448 exceeded control limits for multiple analytes. All associated samples were re-extracted outside holding times and both sets of results have been reported.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081B/8082A: Two surrogates are used for this analysis.The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without perfo rming re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: DUP2-11-11 (680-74406-2), SLMW8-11-11 (680-74406-6), SW1-11-11 (680-74406-3), SW2-11-11 (680-74406-1).

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Sample Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-74406-1	SW2-11-11	Water	11/15/11 08:00	11/16/11 10:17
680-74406-2	DUP2-11-11	Water	11/15/11 08:20	11/16/11 10:17
680-74406-3	SW1-11-11	Water	11/15/11 09:30	11/16/11 10:17
680-74406-4	SLMW12AR-11-11	Water	11/15/11 11:35	11/16/11 10:17
680-74406-5	SLDUP1-11-11	Water	11/15/11 11:50	11/16/11 10:17
680-74406-6	SLMW8-11-11	Water	11/15/11 14:30	11/16/11 10:17

Method Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
8151A	Herbicides (GC)	SW846	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
9012B	Cyanide, Total andor Amenable	SW846	TAL SAV
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SAV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
H	Sample was prepped or analyzed beyond the specified holding time
M	Manual integrated compound.

GC Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW2-11-11 — Lab Sample ID: 680-74406-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzyl alcohol	2.2	J Q	9.5	1.0	ug/L	1		8270D	Total/NA
Benzyl alcohol - RE	2.2	J H	9.4	1.0	ug/L	1		8270D	Total/NA
1,4-Dioxane - RE	12	H M	9.4	3.2	ug/L	1		8270D	Total/NA
Barium	27		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	1.3		1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.27		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.45	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.57	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	15		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: DUP2-11-11 — Lab Sample ID: 680-74406-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzyl alcohol	2.2	J Q	9.5	1.0	ug/L	1		8270D	Total/NA
Benzyl alcohol - RE	2.3	J H	9.4	1.0	ug/L	1		8270D	Total/NA
1,4-Dioxane - RE	15	H	9.4	3.2	ug/L	1		8270D	Total/NA
Barium	25		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.80	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.25		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.41	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.67	J	1.0	0.40	ug/L	1		6020A	Total/NA
Tin	1.1		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	16		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SW1-11-11 — Lab Sample ID: 680-74406-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	4.1	J Q	9.5	0.84	ug/L	1		8270D	Total/NA
Diethyl phthalate - RE	3.4	J H	9.5	0.84	ug/L	1		8270D	Total/NA
1,4-Dioxane - RE	19	H M	9.5	3.2	ug/L	1		8270D	Total/NA
2,4-D	0.083	J	0.48	0.036	ug/L	1		8151A	Total/NA
Arsenic	9.1		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	36		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.69	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.12	J	0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.47	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.16	J	0.30	0.080	ug/L	1		6020A	Total/NA
Selenium	0.39	J	0.50	0.21	ug/L	1		6020A	Total/NA
Zinc	13		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW12AR-11-11 — Lab Sample ID: 680-74406-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	31		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.13	J	0.20	0.070	ug/L	1		6020A	Total/NA
Chromium	0.71	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.69		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.62	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.34		0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.84	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.66		0.50	0.21	ug/L	1		6020A	Total/NA
Zinc	8.1	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate as N	0.22	J	0.25	0.075	mg/L	5		300.0	Total/NA
Cyanide, Total	0.0074	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLDUP1-11-11 — Lab Sample ID: 680-74406-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	30		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.13	J	0.20	0.070	ug/L	1		6020A	Total/NA
Chromium	0.71	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.66		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.71	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.37		0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.77	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.74		0.50	0.21	ug/L	1		6020A	Total/NA
Zinc	9.1	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate as N	0.22	J	0.25	0.075	mg/L	5		300.0	Total/NA

Client Sample ID: SLMW8-11-11 — Lab Sample ID: 680-74406-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.6		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	48		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.87	J	1.0	0.16	ug/L	1		6020A	Total/NA
Cobalt	0.23		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.56	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.51	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.54		0.50	0.21	ug/L	1		6020A	Total/NA
Vanadium	2.0	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	19		10	2.6	ug/L	1		6020A	Total/NA

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 20:33	1
Acenaphthylene	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 20:33	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzo[g,h,i]perylene	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
Benzyl alcohol	**2.2**	**J Q**	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/03/11 20:33	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/03/11 20:33	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 20:33	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 20:33	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Chlorophenol	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Chlorophenyl phenyl ether	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 20:33	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 20:33	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 20:33	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 20:33	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 20:33	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 20:33	1
Diethyl phthalate	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 20:33	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/03/11 20:33	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/03/11 20:33	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/03/11 20:33	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 20:33	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 20:33	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 20:33	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/03/11 20:33	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/03/11 20:33	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 20:33	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 20:33	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 20:33	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/03/11 20:33	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 20:33	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 20:33	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 20:33	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/03/11 20:33	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 20:33	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 20:33	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 20:33	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 20:33	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/03/11 20:33	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/03/11 20:33	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 20:33	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 20:33	1
Methyl parathion	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 20:33	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 20:33	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/03/11 20:33	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 20:33	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/03/11 20:33	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 20:33	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 20:33	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosodimethylamine	2.6	U	9.5	2.6	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosopiperidine	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 20:33	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 20:33	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 20:33	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 20:33	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/03/11 20:33	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 20:33	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/03/11 20:33	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 20:33	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 20:33	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 20:33	1
Phorate	0.82	U	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 20:33	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/03/11 20:33	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 20:33	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/03/11 20:33	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 20:33	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/03/11 20:33	1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 20:33	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 20:33	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 20:33	1
2,4,6-Trichlorophenol	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 20:33	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/03/11 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*38 - 130*	*11/20/11 15:30*	*12/03/11 20:33*	*1*
2-Fluorophenol	*49*		*25 - 130*	*11/20/11 15:30*	*12/03/11 20:33*	*1*
Nitrobenzene-d5	*69*		*39 - 130*	*11/20/11 15:30*	*12/03/11 20:33*	*1*
Phenol-d5	*52*		*25 - 130*	*11/20/11 15:30*	*12/03/11 20:33*	*1*
Terphenyl-d14	*61*		*10 - 143*	*11/20/11 15:30*	*12/03/11 20:33*	*1*
2,4,6-Tribromophenol	*105*		*31 - 141*	*11/20/11 15:30*	*12/03/11 20:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 00:31	1
Acenaphthylene	0.80	U H	9.4	0.80	ug/L		12/12/11 14:57	12/15/11 00:31	1
Acetophenone	0.54	U H	9.4	0.54	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Acetylaminofluorene	1.5	U H	9.4	1.5	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Aminobiphenyl	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
Anthracene	0.65	U H	9.4	0.65	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzo[a]anthracene	0.52	U H	9.4	0.52	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzo[a]pyrene	0.67	U H	9.4	0.67	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzo[b]fluoranthene	2.5	U H	9.4	2.5	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzo[g,h,i]perylene	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzo[k]fluoranthene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
Benzyl alcohol	**2.2**	**J H**	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,1'-Biphenyl	0.55	U H	9.4	0.55	ug/L		12/12/11 14:57	12/15/11 00:31	1
Bis(2-chloroethoxy)methane	0.89	U H	9.4	0.89	ug/L		12/12/11 14:57	12/15/11 00:31	1
Bis(2-chloroethyl)ether	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
bis(chloroisopropyl) ether	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 00:31	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.4	1.5	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Bromophenyl phenyl ether	0.73	U H	9.4	0.73	ug/L		12/12/11 14:57	12/15/11 00:31	1
Butyl benzyl phthalate	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Chloro-3-methylphenol	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Chloronaphthalene	0.76	U H	9.4	0.76	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Chlorophenol	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Chlorophenyl phenyl ether	0.79	U H	9.4	0.79	ug/L		12/12/11 14:57	12/15/11 00:31	1
Chrysene	0.48	U H	9.4	0.48	ug/L		12/12/11 14:57	12/15/11 00:31	1
Diallate	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 00:31	1
Dibenz(a,h)anthracene	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
Dibenzofuran	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 00:31	1
3,3'-Dichlorobenzidine	28	U H	57	28	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4-Dichlorophenol	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,6-Dichlorophenol	0.69	U H	9.4	0.69	ug/L		12/12/11 14:57	12/15/11 00:31	1
Diethyl phthalate	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 00:31	1
Dimethoate	0.71	U H	9.4	0.71	ug/L		12/12/11 14:57	12/15/11 00:31	1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
3,3'-Dimethylbenzidine	9.4	U H	19	9.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4-Dimethylphenol	3.8	U H	9.4	3.8	ug/L		12/12/11 14:57	12/15/11 00:31	1
Dimethyl phthalate	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
Di-n-butyl phthalate	0.78	U H	9.4	0.78	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,3-Dinitrobenzene	0.57	U H	9.4	0.57	ug/L		12/12/11 14:57	12/15/11 00:31	1
4,6-Dinitro-2-methylphenol	9.4	U H	47	9.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4-Dinitrophenol	9.4	U H	47	9.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4-Dinitrotoluene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,6-Dinitrotoluene	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
Di-n-octyl phthalate	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 00:31	1
Dinoseb	4.7	U H	9.4	4.7	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,4-Dioxane	**12**	**H M**	9.4	3.2	ug/L		12/12/11 14:57	12/15/11 00:31	1
Disulfoton	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 00:31	1
Ethyl methanesulfonate	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 00:31	1
Ethyl Parathion	1.2	U H	9.4	1.2	ug/L		12/12/11 14:57	12/15/11 00:31	1
Famphur	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
Fluoranthene	0.70	U H	9.4	0.70	ug/L		12/12/11 14:57	12/15/11 00:31	1
Fluorene	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 00:31	1
Hexachlorobenzene	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 00:31	1
Hexachlorobutadiene	0.59	U H	9.4	0.59	ug/L		12/12/11 14:57	12/15/11 00:31	1
Hexachlorocyclopentadiene	2.4	U H	9.4	2.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
Hexachloroethane	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 00:31	1
Hexachloropropene	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 00:31	1
Indeno[1,2,3-cd]pyrene	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
Isophorone	0.85	U H	9.4	0.85	ug/L		12/12/11 14:57	12/15/11 00:31	1
Isosafrole	0.47	U H	9.4	0.47	ug/L		12/12/11 14:57	12/15/11 00:31	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 00:31	1
3-Methylcholanthrene	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 00:31	1
Methyl methanesulfonate	0.57	U H	9.4	0.57	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Methylnaphthalene	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 00:31	1
Methyl parathion	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Methylphenol	0.84	U H	9.4	0.84	ug/L		12/12/11 14:57	12/15/11 00:31	1
3 & 4 Methylphenol	1.2	U H	9.4	1.2	ug/L		12/12/11 14:57	12/15/11 00:31	1
Naphthalene	0.66	U H	9.4	0.66	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,4-Naphthoquinone	0.59	U H	9.4	0.59	ug/L		12/12/11 14:57	12/15/11 00:31	1
1-Naphthylamine	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Naphthylamine	1.4	U H	9.4	1.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Nitroaniline	1.2	U H	47	1.2	ug/L		12/12/11 14:57	12/15/11 00:31	1
3-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 00:31	1
Nitrobenzene	0.69	U H	9.4	0.69	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Nitrophenol	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 00:31	1
4-Nitrophenol	1.8	U H	47	1.8	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitro-o-toluidine	1.4	U H	9.4	1.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosodiethylamine	0.88	U H	9.4	0.88	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosodimethylamine	2.6	U H	9.4	2.6	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosodi-n-butylamine	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosodi-n-propylamine	0.68	U H	9.4	0.68	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosodiphenylamine	0.87	U H	9.4	0.87	ug/L		12/12/11 14:57	12/15/11 00:31	1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosomethylethylamine	3.1	U H	9.4	3.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosopiperidine	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 00:31	1
N-Nitrosopyrrolidine	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
o,o',o''-Triethylphosphorothioate	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 00:31	1
p-Dimethylamino azobenzene	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 00:31	1
Pentachlorobenzene	0.49	U H	9.4	0.49	ug/L		12/12/11 14:57	12/15/11 00:31	1
Pentachloronitrobenzene	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 00:31	1
Pentachlorophenol	1.9	U H	47	1.9	ug/L		12/12/11 14:57	12/15/11 00:31	1
Phenacetin	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 00:31	1
Phenanthrene	0.73	U H	9.4	0.73	ug/L		12/12/11 14:57	12/15/11 00:31	1
Phenol	0.78	U H	9.4	0.78	ug/L		12/12/11 14:57	12/15/11 00:31	1
Phorate	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 00:31	1
p-Phenylene diamine	9.4	U H	1900	9.4	ug/L		12/12/11 14:57	12/15/11 00:31	1
Pronamide	0.84	U H	9.4	0.84	ug/L		12/12/11 14:57	12/15/11 00:31	1
Pyrene	0.60	U H	9.4	0.60	ug/L		12/12/11 14:57	12/15/11 00:31	1
Safrole, Total	0.76	U H	9.4	0.76	ug/L		12/12/11 14:57	12/15/11 00:31	1
Sulfotepp	0.50	U H	9.4	0.50	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,3,4,6-Tetrachlorophenol	0.68	U H	9.4	0.68	ug/L		12/12/11 14:57	12/15/11 00:31	1
Thionazin	0.86	U H	9.4	0.86	ug/L		12/12/11 14:57	12/15/11 00:31	1
2-Toluidine	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4,5-Trichlorophenol	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 00:31	1
2,4,6-Trichlorophenol	0.80	U H	9.4	0.80	ug/L		12/12/11 14:57	12/15/11 00:31	1
1,3,5-Trinitrobenzene	1.9	U H	9.4	1.9	ug/L		12/12/11 14:57	12/15/11 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*38 - 130*	*12/12/11 14:57*	*12/15/11 00:31*	*1*
2-Fluorophenol	*57*		*25 - 130*	*12/12/11 14:57*	*12/15/11 00:31*	*1*
Nitrobenzene-d5	*70*		*39 - 130*	*12/12/11 14:57*	*12/15/11 00:31*	*1*
Phenol-d5	*57*		*25 - 130*	*12/12/11 14:57*	*12/15/11 00:31*	*1*
Terphenyl-d14	*71*		*10 - 143*	*12/12/11 14:57*	*12/15/11 00:31*	*1*
2,4,6-Tribromophenol	*73*		*31 - 141*	*12/12/11 14:57*	*12/15/11 00:31*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/19/11 15:31	12/14/11 04:24	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/19/11 15:31	12/14/11 04:24	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 04:24	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 04:24	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/19/11 15:31	12/14/11 04:24	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/19/11 15:31	12/14/11 04:24	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/19/11 15:31	12/14/11 04:24	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/19/11 15:31	12/14/11 04:24	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/19/11 15:31	12/14/11 04:24	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/19/11 15:31	12/14/11 04:24	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/19/11 15:31	12/14/11 04:24	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/19/11 15:31	12/14/11 04:24	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/19/11 15:31	12/14/11 04:24	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 04:24	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/19/11 15:31	12/14/11 04:24	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/19/11 15:31	12/14/11 04:24	1

Client Sample ID: SW2-11-11
Date Collected: 11/15/11 08:00
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-1
Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 04:24	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/19/11 15:31	12/14/11 04:24	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/19/11 15:31	12/14/11 04:24	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/19/11 15:31	12/14/11 04:24	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/19/11 15:31	12/14/11 04:24	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/19/11 15:31	12/14/11 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*	*M J*	*40 - 130*	*11/19/11 15:31*	*12/14/11 04:24*	*1*
DCB Decachlorobiphenyl	*34*	*M J*	*40 - 130*	*11/19/11 15:31*	*12/14/11 04:24*	*1*
Tetrachloro-m-xylene	*62*		*36 - 130*	*11/19/11 15:31*	*12/14/11 04:24*	*1*
Tetrachloro-m-xylene	*65*		*36 - 130*	*11/19/11 15:31*	*12/14/11 04:24*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/17/11 07:56	11/27/11 03:15	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:15	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 03:15	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 03:15	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 03:15	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/17/11 07:56	11/27/11 03:15	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:15	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/17/11 07:56	11/27/11 03:15	1
MCPA	16	U	120	16	ug/L		11/17/11 07:56	11/27/11 03:15	1
Mecoprop	18	U	120	18	ug/L		11/17/11 07:56	11/27/11 03:15	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/17/11 07:56	11/27/11 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*85*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:15*	*1*
DCAA	*76*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:15*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 16:20	1
Arsenic	0.40	U J	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:20	1
Barium	**27**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 16:20	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 16:20	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 16:20	1
Chromium	**1.3**		1.0	0.16	ug/L		11/16/11 13:57	11/17/11 16:20	1
Cobalt	**0.27**		0.20	0.078	ug/L		11/16/11 13:57	11/17/11 16:20	1
Copper	**0.45**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 16:20	1
Lead	0.080	U	0.30	0.080	ug/L		11/16/11 13:57	11/17/11 16:20	1
Nickel	**0.57**	**J**	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:20	1
Selenium	0.21	U J	0.50	0.21	ug/L		11/16/11 13:57	11/17/11 16:20	1

Client Sample ID: SW2-11-11

Lab Sample ID: 680-74406-1

Date Collected: 11/15/11 08:00

Matrix: Water

Date Received: 11/16/11 10:17

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:20	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:20	1
Tin	0.40	U J	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:20	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 16:20	1
Zinc	**15**		10	2.6	ug/L		11/16/11 13:57	11/17/11 16:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 18:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/16/11 13:58	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 13:56	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: DUP2-11-11

Lab Sample ID: 680-74406-2

Date Collected: 11/15/11 08:20

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:01	1
Acenaphthylene	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 21:01	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzo[g,h,i]perylene	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
Benzyl alcohol	**2.2**	**J Q**	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/03/11 21:01	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/03/11 21:01	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:01	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:01	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Chlorophenol	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 21:01	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 21:01	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:01	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:01	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: DUP2-11-11
Date Collected: 11/15/11 08:20
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:01	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:01	1
Diethyl phthalate	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:01	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/03/11 21:01	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/03/11 21:01	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/03/11 21:01	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:01	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:01	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/03/11 21:01	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:01	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:01	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:01	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/03/11 21:01	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:01	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:01	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:01	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/03/11 21:01	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:01	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:01	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:01	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 21:01	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/03/11 21:01	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/03/11 21:01	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:01	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:01	1
Methyl parathion	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:01	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:01	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:01	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/03/11 21:01	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 21:01	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:01	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/03/11 21:01	1

Client Sample ID: DUP2-11-11
Date Collected: 11/15/11 08:20
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosopiperidine	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:01	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:01	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:01	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:01	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/03/11 21:01	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:01	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/03/11 21:01	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:01	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:01	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:01	1
Phorate	0.82	U	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 21:01	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/03/11 21:01	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:01	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/03/11 21:01	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:01	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:01	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 21:01	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:01	1
2,4,6-Trichlorophenol	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 21:01	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/03/11 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*38 - 130*	*11/20/11 15:30*	*12/03/11 21:01*	*1*
2-Fluorophenol	*54*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:01*	*1*
Nitrobenzene-d5	*75*		*39 - 130*	*11/20/11 15:30*	*12/03/11 21:01*	*1*
Phenol-d5	*57*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:01*	*1*
Terphenyl-d14	*65*		*10 - 143*	*11/20/11 15:30*	*12/03/11 21:01*	*1*
2,4,6-Tribromophenol	*106*		*31 - 141*	*11/20/11 15:30*	*12/03/11 21:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 01:00	1
Acenaphthylene	0.80	U H	9.4	0.80	ug/L		12/12/11 14:57	12/15/11 01:00	1
Acetophenone	0.54	U H	9.4	0.54	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Acetylaminofluorene	1.5	U H	9.4	1.5	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Aminobiphenyl	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
Anthracene	0.65	U H	9.4	0.65	ug/L		12/12/11 14:57	12/15/11 01:00	1
Benzo[a]anthracene	0.52	U H	9.4	0.52	ug/L		12/12/11 14:57	12/15/11 01:00	1
Benzo[a]pyrene	0.67	U H	9.4	0.67	ug/L		12/12/11 14:57	12/15/11 01:00	1
Benzo[b]fluoranthene	2.5	U H	9.4	2.5	ug/L		12/12/11 14:57	12/15/11 01:00	1
Benzo[g,h,i]perylene	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 01:00	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: DUP2-11-11
Date Collected: 11/15/11 08:20
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
Benzyl alcohol	**2.3**	**J H**	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,1'-Biphenyl	0.55	U H	9.4	0.55	ug/L		12/12/11 14:57	12/15/11 01:00	1
Bis(2-chloroethoxy)methane	0.89	U H	9.4	0.89	ug/L		12/12/11 14:57	12/15/11 01:00	1
Bis(2-chloroethyl)ether	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
bis(chloroisopropyl) ether	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 01:00	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.4	1.5	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Bromophenyl phenyl ether	0.73	U H	9.4	0.73	ug/L		12/12/11 14:57	12/15/11 01:00	1
Butyl benzyl phthalate	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Chloro-3-methylphenol	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Chloronaphthalene	0.76	U H	9.4	0.76	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Chlorophenol	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Chlorophenyl phenyl ether	0.79	U H	9.4	0.79	ug/L		12/12/11 14:57	12/15/11 01:00	1
Chrysene	0.48	U H	9.4	0.48	ug/L		12/12/11 14:57	12/15/11 01:00	1
Diallate	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 01:00	1
Dibenz(a,h)anthracene	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 01:00	1
Dibenzofuran	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 01:00	1
3,3'-Dichlorobenzidine	28	U H	57	28	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4-Dichlorophenol	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,6-Dichlorophenol	0.69	U H	9.4	0.69	ug/L		12/12/11 14:57	12/15/11 01:00	1
Diethyl phthalate	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 01:00	1
Dimethoate	0.71	U H	9.4	0.71	ug/L		12/12/11 14:57	12/15/11 01:00	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
3,3'-Dimethylbenzidine	9.4	U H	19	9.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4-Dimethylphenol	3.8	U H	9.4	3.8	ug/L		12/12/11 14:57	12/15/11 01:00	1
Dimethyl phthalate	0.93	U H	9.4	0.93	ug/L		12/12/11 14:57	12/15/11 01:00	1
Di-n-butyl phthalate	0.78	U H	9.4	0.78	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,3-Dinitrobenzene	0.57	U H	9.4	0.57	ug/L		12/12/11 14:57	12/15/11 01:00	1
4,6-Dinitro-2-methylphenol	9.4	U H	47	9.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4-Dinitrophenol	9.4	U H	47	9.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4-Dinitrotoluene	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,6-Dinitrotoluene	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
Di-n-octyl phthalate	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 01:00	1
Dinoseb	4.7	U H	9.4	4.7	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,4-Dioxane	**15**	**H**	9.4	3.2	ug/L		12/12/11 14:57	12/15/11 01:00	1
Disulfoton	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 01:00	1
Ethyl methanesulfonate	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 01:00	1
Ethyl Parathion	1.2	U H	9.4	1.2	ug/L		12/12/11 14:57	12/15/11 01:00	1
Famphur	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
Fluoranthene	0.70	U H	9.4	0.70	ug/L		12/12/11 14:57	12/15/11 01:00	1
Fluorene	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 01:00	1
Hexachlorobenzene	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 01:00	1
Hexachlorobutadiene	0.59	U H	9.4	0.59	ug/L		12/12/11 14:57	12/15/11 01:00	1
Hexachlorocyclopentadiene	2.4	U H	9.4	2.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
Hexachloroethane	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 01:00	1
Hexachloropropene	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 01:00	1
Indeno[1,2,3-cd]pyrene	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 01:00	1
Isophorone	0.85	U H	9.4	0.85	ug/L		12/12/11 14:57	12/15/11 01:00	1
Isosafrole	0.47	U H	9.4	0.47	ug/L		12/12/11 14:57	12/15/11 01:00	1

Client Sample ID: DUP2-11-11
Date Collected: 11/15/11 08:20
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methapyrilene	2.5	U H	1900	2.5	ug/L		12/12/11 14:57	12/15/11 01:00	1
3-Methylcholanthrene	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 01:00	1
Methyl methanesulfonate	0.57	U H	9.4	0.57	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Methylnaphthalene	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 01:00	1
Methyl parathion	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Methylphenol	0.84	U H	9.4	0.84	ug/L		12/12/11 14:57	12/15/11 01:00	1
3 & 4 Methylphenol	1.2	U H	9.4	1.2	ug/L		12/12/11 14:57	12/15/11 01:00	1
Naphthalene	0.66	U H	9.4	0.66	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,4-Naphthoquinone	0.59	U H	9.4	0.59	ug/L		12/12/11 14:57	12/15/11 01:00	1
1-Naphthylamine	1.0	U H	9.4	1.0	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Naphthylamine	1.4	U H	9.4	1.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Nitroaniline	1.2	U H	47	1.2	ug/L		12/12/11 14:57	12/15/11 01:00	1
3-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 01:00	1
Nitrobenzene	0.69	U H	9.4	0.69	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Nitrophenol	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 01:00	1
4-Nitrophenol	1.8	U H	47	1.8	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitro-o-toluidine	1.4	U H	9.4	1.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosodiethylamine	0.88	U H	9.4	0.88	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosodimethylamine	2.6	U H	9.4	2.6	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosodi-n-butylamine	0.91	U H	9.4	0.91	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosodi-n-propylamine	0.68	U H	9.4	0.68	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosodiphenylamine	0.87	U H	9.4	0.87	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosomethylethylamine	3.1	U H	9.4	3.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosopiperidine	0.83	U H	9.4	0.83	ug/L		12/12/11 14:57	12/15/11 01:00	1
N-Nitrosopyrrolidine	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 01:00	1
o,o',o''-Triethylphosphorothioate	0.94	U H	9.4	0.94	ug/L		12/12/11 14:57	12/15/11 01:00	1
p-Dimethylamino azobenzene	0.75	U H	9.4	0.75	ug/L		12/12/11 14:57	12/15/11 01:00	1
Pentachlorobenzene	0.49	U H	9.4	0.49	ug/L		12/12/11 14:57	12/15/11 01:00	1
Pentachloronitrobenzene	0.74	U H	9.4	0.74	ug/L		12/12/11 14:57	12/15/11 01:00	1
Pentachlorophenol	1.9	U H	47	1.9	ug/L		12/12/11 14:57	12/15/11 01:00	1
Phenacetin	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 01:00	1
Phenanthrene	0.73	U H	9.4	0.73	ug/L		12/12/11 14:57	12/15/11 01:00	1
Phenol	0.78	U H	9.4	0.78	ug/L		12/12/11 14:57	12/15/11 01:00	1
Phorate	0.82	U H	9.4	0.82	ug/L		12/12/11 14:57	12/15/11 01:00	1
p-Phenylene diamine	9.4	U H	1900	9.4	ug/L		12/12/11 14:57	12/15/11 01:00	1
Pronamide	0.84	U H	9.4	0.84	ug/L		12/12/11 14:57	12/15/11 01:00	1
Pyrene	0.59	U H	9.4	0.59	ug/L		12/12/11 14:57	12/15/11 01:00	1
Safrole, Total	0.76	U H	9.4	0.76	ug/L		12/12/11 14:57	12/15/11 01:00	1
Sulfotepp	0.50	U H	9.4	0.50	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.4	0.72	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,3,4,6-Tetrachlorophenol	0.68	U H	9.4	0.68	ug/L		12/12/11 14:57	12/15/11 01:00	1
Thionazin	0.86	U H	9.4	0.86	ug/L		12/12/11 14:57	12/15/11 01:00	1
2-Toluidine	1.3	U H	9.4	1.3	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4,5-Trichlorophenol	1.1	U H	9.4	1.1	ug/L		12/12/11 14:57	12/15/11 01:00	1
2,4,6-Trichlorophenol	0.80	U H	9.4	0.80	ug/L		12/12/11 14:57	12/15/11 01:00	1
1,3,5-Trinitrobenzene	1.9	U H	9.4	1.9	ug/L		12/12/11 14:57	12/15/11 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*38 - 130*	*12/12/11 14:57*	*12/15/11 01:00*	*1*

Client Sample ID: DUP2-11-11

Date Collected: 11/15/11 08:20
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	68		25 - 130	12/12/11 14:57	12/15/11 01:00	1
Nitrobenzene-d5	81		39 - 130	12/12/11 14:57	12/15/11 01:00	1
Phenol-d5	67		25 - 130	12/12/11 14:57	12/15/11 01:00	1
Terphenyl-d14	65		10 - 143	12/12/11 14:57	12/15/11 01:00	1
2,4,6-Tribromophenol	79		31 - 141	12/12/11 14:57	12/15/11 01:00	1

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0061	U	0.094	0.0061	ug/L		11/19/11 15:31	12/14/11 04:43	1
4,4'-DDE	0.0073	U	0.094	0.0073	ug/L		11/19/11 15:31	12/14/11 04:43	1
4,4'-DDT	0.0092	U	0.094	0.0092	ug/L		11/19/11 15:31	12/14/11 04:43	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 04:43	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/19/11 15:31	12/14/11 04:43	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/19/11 15:31	12/14/11 04:43	1
Chlordane (technical)	0.094	U	0.47	0.094	ug/L		11/19/11 15:31	12/14/11 04:43	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/19/11 15:31	12/14/11 04:43	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/19/11 15:31	12/14/11 04:43	1
Dieldrin	0.0086	U	0.094	0.0086	ug/L		11/19/11 15:31	12/14/11 04:43	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/19/11 15:31	12/14/11 04:43	1
Endosulfan II	0.0093	U	0.094	0.0093	ug/L		11/19/11 15:31	12/14/11 04:43	1
Endosulfan sulfate	0.0064	U	0.094	0.0064	ug/L		11/19/11 15:31	12/14/11 04:43	1
Endrin	0.0092	U	0.094	0.0092	ug/L		11/19/11 15:31	12/14/11 04:43	1
Endrin aldehyde	0.015	U	0.094	0.015	ug/L		11/19/11 15:31	12/14/11 04:43	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/19/11 15:31	12/14/11 04:43	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 04:43	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/19/11 15:31	12/14/11 04:43	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/19/11 15:31	12/14/11 04:43	1
Methoxychlor	0.012	U	0.094	0.012	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1016	0.067	U	0.94	0.067	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1221	0.26	U	1.9	0.26	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1232	0.10	U	0.94	0.10	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1242	0.17	U	0.94	0.17	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1248	0.34	U	0.94	0.34	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1254	0.25	U	0.94	0.25	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1260	0.19	U	0.94	0.19	ug/L		11/19/11 15:31	12/14/11 04:43	1
PCB-1262	0.23	U	0.94	0.23	ug/L		11/19/11 15:31	12/14/11 04:43	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/19/11 15:31	12/14/11 04:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	36	M J	40 - 130	11/19/11 15:31	12/14/11 04:43	1
DCB Decachlorobiphenyl	37	M J	40 - 130	11/19/11 15:31	12/14/11 04:43	1
Tetrachloro-m-xylene	68		36 - 130	11/19/11 15:31	12/14/11 04:43	1
Tetrachloro-m-xylene	71		36 - 130	11/19/11 15:31	12/14/11 04:43	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/17/11 07:56	11/27/11 03:31	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:31	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 03:31	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 03:31	1

Client Sample ID: DUP2-11-11

Lab Sample ID: 680-74406-2

Date Collected: 11/15/11 08:20

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 03:31	1
Dicamba	0.081	U	0.48	0.081	ug/L		11/17/11 07:56	11/27/11 03:31	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:31	1
Dinoseb	0.15	U	5.7	0.15	ug/L		11/17/11 07:56	11/27/11 03:31	1
MCPA	16	U	110	16	ug/L		11/17/11 07:56	11/27/11 03:31	1
Mecoprop	18	U	110	18	ug/L		11/17/11 07:56	11/27/11 03:31	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/17/11 07:56	11/27/11 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*85*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:31*	*1*
DCAA	*75*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:31*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 16:48	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:48	1
Barium	**25**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 16:48	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 16:48	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 16:48	1
Chromium	**0.80**	**J**	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 16:48	1
Cobalt	**0.25**		0.20	0.078	ug/L		11/16/11 13:57	11/17/11 16:48	1
Copper	**0.41**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 16:48	1
Lead	0.080	U	0.30	0.080	ug/L		11/16/11 13:57	11/17/11 16:48	1
Nickel	**0.67**	**J**	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:48	1
Selenium	0.21	U	0.50	0.21	ug/L		11/16/11 13:57	11/17/11 16:48	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:48	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:48	1
Tin	**1.1**		1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:48	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 16:48	1
Zinc	**16**		10	2.6	ug/L		11/16/11 13:57	11/17/11 16:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/16/11 14:59	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 13:57	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SW1-11-11

Lab Sample ID: 680-74406-3

Date Collected: 11/15/11 09:30

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:29	1
Acenaphthylene	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/03/11 21:29	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
Anthracene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzo[a]pyrene	0.68	U Q	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzo[g,h,i]perylene	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/03/11 21:29	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/03/11 21:29	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:29	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:29	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Chlorophenol	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 21:29	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 21:29	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:29	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:29	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:29	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:29	1
Diethyl phthalate	**4.1**	**J Q**	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:29	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/03/11 21:29	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/03/11 21:29	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/03/11 21:29	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:29	1
4,6-Dinitro-2-methylphenol	9.5	U Q	48	9.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4-Dinitrophenol	9.5	U Q	48	9.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:29	1
Dinoseb	4.8	U	9.5	4.8	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/03/11 21:29	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:29	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:29	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:29	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/03/11 21:29	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:29	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:29	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:29	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/03/11 21:29	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:29	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:29	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:29	1
Isophorone	0.86	U Q	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 21:29	1
Isosafrole	0.48	U	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 21:29	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/03/11 21:29	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:29	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:29	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Methylphenol	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 21:29	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:29	1
Naphthalene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:29	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Nitroaniline	1.2	U Q	48	1.2	ug/L		11/20/11 15:30	12/03/11 21:29	1
3-Nitroaniline	4.8	U Q	48	4.8	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Nitroaniline	4.8	U Q	48	4.8	ug/L		11/20/11 15:30	12/03/11 21:29	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:29	1
4-Nitrophenol	1.8	U Q	48	1.8	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:29	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:29	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:29	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:29	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/03/11 21:29	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:29	1
Pentachlorophenol	1.9	U Q	48	1.9	ug/L		11/20/11 15:30	12/03/11 21:29	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:29	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:29	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:29	1
Phorate	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:29	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/03/11 21:29	1
Pronamide	0.85	U	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 21:29	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/03/11 21:29	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:29	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:29	1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thionazin	0.87	U	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 21:29	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:29	1
2,4,6-Trichlorophenol	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/03/11 21:29	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/03/11 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*38 - 130*	*11/20/11 15:30*	*12/03/11 21:29*	*1*
2-Fluorophenol	*53*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:29*	*1*
Nitrobenzene-d5	*73*		*39 - 130*	*11/20/11 15:30*	*12/03/11 21:29*	*1*
Phenol-d5	*55*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:29*	*1*
Terphenyl-d14	*63*		*10 - 143*	*11/20/11 15:30*	*12/03/11 21:29*	*1*
2,4,6-Tribromophenol	*103*		*31 - 141*	*11/20/11 15:30*	*12/03/11 21:29*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:29	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 01:29	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
Anthracene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzo[a]pyrene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 01:29	1
Bis(2-chloroethoxy)methane	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 01:29	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
bis(chloroisopropyl) ether	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:29	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 01:29	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 01:29	1
Chrysene	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 01:29	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:29	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:29	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:29	1
3,3'-Dichlorobenzidine	28	U H	57	28	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,6-Dichlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 01:29	1
Diethyl phthalate	**3.4**	**J H**	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:29	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 01:29	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 01:29	1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 01:29	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 01:29	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 01:29	1
4,6-Dinitro-2-methylphenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,4-Dinitrophenol	9.5	U H	47	9.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:29	1
Dinoseb	4.7	U H	9.5	4.7	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,4-Dioxane	**19**	**H M**	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 01:29	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:29	1
Ethyl methanesulfonate	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:29	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 01:29	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
Fluoranthene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 01:29	1
Fluorene	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:29	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:29	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 01:29	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 01:29	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:29	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:29	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:29	1
Isophorone	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 01:29	1
Isosafrole	0.47	U H	9.5	0.47	ug/L		12/12/11 14:57	12/15/11 01:29	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 01:29	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:29	1
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:29	1
Methyl parathion	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Methylphenol	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 01:29	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 01:29	1
Naphthalene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 01:29	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Nitroaniline	1.2	U H	47	1.2	ug/L		12/12/11 14:57	12/15/11 01:29	1
3-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Nitroaniline	4.7	U H	47	4.7	ug/L		12/12/11 14:57	12/15/11 01:29	1
Nitrobenzene	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:29	1
4-Nitrophenol	1.8	U H	47	1.8	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosodiethylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosodi-n-butylamine	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosodi-n-propylamine	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosodiphenylamine	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
N-Nitrosopiperidine	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:29	1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:29	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:29	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:29	1
Pentachlorobenzene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 01:29	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:29	1
Pentachlorophenol	1.9	U H	47	1.9	ug/L		12/12/11 14:57	12/15/11 01:29	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:29	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 01:29	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 01:29	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:29	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 01:29	1
Pronamide	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 01:29	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 01:29	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 01:29	1
Sulfotepp	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,3,4,6-Tetrachlorophenol	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 01:29	1
Thionazin	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 01:29	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:29	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 01:29	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*38 - 130*	*12/12/11 14:57*	*12/15/11 01:29*	*1*
2-Fluorophenol	*63*		*25 - 130*	*12/12/11 14:57*	*12/15/11 01:29*	*1*
Nitrobenzene-d5	*77*		*39 - 130*	*12/12/11 14:57*	*12/15/11 01:29*	*1*
Phenol-d5	*65*		*25 - 130*	*12/12/11 14:57*	*12/15/11 01:29*	*1*
Terphenyl-d14	*69*		*10 - 143*	*12/12/11 14:57*	*12/15/11 01:29*	*1*
2,4,6-Tribromophenol	*83*		*31 - 141*	*12/12/11 14:57*	*12/15/11 01:29*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0061	U	0.095	0.0061	ug/L		11/19/11 15:31	12/14/11 05:02	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/19/11 15:31	12/14/11 05:02	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:02	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:02	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/19/11 15:31	12/14/11 05:02	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/19/11 15:31	12/14/11 05:02	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/19/11 15:31	12/14/11 05:02	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/19/11 15:31	12/14/11 05:02	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/19/11 15:31	12/14/11 05:02	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/19/11 15:31	12/14/11 05:02	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/19/11 15:31	12/14/11 05:02	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/19/11 15:31	12/14/11 05:02	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/19/11 15:31	12/14/11 05:02	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:02	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/19/11 15:31	12/14/11 05:02	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/19/11 15:31	12/14/11 05:02	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:02	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/19/11 15:31	12/14/11 05:02	1

Client Sample ID: SW1-11-11
Date Collected: 11/15/11 09:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-3
Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isodrin	0.047	U	0.047	0.047	ug/L		11/19/11 15:31	12/14/11 05:02	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1221	0.26	U	1.9	0.26	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/19/11 15:31	12/14/11 05:02	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/19/11 15:31	12/14/11 05:02	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/19/11 15:31	12/14/11 05:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*	*M J*	*40 - 130*	*11/19/11 15:31*	*12/14/11 05:02*	*1*
DCB Decachlorobiphenyl	*28*	*M J*	*40 - 130*	*11/19/11 15:31*	*12/14/11 05:02*	*1*
Tetrachloro-m-xylene	*58*	*M*	*36 - 130*	*11/19/11 15:31*	*12/14/11 05:02*	*1*
Tetrachloro-m-xylene	*65*	*M*	*36 - 130*	*11/19/11 15:31*	*12/14/11 05:02*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	**0.083**	**J**	0.48	0.036	ug/L		11/17/11 07:56	11/27/11 03:46	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:46	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 03:46	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 03:46	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 03:46	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/17/11 07:56	11/27/11 03:46	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 03:46	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/17/11 07:56	11/27/11 03:46	1
MCPA	16	U	120	16	ug/L		11/17/11 07:56	11/27/11 03:46	1
Mecoprop	18	U	120	18	ug/L		11/17/11 07:56	11/27/11 03:46	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/17/11 07:56	11/27/11 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*88*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:46*	*1*
DCAA	*77*		*52 - 151*	*11/17/11 07:56*	*11/27/11 03:46*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 16:54	1
Arsenic	**9.1**		1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:54	1
Barium	**36**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 16:54	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 16:54	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 16:54	1
Chromium	**0.69**	**J**	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 16:54	1
Cobalt	**0.12**	**J**	0.20	0.078	ug/L		11/16/11 13:57	11/17/11 16:54	1
Copper	**0.47**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 16:54	1
Lead	**0.16**	**J**	0.30	0.080	ug/L		11/16/11 13:57	11/17/11 16:54	1
Nickel	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:54	1
Selenium	**0.39**	**J**	0.50	0.21	ug/L		11/16/11 13:57	11/17/11 16:54	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:54	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:54	1

Client Sample ID: SW1-11-11

Lab Sample ID: 680-74406-3

Date Collected: 11/15/11 09:30

Matrix: Water

Date Received: 11/16/11 10:17

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tin	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:54	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 16:54	1
Zinc	13		10	2.6	ug/L		11/16/11 13:57	11/17/11 16:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/16/11 15:46	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 14:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLMW12AR-11-11

Lab Sample ID: 680-74406-4

Date Collected: 11/15/11 11:35

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:57	1
Acenaphthylene	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/03/11 21:57	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
Anthracene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzo[g,h,i]perylene	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/03/11 21:57	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/03/11 21:57	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:57	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:57	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Chlorophenol	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 21:57	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 21:57	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:57	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:57	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:57	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		11/20/11 15:30	12/03/11 21:57	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLMW12AR-11-11
Date Collected: 11/15/11 11:35
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:57	1
Diethyl phthalate	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:57	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/03/11 21:57	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/03/11 21:57	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/03/11 21:57	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:57	1
4,6-Dinitro-2-methylphenol	9.5	U Q	48	9.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,4-Dinitrophenol	9.5	U Q	48	9.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:57	1
Dinoseb	4.8	U	9.5	4.8	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/03/11 21:57	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:57	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:57	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:57	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/03/11 21:57	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:57	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:57	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:57	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/03/11 21:57	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:57	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:57	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:57	1
Isophorone	0.86	U Q	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 21:57	1
Isosafrole	0.48	U	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 21:57	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/03/11 21:57	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:57	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:57	1
Methyl parathion	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Methylphenol	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 21:57	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 21:57	1
Naphthalene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 21:57	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Nitroaniline	1.2	U Q	48	1.2	ug/L		11/20/11 15:30	12/03/11 21:57	1
3-Nitroaniline	4.8	U Q	48	4.8	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Nitroaniline	4.8	U Q	48	4.8	ug/L		11/20/11 15:30	12/03/11 21:57	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:57	1
4-Nitrophenol	1.8	U Q	48	1.8	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/03/11 21:57	1

Client Sample ID: SLMW12AR-11-11
Date Collected: 11/15/11 11:35
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosopiperidine	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 21:57	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:57	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 21:57	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 21:57	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/03/11 21:57	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 21:57	1
Pentachlorophenol	1.9	U Q	48	1.9	ug/L		11/20/11 15:30	12/03/11 21:57	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:57	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 21:57	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 21:57	1
Phorate	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 21:57	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/03/11 21:57	1
Pronamide	0.85	U	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 21:57	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/03/11 21:57	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 21:57	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 21:57	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 21:57	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 21:57	1
2,4,6-Trichlorophenol	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/03/11 21:57	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/03/11 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*38 - 130*	*11/20/11 15:30*	*12/03/11 21:57*	*1*
2-Fluorophenol	*53*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:57*	*1*
Nitrobenzene-d5	*72*		*39 - 130*	*11/20/11 15:30*	*12/03/11 21:57*	*1*
Phenol-d5	*54*		*25 - 130*	*11/20/11 15:30*	*12/03/11 21:57*	*1*
Terphenyl-d14	*60*		*10 - 143*	*11/20/11 15:30*	*12/03/11 21:57*	*1*
2,4,6-Tribromophenol	*89*		*31 - 141*	*11/20/11 15:30*	*12/03/11 21:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:58	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 01:58	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
Anthracene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzo[a]pyrene	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1

Client Sample ID: SLMW12AR-11-11
Date Collected: 11/15/11 11:35
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 01:58	1
Bis(2-chloroethoxy)methane	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 01:58	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1
bis(chloroisopropyl) ether	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:58	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 01:58	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 01:58	1
Chrysene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 01:58	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:58	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:58	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:58	1
3,3'-Dichlorobenzidine	29	U H	57	29	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,6-Dichlorophenol	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 01:58	1
Diethyl phthalate	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:58	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 01:58	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 01:58	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 01:58	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 01:58	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 01:58	1
4,6-Dinitro-2-methylphenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4-Dinitrophenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:58	1
Dinoseb	4.8	U H	9.5	4.8	ug/L		12/12/11 14:57	12/15/11 01:58	1
1,4-Dioxane	3.2	U H	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 01:58	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:58	1
Ethyl methanesulfonate	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:58	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 01:58	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1
Fluoranthene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 01:58	1
Fluorene	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:58	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:58	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 01:58	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 01:58	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:58	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:58	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:58	1
Isophorone	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 01:58	1
Isosafrole	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 01:58	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 01:58	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:58	1

Client Sample ID: SLMW12AR-11-11
Date Collected: 11/15/11 11:35
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:58	1
Methyl parathion	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Methylphenol	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 01:58	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 01:58	1
Naphthalene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 01:58	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 01:58	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Nitroaniline	1.2	U H	48	1.2	ug/L		12/12/11 14:57	12/15/11 01:58	1
3-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 01:58	1
Nitrobenzene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:58	1
4-Nitrophenol	1.8	U H	48	1.8	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosodiethylamine	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosodi-n-butylamine	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosodi-n-propylamine	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosodiphenylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosopiperidine	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 01:58	1
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:58	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 01:58	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 01:58	1
Pentachlorobenzene	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 01:58	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 01:58	1
Pentachlorophenol	1.9	U H	48	1.9	ug/L		12/12/11 14:57	12/15/11 01:58	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:58	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 01:58	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 01:58	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 01:58	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 01:58	1
Pronamide	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 01:58	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 01:58	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 01:58	1
Sulfotepp	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 01:58	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,3,4,6-Tetrachlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 01:58	1
Thionazin	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 01:58	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 01:58	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 01:58	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*38 - 130*	*12/12/11 14:57*	*12/15/11 01:58*	*1*
2-Fluorophenol	*70*		*25 - 130*	*12/12/11 14:57*	*12/15/11 01:58*	*1*
Nitrobenzene-d5	*85*		*39 - 130*	*12/12/11 14:57*	*12/15/11 01:58*	*1*

Client Sample ID: SLMW12AR-11-11

Date Collected: 11/15/11 11:35
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	69		25 - 130	12/12/11 14:57	12/15/11 01:58	1
Terphenyl-d14	81		10 - 143	12/12/11 14:57	12/15/11 01:58	1
2,4,6-Tribromophenol	77		31 - 141	12/12/11 14:57	12/15/11 01:58	1

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/19/11 15:31	12/14/11 05:21	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/19/11 15:31	12/14/11 05:21	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:21	1
Aldrin	0.0067	U	0.048	0.0067	ug/L		11/19/11 15:31	12/14/11 05:21	1
alpha-BHC	0.0054	U	0.048	0.0054	ug/L		11/19/11 15:31	12/14/11 05:21	1
beta-BHC	0.0064	U	0.048	0.0064	ug/L		11/19/11 15:31	12/14/11 05:21	1
Chlordane (technical)	0.095	U	0.48	0.095	ug/L		11/19/11 15:31	12/14/11 05:21	1
Chlorobenzilate	0.48	U	0.48	0.48	ug/L		11/19/11 15:31	12/14/11 05:21	1
delta-BHC	0.0046	U	0.048	0.0046	ug/L		11/19/11 15:31	12/14/11 05:21	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/19/11 15:31	12/14/11 05:21	1
Endosulfan I	0.0040	U	0.048	0.0040	ug/L		11/19/11 15:31	12/14/11 05:21	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/19/11 15:31	12/14/11 05:21	1
Endosulfan sulfate	0.0065	U	0.095	0.0065	ug/L		11/19/11 15:31	12/14/11 05:21	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:21	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/19/11 15:31	12/14/11 05:21	1
gamma-BHC (Lindane)	0.0056	U	0.048	0.0056	ug/L		11/19/11 15:31	12/14/11 05:21	1
Heptachlor	0.0067	U	0.048	0.0067	ug/L		11/19/11 15:31	12/14/11 05:21	1
Heptachlor epoxide	0.0057	U	0.048	0.0057	ug/L		11/19/11 15:31	12/14/11 05:21	1
Isodrin	0.048	U	0.048	0.048	ug/L		11/19/11 15:31	12/14/11 05:21	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/19/11 15:31	12/14/11 05:21	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/19/11 15:31	12/14/11 05:21	1
Toxaphene	0.48	U	4.8	0.48	ug/L		11/19/11 15:31	12/14/11 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	55	M	40 - 130	11/19/11 15:31	12/14/11 05:21	1
DCB Decachlorobiphenyl	56	M	40 - 130	11/19/11 15:31	12/14/11 05:21	1
Tetrachloro-m-xylene	62		36 - 130	11/19/11 15:31	12/14/11 05:21	1
Tetrachloro-m-xylene	63		36 - 130	11/19/11 15:31	12/14/11 05:21	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U	0.48	0.035	ug/L		11/17/11 07:56	11/27/11 04:02	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:02	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 04:02	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		11/17/11 07:56	11/27/11 04:02	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 04:02	1
Dicamba	0.081	U	0.48	0.081	ug/L		11/17/11 07:56	11/27/11 04:02	1

Client Sample ID: SLMW12AR-11-11

Lab Sample ID: 680-74406-4

Date Collected: 11/15/11 11:35

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:02	1
Dinoseb	0.15	U	5.7	0.15	ug/L		11/17/11 07:56	11/27/11 04:02	1
MCPA	16	U	110	16	ug/L		11/17/11 07:56	11/27/11 04:02	1
Mecoprop	18	U	110	18	ug/L		11/17/11 07:56	11/27/11 04:02	1
Pentachlorophenol	0.035	U	0.24	0.035	ug/L		11/17/11 07:56	11/27/11 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*71*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:02*	*1*
DCAA	*64*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:02*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 16:59	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:59	1
Barium	**31**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 16:59	1
Beryllium	**0.13**	**J**	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 16:59	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 16:59	1
Chromium	**0.71**	**J**	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 16:59	1
Cobalt	**0.69**		0.20	0.078	ug/L		11/16/11 13:57	11/17/11 16:59	1
Copper	**0.62**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 16:59	1
Lead	**0.34**		0.30	0.080	ug/L		11/16/11 13:57	11/17/11 16:59	1
Nickel	**0.84**	**J**	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:59	1
Selenium	**0.66**		0.50	0.21	ug/L		11/16/11 13:57	11/17/11 16:59	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:59	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:59	1
Tin	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:59	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 16:59	1
Zinc	**8.1**	**J**	10	2.6	ug/L		11/16/11 13:57	11/17/11 16:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 18:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.22**	**J**	0.25	0.075	mg/L			11/16/11 16:01	5
Cyanide, Total	**0.0074**	**J**	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 14:01	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLDUP1-11-11

Lab Sample ID: 680-74406-5

Date Collected: 11/15/11 11:50

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 22:24	1
Acenaphthylene	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 22:24	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 22:24	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzo[g,h,i]perylene	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/03/11 22:24	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/03/11 22:24	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 22:24	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 22:24	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Chlorophenol	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Chlorophenyl phenyl ether	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/03/11 22:24	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/03/11 22:24	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 22:24	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 22:24	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 22:24	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 22:24	1
Diethyl phthalate	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 22:24	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/03/11 22:24	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/03/11 22:24	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/03/11 22:24	1
Di-n-butyl phthalate	0.78	U Q	9.5	0.78	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 22:24	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 22:24	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/03/11 22:24	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 22:24	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 22:24	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 22:24	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/03/11 22:24	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 22:24	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 22:24	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 22:24	1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/03/11 22:24	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 22:24	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 22:24	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 22:24	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/03/11 22:24	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/03/11 22:24	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/03/11 22:24	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 22:24	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 22:24	1
Methyl parathion	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 22:24	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/03/11 22:24	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/03/11 22:24	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/03/11 22:24	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/03/11 22:24	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 22:24	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosodimethylamine	2.6	U	9.5	2.6	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosopiperidine	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/03/11 22:24	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 22:24	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/03/11 22:24	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/03/11 22:24	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/03/11 22:24	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/03/11 22:24	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/03/11 22:24	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 22:24	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/03/11 22:24	1
Phenol	0.78	U Q	9.5	0.78	ug/L		11/20/11 15:30	12/03/11 22:24	1
Phorate	0.82	U	9.5	0.82	ug/L		11/20/11 15:30	12/03/11 22:24	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/03/11 22:24	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/03/11 22:24	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/03/11 22:24	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/03/11 22:24	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/03/11 22:24	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/03/11 22:24	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/03/11 22:24	1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/03/11 22:24	1
2,4,6-Trichlorophenol	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/03/11 22:24	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/03/11 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*38 - 130*	*11/20/11 15:30*	*12/03/11 22:24*	*1*
2-Fluorophenol	*54*		*25 - 130*	*11/20/11 15:30*	*12/03/11 22:24*	*1*
Nitrobenzene-d5	*73*		*39 - 130*	*11/20/11 15:30*	*12/03/11 22:24*	*1*
Phenol-d5	*51*		*25 - 130*	*11/20/11 15:30*	*12/03/11 22:24*	*1*
Terphenyl-d14	*70*		*10 - 143*	*11/20/11 15:30*	*12/03/11 22:24*	*1*
2,4,6-Tribromophenol	*97*		*31 - 141*	*11/20/11 15:30*	*12/03/11 22:24*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 02:27	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 02:27	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
Anthracene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzo[a]pyrene	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 02:27	1
Bis(2-chloroethoxy)methane	0.90	U H	9.5	0.90	ug/L		12/12/11 14:57	12/15/11 02:27	1
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
bis(chloroisopropyl) ether	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 02:27	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 02:27	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 02:27	1
Chrysene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 02:27	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 02:27	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 02:27	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 02:27	1
3,3'-Dichlorobenzidine	29	U H	57	29	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,6-Dichlorophenol	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 02:27	1
Diethyl phthalate	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 02:27	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 02:27	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 02:27	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 02:27	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 02:27	1
4,6-Dinitro-2-methylphenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4-Dinitrophenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 02:27	1
Dinoseb	4.8	U H	9.5	4.8	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,4-Dioxane	3.2	U H	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 02:27	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 02:27	1
Ethyl methanesulfonate	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/15/11 02:27	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 02:27	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
Fluoranthene	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 02:27	1
Fluorene	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/15/11 02:27	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 02:27	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 02:27	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 02:27	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 02:27	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 02:27	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 02:27	1
Isophorone	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 02:27	1
Isosafrole	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 02:27	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 02:27	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 02:27	1
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 02:27	1
Methyl parathion	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Methylphenol	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 02:27	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 02:27	1
Naphthalene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 02:27	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Nitroaniline	1.2	U H	48	1.2	ug/L		12/12/11 14:57	12/15/11 02:27	1
3-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 02:27	1
Nitrobenzene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 02:27	1
4-Nitrophenol	1.8	U H	48	1.8	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosodiethylamine	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosodi-n-butylamine	0.92	U H	9.5	0.92	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosodi-n-propylamine	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosodiphenylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosopiperidine	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 02:27	1
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 02:27	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 02:27	1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 02:27	1
Pentachlorobenzene	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 02:27	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 02:27	1
Pentachlorophenol	1.9	U H	48	1.9	ug/L		12/12/11 14:57	12/15/11 02:27	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 02:27	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 02:27	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 02:27	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 02:27	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 02:27	1
Pronamide	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 02:27	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 02:27	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 02:27	1
Sulfotepp	0.51	U H	9.5	0.51	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,3,4,6-Tetrachlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 02:27	1
Thionazin	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 02:27	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 02:27	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 02:27	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*38 - 130*	*12/12/11 14:57*	*12/15/11 02:27*	*1*
2-Fluorophenol	*46*		*25 - 130*	*12/12/11 14:57*	*12/15/11 02:27*	*1*
Nitrobenzene-d5	*60*		*39 - 130*	*12/12/11 14:57*	*12/15/11 02:27*	*1*
Phenol-d5	*41*		*25 - 130*	*12/12/11 14:57*	*12/15/11 02:27*	*1*
Terphenyl-d14	*71*		*10 - 143*	*12/12/11 14:57*	*12/15/11 02:27*	*1*
2,4,6-Tribromophenol	*57*		*31 - 141*	*12/12/11 14:57*	*12/15/11 02:27*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/19/11 15:31	12/14/11 05:40	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/19/11 15:31	12/14/11 05:40	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:40	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:40	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/19/11 15:31	12/14/11 05:40	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/19/11 15:31	12/14/11 05:40	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/19/11 15:31	12/14/11 05:40	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/19/11 15:31	12/14/11 05:40	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/19/11 15:31	12/14/11 05:40	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/19/11 15:31	12/14/11 05:40	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/19/11 15:31	12/14/11 05:40	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/19/11 15:31	12/14/11 05:40	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/19/11 15:31	12/14/11 05:40	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:40	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/19/11 15:31	12/14/11 05:40	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/19/11 15:31	12/14/11 05:40	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:40	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/19/11 15:31	12/14/11 05:40	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/19/11 15:31	12/14/11 05:40	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/19/11 15:31	12/14/11 05:40	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLDUP1-11-11
Date Collected: 11/15/11 11:50
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-5
Matrix: Water

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.067	U	0.95	0.067	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/19/11 15:31	12/14/11 05:40	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/19/11 15:31	12/14/11 05:40	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/19/11 15:31	12/14/11 05:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*	*M*	*40 - 130*	*11/19/11 15:31*	*12/14/11 05:40*	*1*
DCB Decachlorobiphenyl	*61*	*M*	*40 - 130*	*11/19/11 15:31*	*12/14/11 05:40*	*1*
Tetrachloro-m-xylene	*65*		*36 - 130*	*11/19/11 15:31*	*12/14/11 05:40*	*1*
Tetrachloro-m-xylene	*69*		*36 - 130*	*11/19/11 15:31*	*12/14/11 05:40*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U M	0.48	0.036	ug/L		11/17/11 07:56	11/27/11 04:18	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:18	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 04:18	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 04:18	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 04:18	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/17/11 07:56	11/27/11 04:18	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:18	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/17/11 07:56	11/27/11 04:18	1
MCPA	16	U	120	16	ug/L		11/17/11 07:56	11/27/11 04:18	1
Mecoprop	18	U	120	18	ug/L		11/17/11 07:56	11/27/11 04:18	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/17/11 07:56	11/27/11 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*84*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:18*	*1*
DCAA	*77*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:18*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 17:16	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:16	1
Barium	**30**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 17:16	1
Beryllium	**0.13**	**J**	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 17:16	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 17:16	1
Chromium	**0.71**	**J**	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 17:16	1
Cobalt	**0.66**		0.20	0.078	ug/L		11/16/11 13:57	11/17/11 17:16	1
Copper	**0.71**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 17:16	1
Lead	**0.37**		0.30	0.080	ug/L		11/16/11 13:57	11/17/11 17:16	1
Nickel	**0.77**	**J**	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:16	1
Selenium	**0.74**		0.50	0.21	ug/L		11/16/11 13:57	11/17/11 17:16	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 17:16	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 17:16	1
Tin	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:16	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 17:16	1

Client Sample ID: SLDUP1-11-11

Lab Sample ID: 680-74406-5

Date Collected: 11/15/11 11:50

Matrix: Water

Date Received: 11/16/11 10:17

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	9.1	J	10	2.6	ug/L		11/16/11 13:57	11/17/11 17:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 19:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.22	J	0.25	0.075	mg/L			11/16/11 16:16	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 14:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Client Sample ID: SLMW8-11-11

Lab Sample ID: 680-74406-6

Date Collected: 11/15/11 14:30

Matrix: Water

Date Received: 11/16/11 10:17

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 03:19	1
Acenaphthylene	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 03:19	1
Acetophenone	0.54	U Q	9.5	0.54	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Acetylaminofluorene	1.5	U	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Aminobiphenyl	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
Anthracene	0.65	U Q	9.5	0.65	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzo[a]anthracene	0.52	U Q	9.5	0.52	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzo[a]pyrene	0.67	U Q	9.5	0.67	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzo[g,h,i]perylene	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzo[k]fluoranthene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
Benzyl alcohol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,1'-Biphenyl	0.55	U Q	9.5	0.55	ug/L		11/20/11 15:30	12/16/11 03:19	1
Bis(2-chloroethoxy)methane	0.89	U Q	9.5	0.89	ug/L		11/20/11 15:30	12/16/11 03:19	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 03:19	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Bromophenyl phenyl ether	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 03:19	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Chloroaniline	2.1	U Q	19	2.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Chloro-3-methylphenol	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Chloronaphthalene	0.76	U Q	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Chlorophenol	0.82	U Q	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Chlorophenyl phenyl ether	0.80	U Q	9.5	0.80	ug/L		11/20/11 15:30	12/16/11 03:19	1
Chrysene	0.48	U Q	9.5	0.48	ug/L		11/20/11 15:30	12/16/11 03:19	1
Diallate	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 03:19	1
Dibenz(a,h)anthracene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 03:19	1
Dibenzofuran	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 03:19	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4-Dichlorophenol	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,6-Dichlorophenol	0.69	U	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 03:19	1

Client Sample ID: SLMW8-11-11
Date Collected: 11/15/11 14:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	0.83	U Q	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 03:19	1
Dimethoate	0.71	U	9.5	0.71	ug/L		11/20/11 15:30	12/16/11 03:19	1
7,12-Dimethylbenz(a)anthracene	1.1	U	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
3,3'-Dimethylbenzidine	9.5	U	19	9.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4-Dimethylphenol	3.8	U Q	9.5	3.8	ug/L		11/20/11 15:30	12/16/11 03:19	1
Dimethyl phthalate	0.94	U Q	9.5	0.94	ug/L		11/20/11 15:30	12/16/11 03:19	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,3-Dinitrobenzene	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 03:19	1
4,6-Dinitro-2-methylphenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4-Dinitrophenol	9.5	U Q	47	9.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4-Dinitrotoluene	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,6-Dinitrotoluene	1.0	U Q	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 03:19	1
Dinoseb	4.7	U	9.5	4.7	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,4-Dioxane	3.2	U	9.5	3.2	ug/L		11/20/11 15:30	12/16/11 03:19	1
Disulfoton	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 03:19	1
Ethyl methanesulfonate	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 03:19	1
Ethyl Parathion	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 03:19	1
Famphur	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
Fluoranthene	0.70	U Q	9.5	0.70	ug/L		11/20/11 15:30	12/16/11 03:19	1
Fluorene	0.91	U Q	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 03:19	1
Hexachlorobenzene	0.75	U Q	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 03:19	1
Hexachlorobutadiene	0.59	U Q	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 03:19	1
Hexachlorocyclopentadiene	2.4	U Q	9.5	2.4	ug/L		11/20/11 15:30	12/16/11 03:19	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 03:19	1
Hexachloropropene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 03:19	1
Indeno[1,2,3-cd]pyrene	0.95	U Q	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 03:19	1
Isophorone	0.85	U Q	9.5	0.85	ug/L		11/20/11 15:30	12/16/11 03:19	1
Isosafrole	0.47	U	9.5	0.47	ug/L		11/20/11 15:30	12/16/11 03:19	1
Methapyrilene	2.6	U	1900	2.6	ug/L		11/20/11 15:30	12/16/11 03:19	1
3-Methylcholanthrene	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 03:19	1
Methyl methanesulfonate	0.57	U	9.5	0.57	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Methylnaphthalene	0.74	U Q	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 03:19	1
Methyl parathion	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Methylphenol	0.84	U Q	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 03:19	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		11/20/11 15:30	12/16/11 03:19	1
Naphthalene	0.66	U Q	9.5	0.66	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,4-Naphthoquinone	0.59	U	9.5	0.59	ug/L		11/20/11 15:30	12/16/11 03:19	1
1-Naphthylamine	1.0	U	9.5	1.0	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Naphthylamine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Nitroaniline	1.2	U Q	47	1.2	ug/L		11/20/11 15:30	12/16/11 03:19	1
3-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Nitroaniline	4.7	U Q	47	4.7	ug/L		11/20/11 15:30	12/16/11 03:19	1
Nitrobenzene	0.69	U Q	9.5	0.69	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Nitrophenol	0.72	U Q	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 03:19	1
4-Nitrophenol	1.8	U Q	47	1.8	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitro-o-toluidine	1.4	U	9.5	1.4	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosodiethylamine	0.88	U	9.5	0.88	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosodimethylamine	2.7	U	9.5	2.7	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosodi-n-butylamine	0.91	U	9.5	0.91	ug/L		11/20/11 15:30	12/16/11 03:19	1

Client Sample ID: SLMW8-11-11
Date Collected: 11/15/11 14:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosodiphenylamine	0.87	U Q	9.5	0.87	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosomethylethylamine	3.1	U	9.5	3.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosopiperidine	0.83	U	9.5	0.83	ug/L		11/20/11 15:30	12/16/11 03:19	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 03:19	1
o,o',o''-Triethylphosphorothioate	0.95	U	9.5	0.95	ug/L		11/20/11 15:30	12/16/11 03:19	1
p-Dimethylamino azobenzene	0.75	U	9.5	0.75	ug/L		11/20/11 15:30	12/16/11 03:19	1
Pentachlorobenzene	0.49	U	9.5	0.49	ug/L		11/20/11 15:30	12/16/11 03:19	1
Pentachloronitrobenzene	0.74	U	9.5	0.74	ug/L		11/20/11 15:30	12/16/11 03:19	1
Pentachlorophenol	1.9	U Q	47	1.9	ug/L		11/20/11 15:30	12/16/11 03:19	1
Phenacetin	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 03:19	1
Phenanthrene	0.73	U Q	9.5	0.73	ug/L		11/20/11 15:30	12/16/11 03:19	1
Phenol	0.79	U Q	9.5	0.79	ug/L		11/20/11 15:30	12/16/11 03:19	1
Phorate	0.82	U	9.5	0.82	ug/L		11/20/11 15:30	12/16/11 03:19	1
p-Phenylene diamine	9.5	U	1900	9.5	ug/L		11/20/11 15:30	12/16/11 03:19	1
Pronamide	0.84	U	9.5	0.84	ug/L		11/20/11 15:30	12/16/11 03:19	1
Pyrene	0.60	U Q	9.5	0.60	ug/L		11/20/11 15:30	12/16/11 03:19	1
Safrole, Total	0.76	U	9.5	0.76	ug/L		11/20/11 15:30	12/16/11 03:19	1
Sulfotepp	0.50	U	9.5	0.50	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,2,4,5-Tetrachlorobenzene	0.72	U	9.5	0.72	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,3,4,6-Tetrachlorophenol	0.68	U	9.5	0.68	ug/L		11/20/11 15:30	12/16/11 03:19	1
Thionazin	0.86	U	9.5	0.86	ug/L		11/20/11 15:30	12/16/11 03:19	1
2-Toluidine	1.3	U	9.5	1.3	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4,5-Trichlorophenol	1.1	U Q	9.5	1.1	ug/L		11/20/11 15:30	12/16/11 03:19	1
2,4,6-Trichlorophenol	0.81	U Q	9.5	0.81	ug/L		11/20/11 15:30	12/16/11 03:19	1
1,3,5-Trinitrobenzene	1.9	U	9.5	1.9	ug/L		11/20/11 15:30	12/16/11 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*38 - 130*	*11/20/11 15:30*	*12/16/11 03:19*	*1*
2-Fluorophenol	*61*		*25 - 130*	*11/20/11 15:30*	*12/16/11 03:19*	*1*
Nitrobenzene-d5	*73*		*39 - 130*	*11/20/11 15:30*	*12/16/11 03:19*	*1*
Phenol-d5	*60*		*25 - 130*	*11/20/11 15:30*	*12/16/11 03:19*	*1*
Terphenyl-d14	*67*		*10 - 143*	*11/20/11 15:30*	*12/16/11 03:19*	*1*
2,4,6-Tribromophenol	*68*		*31 - 141*	*11/20/11 15:30*	*12/16/11 03:19*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:30	1
Acenaphthylene	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 21:30	1
Acetophenone	0.54	U H	9.5	0.54	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Acetylaminofluorene	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Aminobiphenyl	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
Anthracene	0.66	U H	9.5	0.66	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzo[a]anthracene	0.52	U H	9.5	0.52	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzo[a]pyrene	0.68	U H	9.5	0.68	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzo[b]fluoranthene	2.5	U H	9.5	2.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzo[g,h,i]perylene	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzo[k]fluoranthene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
Benzyl alcohol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,1'-Biphenyl	0.55	U H	9.5	0.55	ug/L		12/12/11 14:57	12/15/11 21:30	1
Bis(2-chloroethoxy)methane	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 21:30	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLMW8-11-11
Date Collected: 11/15/11 14:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
bis(chloroisopropyl) ether	0.74	U Q H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:30	1
Bis(2-ethylhexyl) phthalate	1.5	U H	9.5	1.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Bromophenyl phenyl ether	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 21:30	1
Butyl benzyl phthalate	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Chloroaniline	2.1	U H	19	2.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Chloro-3-methylphenol	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Chloronaphthalene	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Chlorophenol	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Chlorophenyl phenyl ether	0.80	U H	9.5	0.80	ug/L		12/12/11 14:57	12/15/11 21:30	1
Chrysene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 21:30	1
Diallate	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:30	1
Dibenz(a,h)anthracene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:30	1
Dibenzofuran	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:30	1
3,3'-Dichlorobenzidine	29	U H	57	29	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4-Dichlorophenol	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,6-Dichlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:30	1
Diethyl phthalate	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 21:30	1
Dimethoate	0.71	U H	9.5	0.71	ug/L		12/12/11 14:57	12/15/11 21:30	1
7,12-Dimethylbenz(a)anthracene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
3,3'-Dimethylbenzidine	9.5	U H	19	9.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4-Dimethylphenol	3.8	U H	9.5	3.8	ug/L		12/12/11 14:57	12/15/11 21:30	1
Dimethyl phthalate	0.94	U H	9.5	0.94	ug/L		12/12/11 14:57	12/15/11 21:30	1
Di-n-butyl phthalate	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,3-Dinitrobenzene	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 21:30	1
4,6-Dinitro-2-methylphenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4-Dinitrophenol	9.5	U H	48	9.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4-Dinitrotoluene	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,6-Dinitrotoluene	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
Di-n-octyl phthalate	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:30	1
Dinoseb	4.8	U H	9.5	4.8	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,4-Dioxane	3.2	U H	9.5	3.2	ug/L		12/12/11 14:57	12/15/11 21:30	1
Disulfoton	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:30	1
Ethyl methanesulfonate	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:30	1
Ethyl Parathion	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 21:30	1
Famphur	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
Fluoranthene	0.70	U H	9.5	0.70	ug/L		12/12/11 14:57	12/15/11 21:30	1
Fluorene	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:30	1
Hexachlorobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:30	1
Hexachlorobutadiene	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 21:30	1
Hexachlorocyclopentadiene	2.4	U H	9.5	2.4	ug/L		12/12/11 14:57	12/15/11 21:30	1
Hexachloroethane	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:30	1
Hexachloropropene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:30	1
Indeno[1,2,3-cd]pyrene	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:30	1
Isophorone	0.86	U H	9.5	0.86	ug/L		12/12/11 14:57	12/15/11 21:30	1
Isosafrole	0.48	U H	9.5	0.48	ug/L		12/12/11 14:57	12/15/11 21:30	1
Methapyrilene	2.6	U H	1900	2.6	ug/L		12/12/11 14:57	12/15/11 21:30	1
3-Methylcholanthrene	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:30	1
Methyl methanesulfonate	0.57	U H	9.5	0.57	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Methylnaphthalene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:30	1

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

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Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl parathion	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Methylphenol	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 21:30	1
3 & 4 Methylphenol	1.2	U H	9.5	1.2	ug/L		12/12/11 14:57	12/15/11 21:30	1
Naphthalene	0.67	U H	9.5	0.67	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,4-Naphthoquinone	0.59	U H	9.5	0.59	ug/L		12/12/11 14:57	12/15/11 21:30	1
1-Naphthylamine	1.0	U H	9.5	1.0	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Naphthylamine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Nitroaniline	1.2	U H	48	1.2	ug/L		12/12/11 14:57	12/15/11 21:30	1
3-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Nitroaniline	4.8	U H	48	4.8	ug/L		12/12/11 14:57	12/15/11 21:30	1
Nitrobenzene	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Nitrophenol	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:30	1
4-Nitrophenol	1.8	U H	48	1.8	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitro-o-toluidine	1.4	U H	9.5	1.4	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosodiethylamine	0.89	U H	9.5	0.89	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosodimethylamine	2.7	U H	9.5	2.7	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosodi-n-butylamine	0.91	U H	9.5	0.91	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosodi-n-propylamine	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosodiphenylamine	0.88	U H	9.5	0.88	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosomethylethylamine	3.1	U H	9.5	3.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosopiperidine	0.84	U H	9.5	0.84	ug/L		12/12/11 14:57	12/15/11 21:30	1
N-Nitrosopyrrolidine	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:30	1
o,o',o''-Triethylphosphorothioate	0.95	U H	9.5	0.95	ug/L		12/12/11 14:57	12/15/11 21:30	1
p-Dimethylamino azobenzene	0.75	U H	9.5	0.75	ug/L		12/12/11 14:57	12/15/11 21:30	1
Pentachlorobenzene	0.49	U H	9.5	0.49	ug/L		12/12/11 14:57	12/15/11 21:30	1
Pentachloronitrobenzene	0.74	U H	9.5	0.74	ug/L		12/12/11 14:57	12/15/11 21:30	1
Pentachlorophenol	1.9	U H	48	1.9	ug/L		12/12/11 14:57	12/15/11 21:30	1
Phenacetin	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:30	1
Phenanthrene	0.73	U H	9.5	0.73	ug/L		12/12/11 14:57	12/15/11 21:30	1
Phenol	0.79	U H	9.5	0.79	ug/L		12/12/11 14:57	12/15/11 21:30	1
Phorate	0.83	U H	9.5	0.83	ug/L		12/12/11 14:57	12/15/11 21:30	1
p-Phenylene diamine	9.5	U H	1900	9.5	ug/L		12/12/11 14:57	12/15/11 21:30	1
Pronamide	0.85	U H	9.5	0.85	ug/L		12/12/11 14:57	12/15/11 21:30	1
Pyrene	0.60	U H	9.5	0.60	ug/L		12/12/11 14:57	12/15/11 21:30	1
Safrole, Total	0.76	U H	9.5	0.76	ug/L		12/12/11 14:57	12/15/11 21:30	1
Sulfotepp	0.50	U H	9.5	0.50	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,2,4,5-Tetrachlorobenzene	0.72	U H	9.5	0.72	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,3,4,6-Tetrachlorophenol	0.69	U H	9.5	0.69	ug/L		12/12/11 14:57	12/15/11 21:30	1
Thionazin	0.87	U H	9.5	0.87	ug/L		12/12/11 14:57	12/15/11 21:30	1
2-Toluidine	1.3	U H	9.5	1.3	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4,5-Trichlorophenol	1.1	U H	9.5	1.1	ug/L		12/12/11 14:57	12/15/11 21:30	1
2,4,6-Trichlorophenol	0.81	U H	9.5	0.81	ug/L		12/12/11 14:57	12/15/11 21:30	1
1,3,5-Trinitrobenzene	1.9	U H	9.5	1.9	ug/L		12/12/11 14:57	12/15/11 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*38 - 130*	*12/12/11 14:57*	*12/15/11 21:30*	*1*
2-Fluorophenol	*64*		*25 - 130*	*12/12/11 14:57*	*12/15/11 21:30*	*1*
Nitrobenzene-d5	*80*		*39 - 130*	*12/12/11 14:57*	*12/15/11 21:30*	*1*
Phenol-d5	*62*		*25 - 130*	*12/12/11 14:57*	*12/15/11 21:30*	*1*
Terphenyl-d14	*65*		*10 - 143*	*12/12/11 14:57*	*12/15/11 21:30*	*1*

Client Sample ID: SLMW8-11-11
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Lab Sample ID: 680-74406-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	62		31 - 141	12/12/11 14:57	12/15/11 21:30	1

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		11/19/11 15:31	12/14/11 05:59	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		11/19/11 15:31	12/14/11 05:59	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:59	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:59	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		11/19/11 15:31	12/14/11 05:59	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		11/19/11 15:31	12/14/11 05:59	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		11/19/11 15:31	12/14/11 05:59	1
Chlorobenzilate	0.47	U	0.47	0.47	ug/L		11/19/11 15:31	12/14/11 05:59	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		11/19/11 15:31	12/14/11 05:59	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		11/19/11 15:31	12/14/11 05:59	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		11/19/11 15:31	12/14/11 05:59	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		11/19/11 15:31	12/14/11 05:59	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		11/19/11 15:31	12/14/11 05:59	1
Endrin	0.0092	U	0.095	0.0092	ug/L		11/19/11 15:31	12/14/11 05:59	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		11/19/11 15:31	12/14/11 05:59	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		11/19/11 15:31	12/14/11 05:59	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		11/19/11 15:31	12/14/11 05:59	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		11/19/11 15:31	12/14/11 05:59	1
Isodrin	0.047	U	0.047	0.047	ug/L		11/19/11 15:31	12/14/11 05:59	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1016	0.067	U	0.95	0.067	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1221	0.27	U	1.9	0.27	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1232	0.10	U	0.95	0.10	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1242	0.17	U	0.95	0.17	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1248	0.34	U	0.95	0.34	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1254	0.25	U	0.95	0.25	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1260	0.19	U	0.95	0.19	ug/L		11/19/11 15:31	12/14/11 05:59	1
PCB-1262	0.23	U	0.95	0.23	ug/L		11/19/11 15:31	12/14/11 05:59	1
Toxaphene	0.47	U	4.7	0.47	ug/L		11/19/11 15:31	12/14/11 05:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	25	M J	40 - 130	11/19/11 15:31	12/14/11 05:59	1
DCB Decachlorobiphenyl	24	M J	40 - 130	11/19/11 15:31	12/14/11 05:59	1
Tetrachloro-m-xylene	66		36 - 130	11/19/11 15:31	12/14/11 05:59	1
Tetrachloro-m-xylene	71		36 - 130	11/19/11 15:31	12/14/11 05:59	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.036	U	0.48	0.036	ug/L		11/17/11 07:56	11/27/11 04:34	1
2,4-DB	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:34	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 04:34	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		11/17/11 07:56	11/27/11 04:34	1
Dalapon	0.096	U	9.6	0.096	ug/L		11/17/11 07:56	11/27/11 04:34	1
Dicamba	0.082	U	0.48	0.082	ug/L		11/17/11 07:56	11/27/11 04:34	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		11/17/11 07:56	11/27/11 04:34	1
Dinoseb	0.15	U	5.8	0.15	ug/L		11/17/11 07:56	11/27/11 04:34	1

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLMW8-11-11

Date Collected: 11/15/11 14:30
Date Received: 11/16/11 10:17

Lab Sample ID: 680-74406-6

Matrix: Water

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPA	16	U	120	16	ug/L		11/17/11 07:56	11/27/11 04:34	1
Mecoprop	18	U	120	18	ug/L		11/17/11 07:56	11/27/11 04:34	1
Pentachlorophenol	0.036	U	0.24	0.036	ug/L		11/17/11 07:56	11/27/11 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*80*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:34*	*1*
DCAA	*80*		*52 - 151*	*11/17/11 07:56*	*11/27/11 04:34*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 17:33	1
Arsenic	**2.6**		1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:33	1
Barium	**48**		1.0	0.15	ug/L		11/16/11 13:57	11/17/11 17:33	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 17:33	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 17:33	1
Chromium	**0.87**	**J**	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 17:33	1
Cobalt	**0.23**		0.20	0.078	ug/L		11/16/11 13:57	11/17/11 17:33	1
Copper	**0.56**	**J**	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 17:33	1
Lead	0.080	U	0.30	0.080	ug/L		11/16/11 13:57	11/17/11 17:33	1
Nickel	**0.51**	**J**	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:33	1
Selenium	**0.54**		0.50	0.21	ug/L		11/16/11 13:57	11/17/11 17:33	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 17:33	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 17:33	1
Tin	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 17:33	1
Vanadium	**2.0**	**J**	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 17:33	1
Zinc	**19**		10	2.6	ug/L		11/16/11 13:57	11/17/11 17:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 19:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/16/11 16:32	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 12:28	11/29/11 14:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Surrogate Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPH	TBP
Lab Sample ID	Client Sample ID	(38-130)	(25-130)	(39-130)	(25-130)	(10-143)	(31-141)
680-74406-1	SW2-11-11	63	49	69	52	61	105
680-74406-1 - RE	SW2-11-11	58	57	70	57	71	73
680-74406-2	DUP2-11-11	67	54	75	57	65	106
680-74406-2 - RE	DUP2-11-11	68	68	81	67	65	79
680-74406-3	SW1-11-11	61	53	73	55	63	103
680-74406-3 - RE	SW1-11-11	63	63	77	65	69	83
680-74406-4	SLMW12AR-11-11	66	53	72	54	60	89
680-74406-4 - RE	SLMW12AR-11-11	74	70	85	69	81	77
680-74406-5	SLDUP1-11-11	69	54	73	51	70	97
680-74406-5 - RE	SLDUP1-11-11	51	46	60	41	71	57
680-74406-6	SLMW8-11-11	64	61	73	60	67	68
680-74406-6 - RE	SLMW8-11-11	69	64	80	62	65	62
LCS 680-221448/17-A	Lab Control Sample	43	42	48	37	46	44
LCS 680-223265/12-A	Lab Control Sample	77	79	87	79	83	82
LCSD 680-221448/18-A	Lab Control Sample Dup	73	73	84	73	81	81
LCSD 680-223265/13-A	Lab Control Sample Dup	82	85	96	87	86	89
MB 680-221448/16-A	Method Blank	68	68	80	67	78	62
MB 680-223265/11-A	Method Blank	82	80	95	81	89	83

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(40-130)	(40-130)	(36-130)	(36-130)
680-74406-1	SW2-11-11	32 M J	34 M J	62	65
680-74406-2	DUP2-11-11	36 M J	37 M J	68	71
680-74406-3	SW1-11-11	39 M J	28 M J	58 M	65 M
680-74406-4	SLMW12AR-11-11	55 M	56 M	62	63
680-74406-5	SLDUP1-11-11	63 M	61 M	65	69
680-74406-6	SLMW8-11-11	25 M J	24 M J	66	71
LCS 680-221441/14-A	Lab Control Sample	54 M	57 M	66	66
LCS 680-221441/16-A	Lab Control Sample	55 M	50 M	69	73
LCS 680-221441/18-A	Lab Control Sample	66 M	76	69	71
LCSD 680-221441/15-A	Lab Control Sample Dup	65 M	64 M	71	62
LCSD 680-221441/17-A	Lab Control Sample Dup	64 M	67	75	75
LCSD 680-221441/19-A	Lab Control Sample Dup	52 M	51	66	68
MB 680-221441/13-A	Method Blank	65 M	71 M	71	76

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	DCPA1 (52-151)	DCPA2 (52-151)								
680-74406-1	SW2-11-11	85	76								
680-74406-2	DUP2-11-11	85	75								
680-74406-3	SW1-11-11	88	77								
680-74406-4	SLMW12AR-11-11	71	64								
680-74406-5	SLDUP1-11-11	84	77								
680-74406-6	SLMW8-11-11	80	80								
LCS 680-221171/17-A	Lab Control Sample	73	80								
MB 680-221171/16-A	Method Blank	81	76								

Surrogate Legend

DCPA = DCAA

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-221448/16-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
Acenaphthylene	0.85	U	10	0.85	ug/L		11/20/11 15:30	12/15/11 22:57	1
Acetophenone	0.57	U	10	0.57	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Acetylaminofluorene	1.6	U	10	1.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Aminobiphenyl	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
Anthracene	0.69	U	10	0.69	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		11/20/11 15:30	12/15/11 22:57	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		11/20/11 15:30	12/15/11 22:57	1
Chrysene	0.51	U	10	0.51	ug/L		11/20/11 15:30	12/15/11 22:57	1
Diallate	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dibenzofuran	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,6-Dichlorophenol	0.73	U	10	0.73	ug/L		11/20/11 15:30	12/15/11 22:57	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dimethoate	0.75	U	10	0.75	ug/L		11/20/11 15:30	12/15/11 22:57	1
7,12-Dimethylbenz(a)anthracene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
3,3'-Dimethylbenzidine	10	U	20	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		11/20/11 15:30	12/15/11 22:57	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,3-Dinitrobenzene	0.60	U	10	0.60	ug/L		11/20/11 15:30	12/15/11 22:57	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dinitrophenol	10	U	50	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Dinoseb	5.0	U	10	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,4-Dioxane	3.4	U	10	3.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Disulfoton	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Ethyl methanesulfonate	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
Ethyl Parathion	1.3	U	10	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221448/16-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
Fluoranthene	0.74	U	10	0.74	ug/L		11/20/11 15:30	12/15/11 22:57	1
Fluorene	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachloroethane	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
Hexachloropropene	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Isophorone	0.90	U	10	0.90	ug/L		11/20/11 15:30	12/15/11 22:57	1
Isosafrole	0.50	U	10	0.50	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methapyrilene	2.7	U	2000	2.7	ug/L		11/20/11 15:30	12/15/11 22:57	1
3-Methylcholanthrene	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methyl methanesulfonate	0.60	U	10	0.60	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Methyl parathion	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Methylphenol	0.89	U	10	0.89	ug/L		11/20/11 15:30	12/15/11 22:57	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
Naphthalene	0.70	U	10	0.70	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,4-Naphthoquinone	0.62	U	10	0.62	ug/L		11/20/11 15:30	12/15/11 22:57	1
1-Naphthylamine	1.1	U	10	1.1	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Naphthylamine	1.5	U	10	1.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Nitrobenzene	0.73	U	10	0.73	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitro-o-toluidine	1.5	U	10	1.5	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodiethylamine	0.93	U	10	0.93	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodimethylamine	2.8	U	10	2.8	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodi-n-butylamine	0.96	U	10	0.96	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosomethylethylamine	3.3	U	10	3.3	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosopiperidine	0.88	U	10	0.88	ug/L		11/20/11 15:30	12/15/11 22:57	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
o,o',o''-Triethylphosphorothioate	1.0	U	10	1.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
p-Dimethylamino azobenzene	0.79	U	10	0.79	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachlorobenzene	0.52	U	10	0.52	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachloronitrobenzene	0.78	U	10	0.78	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenacetin	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenanthrene	0.77	U	10	0.77	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phenol	0.83	U	10	0.83	ug/L		11/20/11 15:30	12/15/11 22:57	1
Phorate	0.87	U	10	0.87	ug/L		11/20/11 15:30	12/15/11 22:57	1
p-Phenylene diamine	10	U	2000	10	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pronamide	0.89	U	10	0.89	ug/L		11/20/11 15:30	12/15/11 22:57	1
Pyrene	0.63	U	10	0.63	ug/L		11/20/11 15:30	12/15/11 22:57	1
Safrole, Total	0.80	U	10	0.80	ug/L		11/20/11 15:30	12/15/11 22:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-221448/16-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223845 — **Prep Batch: 221448**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.53	U	10	0.53	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,2,4,5-Tetrachlorobenzene	0.76	U	10	0.76	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		11/20/11 15:30	12/15/11 22:57	1
Thionazin	0.91	U	10	0.91	ug/L		11/20/11 15:30	12/15/11 22:57	1
2-Toluidine	1.4	U	10	1.4	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		11/20/11 15:30	12/15/11 22:57	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		11/20/11 15:30	12/15/11 22:57	1
1,3,5-Trinitrobenzene	2.0	U	10	2.0	ug/L		11/20/11 15:30	12/15/11 22:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*38 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
2-Fluorophenol	*68*		*25 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Nitrobenzene-d5	*80*		*39 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Phenol-d5	*67*		*25 - 130*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
Terphenyl-d14	*78*		*10 - 143*	*11/20/11 15:30*	*12/15/11 22:57*	*1*
2,4,6-Tribromophenol	*62*		*31 - 141*	*11/20/11 15:30*	*12/15/11 22:57*	*1*

Lab Sample ID: LCS 680-221448/17-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223845 — **Prep Batch: 221448**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	45.9	Q	ug/L		46	55 - 130
Acenaphthylene	100	47.8	Q	ug/L		48	60 - 130
Anthracene	100	48.1	Q	ug/L		48	61 - 130
Benzo[a]anthracene	100	51.6	Q	ug/L		52	58 - 130
Benzo[a]pyrene	100	54.6	Q	ug/L		55	61 - 130
Benzo[b]fluoranthene	100	53.4		ug/L		53	51 - 130
Benzo[g,h,i]perylene	100	48.4	Q	ug/L		48	54 - 130
Benzo[k]fluoranthene	100	48.3	Q	ug/L		48	53 - 130
Benzyl alcohol	100	45.7	Q	ug/L		46	53 - 130
1,1'-Biphenyl	100	49.0	Q	ug/L		49	54 - 130
Bis(2-chloroethoxy)methane	100	61.3	Q	ug/L		61	64 - 130
Bis(2-chloroethyl)ether	100	67.0		ug/L		67	56 - 130
bis(chloroisopropyl) ether	100	76.4		ug/L		76	55 - 130
Bis(2-ethylhexyl) phthalate	100	57.7	Q	ug/L		58	62 - 130
4-Bromophenyl phenyl ether	100	53.7	Q	ug/L		54	61 - 130
Butyl benzyl phthalate	100	58.5	Q	ug/L		59	66 - 130
4-Chloroaniline	100	37.9	Q	ug/L		38	42 - 130
4-Chloro-3-methylphenol	100	50.4	Q	ug/L		50	60 - 130
2-Chloronaphthalene	100	42.3	Q	ug/L		42	53 - 130
2-Chlorophenol	100	43.2	Q	ug/L		43	57 - 130
4-Chlorophenyl phenyl ether	100	52.9	Q	ug/L		53	57 - 130
Chrysene	100	49.4	Q	ug/L		49	59 - 130
Dibenz(a,h)anthracene	100	48.7	Q	ug/L		49	55 - 130
Dibenzofuran	100	45.1	Q	ug/L		45	58 - 130
3,3'-Dichlorobenzidine	100	43.3	J	ug/L		43	27 - 130
2,4-Dichlorophenol	100	42.8	Q	ug/L		43	54 - 130
Diethyl phthalate	100	56.9	Q	ug/L		57	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-221448/17-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dimethylphenol	100	37.0	Q	ug/L		37	40 - 130
Dimethyl phthalate	100	54.9	Q	ug/L		55	69 - 130
Di-n-butyl phthalate	100	58.0	Q	ug/L		58	66 - 130
4,6-Dinitro-2-methylphenol	100	45.4	J	ug/L		45	45 - 134
2,4-Dinitrophenol	100	45.0	J	ug/L		45	20 - 165
2,4-Dinitrotoluene	100	47.6	Q	ug/L		48	63 - 130
2,6-Dinitrotoluene	100	46.8	Q	ug/L		47	65 - 130
Di-n-octyl phthalate	100	61.6	Q	ug/L		62	64 - 130
1,4-Dioxane	100	40.8	M	ug/L		41	35 - 130
Fluoranthene	100	52.3	Q	ug/L		52	56 - 130
Fluorene	100	49.9	Q	ug/L		50	61 - 130
Hexachlorobenzene	100	46.7	Q	ug/L		47	52 - 130
Hexachlorobutadiene	100	39.4		ug/L		39	36 - 130
Hexachlorocyclopentadiene	100	27.8		ug/L		28	10 - 130
Hexachloroethane	100	39.7		ug/L		40	39 - 130
Indeno[1,2,3-cd]pyrene	100	46.2	Q	ug/L		46	47 - 130
Isophorone	100	52.8	Q	ug/L		53	59 - 130
2-Methylnaphthalene	100	44.3	Q	ug/L		44	52 - 130
2-Methylphenol	100	36.0	Q	ug/L		36	55 - 130
3 & 4 Methylphenol	100	44.2		ug/L		44	35 - 130
Naphthalene	100	42.6	Q	ug/L		43	50 - 130
2-Nitroaniline	100	61.4		ug/L		61	60 - 130
3-Nitroaniline	100	47.7	J Q	ug/L		48	54 - 130
4-Nitroaniline	100	47.9	J Q	ug/L		48	54 - 130
Nitrobenzene	100	50.6	Q	ug/L		51	56 - 130
2-Nitrophenol	100	41.9	Q	ug/L		42	54 - 130
4-Nitrophenol	100	46.8	J	ug/L		47	38 - 130
N-Nitrosodimethylamine	100	55.4		ug/L		55	54 - 130
N-Nitrosodi-n-propylamine	100	66.4		ug/L		66	64 - 130
N-Nitrosodiphenylamine	100	55.2	Q	ug/L		55	68 - 130
Pentachlorophenol	100	40.1	J Q	ug/L		40	42 - 138
Phenanthrene	100	49.9	Q	ug/L		50	62 - 130
Phenol	100	45.4		ug/L		45	29 - 130
Pyrene	100	50.3	Q	ug/L		50	60 - 130
2,4,5-Trichlorophenol	100	43.4	Q	ug/L		43	61 - 130
2,4,6-Trichlorophenol	100	43.1	Q	ug/L		43	57 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*43*		*38 - 130*
2-Fluorophenol	*42*		*25 - 130*
Nitrobenzene-d5	*48*		*39 - 130*
Phenol-d5	*37*		*25 - 130*
Terphenyl-d14	*46*		*10 - 143*
2,4,6-Tribromophenol	*44*		*31 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221448/18-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	100	78.9	Q	ug/L		79	55 - 130	53	50
Acenaphthylene	100	79.7		ug/L		80	60 - 130	50	50
Anthracene	100	80.4		ug/L		80	61 - 130	50	50
Benzo[a]anthracene	100	83.9		ug/L		84	58 - 130	48	50
Benzo[a]pyrene	100	93.7	Q	ug/L		94	61 - 130	53	50
Benzo[b]fluoranthene	100	87.2		ug/L		87	51 - 130	48	50
Benzo[g,h,i]perylene	100	80.4		ug/L		80	54 - 130	50	50
Benzo[k]fluoranthene	100	86.3	Q	ug/L		86	53 - 130	56	50
Benzyl alcohol	100	76.2		ug/L		76	53 - 130	50	50
1,1'-Biphenyl	100	82.2	Q	ug/L		82	54 - 130	51	50
Bis(2-chloroethoxy)methane	100	101		ug/L		101	64 - 130	49	50
Bis(2-chloroethyl)ether	100	109		ug/L		109	56 - 130	48	50
bis(chloroisopropyl) ether	100	124		ug/L		124	55 - 130	47	50
Bis(2-ethylhexyl) phthalate	100	95.4		ug/L		95	62 - 130	49	50
4-Bromophenyl phenyl ether	100	92.3	Q	ug/L		92	61 - 130	53	50
Butyl benzyl phthalate	100	96.6		ug/L		97	66 - 130	49	50
4-Chloroaniline	100	53.6		ug/L		54	42 - 130	34	50
4-Chloro-3-methylphenol	100	83.7		ug/L		84	60 - 130	50	50
2-Chloronaphthalene	100	70.3		ug/L		70	53 - 130	50	50
2-Chlorophenol	100	71.9		ug/L		72	57 - 130	50	50
4-Chlorophenyl phenyl ether	100	90.1	Q	ug/L		90	57 - 130	52	50
Chrysene	100	81.6		ug/L		82	59 - 130	49	50
Dibenz(a,h)anthracene	100	83.3	Q	ug/L		83	55 - 130	52	50
Dibenzofuran	100	73.8		ug/L		74	58 - 130	48	50
3,3'-Dichlorobenzidine	100	70.6		ug/L		71	27 - 130	48	50
2,4-Dichlorophenol	100	71.0		ug/L		71	54 - 130	50	50
Diethyl phthalate	100	95.0		ug/L		95	70 - 130	50	50
2,4-Dimethylphenol	100	62.5	Q	ug/L		63	40 - 130	51	50
Dimethyl phthalate	100	91.7		ug/L		92	69 - 130	50	50
Di-n-butyl phthalate	100	95.8		ug/L		96	66 - 130	49	50
4,6-Dinitro-2-methylphenol	100	82.0	Q	ug/L		82	45 - 134	57	50
2,4-Dinitrophenol	100	90.0	Q	ug/L		90	20 - 165	67	50
2,4-Dinitrotoluene	100	80.3	Q	ug/L		80	63 - 130	51	50
2,6-Dinitrotoluene	100	79.6	Q	ug/L		80	65 - 130	52	50
Di-n-octyl phthalate	100	100		ug/L		100	64 - 130	48	50
1,4-Dioxane	100	66.1	M	ug/L		66	35 - 130	47	50
Fluoranthene	100	85.4		ug/L		85	56 - 130	48	50
Fluorene	100	84.1	Q	ug/L		84	61 - 130	51	50
Hexachlorobenzene	100	80.6	Q	ug/L		81	52 - 130	53	50
Hexachlorobutadiene	100	70.5	Q	ug/L		70	36 - 130	57	50
Hexachlorocyclopentadiene	100	55.2	Q	ug/L		55	10 - 130	66	50
Hexachloroethane	100	66.4		ug/L		66	39 - 130	50	50
Indeno[1,2,3-cd]pyrene	100	73.6		ug/L		74	47 - 130	46	50
Isophorone	100	89.0	Q	ug/L		89	59 - 130	51	50
2-Methylnaphthalene	100	73.8		ug/L		74	52 - 130	50	50
2-Methylphenol	100	60.0		ug/L		60	55 - 130	50	50
3 & 4 Methylphenol	100	73.1		ug/L		73	35 - 130	49	50
Naphthalene	100	71.3		ug/L		71	50 - 130	50	50
2-Nitroaniline	100	103	Q	ug/L		103	60 - 130	51	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-221448/18-A
Matrix: Water
Analysis Batch: 223845

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 221448

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
3-Nitroaniline	100	76.4		ug/L		76	54 - 130	46	50
4-Nitroaniline	100	78.3		ug/L		78	54 - 130	48	50
Nitrobenzene	100	83.5		ug/L		84	56 - 130	49	50
2-Nitrophenol	100	72.6	Q	ug/L		73	54 - 130	54	50
4-Nitrophenol	100	83.3	Q	ug/L		83	38 - 130	56	50
N-Nitrosodimethylamine	100	92.1		ug/L		92	54 - 130	50	50
N-Nitrosodi-n-propylamine	100	106		ug/L		106	64 - 130	46	50
N-Nitrosodiphenylamine	100	91.3		ug/L		91	68 - 130	49	50
Pentachlorophenol	100	72.9	Q	ug/L		73	42 - 138	58	50
Phenanthrene	100	83.2		ug/L		83	62 - 130	50	50
Phenol	100	77.1	Q	ug/L		77	29 - 130	52	50
Pyrene	100	84.1		ug/L		84	60 - 130	50	50
2,4,5-Trichlorophenol	100	73.8	Q	ug/L		74	61 - 130	52	50
2,4,6-Trichlorophenol	100	72.8	Q	ug/L		73	57 - 130	51	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*38 - 130*
2-Fluorophenol	*73*		*25 - 130*
Nitrobenzene-d5	*84*		*39 - 130*
Phenol-d5	*73*		*25 - 130*
Terphenyl-d14	*81*		*10 - 143*
2,4,6-Tribromophenol	*81*		*31 - 141*

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
Acenaphthylene	0.85	U	10	0.85	ug/L		12/12/11 14:57	12/14/11 22:05	1
Acetophenone	0.57	U	10	0.57	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Acetylaminofluorene	1.6	U	10	1.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Aminobiphenyl	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
Anthracene	0.69	U	10	0.69	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		12/12/11 14:57	12/14/11 22:05	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		12/12/11 14:57	12/14/11 22:05	1
Chrysene	0.51	U	10	0.51	ug/L		12/12/11 14:57	12/14/11 22:05	1
Diallate	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dibenzofuran	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,6-Dichlorophenol	0.73	U	10	0.73	ug/L		12/12/11 14:57	12/14/11 22:05	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dimethoate	0.75	U	10	0.75	ug/L		12/12/11 14:57	12/14/11 22:05	1
7,12-Dimethylbenz(a)anthracene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
3,3'-Dimethylbenzidine	10	U	20	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		12/12/11 14:57	12/14/11 22:05	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,3-Dinitrobenzene	0.60	U	10	0.60	ug/L		12/12/11 14:57	12/14/11 22:05	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dinitrophenol	10	U	50	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Dinoseb	5.0	U	10	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,4-Dioxane	3.4	U	10	3.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Disulfoton	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Ethyl methanesulfonate	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
Ethyl Parathion	1.3	U	10	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
Famphur	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
Fluoranthene	0.74	U	10	0.74	ug/L		12/12/11 14:57	12/14/11 22:05	1
Fluorene	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachloroethane	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
Hexachloropropene	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Isophorone	0.90	U	10	0.90	ug/L		12/12/11 14:57	12/14/11 22:05	1
Isosafrole	0.50	U	10	0.50	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methapyrilene	2.7	U	2000	2.7	ug/L		12/12/11 14:57	12/14/11 22:05	1
3-Methylcholanthrene	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methyl methanesulfonate	0.60	U	10	0.60	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Methyl parathion	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Methylphenol	0.89	U	10	0.89	ug/L		12/12/11 14:57	12/14/11 22:05	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
Naphthalene	0.70	U	10	0.70	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,4-Naphthoquinone	0.62	U	10	0.62	ug/L		12/12/11 14:57	12/14/11 22:05	1
1-Naphthylamine	1.1	U	10	1.1	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Naphthylamine	1.5	U	10	1.5	ug/L		12/12/11 14:57	12/14/11 22:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-223265/11-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223265

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	1.3	U	50	1.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Nitrobenzene	0.73	U	10	0.73	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitro-o-toluidine	1.5	U	10	1.5	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodiethylamine	0.93	U	10	0.93	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodimethylamine	2.8	U	10	2.8	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodi-n-butylamine	0.96	U	10	0.96	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosomethylethylamine	3.3	U	10	3.3	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosopiperidine	0.88	U	10	0.88	ug/L		12/12/11 14:57	12/14/11 22:05	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
o,o',o''-Triethylphosphorothioate	1.0	U	10	1.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
p-Dimethylamino azobenzene	0.79	U	10	0.79	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachlorobenzene	0.52	U	10	0.52	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachloronitrobenzene	0.78	U	10	0.78	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenacetin	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenanthrene	0.77	U	10	0.77	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phenol	0.83	U	10	0.83	ug/L		12/12/11 14:57	12/14/11 22:05	1
Phorate	0.87	U	10	0.87	ug/L		12/12/11 14:57	12/14/11 22:05	1
p-Phenylene diamine	10	U	2000	10	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pronamide	0.89	U	10	0.89	ug/L		12/12/11 14:57	12/14/11 22:05	1
Pyrene	0.63	U	10	0.63	ug/L		12/12/11 14:57	12/14/11 22:05	1
Safrole, Total	0.80	U	10	0.80	ug/L		12/12/11 14:57	12/14/11 22:05	1
Sulfotepp	0.53	U	10	0.53	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,2,4,5-Tetrachlorobenzene	0.76	U	10	0.76	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		12/12/11 14:57	12/14/11 22:05	1
Thionazin	0.91	U	10	0.91	ug/L		12/12/11 14:57	12/14/11 22:05	1
2-Toluidine	1.4	U	10	1.4	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		12/12/11 14:57	12/14/11 22:05	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		12/12/11 14:57	12/14/11 22:05	1
1,3,5-Trinitrobenzene	2.0	U	10	2.0	ug/L		12/12/11 14:57	12/14/11 22:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*38 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
2-Fluorophenol	*80*		*25 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Nitrobenzene-d5	*95*		*39 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Phenol-d5	*81*		*25 - 130*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
Terphenyl-d14	*89*		*10 - 143*	*12/12/11 14:57*	*12/14/11 22:05*	*1*
2,4,6-Tribromophenol	*83*		*31 - 141*	*12/12/11 14:57*	*12/14/11 22:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-223265/12-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	88.1		ug/L		88	55 - 130
Acenaphthylene	100	88.3		ug/L		88	60 - 130
Anthracene	100	88.5		ug/L		88	61 - 130
Benzo[a]anthracene	100	89.3		ug/L		89	58 - 130
Benzo[a]pyrene	100	96.2		ug/L		96	61 - 130
Benzo[b]fluoranthene	100	92.1		ug/L		92	51 - 130
Benzo[g,h,i]perylene	100	89.1		ug/L		89	54 - 130
Benzo[k]fluoranthene	100	87.8		ug/L		88	53 - 130
Benzyl alcohol	100	84.3		ug/L		84	53 - 130
1,1'-Biphenyl	100	90.6		ug/L		91	54 - 130
Bis(2-chloroethoxy)methane	100	109		ug/L		109	64 - 130
Bis(2-chloroethyl)ether	100	111		ug/L		111	56 - 130
bis(chloroisopropyl) ether	100	126		ug/L		126	55 - 130
Bis(2-ethylhexyl) phthalate	100	99.8		ug/L		100	62 - 130
4-Bromophenyl phenyl ether	100	97.7		ug/L		98	61 - 130
Butyl benzyl phthalate	100	105		ug/L		105	66 - 130
4-Chloroaniline	100	66.9		ug/L		67	42 - 130
4-Chloro-3-methylphenol	100	88.4		ug/L		88	60 - 130
2-Chloronaphthalene	100	79.3		ug/L		79	53 - 130
2-Chlorophenol	100	80.2		ug/L		80	57 - 130
4-Chlorophenyl phenyl ether	100	92.7		ug/L		93	57 - 130
Chrysene	100	89.5		ug/L		89	59 - 130
Dibenz(a,h)anthracene	100	90.6		ug/L		91	55 - 130
Dibenzofuran	100	79.5		ug/L		79	58 - 130
3,3'-Dichlorobenzidine	100	68.2		ug/L		68	27 - 130
2,4-Dichlorophenol	100	82.2		ug/L		82	54 - 130
Diethyl phthalate	100	97.9		ug/L		98	70 - 130
2,4-Dimethylphenol	100	63.7		ug/L		64	40 - 130
Dimethyl phthalate	100	95.1		ug/L		95	69 - 130
Di-n-butyl phthalate	100	101		ug/L		101	66 - 130
4,6-Dinitro-2-methylphenol	100	97.2		ug/L		97	45 - 134
2,4-Dinitrophenol	100	104		ug/L		104	20 - 165
2,4-Dinitrotoluene	100	85.6		ug/L		86	63 - 130
2,6-Dinitrotoluene	100	85.7		ug/L		86	65 - 130
Di-n-octyl phthalate	100	108		ug/L		108	64 - 130
1,4-Dioxane	100	87.0		ug/L		87	35 - 130
Fluoranthene	100	94.4		ug/L		94	56 - 130
Fluorene	100	88.2		ug/L		88	61 - 130
Hexachlorobenzene	100	88.0		ug/L		88	52 - 130
Hexachlorobutadiene	100	78.8		ug/L		79	36 - 130
Hexachlorocyclopentadiene	100	29.8		ug/L		30	10 - 130
Hexachloroethane	100	72.8		ug/L		73	39 - 130
Indeno[1,2,3-cd]pyrene	100	85.8		ug/L		86	47 - 130
Isophorone	100	96.0		ug/L		96	59 - 130
2-Methylnaphthalene	100	83.0		ug/L		83	52 - 130
2-Methylphenol	100	67.1		ug/L		67	55 - 130
3 & 4 Methylphenol	100	80.7		ug/L		81	35 - 130
Naphthalene	100	82.9		ug/L		83	50 - 130
2-Nitroaniline	100	103		ug/L		103	60 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-223265/12-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Nitroaniline	100	82.0		ug/L		82	54 - 130
4-Nitroaniline	100	82.2		ug/L		82	54 - 130
Nitrobenzene	100	91.8		ug/L		92	56 - 130
2-Nitrophenol	100	84.6		ug/L		85	54 - 130
4-Nitrophenol	100	94.5		ug/L		94	38 - 130
N-Nitrosodimethylamine	100	97.8	M	ug/L		98	54 - 130
N-Nitrosodi-n-propylamine	100	106		ug/L		106	64 - 130
N-Nitrosodiphenylamine	100	97.3		ug/L		97	68 - 130
Pentachlorophenol	100	89.2		ug/L		89	42 - 138
Phenanthrene	100	94.2		ug/L		94	62 - 130
Phenol	100	87.4		ug/L		87	29 - 130
Pyrene	100	92.8		ug/L		93	60 - 130
2,4,5-Trichlorophenol	100	81.4		ug/L		81	61 - 130
2,4,6-Trichlorophenol	100	83.2		ug/L		83	57 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*38 - 130*
2-Fluorophenol	*79*		*25 - 130*
Nitrobenzene-d5	*87*		*39 - 130*
Phenol-d5	*79*		*25 - 130*
Terphenyl-d14	*83*		*10 - 143*
2,4,6-Tribromophenol	*82*		*31 - 141*

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	100	94.1		ug/L		94	55 - 130	7	50
Acenaphthylene	100	94.3		ug/L		94	60 - 130	7	50
Anthracene	100	92.3		ug/L		92	61 - 130	4	50
Benzo[a]anthracene	100	92.2		ug/L		92	58 - 130	3	50
Benzo[a]pyrene	100	98.9		ug/L		99	61 - 130	3	50
Benzo[b]fluoranthene	100	92.9		ug/L		93	51 - 130	1	50
Benzo[g,h,i]perylene	100	91.3		ug/L		91	54 - 130	2	50
Benzo[k]fluoranthene	100	91.6		ug/L		92	53 - 130	4	50
Benzyl alcohol	100	90.5		ug/L		91	53 - 130	7	50
1,1'-Biphenyl	100	96.3		ug/L		96	54 - 130	6	50
Bis(2-chloroethoxy)methane	100	117		ug/L		117	64 - 130	7	50
Bis(2-chloroethyl)ether	100	120		ug/L		120	56 - 130	8	50
bis(chloroisopropyl) ether	100	136	Q	ug/L		136	55 - 130	8	50
Bis(2-ethylhexyl) phthalate	100	101		ug/L		101	62 - 130	1	50
4-Bromophenyl phenyl ether	100	102		ug/L		102	61 - 130	4	50
Butyl benzyl phthalate	100	105		ug/L		105	66 - 130	0	50
4-Chloroaniline	100	75.6		ug/L		76	42 - 130	12	50
4-Chloro-3-methylphenol	100	97.0		ug/L		97	60 - 130	9	50
2-Chloronaphthalene	100	84.1		ug/L		84	53 - 130	6	50
2-Chlorophenol	100	88.3		ug/L		88	57 - 130	10	50
4-Chlorophenyl phenyl ether	100	98.8		ug/L		99	57 - 130	6	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene			100	94.6		ug/L		95	59 - 130	6	50
Dibenz(a,h)anthracene			100	93.1		ug/L		93	55 - 130	3	50
Dibenzofuran			100	86.0		ug/L		86	58 - 130	8	50
3,3'-Dichlorobenzidine			100	75.5		ug/L		76	27 - 130	10	50
2,4-Dichlorophenol			100	85.8		ug/L		86	54 - 130	4	50
Diethyl phthalate			100	102		ug/L		102	70 - 130	4	50
2,4-Dimethylphenol			100	69.2		ug/L		69	40 - 130	8	50
Dimethyl phthalate			100	101		ug/L		101	69 - 130	6	50
Di-n-butyl phthalate			100	103		ug/L		103	66 - 130	2	50
4,6-Dinitro-2-methylphenol			100	103		ug/L		103	45 - 134	6	50
2,4-Dinitrophenol			100	113		ug/L		113	20 - 165	8	50
2,4-Dinitrotoluene			100	89.3		ug/L		89	63 - 130	4	50
2,6-Dinitrotoluene			100	90.6		ug/L		91	65 - 130	6	50
Di-n-octyl phthalate			100	109		ug/L		109	64 - 130	1	50
1,4-Dioxane			100	92.3		ug/L		92	35 - 130	6	50
Fluoranthene			100	97.1		ug/L		97	56 - 130	3	50
Fluorene			100	94.2		ug/L		94	61 - 130	7	50
Hexachlorobenzene			100	90.7		ug/L		91	52 - 130	3	50
Hexachlorobutadiene			100	82.8		ug/L		83	36 - 130	5	50
Hexachlorocyclopentadiene			100	36.2		ug/L		36	10 - 130	19	50
Hexachloroethane			100	73.4		ug/L		73	39 - 130	1	50
Indeno[1,2,3-cd]pyrene			100	89.2		ug/L		89	47 - 130	4	50
Isophorone			100	104		ug/L		104	59 - 130	8	50
2-Methylnaphthalene			100	88.0		ug/L		88	52 - 130	6	50
2-Methylphenol			100	71.3		ug/L		71	55 - 130	6	50
3 & 4 Methylphenol			100	86.5		ug/L		87	35 - 130	7	50
Naphthalene			100	87.3		ug/L		87	50 - 130	5	50
2-Nitroaniline			100	111		ug/L		111	60 - 130	8	50
3-Nitroaniline			100	87.8		ug/L		88	54 - 130	7	50
4-Nitroaniline			100	88.4		ug/L		88	54 - 130	7	50
Nitrobenzene			100	99.8		ug/L		100	56 - 130	8	50
2-Nitrophenol			100	91.7		ug/L		92	54 - 130	8	50
4-Nitrophenol			100	100		ug/L		100	38 - 130	6	50
N-Nitrosodimethylamine			100	108		ug/L		108	54 - 130	10	50
N-Nitrosodi-n-propylamine			100	117		ug/L		117	64 - 130	9	50
N-Nitrosodiphenylamine			100	103		ug/L		103	68 - 130	6	50
Pentachlorophenol			100	91.5		ug/L		92	42 - 138	3	50
Phenanthrene			100	97.5		ug/L		97	62 - 130	3	50
Phenol			100	94.4		ug/L		94	29 - 130	8	50
Pyrene			100	95.5		ug/L		96	60 - 130	3	50
2,4,5-Trichlorophenol			100	88.6		ug/L		89	61 - 130	9	50
2,4,6-Trichlorophenol			100	90.1		ug/L		90	57 - 130	8	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*38 - 130*
2-Fluorophenol	*85*		*25 - 130*
Nitrobenzene-d5	*96*		*39 - 130*
Phenol-d5	*87*		*25 - 130*
Terphenyl-d14	*86*		*10 - 143*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-223265/13-A
Matrix: Water
Analysis Batch: 223700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 223265

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*89*		*31 - 141*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-221441/13-A
Matrix: Water
Analysis Batch: 223694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		11/19/11 15:31	12/14/11 02:11	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		11/19/11 15:31	12/14/11 02:11	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		11/19/11 15:31	12/14/11 02:11	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		11/19/11 15:31	12/14/11 02:11	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		11/19/11 15:31	12/14/11 02:11	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		11/19/11 15:31	12/14/11 02:11	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		11/19/11 15:31	12/14/11 02:11	1
Chlorobenzilate	0.50	U	0.50	0.50	ug/L		11/19/11 15:31	12/14/11 02:11	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		11/19/11 15:31	12/14/11 02:11	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		11/19/11 15:31	12/14/11 02:11	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		11/19/11 15:31	12/14/11 02:11	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		11/19/11 15:31	12/14/11 02:11	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		11/19/11 15:31	12/14/11 02:11	1
Endrin	0.0097	U	0.10	0.0097	ug/L		11/19/11 15:31	12/14/11 02:11	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		11/19/11 15:31	12/14/11 02:11	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		11/19/11 15:31	12/14/11 02:11	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		11/19/11 15:31	12/14/11 02:11	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		11/19/11 15:31	12/14/11 02:11	1
Isodrin	0.050	U	0.050	0.050	ug/L		11/19/11 15:31	12/14/11 02:11	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1016	0.071	U	1.0	0.071	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1221	0.28	U	2.0	0.28	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1232	0.11	U	1.0	0.11	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1242	0.18	U	1.0	0.18	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1248	0.36	U	1.0	0.36	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1254	0.26	U	1.0	0.26	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1260	0.20	U	1.0	0.20	ug/L		11/19/11 15:31	12/14/11 02:11	1
PCB-1262	0.24	U	1.0	0.24	ug/L		11/19/11 15:31	12/14/11 02:11	1
Toxaphene	0.50	U	5.0	0.50	ug/L		11/19/11 15:31	12/14/11 02:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*	*M*	*40 - 130*	*11/19/11 15:31*	*12/14/11 02:11*	*1*
DCB Decachlorobiphenyl	*71*	*M*	*40 - 130*	*11/19/11 15:31*	*12/14/11 02:11*	*1*
Tetrachloro-m-xylene	*71*		*36 - 130*	*11/19/11 15:31*	*12/14/11 02:11*	*1*
Tetrachloro-m-xylene	*76*		*36 - 130*	*11/19/11 15:31*	*12/14/11 02:11*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-221441/14-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.200	0.181	M	ug/L		91	49 - 144
4,4'-DDE	0.200	0.180		ug/L		90	46 - 144
4,4'-DDT	0.200	0.178		ug/L		89	48 - 166
Aldrin	0.100	0.0838		ug/L		84	14 - 168
alpha-BHC	0.100	0.0902		ug/L		90	43 - 138
beta-BHC	0.100	0.111		ug/L		111	38 - 158
delta-BHC	0.100	0.112		ug/L		112	23 - 191
Dieldrin	0.200	0.168		ug/L		84	61 - 136
Endosulfan I	0.100	0.0975		ug/L		98	52 - 141
Endosulfan II	0.200	0.176		ug/L		88	60 - 140
Endosulfan sulfate	0.200	0.181		ug/L		90	60 - 151
Endrin	0.200	0.174	M	ug/L		87	66 - 150
Endrin aldehyde	0.200	0.308		ug/L		154	16 - 200
gamma-BHC (Lindane)	0.100	0.0963		ug/L		96	54 - 134
Heptachlor	0.100	0.116		ug/L		116	10 - 200
Heptachlor epoxide	0.100	0.0885	M	ug/L		89	49 - 142
Methoxychlor	0.200	0.190		ug/L		95	13 - 186

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*54*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*57*	*M*	*40 - 130*
Tetrachloro-m-xylene	*66*		*36 - 130*
Tetrachloro-m-xylene	*66*		*36 - 130*

Lab Sample ID: LCS 680-221441/16-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	8.55		ug/L		86	38 - 172
PCB-1260	10.0	7.60		ug/L		76	46 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*55*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*50*	*M*	*40 - 130*
Tetrachloro-m-xylene	*69*		*36 - 130*
Tetrachloro-m-xylene	*73*		*36 - 130*

Lab Sample ID: LCS 680-221441/18-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*76*		*40 - 130*
Tetrachloro-m-xylene	*69*		*36 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCSD 680-221441/15-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.200	0.195	M	ug/L		97	49 - 144	7	50
4,4'-DDE	0.200	0.187		ug/L		93	46 - 144	3	50
4,4'-DDT	0.200	0.189		ug/L		94	48 - 166	6	50
Aldrin	0.100	0.0872		ug/L		87	14 - 168	4	50
alpha-BHC	0.100	0.0976		ug/L		98	43 - 138	8	50
beta-BHC	0.100	0.111		ug/L		111	38 - 158	0	50
delta-BHC	0.100	0.133		ug/L		133	23 - 191	17	50
Dieldrin	0.200	0.186		ug/L		93	61 - 136	10	50
Endosulfan I	0.100	0.0968		ug/L		97	52 - 141	1	50
Endosulfan II	0.200	0.181		ug/L		91	60 - 140	3	50
Endosulfan sulfate	0.200	0.189		ug/L		95	60 - 151	5	50
Endrin	0.200	0.192		ug/L		96	66 - 150	10	50
Endrin aldehyde	0.200	0.310		ug/L		155	16 - 200	0	50
gamma-BHC (Lindane)	0.100	0.0980		ug/L		98	54 - 134	2	50
Heptachlor	0.100	0.109		ug/L		109	10 - 200	6	50
Heptachlor epoxide	0.100	0.0924	M	ug/L		92	49 - 142	4	50
Methoxychlor	0.200	0.186		ug/L		93	13 - 186	2	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*65*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*64*	*M*	*40 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*
Tetrachloro-m-xylene	*62*		*36 - 130*

Lab Sample ID: LCSD 680-221441/17-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	10.0	9.12		ug/L		91	38 - 172	6	50
PCB-1260	10.0	7.89		ug/L		79	46 - 138	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*67*		*40 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*

Lab Sample ID: LCSD 680-221441/19-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 223694 — **Prep Batch: 221441**

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*52*	*M*	*40 - 130*
DCB Decachlorobiphenyl	*51*		*40 - 130*
Tetrachloro-m-xylene	*66*		*36 - 130*
Tetrachloro-m-xylene	*68*		*36 - 130*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 680-221171/16-A
Matrix: Water
Analysis Batch: 222173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.037	U	0.50	0.037	ug/L		11/17/11 07:56	11/26/11 22:44	1
2,4-DB	0.15	U	0.50	0.15	ug/L		11/17/11 07:56	11/26/11 22:44	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		11/17/11 07:56	11/26/11 22:44	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		11/17/11 07:56	11/26/11 22:44	1
Dalapon	0.10	U	10	0.10	ug/L		11/17/11 07:56	11/26/11 22:44	1
Dicamba	0.085	U	0.50	0.085	ug/L		11/17/11 07:56	11/26/11 22:44	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		11/17/11 07:56	11/26/11 22:44	1
Dinoseb	0.16	U	6.0	0.16	ug/L		11/17/11 07:56	11/26/11 22:44	1
MCPA	17	U	120	17	ug/L		11/17/11 07:56	11/26/11 22:44	1
Mecoprop	19	U	120	19	ug/L		11/17/11 07:56	11/26/11 22:44	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		11/17/11 07:56	11/26/11 22:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*81*		*52 - 151*	*11/17/11 07:56*	*11/26/11 22:44*	*1*
DCAA	*76*		*52 - 151*	*11/17/11 07:56*	*11/26/11 22:44*	*1*

Lab Sample ID: LCS 680-221171/17-A
Matrix: Water
Analysis Batch: 222173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 221171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	2.00	1.88		ug/L		94	63 - 130
2,4-DB	2.00	1.75		ug/L		88	34 - 157
2,4,5-T	2.00	1.50		ug/L		75	59 - 130
Silvex (2,4,5-TP)	2.00	1.48		ug/L		74	64 - 130
Dalapon	10.0	9.81	J	ug/L		98	24 - 130
Dicamba	2.00	1.47		ug/L		74	66 - 130
Dichlorprop	2.00	1.81		ug/L		90	65 - 152
Dinoseb	2.00	1.64	J	ug/L		82	10 - 130
MCPA	200	148		ug/L		74	40 - 130
Mecoprop	200	152		ug/L		76	53 - 130
Pentachlorophenol	1.34	1.00		ug/L		75	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*73*		*52 - 151*
DCAA	*80*		*52 - 151*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-221109/1-A
Matrix: Water
Analysis Batch: 221294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 221109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		11/16/11 13:57	11/17/11 16:09	1
Arsenic	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:09	1
Barium	0.15	U	1.0	0.15	ug/L		11/16/11 13:57	11/17/11 16:09	1
Beryllium	0.070	U	0.20	0.070	ug/L		11/16/11 13:57	11/17/11 16:09	1
Cadmium	0.20	U	0.50	0.20	ug/L		11/16/11 13:57	11/17/11 16:09	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-221109/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221294 — **Prep Batch: 221109**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.474	J	1.0	0.16	ug/L		11/16/11 13:57	11/17/11 16:09	1
Cobalt	0.078	U	0.20	0.078	ug/L		11/16/11 13:57	11/17/11 16:09	1
Copper	0.21	U	1.0	0.21	ug/L		11/16/11 13:57	11/17/11 16:09	1
Lead	0.080	U	0.30	0.080	ug/L		11/16/11 13:57	11/17/11 16:09	1
Nickel	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:09	1
Selenium	0.21	U	0.50	0.21	ug/L		11/16/11 13:57	11/17/11 16:09	1
Silver	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:09	1
Thallium	0.10	U	0.20	0.10	ug/L		11/16/11 13:57	11/17/11 16:09	1
Tin	0.40	U	1.0	0.40	ug/L		11/16/11 13:57	11/17/11 16:09	1
Vanadium	1.4	U	5.0	1.4	ug/L		11/16/11 13:57	11/17/11 16:09	1
Zinc	2.6	U	10	2.6	ug/L		11/16/11 13:57	11/17/11 16:09	1

Lab Sample ID: LCS 680-221109/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221294 — **Prep Batch: 221109**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	12.4		ug/L		124	75 - 125
Arsenic	20.0	22.3		ug/L		111	75 - 125
Barium	20.0	19.3		ug/L		97	75 - 125
Beryllium	10.0	11.3		ug/L		113	75 - 125
Cadmium	10.0	10.8		ug/L		108	75 - 125
Chromium	20.0	20.6		ug/L		103	75 - 125
Cobalt	10.0	9.74		ug/L		97	75 - 125
Copper	20.0	20.6		ug/L		103	75 - 125
Lead	10.0	10.2		ug/L		102	75 - 125
Nickel	20.0	20.6		ug/L		103	75 - 125
Selenium	20.0	22.4		ug/L		112	75 - 125
Silver	10.0	10.5		ug/L		105	75 - 125
Thallium	8.00	8.17		ug/L		102	75 - 125
Tin	20.0	24.8		ug/L		124	75 - 125
Vanadium	20.0	19.2		ug/L		96	75 - 125
Zinc	20.0	23.1		ug/L		116	75 - 125

Lab Sample ID: 680-74406-1 MS — **Client Sample ID: SW2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221294 — **Prep Batch: 221109**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.99	U	10.0	11.2		ug/L		112	75 - 125
Arsenic	0.40	U J	20.0	27.0	J	ug/L		135	75 - 125
Barium	27		20.0	44.7		ug/L		91	75 - 125
Beryllium	0.070	U	10.0	12.4		ug/L		124	75 - 125
Cadmium	0.20	U	10.0	11.6		ug/L		116	75 - 125
Chromium	1.3		20.0	21.9		ug/L		103	75 - 125
Cobalt	0.27		10.0	10.5		ug/L		102	75 - 125
Copper	0.45	J	20.0	22.0		ug/L		108	75 - 125
Lead	0.080	U	10.0	10.6		ug/L		106	75 - 125
Nickel	0.57	J	20.0	21.8		ug/L		106	75 - 125
Selenium	0.21	U J	20.0	26.5	J	ug/L		133	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-74406-1 MS — **Client Sample ID: SW2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221294 — **Prep Batch: 221109**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.10	U	10.0	11.1		ug/L		111	75 - 125
Thallium	0.10	U	8.00	8.71		ug/L		109	75 - 125
Tin	0.40	U J	20.0	34.0	J	ug/L		170	75 - 125
Vanadium	1.4	U	20.0	20.9		ug/L		104	75 - 125
Zinc	15		20.0	36.9		ug/L		108	75 - 125

Lab Sample ID: 680-74406-1 MSD — **Client Sample ID: SW2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221294 — **Prep Batch: 221109**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.99	U	10.0	10.9		ug/L		109	75 - 125	3	20
Arsenic	0.40	U J	20.0	27.2	J	ug/L		136	75 - 125	1	20
Barium	27		20.0	43.1		ug/L		83	75 - 125	4	20
Beryllium	0.070	U	10.0	12.0		ug/L		120	75 - 125	3	20
Cadmium	0.20	U	10.0	11.2		ug/L		112	75 - 125	4	20
Chromium	1.3		20.0	20.9		ug/L		98	75 - 125	5	20
Cobalt	0.27		10.0	10.1		ug/L		98	75 - 125	4	20
Copper	0.45	J	20.0	21.6		ug/L		106	75 - 125	2	20
Lead	0.080	U	10.0	10.1		ug/L		101	75 - 125	5	20
Nickel	0.57	J	20.0	21.0		ug/L		102	75 - 125	4	20
Selenium	0.21	U J	20.0	26.3	J	ug/L		132	75 - 125	1	20
Silver	0.10	U	10.0	10.6		ug/L		106	75 - 125	5	20
Thallium	0.10	U	8.00	8.24		ug/L		103	75 - 125	5	20
Tin	0.40	U J	20.0	36.0	J	ug/L		180	75 - 125	6	20
Vanadium	1.4	U	20.0	20.0		ug/L		100	75 - 125	4	20
Zinc	15		20.0	36.6		ug/L		106	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-221125/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221384 — **Prep Batch: 221125**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.20	0.091	ug/L		11/16/11 15:05	11/18/11 18:15	1

Lab Sample ID: LCS 680-221125/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221384 — **Prep Batch: 221125**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.50	2.35		ug/L		94	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-221218/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			11/16/11 08:12	5

Lab Sample ID: LCS 680-221218/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.99	5.10		mg/L		102	90 - 110

Lab Sample ID: LCSD 680-221218/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.99	5.09		mg/L		102	90 - 110	0	30

Lab Sample ID: 680-74406-1 MS — **Client Sample ID: SW2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.075	U	4.99	5.15		mg/L		103	90 - 110

Lab Sample ID: 680-74406-2 MS — **Client Sample ID: DUP2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.075	U	4.99	5.16		mg/L		103	90 - 110

Lab Sample ID: 680-74406-2 MSD — **Client Sample ID: DUP2-11-11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.075	U	4.99	5.18		mg/L		104	90 - 110	0	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-221903/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222069 — **Prep Batch: 221903**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		11/28/11 09:24	11/29/11 13:37	1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 680-221903/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222069 — **Prep Batch: 221903**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0298	0.0288		mg/L		97	85 - 115

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 680-221672/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		11/22/11 09:00	11/22/11 14:36	1

Lab Sample ID: LCS 680-221672/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221673 — **Prep Batch: 221672**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	408	253		mg/L		62	50 - 150

GC/MS Semi VOA

Prep Batch: 221448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	3520C	
680-74406-2	DUP2-11-11	Total/NA	Water	3520C	
680-74406-3	SW1-11-11	Total/NA	Water	3520C	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	3520C	
680-74406-5	SLDUP1-11-11	Total/NA	Water	3520C	
680-74406-6	SLMW8-11-11	Total/NA	Water	3520C	
LCS 680-221448/17-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221448/18-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-221448/16-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 222632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	8270D	221448
680-74406-2	DUP2-11-11	Total/NA	Water	8270D	221448
680-74406-3	SW1-11-11	Total/NA	Water	8270D	221448
680-74406-4	SLMW12AR-11-11	Total/NA	Water	8270D	221448
680-74406-5	SLDUP1-11-11	Total/NA	Water	8270D	221448

Prep Batch: 223265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1 - RE	SW2-11-11	Total/NA	Water	3520C	
680-74406-2 - RE	DUP2-11-11	Total/NA	Water	3520C	
680-74406-3 - RE	SW1-11-11	Total/NA	Water	3520C	
680-74406-4 - RE	SLMW12AR-11-11	Total/NA	Water	3520C	
680-74406-5 - RE	SLDUP1-11-11	Total/NA	Water	3520C	
680-74406-6 - RE	SLMW8-11-11	Total/NA	Water	3520C	
LCS 680-223265/12-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-223265/13-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-223265/11-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 223700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1 - RE	SW2-11-11	Total/NA	Water	8270D	223265
680-74406-2 - RE	DUP2-11-11	Total/NA	Water	8270D	223265
680-74406-3 - RE	SW1-11-11	Total/NA	Water	8270D	223265
680-74406-4 - RE	SLMW12AR-11-11	Total/NA	Water	8270D	223265
680-74406-5 - RE	SLDUP1-11-11	Total/NA	Water	8270D	223265
LCS 680-223265/12-A	Lab Control Sample	Total/NA	Water	8270D	223265
LCSD 680-223265/13-A	Lab Control Sample Dup	Total/NA	Water	8270D	223265
MB 680-223265/11-A	Method Blank	Total/NA	Water	8270D	223265

Analysis Batch: 223845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-6	SLMW8-11-11	Total/NA	Water	8270D	221448
680-74406-6 - RE	SLMW8-11-11	Total/NA	Water	8270D	223265
LCS 680-221448/17-A	Lab Control Sample	Total/NA	Water	8270D	221448
LCSD 680-221448/18-A	Lab Control Sample Dup	Total/NA	Water	8270D	221448
MB 680-221448/16-A	Method Blank	Total/NA	Water	8270D	221448

GC Semi VOA

Prep Batch: 221171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	8151A	
680-74406-2	DUP2-11-11	Total/NA	Water	8151A	
680-74406-3	SW1-11-11	Total/NA	Water	8151A	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	8151A	
680-74406-5	SLDUP1-11-11	Total/NA	Water	8151A	
680-74406-6	SLMW8-11-11	Total/NA	Water	8151A	
LCS 680-221171/17-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-221171/16-A	Method Blank	Total/NA	Water	8151A	

Prep Batch: 221441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	3520C	
680-74406-2	DUP2-11-11	Total/NA	Water	3520C	
680-74406-3	SW1-11-11	Total/NA	Water	3520C	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	3520C	
680-74406-5	SLDUP1-11-11	Total/NA	Water	3520C	
680-74406-6	SLMW8-11-11	Total/NA	Water	3520C	
LCS 680-221441/14-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-221441/16-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-221441/18-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-221441/15-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-221441/17-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-221441/19-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-221441/13-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 222173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-221171/17-A	Lab Control Sample	Total/NA	Water	8151A	221171
MB 680-221171/16-A	Method Blank	Total/NA	Water	8151A	221171

Analysis Batch: 222283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	8151A	221171
680-74406-2	DUP2-11-11	Total/NA	Water	8151A	221171
680-74406-3	SW1-11-11	Total/NA	Water	8151A	221171
680-74406-4	SLMW12AR-11-11	Total/NA	Water	8151A	221171
680-74406-5	SLDUP1-11-11	Total/NA	Water	8151A	221171
680-74406-6	SLMW8-11-11	Total/NA	Water	8151A	221171

Analysis Batch: 223694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	8081B/8082A	221441
680-74406-2	DUP2-11-11	Total/NA	Water	8081B/8082A	221441
680-74406-3	SW1-11-11	Total/NA	Water	8081B/8082A	221441
680-74406-4	SLMW12AR-11-11	Total/NA	Water	8081B/8082A	221441
680-74406-5	SLDUP1-11-11	Total/NA	Water	8081B/8082A	221441
680-74406-6	SLMW8-11-11	Total/NA	Water	8081B/8082A	221441
LCS 680-221441/14-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221441
LCS 680-221441/16-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221441
LCS 680-221441/18-A	Lab Control Sample	Total/NA	Water	8081B/8082A	221441
LCSD 680-221441/15-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221441
LCSD 680-221441/17-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221441

GC Semi VOA (Continued)

Analysis Batch: 223694 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-221441/19-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	221441
MB 680-221441/13-A	Method Blank	Total/NA	Water	8081B/8082A	221441

Metals

Prep Batch: 221109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	3030C	
680-74406-1 MS	SW2-11-11	Total/NA	Water	3030C	
680-74406-1 MSD	SW2-11-11	Total/NA	Water	3030C	
680-74406-2	DUP2-11-11	Total/NA	Water	3030C	
680-74406-3	SW1-11-11	Total/NA	Water	3030C	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	3030C	
680-74406-5	SLDUP1-11-11	Total/NA	Water	3030C	
680-74406-6	SLMW8-11-11	Total/NA	Water	3030C	
LCS 680-221109/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-221109/1-A	Method Blank	Total/NA	Water	3030C	

Prep Batch: 221125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	7470A	
680-74406-2	DUP2-11-11	Total/NA	Water	7470A	
680-74406-3	SW1-11-11	Total/NA	Water	7470A	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	7470A	
680-74406-5	SLDUP1-11-11	Total/NA	Water	7470A	
680-74406-6	SLMW8-11-11	Total/NA	Water	7470A	
LCS 680-221125/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 680-221125/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 221294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	6020A	221109
680-74406-1 MS	SW2-11-11	Total/NA	Water	6020A	221109
680-74406-1 MSD	SW2-11-11	Total/NA	Water	6020A	221109
680-74406-2	DUP2-11-11	Total/NA	Water	6020A	221109
680-74406-3	SW1-11-11	Total/NA	Water	6020A	221109
680-74406-4	SLMW12AR-11-11	Total/NA	Water	6020A	221109
680-74406-5	SLDUP1-11-11	Total/NA	Water	6020A	221109
680-74406-6	SLMW8-11-11	Total/NA	Water	6020A	221109
LCS 680-221109/2-A	Lab Control Sample	Total/NA	Water	6020A	221109
MB 680-221109/1-A	Method Blank	Total/NA	Water	6020A	221109

Analysis Batch: 221384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	7470A	221125
680-74406-2	DUP2-11-11	Total/NA	Water	7470A	221125
680-74406-3	SW1-11-11	Total/NA	Water	7470A	221125
680-74406-4	SLMW12AR-11-11	Total/NA	Water	7470A	221125
680-74406-5	SLDUP1-11-11	Total/NA	Water	7470A	221125
680-74406-6	SLMW8-11-11	Total/NA	Water	7470A	221125
LCS 680-221125/2-A	Lab Control Sample	Total/NA	Water	7470A	221125
MB 680-221125/1-A	Method Blank	Total/NA	Water	7470A	221125

General Chemistry

Analysis Batch: 221218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	300.0	
680-74406-1 MS	SW2-11-11	Total/NA	Water	300.0	
680-74406-2	DUP2-11-11	Total/NA	Water	300.0	
680-74406-2 MS	DUP2-11-11	Total/NA	Water	300.0	
680-74406-2 MSD	DUP2-11-11	Total/NA	Water	300.0	
680-74406-3	SW1-11-11	Total/NA	Water	300.0	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	300.0	
680-74406-5	SLDUP1-11-11	Total/NA	Water	300.0	
680-74406-6	SLMW8-11-11	Total/NA	Water	300.0	
LCS 680-221218/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-221218/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-221218/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 221672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	9030B	
680-74406-2	DUP2-11-11	Total/NA	Water	9030B	
680-74406-3	SW1-11-11	Total/NA	Water	9030B	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	9030B	
680-74406-5	SLDUP1-11-11	Total/NA	Water	9030B	
680-74406-6	SLMW8-11-11	Total/NA	Water	9030B	
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 680-221672/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 221673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	9034	221672
680-74406-2	DUP2-11-11	Total/NA	Water	9034	221672
680-74406-3	SW1-11-11	Total/NA	Water	9034	221672
680-74406-4	SLMW12AR-11-11	Total/NA	Water	9034	221672
680-74406-5	SLDUP1-11-11	Total/NA	Water	9034	221672
680-74406-6	SLMW8-11-11	Total/NA	Water	9034	221672
LCS 680-221672/2-A	Lab Control Sample	Total/NA	Water	9034	221672
MB 680-221672/1-A	Method Blank	Total/NA	Water	9034	221672

Prep Batch: 221903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	9012B	
680-74406-2	DUP2-11-11	Total/NA	Water	9012B	
680-74406-3	SW1-11-11	Total/NA	Water	9012B	
680-74406-4	SLMW12AR-11-11	Total/NA	Water	9012B	
680-74406-5	SLDUP1-11-11	Total/NA	Water	9012B	
680-74406-6	SLMW8-11-11	Total/NA	Water	9012B	
LCS 680-221903/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 680-221903/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 222069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-1	SW2-11-11	Total/NA	Water	9012B	221903
680-74406-2	DUP2-11-11	Total/NA	Water	9012B	221903
680-74406-3	SW1-11-11	Total/NA	Water	9012B	221903
680-74406-4	SLMW12AR-11-11	Total/NA	Water	9012B	221903

General Chemistry (Continued)

Analysis Batch: 222069 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-74406-5	SLDUP1-11-11	Total/NA	Water	9012B	221903
680-74406-6	SLMW8-11-11	Total/NA	Water	9012B	221903
LCS 680-221903/2-A	Lab Control Sample	Total/NA	Water	9012B	221903
MB 680-221903/1-A	Method Blank	Total/NA	Water	9012B	221903

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW2-11-11

Lab Sample ID: 680-74406-1

Date Collected: 11/15/11 08:00

Matrix: Water

Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 20:33	CRH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 00:31	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 03:15	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 04:24	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 16:20	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 18:45	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 13:58	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 13:56	DAM	TAL SAV

Client Sample ID: DUP2-11-11

Lab Sample ID: 680-74406-2

Date Collected: 11/15/11 08:20

Matrix: Water

Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 21:01	CRH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 01:00	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 03:31	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 04:43	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 16:48	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 18:48	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 14:59	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 13:57	DAM	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SW1-11-11

Lab Sample ID: 680-74406-3

Date Collected: 11/15/11 09:30
Matrix: Water
Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 21:29	CRH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 01:29	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 03:46	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 05:02	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 16:54	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 18:52	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 15:46	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 14:00	DAM	TAL SAV

Client Sample ID: SLMW12AR-11-11

Lab Sample ID: 680-74406-4

Date Collected: 11/15/11 11:35
Matrix: Water
Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 21:57	CRH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 01:58	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 04:02	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 05:21	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 16:59	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 18:55	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 16:01	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 14:01	DAM	TAL SAV

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Client Sample ID: SLDUP1-11-11

Lab Sample ID: 680-74406-5

Date Collected: 11/15/11 11:50
Matrix: Water
Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	222632	12/03/11 22:24	CRH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223700	12/15/11 02:27	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 04:18	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 05:40	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 17:16	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 19:05	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 16:16	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 14:02	DAM	TAL SAV

Client Sample ID: SLMW8-11-11

Lab Sample ID: 680-74406-6

Date Collected: 11/15/11 14:30
Matrix: Water
Date Received: 11/16/11 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			221448	11/20/11 15:30	RBS	TAL SAV
Total/NA	Analysis	8270D		1	223845	12/16/11 03:19	LH	TAL SAV
Total/NA	Prep	3520C	RE		223265	12/12/11 14:57	RBS	TAL SAV
Total/NA	Analysis	8270D	RE	1	223845	12/15/11 21:30	LH	TAL SAV
Total/NA	Prep	8151A			221171	11/17/11 07:56	CTR	TAL SAV
Total/NA	Analysis	8151A		1	222283	11/27/11 04:34	GM	TAL SAV
Total/NA	Prep	3520C			221441	11/19/11 15:31	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	223694	12/14/11 05:59	JK	TAL SAV
Total/NA	Prep	3030C			221109	11/16/11 13:57	RAM	TAL SAV
Total/NA	Analysis	6020A		1	221294	11/17/11 17:33	CE	TAL SAV
Total/NA	Prep	7470A			221125	11/16/11 15:05	JKL	TAL SAV
Total/NA	Analysis	7470A		1	221384	11/18/11 19:09	CE	TAL SAV
Total/NA	Analysis	300.0		5	221218	11/16/11 16:32	SMP	TAL SAV
Total/NA	Prep	9030B			221672	11/22/11 09:00	CN	TAL SAV
Total/NA	Analysis	9034		1	221673	11/22/11 14:36	CN	TAL SAV
Total/NA	Prep	9012B			221903	11/28/11 12:28	DAM	TAL SAV
Total/NA	Analysis	9012B		1	222069	11/29/11 14:03	DAM	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 045612

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: FT BRAGG LONGSTREET	PROJECT NO.	PROJECT LOCATION (STATE): NC	
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.	
CLIENT PM: KEVIN HABORAK	CLIENT PHONE: 912-652-6093	CLIENT FAX	
CLIENT NAME: USACE	CLIENT E-MAIL		
CLIENT ADDRESS: 100 W OGLETHORPE AVE SAVANNAH, GA 31401			
COMPANY CONTRACTING THIS WORK (if applicable)			

PAGE 1 OF

STANDARD REPORT DELIVERY ◯

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8270D	8081/8082A	8141B	8151A	9034	9012B	6020A	300			REMARKS
								ICE	ICE	ICE	ICE	ICE	NaOH	HNO3	ICE			
								NUMBER OF CONTAINERS SUBMITTED										
11-15-11	0800	SW2-11-11	G	X				2	2	2	2	2	1	1	1			
	0820	DUP2-11-11						2	2	2	2	2	1	1	1			
	0930	SW1-11-11						2	2	2	2	2	1	1	1			
	1135	SLMW12AR-11-11						2	2	2	2	2	1	1	1			
	1150	SLDUP1-11-11						2	2	2	2	2	1	1	1			
11-15-11	1430	SLMW8-11-11						1	1	1	1	2	1	1	1			
		~~SLMW-7-11-11~~ MW 11-15-11																

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
George W Lewis	11-15-11	1800	FEDEX					
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Meosy K Comer	11/16/11	1017	YES ◯ NO ◯		680-74406	4.2/4.4/4.6/4.8/4.6/4.4/4.8

Nov. 16. 2011 11:41AM No. 3094 P. 1

Certification Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Longstreet Landfill

TestAmerica Job ID: 680-74406-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

APPENDIX D

STATISTICAL REPORTS
(Electronic Only)

Statistical Analysis of Ground-Water Data
Longstreet Road MSW Landfill
Fort Bragg, North Carolina
Rounds N1 through N30

EXECUTIVE SUMMARY

Fort Bragg authorized the U.S. Army Corps of Engineers, Savannah District to perform required sampling of the Longstreet Road Municipal Solid Waste (MSW) Landfill. Sampling activities for the thirtieth round of sampling (N=30) were conducted November 2011. All background and compliance wells were sampled. Ground-water data were statistically analyzed to determine if the mean concentration for each analyte deviated significantly from the mean concentration of the analytes detected in the background well. Appendix II analysis was performed on all ground-water samples collected. Any analyte with a detection since the beginning of the study was analyzed with the Kruskal Wallis Tests. Any analyte detection during this event was tested to determine if the detection was a statistically significant increase (SSI) over background levels.

Analysis of the 1,1-dichloroethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, MW-11R, and MW-12AR. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart except for MW-9. Both tests confirmed the SSI in MW-9. The well is currently in assessment monitoring and should remain in assessment monitoring.

Analysis of the 1,2-dichloropropane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the 1,2-dichloropropane data in monitoring well MW-10 are not SSIs.

Analysis of the 1,4-dichlorobenzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by the Shewhart-CUSUM Control Chart but were confirmed by the Sens's Slope Analysis. Since the results of the tests on MW-10 are conflicting, more data is needed for analysis.

Analysis of the 1,4-dioxane data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by the Shewhart-CUSUM Control Chart but were confirmed by the Sens's Slope Analysis. Since the results of the tests on MW-10 are conflicting, more data is needed for analysis.

Analysis of the acetone data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the acetone data in monitoring well MW-7 are not SSIs.

Analysis of the arsenic data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-7 and MW-9. The SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the arsenic data in monitoring wells MW-7 and MW-9 are not SSIs.

Analysis of the barium data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit indicated possible SSIs for wells MW-7 and MW-10. The possible SSIs were not confirmed by the Sens's Slope Analysis for MW-7 or the Shewhart-CUSUM Control Chart for all wells. The fluctuations in the barium data in MW-7 are not considered to be SSIs. Since the results of the test on MW-10 are conflicting, more data is needed for analysis.

Analysis of the benzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the benzene data in MW-8, MW-9, MW-10, and MW-11R are not considered to be SSIs.

Analysis of the chlorobenzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-8, MW-9, and MW-10. The SSIs were not confirmed by either the Sens's Slope Analysis for either well or the Shewhart-CUSUM Control Chart. The fluctuations in the chlorobenzene data in MW-8, MW-9, and MW-10 are not considered to be SSIs.

Analysis of the chloroform data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit did not indicate that the data contained possible SSIs for any of the wells.

Analysis of the cis-1,2,-dichloroethene data using the Kruskal-Wallis test indicated a possible SSI in wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by the Sens's Slope Analysis for all wells or the Shewhart-CUSUM Control Chart for MW-11R and MW-10. The fluctuations in cis-1,2,-dichloroethene data in monitoring wells MW-8 and MW-9 are not SSIs. Since the results of the test on MW-10 and MW-11R are conflicting, more data is needed for analysis.

Analysis of the dichlorodifluoromethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-11R. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the dichlorodifluoromethane data in monitoring well MW-11R are not SSIs.

Analysis of the ethyl chloride data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The possible SSI was not confirmed by the Sens's Slope Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the results of the test on MW-7 are conflicting, more data is needed for analysis.

Analysis of the lead data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit did not indicate that the data contained possible SSIs for any of the wells.

Analysis of the tetrachloroethene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, and MW-11R. The possible SSIs were not confirmed by

either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the tetrachloroethene data in the monitoring wells are not SSIs.

Analysis of the trans-1,2,-dichloroethene data using the Kruskal-Wallis test indicated a possible SSI in wells MW-8 and MW-10. The possible SSIs were not confirmed by either the Sen's Slope Analysis or the Shewhart-CUSUM Control Chart. The trans-1,2,-dichloroethene data are not considered to contain SSIs.

Analysis of the trichloroethene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the trichloroethene data in the monitoring wells are not SSIs.

Analysis of the vanadium data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The possible SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the toluene data in the monitoring well do not contain SSIs.

Analysis of the vinyl chloride data using the Kruskal-Wallis test indicated possible SSIs in monitoring wells MW-8, MW-9, and MW-10. The possible SSIs were not confirmed by either the Sens's Slope Analysis for all wells or the Shewhart-CUSUM Control Chart for MW-8 and MW-10. The fluctuations in the vinyl chloride data in the monitoring wells MW-8 and MW-10 are not SSIs. Since the results of the test on MW-9 are conflicting, more data is needed for analysis.

The results of the statistical analysis indicate that the compliance well concentrations do not vary significantly from background concentrations for any of the other parameters analyzed. Future analytical results will be evaluated using the same procedures.

REGISTERED PROFESSIONAL GEOLOGIST CERTIFICATION

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post graduate degree in the natural sciences or engineering and have sufficient training and experience in ground-water hydrology and related fields as demonstrated by state registration and completion of accredited university courses that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction.

_____

Kevin G. Haborak, P.G.

DATE: February, 2010

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1.0 BACKGROUND

Fort Bragg authorized the U.S. Army Corps of Engineers, Savannah District to perform the required sampling of the Longstreet Road MSW Landfill. Sampling activities for the thirtieth round of sampling (N=30) were conducted November 2011. The landfill is a Municipal Solid Waste Landfill Facility (MSWLF) located north of Longstreet Road at Fort Bragg in Cumberland County, North Carolina.

A comparison of statistical procedures was performed using this data to determine an adequate statistical analysis for future monitoring at the facility as required. Guidance for determining proper statistical methods was obtained from the EPA guidance document titled: Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities - Interim Final Guidance, April 1989 (herein referenced as the Guidance) and it's addendum Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities - Addendum to Interim Final Guidance, July 1992 (herein referenced as the Addendum). The statistical computer software ChemStat (version 5.0) used for this analysis is based on the guidance documents referenced above.

Factors that were considered in selecting a statistical method include departures from normality, unequal variances, temporal and spatial variability, and the percentage of non-detects. Tests for normality that were considered include Probability Plots, Chi-Squared, Shapiro-Wilk Test, and Shapiro-Francia Test. Statistical analysis procedures considered were parametric Two Sample t-Test and non-parametric Wilcoxin Rank-Sum Test, parametric ANOVA Tests and non-parametric Kruskal-Wallis Test, Tolerance and Prediction Intervals' and Control Charts.

2.0 DETERMINATION OF APPROPRIATE DISTRIBUTION MODEL

A statistical test predicts the average behavior (distribution) of a random variable by comparing the means (normal distribution) or medians (lognormal and non-parametric distributions) of the compliance well data to background well data. Before conducting a statistical analysis, a distributional assumption must be tested to determine whether the data conforms to the assumed distribution.

Prior to testing for significance, the distribution of each parameter is determined to be normal, lognormal, or neither. First, the dataset is used to test the assumption that the distribution is normal. If this assumption is rejected, the same data are log transformed and the hypothesis that the distribution is lognormal is tested. If these assumptions are rejected, it is concluded that the data are neither normally nor lognormally distributed. The data is determined to be non-normal if the distribution of each parameter is determined to be neither normal nor lognormal.

The Shapiro-Francia Test was selected as the main test to determine whether the data conform to the assumed distribution. This test has a good likelihood of distinguishing between the target distribution (normal) and other common distributions (for example, uniform or skewed), and is recommended for data sets with 50 or more samples.

3.0 SELECTION OF STATISTICAL METHOD

The ground-water samples were analyzed for Appendix II organics and inorganics. Monitoring well MW-13 serves as the background well. The eight compliance wells (MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12A and MW-12B) were compared to the background concentrations by means of the applicable statistical procedure. These monitoring wells are listed on Table 1.

Table 1. Ground-Water Monitoring Network

WELL NAME	STATUS
MW-6	**Active - Compliance Monitoring Well**
MW-7	**Active - Compliance Monitoring Well**
MW-8	**Active - Compliance Monitoring Well**
MW-9	**Active - Compliance Monitoring Well**
MW-10	**Active - Compliance Monitoring Well**
MW-11R	**Active - Compliance Monitoring Well**
MW-12AR	**Active - Compliance Monitoring Well**
MW-12BR	**Active - Compliance Monitoring Well**
MW-13	**Active - Compliance Monitoring Well (Background)**

For this report, contamination is described as the difference in average concentrations between the background and compliance sample data. Random variation of the sample results will occur, but this variation does not necessarily represent contamination. The statistical test used for this report will predict the average behavior (distribution) of a random variable by comparing the means (normal) or medians (lognormal and non-parametric) of compliance well data to background data. It tests the hypothesis that all background and compliance wells have the same median concentration of a constituent. If the hypothesis of equal medians is rejected, then additional calculations are required to determine which compliance wells show evidence of contamination.

Different statistical tests are used as appropriate for the different distribution patterns that occur within the data. Prior to testing for statistical significance, the distribution of each parameter was determined to be normal, lognormal, or non-normal. The Shapiro-Francia Test was selected as the primary test to determine whether the data conform to the assumed distribution. This test has a good likelihood of distinguishing between the target distribution (normal) and other common distributions (for example, uniform or skewed) and is valid for samples with 50 or more observations. The process of choosing the appropriate statistical analyses is illustrated on Figure 1.

The ANOVA Test assumes that there are at least three groups of data (including background), with a minimum of four samples per group. It also assumes that the results are normally or lognormally distributed. This test calculates the F-statistic and its corresponding significance probability. If the computed F-statistic is not significant (less than the tabulated F-statistic), it is concluded that there is no significant difference between the average background

concentration and the average concentrations of compliance wells. If the F-statistic is significant, it is concluded that at least one pair of well groups is probably different. In this case, ANOVA proceeds to make individual comparisons between background and compliance well data to isolate which well(s) show evidence of contamination.

If the data were non-normally distributed, or the fraction of non-detects exceeded 15% but were less than 90%, then the Kruskal-Wallis Test was applied. If the fraction of non-detects exceeded 90%, then the Non-Parametric Prediction Limit was applied. For these tests to be sufficiently sensitive, the sample size for any group must be at least four. A Kruskal-Wallis Test can be used in any situation that the parametric analysis of variance can be used. This test computes the H-statistic, adjusts it for ties, and compares it to the appropriate chi-square critical value. If the H-statistic is less than the critical value, the null-hypothesis is accepted, and it is concluded that there are no differences between median background and compliance well concentrations. If the H-statistic is greater than the critical value, it is concluded that at least one pair of well groups is statistically different.

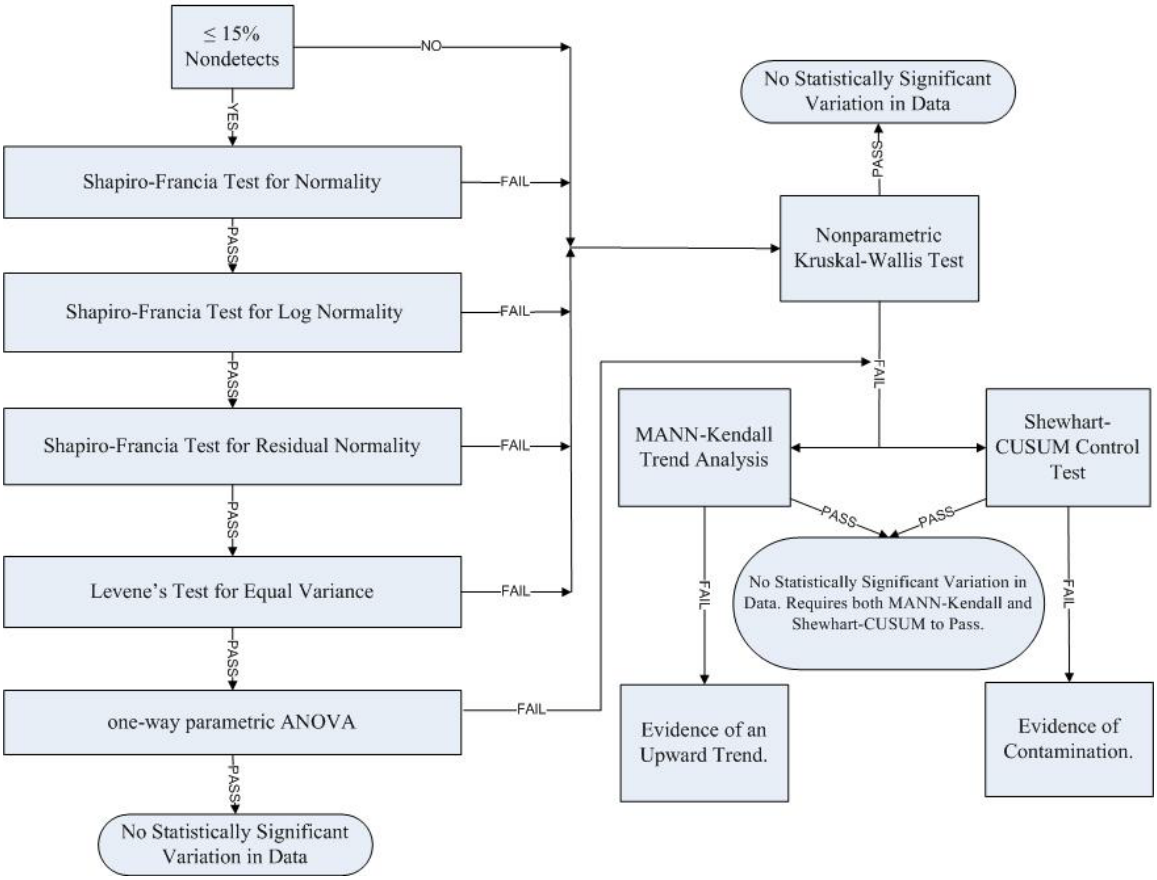
In this case, the Kruskal-Wallis Test performs post-hoc comparisons between background and compliance well data to determine which wells, if any, show evidence of contamination. If the difference between the average ranks and the mean background rank of any individual well exceeds the critical difference calculated for that well, then evidence of contamination exists. A drawback to the Kruskal-Wallis Test is the dependence on background samples. Fewer background samples will result in an increase of incidence of false positives. An additional drawback to the Kruskal-Wallis Test is that past detections can be the cause for the determination of a statistically significant increase since the test does not discriminate between present and past values.

Additional statistical analyzes can help to determine the validity of the positive results. Intra-well comparisons comparing data from a single well to previous data from the same well are performed to determine if a trend of increasing concentration is occurring. The Sens's Slope Analysisand the Shewhart-CUSUM Control Charts were selected for these additional analyses.

The purpose for the Sens's Slope Analysisis to determine trends in sets of data. The assumption of the Sens's Slope Analysis procedure is the idea that, if an increasing trend really exists, the sample taken first from any randomly selected pair of measurements should, on average, have a lower concentration than the measurement collected at a later point. The result for a data set being examined by the Sens's Slope Analysisis either an upward trend, a downward trend or no trend.

The Shewhart-CUSUM Control Chart is a graphical method to assess contamination levels for individual wells. This analysis visually tracks concentrations at a given well over time to determine whether they exceed critical thresholds, thus implying a significant increase over the baseline value. Shewhart-CUSUM Control Charts are very susceptible to false positives. However, the graph is useful in providing a visual indication of changing trends in parameter concentrations.

Figure 1: Flowchart of the Statistical Tests Performed for Each Analyte Detected in Compliance Wells



4.0 FIELD ACTIVITIES

This section describes the procedures that were followed for equipment decontamination, ground-water sampling, quality assurance sampling, preservation, handling, and shipment of samples. Ground-water samples were collected using a low-flow purge method with a bladder pump. Immediately before purging a well, the static water level below the top of the well casing and the total depth of the well were measured to the nearest 0.01 foot and recorded in the field notebook.

The volume of water in the well, including the saturated pore volume (assumed to be 30%) of the sand-packed annulus, was calculated based on the static water level and the well construction information. Well volume calculations were placed in the field notebook. The inlet of the sampling pump was placed at the mid-point of the screened interval. This level was adjusted for wells where the static water level is within the well screen. The monitoring wells were purged using a variable-flow bladder pump at a rate of 500 ml/min or less.

Temperature and specific conductance were monitored to ensure the water quality had stabilized to within 10% of the previous reading. Turbidity readings should either stabilize at or be lower than 10 Nephelometric Turbidity Units (NTUs). Stabilization occurs with pH measurements when readings remain constant within 0.1 Standard Units (SU). The rate of

pumping was determined and noted in the field notebook. The purge rate was adjusted, as necessary, to avoid purging any well to dryness and to equal the recharge of the aquifer.

All sampling equipment was protected from contaminated soil surfaces to prevent contamination of the samples (e.g., equipment may be placed on disposable polyethylene plastic sheeting). Ground-water sampling data (including sample number, location, quantity of water purged, field parameters, site conditions, etc.) were documented in the field notebook.

5.0 RESULTS

Fort Bragg authorized the U.S. Army Corps of Engineers, Savannah District to perform the required sampling of the Lamont Land Clearing and Inert Debris Landfill. The evaluation of ground-water data was in accordance with 15A NC3AC 13B.1634 for detection monitoring systems.

Sampling activities occurred in November, 2011. The background and compliance wells sampled are listed on Table 1. Ground-water data were statistically analyzed to determine if the mean concentration for each analyte deviated significantly from the mean concentration from the background well data. Any analyte detected during this event was tested to determine if the detection was a statistically significant increase over background levels.

Analysis of the 1,1-dichloroethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, MW-11R, and MW-12AR. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart except for MW-9. Both tests confirmed the SSI in MW-9. The well is currently in assessment monitoring and should remain in assessment monitoring.

Analysis of the 1,2-dichloropropane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the 1,2-dichloropropane data in monitoring well MW-10 are not SSIs.

Analysis of the 1,4-dichlorobenzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by the Shewhart-CUSUM Control Chart but were confirmed by the Sens's Slope Analysis. Since the results of the tests on MW-10 are conflicting, more data is needed for analysis.

Analysis of the 1,4-dioxane data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well MW-10. The possible SSIs were not confirmed by the Shewhart-CUSUM Control Chart but were confirmed by the Sens's Slope Analysis. Since the results of the tests on MW-10 are conflicting, more data is needed for analysis.

Analysis of the acetone data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the acetone data in monitoring well MW-7 are not SSIs.

Analysis of the arsenic data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-7 and MW-9. The SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the arsenic data in monitoring wells MW-7 and MW-9 are not SSIs.

Analysis of the barium data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit indicated possible SSIs for wells MW-7 and MW-10. The possible SSIs were not confirmed by the Sens's Slope Analysis for MW-7 or the Shewhart-CUSUM Control Chart for all wells. The fluctuations in the barium data in MW-7 are not considered to be SSIs. Since the results of the test on MW-10 are conflicting, more data is needed for analysis.

Analysis of the benzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the benzene data in MW-8, MW-9, MW-10, and MW-11R are not considered to be SSIs.

Analysis of the chlorobenzene data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-8, MW-9, and MW-10. The SSIs were not confirmed by either the Sens's Slope Analysis for either well or the Shewhart-CUSUM Control Chart. The fluctuations in the chlorobenzene data in MW-8, MW-9, and MW-10 are not considered to be SSIs.

Analysis of the chloroform data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit did not indicate that the data contained possible SSIs for any of the wells.

Analysis of the cis-1,2,-dichloroethene data using the Kruskal-Wallis test indicated a possible SSI in wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by the Sens's Slope Analysis for all wells or the Shewhart-CUSUM Control Chart for MW-11R and MW-10. The fluctuations in cis-1,2,-dichloroethene data in monitoring wells MW-8 and MW-9 are not SSIs. Since the results of the test on MW-10 and MW-11R are conflicting, more data is needed for analysis.

Analysis of the dichlorodifluoromethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-11R. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the dichlorodifluoromethane data in monitoring well MW-11R are not SSIs.

Analysis of the ethyl chloride data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The possible SSI was not confirmed by the Sens's Slope Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the results of the test on MW-7 are conflicting, more data is needed for analysis.

Analysis of the lead data using the Kruskal-Wallis test indicated a possible SSI at the group level, no single well was indicated to have an SSI. Therefore, the Non-Parametric Prediction Limit was used to test if the data contained SSIs. The Non-Parametric Prediction Limit did not indicate that the data contained possible SSIs for any of the wells.

Analysis of the tetrachloroethene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, and MW-11R. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the tetrachloroethene data in the monitoring wells are not SSIs.

Analysis of the trans-1,2,-dichloroethene data using the Kruskal-Wallis test indicated a possible SSI in wells MW-8 and MW-10. The possible SSIs were not confirmed by either the Sen's Slope Analysis or the Shewhart-CUSUM Control Chart. The trans-1,2,-dichloroethene data are not considered to contain SSIs.

Analysis of the trichloroethene data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells MW-8, MW-9, MW-10, and MW-11R. The possible SSIs were not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the trichloroethene data in the monitoring wells are not SSIs.

Analysis of the vanadium data using the Kruskal-Wallis test indicated a possible SSI in monitoring well MW-7. The possible SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the toluene data in the monitoring well do not contain SSIs.

Analysis of the vinyl chloride data using the Kruskal-Wallis test indicated possible SSIs in monitoring wells MW-8, MW-9, and MW-10. The possible SSIs were not confirmed by either the Sens's Slope Analysis for all wells or the Shewhart-CUSUM Control Chart for MW-8 and MW-10. The fluctuations in the vinyl chloride data in the monitoring wells MW-8 and MW-10 are not SSIs. Since the results of the test on MW-9 are conflicting, more data is needed for analysis.

The results of the statistical analysis indicate that the compliance well concentrations do not vary significantly from background concentrations for any of the other parameters analyzed. Future analytical results will be evaluated using the same procedures.

6.0 CONCLUSIONS

Compliance well concentrations do not vary significantly from background concentrations for any of the parameters analyzed. Future analytical results will be evaluated using the same statistical procedures.

7.0 REFERENCES

EPA, Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities - Interim Final Guidance, April 1989.

EPA, Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities - Addendum to Interim Final Guidance, July 1992.

EPA, Region IV, *Standard Operating Procedures and Quality Assurance Manual*, Revision 1, November, 2001.

North Carolina Administrative Code, Title 15A, Department of Environment, Health, and Natural Resources, Division of Solid Waste, Management, Subchapter 13B, Solid Waste Management, Section .1600, January 4, 1994.

Attachment A

Statistical Calculation

Concentrations (ppb)

Parameter: 1,1-Dichloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 135
Percent Non-Detects: 54.878%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2

		11/20/2008	ND<2	ND<2		
		6/11/2009	ND<0.25		ND<0.25	
		11/16/2009	ND<0.25		ND<0.25	
		6/30/2010	ND<0.25		ND<0.25	
		11/12/2010	ND<0.25 U		ND<0.25 U	
		7/5/2011	ND<0.25 U	ND<0.25 U		
		11/22/2011	ND<0.25 U		ND<0.25 U	
		11/22/2011	ND<0.25 U		ND<0.25 U	
MW-11R	31	10 (32.2581%)	7/20/1995	8.5	8.5	
		8/24/1995	21	21		
		9/28/1995	19	19		
		10/26/1995	22	22		
		11/19/1996	ND<2	ND<2		
		12/19/1996	19	19		
		3/24/1997	ND<2	ND<2		
		9/24/1997	5.1	5.1		
		4/7/1998	8.4	8.4		
		9/23/1998	13	13		
		3/16/1999	10.8	10.8		
		9/23/1999	5.5	5.5		
		3/15/2000	9.9	9.9		
		9/24/2003	ND<2	ND<2		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005	3.86	3.86		
		10/25/2005	2.18	2.18		
		4/29/2006	1.68 J	1.68 J		
		11/18/2006	2.07	2.07		
		5/23/2007	ND<2	ND<2		
		11/28/2007	4.05	4.05		
		6/5/2008	ND<2	ND<2		
		11/20/2008	0.56 J	0.56 J		
		6/11/2009	2.9	2.9		
		11/16/2009	0.42 J	0.42 J		
		6/30/2010	2.9	2.9		
		11/12/2010	ND<0.25 U		ND<0.25 U	
		7/5/2011	0.41 J	0.41 J		
		11/22/2011	ND<0.25 U		ND<0.25 U	
		11/22/2011	ND<0.25 U		ND<0.25 U	
MW-12A	R	21	9 (42.8571%)	3/16/1999	ND<2	ND<2
		9/23/1999	ND<2	ND<2		
		3/15/2000	7.2	7.2		
		9/24/2003	6.9	6.9		
		3/11/2004	6.1	6.1		
		10/12/2004	6.3	6.3		
		4/1/2005	ND<2	ND<2		
		10/25/2005	1.21 J	1.21 J		
		4/29/2006	1.39 J	1.39 J		
		11/18/2006	0.83 J	0.83 J		
		5/23/2007	ND<2	ND<2		
		11/28/2007	1.15 J	1.15 J		
		6/5/2008	1.25 J	1.25 J		
		11/20/2008	0.62 J	0.62 J		
		6/11/2009	ND<0.25		ND<0.25	
		11/16/2009	0.35 J	0.35 J		
		6/30/2010	ND<0.25		ND<0.25	
		11/12/2010	1	1		
		7/5/2011	ND<0.25 U	ND<0.25 U		
		11/22/2011	ND<0.25 U		ND<0.25 U	
		11/22/2011	ND<0.25 U		ND<0.25 U	

MW-7	31	23 (74.1935%)	7/20/1995		1.6 J	1.6 J
			8/24/1995	1.1 J	1.1 J	
			9/28/1995	1 J	1 J	
			10/26/1995	2	2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	9	9	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	12	12	
			9/23/1998	12	12	
			3/16/1999	ND<2	ND<2	
			9/23/1999	5.9	5.9	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-10	31	8 (25.8065%)	7/20/1995		0.8 J	0.8 J
			8/24/1995	3.5	3.5	
			9/28/1995	7	7	
			10/26/1995	6	6	
			11/19/1996	ND<2	ND<2	
			12/19/1996	5	5	
			3/24/1997	14	14	
			9/24/1997	5.8	5.8	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	4.7	4.7	
			9/23/1999	2.6	2.6	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.25 J	1.25 J	
			10/25/2005	1.6 J	1.6 J	
			4/29/2006	1.91 J	1.91 J	
			11/18/2006	1.12 J	1.12 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	1.35	1.35	
			6/5/2008	1.26 J	1.26 J	
			11/20/2008	0.92 J	0.92 J	
			6/11/2009	0.97 J	0.97 J	
			11/16/2009	1.1	1.1	
			6/30/2010	0.49 J	0.49 J	
			11/12/2010	0.71 J	0.71 J	
			7/5/2011	1.3	1.3	

			11/22/2011	1	1		
			11/22/2011	1	1		
MW-8	30	6 (20%)	7/20/1995	0.47 J	0.47 J		
			8/24/1995	12	12		
			9/28/1995	11	11		
			10/26/1995	1 J	1 J		
			11/19/1996	ND<2	ND<2		
			12/19/1996	19	19		
			3/24/1997	18	18		
			9/24/1997	22	22		
			4/7/1998	16	16		
			9/23/1998	28	28		
			3/16/1999	16.3	16.3		
			9/23/1999	16.2	16.2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	1.91 J	1.91 J		
			10/25/2005	3.43	3.43		
			4/29/2006	2.11	2.11		
			11/18/2006	2.86	2.86		
			5/23/2007	ND<2	ND<2		
			11/28/2007	4.11	4.11		
			6/5/2008	4.43	4.43		
			11/20/2008	3.08	3.08		
			6/11/2009	5.2	5.2		
			6/30/2010	2.5	2.5		
			11/12/2010	2.4	2.4		
			7/5/2011	3.1	3.1		
			11/22/2011	2.5	2.5		
			11/22/2011	2.5	2.5		
MW-12BR		21	18 (85.7143%)	3/16/1999		7.3	7.3
			9/23/1999	5.7	5.7		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	4.25	4.25		
			10/25/2005	ND<2	ND<2		
			4/29/2006	ND<2	ND<2		
			11/18/2006	ND<2	ND<2		
			5/23/2007	ND<2	ND<2		
			11/28/2007	ND<2	ND<2		
			6/5/2008	ND<2	ND<2		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<0.25		ND<0.25	
			11/16/2009	ND<0.25		ND<0.25	
			6/30/2010	ND<0.25		ND<0.25	
			11/12/2010	ND<0.25 U		ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U		
			11/22/2011	ND<0.25 U		ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U	
MW-9	31	11 (35.4839%)	7/20/1995		0.84 J	0.84 J	
			8/24/1995	0.84 J	0.84 J		
			9/28/1995	2	2		
			10/26/1995	3	3		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		

3/24/1997	ND<2	ND<2
9/24/1997	ND<2	ND<2
4/7/1998 ND<2	ND<2	
9/23/1998	5.3	5.3
3/16/1999	3.6	3.6
9/23/1999	3.5	3.5
3/15/2000	ND<2	ND<2
9/24/2003	ND<2	ND<2
3/11/2004	ND<2	ND<2
10/12/2004	ND<2	ND<2
4/1/2005 2.99	2.99	
10/25/2005	2.04	2.04
4/29/2006	1.38 J	1.38 J
11/18/2006	ND<2	ND<2
5/23/2007	ND<2	ND<2
11/28/2007	3.17	3.17
6/5/2008 3.24	3.24	
11/20/2008	3.11	3.11
6/11/2009	7.6	7.6
11/16/2009	4.8	4.8
6/30/2010	4.6	4.6
11/12/2010	3.8	3.8
7/5/2011 1.5	1.5	
11/22/2011	2.2	2.2
11/22/2011	2.2	2.2

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: 1,1-Dichloroethane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.65209	7.03356	-0.331511
2	0.125	-2.40892	12.8365	-0.632626
3	0.125	-2.25713	17.9311	-0.914767
4	0.125	-2.14441	22.5296	-1.18282
5	0.125	-2.05375	26.7475	-1.43954
6	0.125	-1.97737	30.6575	-1.68671
7	0.125	-1.91103	34.3095	-1.92559
8	0.125	-1.85218	37.7401	-2.15711
9	0.125	-1.79912	40.9769	-2.382
10	0.125	-1.75069	44.0418	-2.60083
11	0.125	-1.70604	46.9524	-2.81409
12	0.125	-1.66456	49.7231	-3.02216
13	0.125	-1.62576	52.3662	-3.22538
14	0.125	-1.58927	54.892	-3.42404
15	0.125	-1.55477	57.3093	-3.61839
16	0.125	-1.52203	59.6259	-3.80864
17	0.125	-1.49085	61.8486	-3.995
18	0.125	-1.46106	63.9833	-4.17763
19	0.125	-1.4325	66.0353	-4.35669
20	0.125	-1.40507	68.0096	-4.53233
21	0.125	-1.3722	69.8925	-4.70385
22	0.125	-1.34694	71.7067	-4.87222
23	0.125	-1.32251	73.4558	-5.03753
24	0.125	-1.29884	75.1427	-5.19989
25	0.125	-1.27588	76.7706	-5.35937
26	0.125	-1.25357	78.342	-5.51607
27	0.125	-1.23187	79.8595	-5.67005
28	0.125	-1.21073	81.3254	-5.82139
29	0.125	-1.19012	82.7418	-5.97016
30	0.125	-1.17	84.1107	-6.11641
31	0.125	-1.15035	85.434	-6.2602
32	0.125	-1.13113	86.7134	-6.40159
33	0.125	-1.11232	87.9507	-6.54063
34	0.125	-1.0939	89.1473	-6.67737
35	0.35	-1.07584	90.3047	-7.05391
36	0.41	-1.05812	91.4243	-7.48774
37	0.42	-1.04073	92.5075	-7.92485
38	0.47	-1.02365	93.5553	-8.40597
39	0.49	-1.00687	94.5691	-8.89933
40	0.56	-0.990356	95.5499	-9.45393
41	0.62	-0.974114	96.4988	-10.0579
42	0.71	-0.954165	97.4092	-10.7353
43	0.8	-0.938476	98.29	-11.4861
44	0.83	-0.923014	99.1419	-12.2522
45	0.84	-0.907769	99.966	-13.0147
46	0.84	-0.892733	100.763	-13.7646
47	0.92	-0.877897	101.534	-14.5723
48	0.97	-0.863249	102.279	-15.4097
49	1	-0.848786	102.999	-16.2584
50	1	-0.834498	103.696	-17.0929
51	1	-0.820379	104.369	-17.9133

52	1	-0.806422	105.019	-18.7197
53	1	-0.792618	105.647	-19.5124
54	1	-0.778966	106.254	-20.2913
55	1	-0.765456	106.84	-21.0568
56	1	-0.752084	107.406	-21.8089
57	1	-0.738846	107.951	-22.5477
58	1	-0.725736	108.478	-23.2734
59	1	-0.712751	108.986	-23.9862
60	1	-0.699883	109.476	-24.6861
61	1	-0.687131	109.948	-25.3732
62	1	-0.671346	110.399	-26.0446
63	1	-0.658838	110.833	-26.7034
64	1	-0.646431	111.251	-27.3498
65	1	-0.634124	111.653	-27.984
66	1	-0.621911	112.04	-28.6059
67	1	-0.609791	112.412	-29.2157
68	1	-0.597761	112.769	-29.8134
69	1	-0.585815	113.112	-30.3992
70	1	-0.573953	113.441	-30.9732
71	1	-0.56217	113.758	-31.5354
72	1	-0.550465	114.061	-32.0858
73	1	-0.538836	114.351	-32.6247
74	1	-0.52728	114.629	-33.1519
75	1	-0.515791	114.895	-33.6677
76	1	-0.504372	115.149	-34.1721
77	1	-0.493018	115.392	-34.6651
78	1	-0.481728	115.624	-35.1468
79	1	-0.470498	115.846	-35.6173
80	1	-0.459327	116.057	-36.0767
81	1	-0.448213	116.258	-36.5249
82	1	-0.437153	116.449	-36.962
83	1	-0.423405	116.628	-37.3854
84	1	-0.412463	116.798	-37.7979
85	1	-0.401571	116.959	-38.1995
86	1	-0.390726	117.112	-38.5902
87	1	-0.379927	117.256	-38.9701
88	1	-0.369171	117.393	-39.3393
89	1	-0.358459	117.521	-39.6978
90	1	-0.347787	117.642	-40.0455
91	1	-0.337155	117.756	-40.3827
92	1	-0.326561	117.863	-40.7093
93	1	-0.316004	117.962	-41.0253
94	1	-0.305481	118.056	-41.3307
95	1	-0.294992	118.143	-41.6257
96	1	-0.284535	118.224	-41.9103
97	1	-0.27411	118.299	-42.1844
98	1	-0.263715	118.368	-42.4481
99	1	-0.253347	118.433	-42.7014
100	1	-0.243007	118.492	-42.9444
101	1	-0.232693	118.546	-43.1771
102	1	-0.222403	118.595	-43.3995
103	1	-0.209575	118.639	-43.6091
104	1	-0.199336	118.679	-43.8085
105	1	-0.189118	118.715	-43.9976
106	1	-0.17892	118.747	-44.1765
107	1	-0.168741	118.775	-44.3452
108	1	-0.158579	118.8	-44.5038
109	1	-0.148434	118.822	-44.6522
110	1	-0.138305	118.841	-44.7906
111	1	-0.128189	118.858	-44.9187
112	1	-0.118085	118.872	-45.0368
113	1	-0.107995	118.883	-45.1448

114	1	-0.0979139	118.893	-45.2427
115	1	-0.0878447	118.901	-45.3306
116	1	-0.0777834	118.907	-45.4084
117	1	-0.0677301	118.911	-45.4761
118	1	-0.0576847	118.915	-45.5338
119	1	-0.0476439	118.917	-45.5814
120	1	-0.0376076	118.918	-45.619
121	1	-0.0275759	118.919	-45.6466
122	1	-0.0175476	118.919	-45.6642
123	1	-0.00751925	118.92	-45.6717
124	1	0.00751925	118.92	-45.6642
125	1	0.0175476	118.92	-45.6466
126	1	0.0275759	118.921	-45.619
127	1	0.0376076	118.922	-45.5814
128	1	0.0476439	118.924	-45.5338
129	1	0.0576847	118.928	-45.4761
130	1	0.0677301	118.932	-45.4084
131	1	0.0777834	118.938	-45.3306
132	1	0.0878447	118.946	-45.2427
133	1	0.0979139	118.956	-45.1448
134	1	0.107995	118.967	-45.0368
135	1	0.118085	118.981	-44.9187
136	1	0.128189	118.998	-44.7906
137	1	0.138305	119.017	-44.6522
138	1	0.148434	119.039	-44.5038
139	1	0.158579	119.064	-44.3452
140	1	0.168741	119.092	-44.1765
141	1	0.17892	119.124	-43.9976
142	1	0.189118	119.16	-43.8085
143	1	0.199336	119.2	-43.6091
144	1	0.209575	119.244	-43.3995
145	1	0.222403	119.293	-43.1771
146	1	0.232693	119.347	-42.9444
147	1	0.243007	119.407	-42.7014
148	1	0.253347	119.471	-42.4481
149	1	0.263715	119.54	-42.1844
150	1	0.27411	119.615	-41.9103
151	1	0.284535	119.696	-41.6257
152	1	0.294992	119.783	-41.3307
153	1	0.305481	119.877	-41.0253
154	1	0.316004	119.977	-40.7093
155	1.1	0.326561	120.083	-40.35
156	1.1	0.337155	120.197	-39.9792
157	1.12	0.347787	120.318	-39.5896
158	1.15	0.358459	120.446	-39.1774
159	1.21	0.369171	120.583	-38.7307
160	1.25	0.379927	120.727	-38.2558
161	1.25	0.390726	120.88	-37.7674
162	1.26	0.401571	121.041	-37.2614
163	1.3	0.412463	121.211	-36.7252
164	1.35	0.423405	121.39	-36.1536
165	1.38	0.437153	121.581	-35.5504
166	1.39	0.448213	121.782	-34.9273
167	1.5	0.459327	121.993	-34.2383
168	1.6	0.470498	122.215	-33.4856
169	1.6	0.481728	122.447	-32.7148
170	1.68	0.493018	122.69	-31.8865
171	1.91	0.504372	122.944	-30.9232
172	1.91	0.515791	123.21	-29.938
173	2	0.52728	123.488	-28.8834
174	2	0.538836	123.779	-27.8058
175	2.04	0.550465	124.082	-26.6828

176	2.07	0.56217	124.398	-25.5191	
177	2.11	0.573953		124.727	-24.3081
178	2.18	0.585815		125.07	-23.031
179	2.2	0.597761		125.428	-21.7159
180	2.2	0.609791		125.799	-20.3744
181	2.4	0.621911		126.186	-18.8818
182	2.5	0.634124		126.588	-17.2965
183	2.5	0.646431		127.006	-15.6804
184	2.5	0.658838		127.44	-14.0333
185	2.6	0.671346		127.891	-12.2878
186	2.86	0.687131		128.363	-10.3226
187	2.9	0.699883		128.853	-8.29298
188	2.9	0.712751		129.361	-6.226
189	2.99	0.725736		129.888	-4.05605
190	3	0.738846		130.433	-1.83952
191	3.08	0.752084		130.999	0.476902
192	3.1	0.765456		131.585	2.84982
193	3.11	0.778966		132.192	5.2724
194	3.17	0.792618		132.82	7.785
195	3.24	0.806422		133.47	10.3978
196	3.43	0.820379		134.143	13.2117
197	3.5	0.834498		134.84	16.1324
198	3.5	0.848786		135.56	19.1032
199	3.6	0.863249		136.305	22.2109
200	3.8	0.877897		137.076	25.5469
201	3.86	0.892733		137.873	28.9929
202	4.05	0.907769		138.697	32.6693
203	4.11	0.923014		139.549	36.4629
204	4.25	0.938476		140.43	40.4514
205	4.43	0.954165		141.34	44.6784
206	4.6	0.974114		142.289	49.1593
207	4.7	0.990356		143.27	53.814
208	4.8	1.00687	144.284	58.6469	
209	5	1.02365	145.332	63.7652	
210	5.1	1.04073	146.415	69.0729	
211	5.2	1.05812	147.534	74.5752	
212	5.3	1.07584	148.692	80.2771	
213	5.5	1.0939	149.888	86.2935	
214	5.7	1.11232	151.126	92.6338	
215	5.8	1.13113	152.405	99.1943	
216	5.9	1.15035	153.728	105.981	
217	6	1.17	155.097	113.001	
218	6.1	1.19012	156.514	120.261	
219	6.3	1.21073	157.98	127.889	
220	6.9	1.23187	159.497	136.389	
221	7	1.25357	161.068	145.164	
222	7.2	1.27588	162.696	154.35	
223	7.3	1.29884	164.383	163.831	
224	7.6	1.32251	166.132	173.882	
225	8.4	1.34694	167.947	185.197	
226	8.5	1.3722	169.83	196.86	
227	9	1.40507	171.804	209.506	
228	9.9	1.4325	173.856	223.688	
229	10.8	1.46106	175.991	239.467	
230	11	1.49085	178.213	255.867	
231	12	1.52203	180.53	274.131	
232	12	1.55477	182.947	292.788	
233	12	1.58927	185.473	311.86	
234	13	1.62576	188.116	332.994	
235	14	1.66456	190.887	356.298	
236	16	1.70604	193.797	383.595	
237	16.2	1.75069	196.862	411.956	

238	16.3	1.79912	200.099	441.282
239	18	1.85218	203.53	474.621
240	19	1.91103	207.182	510.931
241	19	1.97737	211.092	548.501
242	19	2.05375	215.309	587.522
243	21	2.14441	219.908	632.554
244	22	2.25713	225.003	682.211
245	22	2.40892	230.806	735.207
246	28	2.65209	237.839	809.466

Data Set Standard Deviation = 4.48518
Numerator = 655235
Denominator = 1.17222e+006
W Statistic = 0.55897 = 655235 / 1.17222e+006

5% Critical value of 0.976 exceeds 0.55897
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.55897
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,1-Dichloroethane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.750837
0.750837 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00404858	-2.65209	41.2292	344.01	
2	0.125	0.00809717	-2.40892	41.2292	332.136	
3	0.125	0.0121457	-2.25713	41.2292	324.723	
4	0.125	0.0161943	-2.14441	41.2292	319.219	
5	0.125	0.0202429	-2.05375	41.2292	314.791	
6	0.125	0.0242915	-1.97737	41.2292	311.062	
7	0.125	0.0283401	-1.91103	41.2292	307.822	
8	0.125	0.0323887	-1.85218	41.2292	304.948	
9	0.125	0.0364372	-1.79912	41.2292	302.357	
10	0.125	0.0404858	-1.75069	41.2292	299.992	
11	0.125	0.0445344	-1.70604	41.2292	297.812	
12	0.125	0.048583	-1.66456	41.2292	295.786	
13	0.125	0.0526316	-1.62576	41.2292	293.891	
14	0.125	0.0566802	-1.58927	41.2292	292.109	
15	0.125	0.0607287	-1.55477	41.2292	290.425	
16	0.125	0.0647773	-1.52203	41.2292	288.826	
17	0.125	0.0688259	-1.49085	41.2292	287.303	
18	0.125	0.0728745	-1.46106	41.2292	285.848	
19	0.125	0.0769231	-1.4325	41.2292	284.454	
20	0.125	0.0809717	-1.40507	41.2292	283.114	
21	0.125	0.0850202	-1.3722	41.2292	281.509	
22	0.125	0.0890688	-1.34694	41.2292	280.276	
23	0.125	0.0931174	-1.32251	41.2292	279.082	
24	0.125	0.097166	-1.29884	41.2292	277.926	
25	0.125	0.101215	-1.27588	41.2292	276.805	
26	0.125	0.105263	-1.25357	41.2292	275.716	
27	0.125	0.109312	-1.23187	41.2292	274.656	
28	0.125	0.11336	-1.21073	41.2292	273.624	
29	0.125	0.117409	-1.19012	41.2292	272.617	
30	0.125	0.121457	-1.17	41.2292	271.635	
31	0.125	0.125506	-1.15035	41.2292	270.675	
32	0.125	0.129555	-1.13113	41.2292	269.737	
33	0.125	0.133603	-1.11232	41.2292	268.818	
34	0.125	0.137652	-1.0939	41.2292	267.919	
35	0.35	0.1417	-1.07584	45.2417	267.037	
36	0.41	0.145749	-1.05812	46.3117	266.172	
37	0.42	0.149798	-1.04073	46.49	265.322	
38	0.47	0.153846	-1.02365	47.3817	264.488	
39	0.49	0.157895	-1.00687	47.7383	263.669	
40	0.56	0.161943	-0.990356	48.9867	262.862	
41	0.62	0.165992	-0.974114	50.0567	262.069	
42	0.71	0.17004	-0.954165	51.6617	261.095	
43	0.8	0.174089	-0.938476	53.2667	260.329	
44	0.83	0.178138	-0.923014	53.8017	259.574	
45	0.84	0.182186	-0.907769	53.98	258.829	
46	0.84	0.186235	-0.892733	53.98	258.095	
47	0.92	0.190283	-0.877897	55.4067	257.371	
48	0.97	0.194332	-0.863249	56.2983	256.655	

49	1	0.198381	-0.848786	56.8333	255.949
50	1	0.202429	-0.834498	56.8333	255.251
51	1	0.206478	-0.820379	56.8333	254.562
52	1	0.210526	-0.806422	56.8333	253.88
53	1	0.214575	-0.792618	56.8333	253.206
54	1	0.218623	-0.778966	56.8333	252.54
55	1	0.222672	-0.765456	56.8333	251.88
56	1	0.226721	-0.752084	56.8333	251.227
57	1	0.230769	-0.738846	56.8333	250.58
58	1	0.234818	-0.725736	56.8333	249.94
59	1	0.238866	-0.712751	56.8333	249.306
60	1	0.242915	-0.699883	56.8333	248.678
61	1	0.246964	-0.687131	56.8333	248.055
62	1	0.251012	-0.671346	56.8333	247.284
63	1	0.255061	-0.658838	56.8333	246.673
64	1	0.259109	-0.646431	56.8333	246.067
65	1	0.263158	-0.634124	56.8333	245.466
66	1	0.267206	-0.621911	56.8333	244.87
67	1	0.271255	-0.609791	56.8333	244.278
68	1	0.275304	-0.597761	56.8333	243.691
69	1	0.279352	-0.585815	56.8333	243.107
70	1	0.283401	-0.573953	56.8333	242.528
71	1	0.287449	-0.56217	56.8333	241.953
72	1	0.291498	-0.550465	56.8333	241.381
73	1	0.295547	-0.538836	56.8333	240.813
74	1	0.299595	-0.52728	56.8333	240.249
75	1	0.303644	-0.515791	56.8333	239.688
76	1	0.307692	-0.504372	56.8333	239.13
77	1	0.311741	-0.493018	56.8333	238.576
78	1	0.315789	-0.481728	56.8333	238.024
79	1	0.319838	-0.470498	56.8333	237.476
80	1	0.323887	-0.459327	56.8333	236.93
81	1	0.327935	-0.448213	56.8333	236.388
82	1	0.331984	-0.437153	56.8333	235.848
83	1	0.336032	-0.423405	56.8333	235.176
84	1	0.340081	-0.412463	56.8333	234.642
85	1	0.34413	-0.401571	56.8333	234.11
86	1	0.348178	-0.390726	56.8333	233.58
87	1	0.352227	-0.379927	56.8333	233.053
88	1	0.356275	-0.369171	56.8333	232.528
89	1	0.360324	-0.358459	56.8333	232.005
90	1	0.364372	-0.347787	56.8333	231.484
91	1	0.368421	-0.337155	56.8333	230.964
92	1	0.37247	-0.326561	56.8333	230.447
93	1	0.376518	-0.316004	56.8333	229.932
94	1	0.380567	-0.305481	56.8333	229.418
95	1	0.384615	-0.294992	56.8333	228.905
96	1	0.388664	-0.284535	56.8333	228.395
97	1	0.392713	-0.27411	56.8333	227.886
98	1	0.396761	-0.263715	56.8333	227.378
99	1	0.40081	-0.253347	56.8333	226.872
100	1	0.404858	-0.243007	56.8333	226.367
101	1	0.408907	-0.232693	56.8333	225.863
102	1	0.412955	-0.222403	56.8333	225.361
103	1	0.417004	-0.209575	56.8333	224.734
104	1	0.421053	-0.199336	56.8333	224.234
105	1	0.425101	-0.189118	56.8333	223.735
106	1	0.42915	-0.17892	56.8333	223.237
107	1	0.433198	-0.168741	56.8333	222.74
108	1	0.437247	-0.158579	56.8333	222.244
109	1	0.441296	-0.148434	56.8333	221.749
110	1	0.445344	-0.138305	56.8333	221.254

111	1	0.449393	-0.128189	56.8333	220.76
112	1	0.453441	-0.118085	56.8333	220.267
113	1	0.45749	-0.107995	56.8333	219.774
114	1	0.461538	-0.0979139	56.8333	219.281
115	1	0.465587	-0.0878447	56.8333	218.79
116	1	0.469636	-0.0777834	56.8333	218.298
117	1	0.473684	-0.0677301	56.8333	217.807
118	1	0.477733	-0.0576847	56.8333	217.317
119	1	0.481781	-0.0476439	56.8333	216.827
120	1	0.48583	-0.0376076	56.8333	216.337
121	1	0.489879	-0.0275759	56.8333	215.847
122	1	0.493927	-0.0175476	56.8333	215.357
123	1	0.497976	-0.00751925	56.8333	214.867
124	1	0.502024	0.00751925	56.8333	214.133
125	1	0.506073	0.0175476	56.8333	213.643
126	1	0.510121	0.0275759	56.8333	213.153
127	1	0.51417	0.0376076	56.8333	212.663
128	1	0.518219	0.0476439	56.8333	212.173
129	1	0.522267	0.0576847	56.8333	211.683
130	1	0.526316	0.0677301	56.8333	211.193
131	1	0.530364	0.0777834	56.8333	210.702
132	1	0.534413	0.0878447	56.8333	210.21
133	1	0.538462	0.0979139	56.8333	209.719
134	1	0.54251	0.107995	56.8333	209.226
135	1	0.546559	0.118085	56.8333	208.733
136	1	0.550607	0.128189	56.8333	208.24
137	1	0.554656	0.138305	56.8333	207.746
138	1	0.558704	0.148434	56.8333	207.251
139	1	0.562753	0.158579	56.8333	206.756
140	1	0.566802	0.168741	56.8333	206.26
141	1	0.57085	0.17892	56.8333	205.763
142	1	0.574899	0.189118	56.8333	205.265
143	1	0.578947	0.199336	56.8333	204.766
144	1	0.582996	0.209575	56.8333	204.266
145	1	0.587045	0.222403	56.8333	203.639
146	1	0.591093	0.232693	56.8333	203.137
147	1	0.595142	0.243007	56.8333	202.633
148	1	0.59919	0.253347	56.8333	202.128
149	1	0.603239	0.263715	56.8333	201.622
150	1	0.607287	0.27411	56.8333	201.114
151	1	0.611336	0.284535	56.8333	200.605
152	1	0.615385	0.294992	56.8333	200.095
153	1	0.619433	0.305481	56.8333	199.582
154	1	0.623482	0.316004	56.8333	199.068
155	1.1	0.62753	0.326561	58.6167	198.553
156	1.1	0.631579	0.337155	58.6167	198.036
157	1.12	0.635628	0.347787	58.9733	197.516
158	1.15	0.639676	0.358459	59.5083	196.995
159	1.21	0.643725	0.369171	60.5783	196.472
160	1.25	0.647773	0.379927	61.2917	195.947
161	1.25	0.651822	0.390726	61.2917	195.42
162	1.26	0.65587	0.401571	61.47	194.89
163	1.3	0.659919	0.412463	62.1833	194.358
164	1.35	0.663968	0.423405	63.075	193.824
165	1.38	0.668016	0.437153	63.61	193.152
166	1.39	0.672065	0.448213	63.7883	192.612
167	1.5	0.676113	0.459327	65.75	192.07
168	1.6	0.680162	0.470498	67.5333	191.524
169	1.6	0.684211	0.481728	67.5333	190.976
170	1.68	0.688259	0.493018	68.96	190.424
171	1.91	0.692308	0.504372	73.0617	189.87
172	1.91	0.696356	0.515791	73.0617	189.312

173	2	0.700405	0.52728	74.6667	188.751	
174	2	0.704453	0.538836		74.6667	188.187
175	2.04	0.708502	0.550465		75.38	187.619
176	2.07	0.712551	0.56217	75.915	187.047	
177	2.11	0.716599	0.573953		76.6283	186.472
178	2.18	0.720648	0.585815		77.8767	185.893
179	2.2	0.724696	0.597761		78.2333	185.309
180	2.2	0.728745	0.609791		78.2333	184.722
181	2.4	0.732794	0.621911		81.8	184.13
182	2.5	0.736842	0.634124		83.5833	183.534
183	2.5	0.740891	0.646431		83.5833	182.933
184	2.5	0.744939	0.658838		83.5833	182.327
185	2.6	0.748988	0.671346		85.3667	181.716
186	2.86	0.753036	0.687131		90.0033	180.945
187	2.9	0.757085	0.699883		90.7167	180.322
188	2.9	0.761134	0.712751		90.7167	179.694
189	2.99	0.765182	0.725736		92.3217	179.06
190	3	0.769231	0.738846		92.5	178.42
191	3.08	0.773279	0.752084		93.9267	177.773
192	3.1	0.777328	0.765456		94.2833	177.12
193	3.11	0.781377	0.778966		94.4617	176.46
194	3.17	0.785425	0.792618		95.5317	175.794
195	3.24	0.789474	0.806422		96.78	175.12
196	3.43	0.793522	0.820379		100.168	174.438
197	3.5	0.797571	0.834498		101.417	173.749
198	3.5	0.801619	0.848786		101.417	173.051
199	3.6	0.805668	0.863249		103.2	172.345
200	3.8	0.809717	0.877897		106.767	171.629
201	3.86	0.813765	0.892733		107.837	170.905
202	4.05	0.817814	0.907769		111.225	170.171
203	4.11	0.821862	0.923014		112.295	169.426
204	4.25	0.825911	0.938476		114.792	168.671
205	4.43	0.82996	0.954165	118.002	167.905	
206	4.6	0.834008	0.974114		121.033	166.931
207	4.7	0.838057	0.990356		122.817	166.138
208	4.8	0.842105	1.00687	124.6	165.331	
209	5	0.846154	1.02365	128.167	164.512	
210	5.1	0.850202	1.04073	129.95	163.678	
211	5.2	0.854251	1.05812	131.733	162.828	
212	5.3	0.8583	1.07584	133.517	161.963	
213	5.5	0.862348	1.0939	137.083	161.081	
214	5.7	0.866397	1.11232	140.65	160.182	
215	5.8	0.870445	1.13113	142.433	159.263	
216	5.9	0.874494	1.15035	144.217	158.325	
217	6	0.878543	1.17	146	157.365	
218	6.1	0.882591	1.19012	147.783	156.383	
219	6.3	0.88664	1.21073	151.35	155.376	
220	6.9	0.890688	1.23187	162.05	154.344	
221	7	0.894737	1.25357	163.833	153.284	
222	7.2	0.898785	1.27588	167.4	152.195	
223	7.3	0.902834	1.29884	169.183	151.074	
224	7.6	0.906883	1.32251	174.533	149.918	
225	8.4	0.910931	1.34694	188.8	148.724	
226	8.5	0.91498	1.3722	190.583	147.491	
227	9	0.919028	1.40507	199.5	145.886	
228	9.9	0.923077	1.4325	215.55	144.546	
229	10.8	0.927126	1.46106	231.6	143.152	
230	11	0.931174	1.49085	235.167	141.697	
231	12	0.935223	1.52203	253	140.174	
232	12	0.939271	1.55477	253	138.575	
233	12	0.94332	1.58927	253	136.891	
234	13	0.947368	1.62576	270.833	135.109	

235	14	0.951417	1.66456	288.667	133.214
236	16	0.955466	1.70604	324.333	131.188
237	16.2	0.959514	1.75069	327.9	129.008
238	16.3	0.963563	1.79912	329.683	126.643
239	18	0.967611	1.85218	360	124.052
240	19	0.97166	1.91103	377.833	121.178
241	19	0.975709	1.97737	377.833	117.938
242	19	0.979757	2.05375	377.833	114.209
243	21	0.983806	2.14441	413.5	109.781
244	22	0.987854	2.25713	431.333	104.277
245	22	0.991903	2.40892	431.333	96.8642
246	28	0.995951	2.65209	538.333	84.9898

Shapiro-Francia Test of Normality

Parameter: 1,1-Dichloroethane

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.07944	-2.65209	7.03356	5.51486	
2	-2.07944	-2.40892	12.8365	10.5241	
3	-2.07944	-2.25713	17.9311	15.2176	
4	-2.07944	-2.14441	22.5296	19.6768	
5	-2.07944	-2.05375	26.7475	23.9475	
6	-2.07944	-1.97737	30.6575	28.0593	
7	-2.07944	-1.91103	34.3095	32.0332	
8	-2.07944	-1.85218	37.7401	35.8847	
9	-2.07944	-1.79912	40.9769	39.6258	
10	-2.07944	-1.75069	44.0418	43.2663	
11	-2.07944	-1.70604	46.9524	46.8139	
12	-2.07944	-1.66456	49.7231	50.2752	
13	-2.07944	-1.62576	52.3662	53.6559	
14	-2.07944	-1.58927	54.892	56.9607	
15	-2.07944	-1.55477	57.3093	60.1938	
16	-2.07944	-1.52203	59.6259	63.3588	
17	-2.07944	-1.49085	61.8486	66.4589	
18	-2.07944	-1.46106	63.9833	69.4971	
19	-2.07944	-1.4325	66.0353	72.4759	
20	-2.07944	-1.40507	68.0096	75.3977	
21	-2.07944	-1.3722	69.8925	78.2511	
22	-2.07944	-1.34694	71.7067	81.052	
23	-2.07944	-1.32251	73.4558	83.802	
24	-2.07944	-1.29884	75.1427	86.5029	
25	-2.07944	-1.27588	76.7706	89.156	
26	-2.07944	-1.25357	78.342	91.7627	
27	-2.07944	-1.23187	79.8595	94.3243	
28	-2.07944	-1.21073	81.3254	96.8419	
29	-2.07944	-1.19012	82.7418	99.3167	
30	-2.07944	-1.17	84.1107	101.75	
31	-2.07944	-1.15035	85.434	104.142	
32	-2.07944	-1.13113	86.7134	106.494	
33	-2.07944	-1.11232	87.9507	108.807	
34	-2.07944	-1.0939	89.1473	111.082	
35	-1.04982	-1.07584	90.3047	112.211	
36	-0.891598	-1.05812	91.4243	113.154	
37	-0.867501	-1.04073	92.5075	114.057	
38	-0.755023	-1.02365	93.5553	114.83	
39	-0.71335	-1.00687	94.5691	115.548	
40	-0.579818	-0.990356	95.5499	116.123	
41	-0.478036	-0.974114	96.4988	116.588	
42	-0.34249	-0.954165	97.4092	116.915	
43	-0.223144	-0.938476	98.29	117.124	
44	-0.18633	-0.923014	99.1419	117.296	
45	-0.174353	-0.907769	99.966	117.455	
46	-0.174353	-0.892733	100.763	117.61	
47	-0.083816	-0.877897	101.534	117.684	
48	-0.030459 2	-0.863249	102.279	117.71	
49	0	-0.848786	102.999	117.71	
50	0	-0.834498	103.696	117.71	
51	0	-0.820379	104.369	117.71	

52	0	-0.806422	105.019	117.71
53	0	-0.792618	105.647	117.71
54	0	-0.778966	106.254	117.71
55	0	-0.765456	106.84	117.71
56	0	-0.752084	107.406	117.71
57	0	-0.738846	107.951	117.71
58	0	-0.725736	108.478	117.71
59	0	-0.712751	108.986	117.71
60	0	-0.699883	109.476	117.71
61	0	-0.687131	109.948	117.71
62	0	-0.671346	110.399	117.71
63	0	-0.658838	110.833	117.71
64	0	-0.646431	111.251	117.71
65	0	-0.634124	111.653	117.71
66	0	-0.621911	112.04	117.71
67	0	-0.609791	112.412	117.71
68	0	-0.597761	112.769	117.71
69	0	-0.585815	113.112	117.71
70	0	-0.573953	113.441	117.71
71	0	-0.56217	113.758	117.71
72	0	-0.550465	114.061	117.71
73	0	-0.538836	114.351	117.71
74	0	-0.52728	114.629	117.71
75	0	-0.515791	114.895	117.71
76	0	-0.504372	115.149	117.71
77	0	-0.493018	115.392	117.71
78	0	-0.481728	115.624	117.71
79	0	-0.470498	115.846	117.71
80	0	-0.459327	116.057	117.71
81	0	-0.448213	116.258	117.71
82	0	-0.437153	116.449	117.71
83	0	-0.423405	116.628	117.71
84	0	-0.412463	116.798	117.71
85	0	-0.401571	116.959	117.71
86	0	-0.390726	117.112	117.71
87	0	-0.379927	117.256	117.71
88	0	-0.369171	117.393	117.71
89	0	-0.358459	117.521	117.71
90	0	-0.347787	117.642	117.71
91	0	-0.337155	117.756	117.71
92	0	-0.326561	117.863	117.71
93	0	-0.316004	117.962	117.71
94	0	-0.305481	118.056	117.71
95	0	-0.294992	118.143	117.71
96	0	-0.284535	118.224	117.71
97	0	-0.27411	118.299	117.71
98	0	-0.263715	118.368	117.71
99	0	-0.253347	118.433	117.71
100	0	-0.243007	118.492	117.71
101	0	-0.232693	118.546	117.71
102	0	-0.222403	118.595	117.71
103	0	-0.209575	118.639	117.71
104	0	-0.199336	118.679	117.71
105	0	-0.189118	118.715	117.71
106	0	-0.17892	118.747	117.71
107	0	-0.168741	118.775	117.71
108	0	-0.158579	118.8	117.71
109	0	-0.148434	118.822	117.71
110	0	-0.138305	118.841	117.71
111	0	-0.128189	118.858	117.71
112	0	-0.118085	118.872	117.71
113	0	-0.107995	118.883	117.71

114	0	-0.0979139	118.893	117.71	
115	0	-0.0878447	118.901	117.71	
116	0	-0.0777834	118.907	117.71	
117	0	-0.0677301	118.911	117.71	
118	0	-0.0576847	118.915	117.71	
119	0	-0.0476439	118.917	117.71	
120	0	-0.0376076	118.918	117.71	
121	0	-0.0275759	118.919	117.71	
122	0	-0.0175476	118.919	117.71	
123	0	-0.00751925	118.92	117.71	
124	0	0.00751925	118.92	117.71	
125	0	0.0175476	118.92	117.71	
126	0	0.0275759	118.921	117.71	
127	0	0.0376076	118.922	117.71	
128	0	0.0476439	118.924	117.71	
129	0	0.0576847	118.928	117.71	
130	0	0.0677301	118.932	117.71	
131	0	0.0777834	118.938	117.71	
132	0	0.0878447	118.946	117.71	
133	0	0.0979139	118.956	117.71	
134	0	0.107995	118.967	117.71	
135	0	0.118085	118.981	117.71	
136	0	0.128189	118.998	117.71	
137	0	0.138305	119.017	117.71	
138	0	0.148434	119.039	117.71	
139	0	0.158579	119.064	117.71	
140	0	0.168741	119.092	117.71	
141	0	0.17892	119.124	117.71	
142	0	0.189118	119.16	117.71	
143	0	0.199336	119.2	117.71	
144	0	0.209575	119.244	117.71	
145	0	0.222403	119.293	117.71	
146	0	0.232693	119.347	117.71	
147	0	0.243007	119.407	117.71	
148	0	0.253347	119.471	117.71	
149	0	0.263715	119.54	117.71	
150	0	0.27411	119.615	117.71	
151	0	0.284535	119.696	117.71	
152	0	0.294992	119.783	117.71	
153	0	0.305481	119.877	117.71	
154	0	0.316004	119.977	117.71	
155	0.0953102	0.326561	120.083	117.741	
156	0.0953102	0.337155	120.197	117.773	
157	0.113329	0.347787	120.318	117.813	
158	0.139762	0.358459	120.446	117.863	
159	0.19062	0.369171	120.583	117.933	
160	0.223144	0.379927	120.727	118.018	
161	0.223144	0.390726	120.88	118.105	
162	0.231112	0.401571	121.041	118.198	
163	0.262364	0.412463	121.211	118.306	
164	0.300105	0.423405	121.39	118.433	
165	0.322083	0.437153	121.581	118.574	
166	0.329304	0.448213	121.782	118.721	
167	0.405465	0.459327	121.993	118.908	
168	0.470004	0.470498	122.215	119.129	
169	0.470004	0.481728	122.447	119.355	
170	0.518794	0.493018	122.69	119.611	
171	0.647103	0.504372	122.944	119.937	
172	0.647103	0.515791	123.21	120.271	
173	0.693147	0.52728	123.488	120.637	
174	0.693147	0.538836	123.779	121.01	
175	0.71295	0.550465	124.082	121.403	

176	0.727549		0.56217	124.398	121.812	
177	0.746688		0.573953		124.727	122.24
178	0.779325		0.585815		125.07	122.697
179	0.788457		0.597761		125.428	123.168
180	0.788457		0.609791		125.799	123.649
181	0.875469		0.621911		126.186	124.193
182	0.916291		0.634124		126.588	124.774
183	0.916291		0.646431		127.006	125.367
184	0.916291		0.658838		127.44	125.97
185	0.955511		0.671346		127.891	126.612
186	1.05082	0.687131		128.363	127.334	
187	1.06471	0.699883		128.853	128.079	
188	1.06471	0.712751		129.361	128.838	
189	1.09527	0.725736		129.888	129.633	
190	1.09861	0.738846		130.433	130.445	
191	1.12493	0.752084		130.999	131.291	
192	1.1314	0.765456		131.585	132.157	
193	1.13462	0.778966		132.192	133.04	
194	1.15373	0.792618		132.82	133.955	
195	1.17557	0.806422		133.47	134.903	
196	1.23256	0.820379		134.143	135.914	
197	1.25276	0.834498		134.84	136.96	
198	1.25276	0.848786		135.56	138.023	
199	1.28093	0.863249		136.305	139.129	
200	1.335	0.877897		137.076	140.301	
201	1.35067	0.892733		137.873	141.506	
202	1.39872	0.907769		138.697	142.776	
203	1.41342	0.923014		139.549	144.081	
204	1.44692	0.938476		140.43	145.439	
205	1.4884	0.954165		141.34	146.859	
206	1.52606	0.974114		142.289	148.345	
207	1.54756	0.990356		143.27	149.878	
208	1.56862	1.00687	144.284	151.457		
209	1.60944	1.02365	145.332	153.105		
210	1.62924	1.04073	146.415	154.8		
211	1.64866	1.05812	147.534	156.545		
212	1.66771	1.07584	148.692	158.339		
213	1.70475	1.0939	149.888	160.204		
214	1.74047	1.11232	151.126	162.14		
215	1.75786	1.13113	152.405	164.128		
216	1.77495	1.15035	153.728	166.17		
217	1.79176	1.17	155.097	168.266		
218	1.80829	1.19012	156.514	170.419		
219	1.84055	1.21073	157.98	172.647		
220	1.93152	1.23187	159.497	175.026		
221	1.94591	1.25357	161.068	177.466		
222	1.97408	1.27588	162.696	179.984		
223	1.98787	1.29884	164.383	182.566		
224	2.02815	1.32251	166.132	185.248		
225	2.12823	1.34694	167.947	188.115		
226	2.14007	1.3722	169.83	191.052		
227	2.19722	1.40507	171.804	194.139		
228	2.29253	1.4325	173.856	197.423		
229	2.37955	1.46106	175.991	200.9		
230	2.3979	1.49085	178.213	204.475		
231	2.48491	1.52203	180.53	208.257		
232	2.48491	1.55477	182.947	212.12		
233	2.48491	1.58927	185.473	216.069		
234	2.56495	1.62576	188.116	220.239		
235	2.63906	1.66456	190.887	224.632		
236	2.77259	1.70604	193.797	229.362		
237	2.78501	1.75069	196.862	234.238		

238	2.79117	1.79912	200.099	239.26
239	2.89037	1.85218	203.53	244.613
240	2.94444	1.91103	207.182	250.24
241	2.94444	1.97737	211.092	256.062
242	2.94444	2.05375	215.309	262.109
243	3.04452	2.14441	219.908	268.638
244	3.09104	2.25713	225.003	275.615
245	3.09104	2.40892	230.806	283.061
246	3.3322	2.65209	237.839	291.898

Data Set Standard Deviation = 1.27704
Numerator = 85204.7
Denominator = 95028.8
W Statistic = 0.896619 = 85204.7 / 95028.8

5% Critical value of 0.976 exceeds 0.896619
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.896619
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.945842
0.945842 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00404858	-2.65209	109.357	344.01
2	-2.07944	0.00809717	-2.40892	109.357	332.136
3	-2.07944	0.0121457	-2.25713	109.357	324.723
4	-2.07944	0.0161943	-2.14441	109.357	319.219
5	-2.07944	0.0202429	-2.05375	109.357	314.791
6	-2.07944	0.0242915	-1.97737	109.357	311.062
7	-2.07944	0.0283401	-1.91103	109.357	307.822
8	-2.07944	0.0323887	-1.85218	109.357	304.948
9	-2.07944	0.0364372	-1.79912	109.357	302.357
10	-2.07944	0.0404858	-1.75069	109.357	299.992
11	-2.07944	0.0445344	-1.70604	109.357	297.812
12	-2.07944	0.048583	-1.66456	109.357	295.786
13	-2.07944	0.0526316	-1.62576	109.357	293.891
14	-2.07944	0.0566802	-1.58927	109.357	292.109
15	-2.07944	0.0607287	-1.55477	109.357	290.425
16	-2.07944	0.0647773	-1.52203	109.357	288.826
17	-2.07944	0.0688259	-1.49085	109.357	287.303
18	-2.07944	0.0728745	-1.46106	109.357	285.848
19	-2.07944	0.0769231	-1.4325	109.357	284.454
20	-2.07944	0.0809717	-1.40507	109.357	283.114
21	-2.07944	0.0850202	-1.3722	109.357	281.509
22	-2.07944	0.0890688	-1.34694	109.357	280.276
23	-2.07944	0.0931174	-1.32251	109.357	279.082
24	-2.07944	0.097166	-1.29884	109.357	277.926
25	-2.07944	0.101215	-1.27588	109.357	276.805
26	-2.07944	0.105263	-1.25357	109.357	275.716
27	-2.07944	0.109312	-1.23187	109.357	274.656
28	-2.07944	0.11336	-1.21073	109.357	273.624
29	-2.07944	0.117409	-1.19012	109.357	272.617
30	-2.07944	0.121457	-1.17	109.357	271.635
31	-2.07944	0.125506	-1.15035	109.357	270.675
32	-2.07944	0.129555	-1.13113	109.357	269.737
33	-2.07944	0.133603	-1.11232	109.357	268.818
34	-2.07944	0.137652	-1.0939	109.357	267.919
35	-1.04982	0.1417	-1.07584	188.049	267.037
36	-0.891598	0.145749	-1.05812	200.142	266.172
37	-0.867501	0.149798	-1.04073	201.984	265.322
38	-0.755023	0.153846	-1.02365	210.58	264.488
39	-0.71335	0.157895	-1.00687	213.765	263.669
40	-0.579818	0.161943	-0.990356	223.971	262.862
41	-0.478036	0.165992	-0.974114	231.75	262.069
42	-0.34249	0.17004	-0.954165	242.11	261.095
43	-0.223144	0.174089	-0.938476	251.231	260.329
44	-0.18633	0.178138	-0.923014	254.045	259.574
45	-0.174353	0.182186	-0.907769	254.96	258.829
46	-0.174353	0.186235	-0.892733	254.96	258.095
47	-0.0833816	0.190283	-0.877897	261.913	257.371
48	-0.0304592	0.194332	-0.863249	265.958	256.655

49	0	0.198381	-0.848786	268.286	255.949
50	0	0.202429	-0.834498	268.286	255.251
51	0	0.206478	-0.820379	268.286	254.562
52	0	0.210526	-0.806422	268.286	253.88
53	0	0.214575	-0.792618	268.286	253.206
54	0	0.218623	-0.778966	268.286	252.54
55	0	0.222672	-0.765456	268.286	251.88
56	0	0.226721	-0.752084	268.286	251.227
57	0	0.230769	-0.738846	268.286	250.58
58	0	0.234818	-0.725736	268.286	249.94
59	0	0.238866	-0.712751	268.286	249.306
60	0	0.242915	-0.699883	268.286	248.678
61	0	0.246964	-0.687131	268.286	248.055
62	0	0.251012	-0.671346	268.286	247.284
63	0	0.255061	-0.658838	268.286	246.673
64	0	0.259109	-0.646431	268.286	246.067
65	0	0.263158	-0.634124	268.286	245.466
66	0	0.267206	-0.621911	268.286	244.87
67	0	0.271255	-0.609791	268.286	244.278
68	0	0.275304	-0.597761	268.286	243.691
69	0	0.279352	-0.585815	268.286	243.107
70	0	0.283401	-0.573953	268.286	242.528
71	0	0.287449	-0.56217	268.286	241.953
72	0	0.291498	-0.550465	268.286	241.381
73	0	0.295547	-0.538836	268.286	240.813
74	0	0.299595	-0.52728	268.286	240.249
75	0	0.303644	-0.515791	268.286	239.688
76	0	0.307692	-0.504372	268.286	239.13
77	0	0.311741	-0.493018	268.286	238.576
78	0	0.315789	-0.481728	268.286	238.024
79	0	0.319838	-0.470498	268.286	237.476
80	0	0.323887	-0.459327	268.286	236.93
81	0	0.327935	-0.448213	268.286	236.388
82	0	0.331984	-0.437153	268.286	235.848
83	0	0.336032	-0.423405	268.286	235.176
84	0	0.340081	-0.412463	268.286	234.642
85	0	0.34413	-0.401571	268.286	234.11
86	0	0.348178	-0.390726	268.286	233.58
87	0	0.352227	-0.379927	268.286	233.053
88	0	0.356275	-0.369171	268.286	232.528
89	0	0.360324	-0.358459	268.286	232.005
90	0	0.364372	-0.347787	268.286	231.484
91	0	0.368421	-0.337155	268.286	230.964
92	0	0.37247	-0.326561	268.286	230.447
93	0	0.376518	-0.316004	268.286	229.932
94	0	0.380567	-0.305481	268.286	229.418
95	0	0.384615	-0.294992	268.286	228.905
96	0	0.388664	-0.284535	268.286	228.395
97	0	0.392713	-0.27411	268.286	227.886
98	0	0.396761	-0.263715	268.286	227.378
99	0	0.40081	-0.253347	268.286	226.872
100	0	0.404858	-0.243007	268.286	226.367
101	0	0.408907	-0.232693	268.286	225.863
102	0	0.412955	-0.222403	268.286	225.361
103	0	0.417004	-0.209575	268.286	224.734
104	0	0.421053	-0.199336	268.286	224.234
105	0	0.425101	-0.189118	268.286	223.735
106	0	0.42915	-0.17892	268.286	223.237
107	0	0.433198	-0.168741	268.286	222.74
108	0	0.437247	-0.158579	268.286	222.244
109	0	0.441296	-0.148434	268.286	221.749
110	0	0.445344	-0.138305	268.286	221.254

111	0	0.449393	-0.128189	268.286	220.76
112	0	0.453441	-0.118085	268.286	220.267
113	0	0.45749	-0.107995	268.286	219.774
114	0	0.461538	-0.0979139	268.286	219.281
115	0	0.465587	-0.0878447	268.286	218.79
116	0	0.469636	-0.0777834	268.286	218.298
117	0	0.473684	-0.0677301	268.286	217.807
118	0	0.477733	-0.0576847	268.286	217.317
119	0	0.481781	-0.0476439	268.286	216.827
120	0	0.48583	-0.0376076	268.286	216.337
121	0	0.489879	-0.0275759	268.286	215.847
122	0	0.493927	-0.0175476	268.286	215.357
123	0	0.497976	-0.00751925	268.286	214.867
124	0	0.502024	0.00751925	268.286	214.133
125	0	0.506073	0.0175476	268.286	213.643
126	0	0.510121	0.0275759	268.286	213.153
127	0	0.51417	0.0376076	268.286	212.663
128	0	0.518219	0.0476439	268.286	212.173
129	0	0.522267	0.0576847	268.286	211.683
130	0	0.526316	0.0677301	268.286	211.193
131	0	0.530364	0.0777834	268.286	210.702
132	0	0.534413	0.0878447	268.286	210.21
133	0	0.538462	0.0979139	268.286	209.719
134	0	0.54251	0.107995	268.286	209.226
135	0	0.546559	0.118085	268.286	208.733
136	0	0.550607	0.128189	268.286	208.24
137	0	0.554656	0.138305	268.286	207.746
138	0	0.558704	0.148434	268.286	207.251
139	0	0.562753	0.158579	268.286	206.756
140	0	0.566802	0.168741	268.286	206.26
141	0	0.57085	0.17892	268.286	205.763
142	0	0.574899	0.189118	268.286	205.265
143	0	0.578947	0.199336	268.286	204.766
144	0	0.582996	0.209575	268.286	204.266
145	0	0.587045	0.222403	268.286	203.639
146	0	0.591093	0.232693	268.286	203.137
147	0	0.595142	0.243007	268.286	202.633
148	0	0.59919	0.253347	268.286	202.128
149	0	0.603239	0.263715	268.286	201.622
150	0	0.607287	0.27411	268.286	201.114
151	0	0.611336	0.284535	268.286	200.605
152	0	0.615385	0.294992	268.286	200.095
153	0	0.619433	0.305481	268.286	199.582
154	0	0.623482	0.316004	268.286	199.068
155	0.0953102	0.62753	0.326561	275.57	198.553
156	0.0953102	0.631579	0.337155	275.57	198.036
157	0.113329	0.635628	0.347787	276.947	197.516
158	0.139762	0.639676	0.358459	278.968	196.995
159	0.19062	0.643725	0.369171	282.855	196.472
160	0.223144	0.647773	0.379927	285.34	195.947
161	0.223144	0.651822	0.390726	285.34	195.42
162	0.231112	0.65587	0.401571	285.949	194.89
163	0.262364	0.659919	0.412463	288.338	194.358
164	0.300105	0.663968	0.423405	291.222	193.824
165	0.322083	0.668016	0.437153	292.902	193.152
166	0.329304	0.672065	0.448213	293.454	192.612
167	0.405465	0.676113	0.459327	299.275	192.07
168	0.470004	0.680162	0.470498	304.207	191.524
169	0.470004	0.684211	0.481728	304.207	190.976
170	0.518794	0.688259	0.493018	307.936	190.424
171	0.647103	0.692308	0.504372	317.743	189.87
172	0.647103	0.696356	0.515791	317.743	189.312

173	0.693147	0.700405	0.52728	321.262	188.751		
174	0.693147	0.704453	0.538836	321.262	188.187		
175	0.71295	0.708502	0.550465	322.775	187.619		
176	0.727549	0.712551	0.56217	323.891	187.047		
177	0.746688	0.716599	0.573953	325.354	186.472		
178	0.779325	0.720648	0.585815	327.848	185.893		
179	0.788457	0.724696	0.597761	328.546	185.309		
180	0.788457	0.728745	0.609791	328.546	184.722		
181	0.875469	0.732794	0.621911	335.197	184.13		
182	0.916291	0.736842	0.634124	338.317	183.534		
183	0.916291	0.740891	0.646431	338.317	182.933		
184	0.916291	0.744939	0.658838	338.317	182.327		
185	0.955511	0.748988	0.671346	341.314	181.716		
186	1.05082	0.753036	0.687131	348.599	180.945		
187	1.06471	0.757085	0.699883	349.66	180.322		
188	1.06471	0.761134	0.712751	349.66	179.694		
189	1.09527	0.765182	0.725736	351.996	179.06		
190	1.09861	0.769231	0.738846	352.251	178.42		
191	1.12493	0.773279	0.752084	354.262	177.773		
192	1.1314	0.777328	0.765456	354.757	177.12		
193	1.13462	0.781377	0.778966	355.003	176.46		
194	1.15373	0.785425	0.792618	356.464	175.794		
195	1.17557	0.789474	0.806422	358.133	175.12		
196	1.23256	0.793522	0.820379	362.489	174.438		
197	1.25276	0.797571	0.834498	364.033	173.749		
198	1.25276	0.801619	0.848786	364.033	173.051		
199	1.28093	0.805668	0.863249	366.186	172.345		
200	1.335	0.809717	0.877897	370.318	171.629		
201	1.35067	0.813765	0.892733	371.515	170.905		
202	1.39872	0.817814	0.907769	375.188	170.171		
203	1.41342	0.821862	0.923014	376.312	169.426		
204	1.44692	0.825911	0.938476	378.872	168.671		
205	1.4884	0.82996	0.954165	382.042	167.905		
206	1.52606	0.834008	0.974114	384.92	166.931		
207	1.54756	0.838057	0.990356	386.564	166.138		
208	1.56862	0.842105	1.00687	388.173	165.331		
209	1.60944	0.846154	1.02365	391.293	164.512		
210	1.62924	0.850202	1.04073	392.806	163.678		
211	1.64866	0.854251	1.05812	394.29	162.828		
212	1.66771	0.8583	1.07584	395.746	161.963		
213	1.70475	0.862348	1.0939	398.577	161.081		
214	1.74047	0.866397	1.11232	401.307	160.182		
215	1.75786	0.870445	1.13113	402.636	159.263		
216	1.77495	0.874494	1.15035	403.943	158.325		
217	1.79176	0.878543	1.17	405.227	157.365		
218	1.80829	0.882591	1.19012	406.491	156.383		
219	1.84055	0.88664	1.21073	408.956	155.376		
220	1.93152	0.890688	1.23187	415.909	154.344		
221	1.94591	0.894737	1.25357	417.009	153.284		
222	1.97408	0.898785	1.27588	419.162	152.195		
223	1.98787	0.902834	1.29884	420.216	151.074		
224	2.02815	0.906883	1.32251	423.294	149.918		
225	2.12823	0.910931	1.34694	430.943	148.724		
226	2.14007	0.91498	1.3722	431.848	147.491		
227	2.19722	0.919028	1.40507	436.216	145.886		
228	2.29253	0.923077	1.4325	443.501	144.546		
229	2.37955	0.927126	1.46106	450.151	143.152		
230	2.3979	0.931174	1.49085	451.553	141.697		
231	2.48491	0.935223	1.52203	458.204	140.174		
232	2.48491	0.939271	1.55477	458.204	138.575		
233	2.48491	0.94332	1.58927	458.204	136.891		
234	2.56495	0.947368	1.62576	464.321	135.109		

235	2.63906	0.951417		1.66456	469.985	133.214
236	2.77259	0.955466		1.70604	480.191	131.188
237	2.78501	0.959514		1.75069	481.14	129.008
238	2.79117	0.963563		1.79912	481.61	126.643
239	2.89037	0.967611		1.85218	489.193	124.052
240	2.94444	0.97166	1.91103	493.325	121.178	
241	2.94444	0.975709		1.97737	493.325	117.938
242	2.94444	0.979757		2.05375	493.325	114.209
243	3.04452	0.983806		2.14441	500.974	109.781
244	3.09104	0.987854		2.25713	504.53	104.277
245	3.09104	0.991903		2.40892	504.53	96.8642
246	3.3322	0.995951		2.65209	522.961	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	68
	9/23/1999	ND<0	68
	3/15/2000	ND<0	68
	9/24/2003	ND<0	68
	3/11/2004	ND<0	68
	10/12/2004	ND<0	68
	4/1/2005	ND<0	68
	10/25/2005	ND<0	68
	4/29/2006	ND<0	68
	11/18/2006	ND<0	68
	5/23/2007	ND<0	68
	11/28/2007	ND<0	68
	6/5/2008	ND<0	68
	11/20/2008	ND<0	68
	6/11/2009	ND<-2.07944	68
	11/16/2009	ND<-2.07944	68
	6/30/2010	ND<-2.07944	68
	11/12/2010	ND<-2.07944 U	68
	7/5/2011	ND<-2.07944 U	68

Rank Sum = 1292
Rank Mean = 68

Background Rank Sum = 1292
Background Rank Mean = 68

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	68
	8/24/1995	ND<0	68
	9/28/1995	ND<0	68
	10/26/1995	ND<0	68
	11/19/1996	ND<0	68
	12/19/1996	ND<0	68
	3/24/1997	ND<0	68
	9/24/1997	ND<0	68
	4/7/1998	ND<0	68
	9/23/1998	ND<0	68
	3/16/1999	ND<0	68
	9/23/1999	ND<0	68
	3/15/2000	ND<0	68
	9/24/2003	ND<0	68
	3/11/2004	ND<0	68
	10/12/2004	ND<0	68
	4/1/2005	ND<0	68
	10/25/2005	ND<0	68
	4/29/2006	ND<0	68
	11/18/2006	ND<0	68
	5/23/2007	ND<0	68

	11/28/2007	ND<0		68
	6/5/2008	ND<0		68
	11/20/2008	ND<0		68
	6/11/2009	ND<-2.07944		68
	11/16/2009	ND<-2.07944		68
	6/30/2010	ND<-2.07944		68
	11/12/2010	ND<-2.07944	U	68
	7/5/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68

Rank Sum = 2108
Rank Mean = 68

MW-11R	7/20/1995	2.14007		226
	8/24/1995	3.04452		243
	9/28/1995	2.94444		240
	10/26/1995	3.09104		244
	11/19/1996	ND<0		68
	12/19/1996	2.94444		241
	3/24/1997	ND<0		68
	9/24/1997	1.62924		210
	4/7/1998	2.12823		225
	9/23/1998	2.56495		234
	3/16/1999	2.37955		229
	9/23/1999	1.70475		213
	3/15/2000	2.29253		228
	9/24/2003	ND<0		68
	3/11/2004	ND<0		68
	10/12/2004	ND<0		68
	4/1/2005	1.35067		201
	10/25/2005	0.779325		178
	4/29/2006	0.518794	J	170
	11/18/2006	0.727549		176
	5/23/2007	ND<0		68
	11/28/2007	1.39872		202
	6/5/2008	ND<0		68
	11/20/2008	-0.579818	J	141
	6/11/2009	1.06471		187
	11/16/2009	-0.867501	J	138
	6/30/2010	1.06471		188
	11/12/2010	ND<-2.07944	U	68
	7/5/2011	-0.891598	J	137
	11/22/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68

Rank Sum = 4931
Rank Mean = 159.065

MW-12A	R	3/16/1999	ND<0	68
	9/23/1999	ND<0		68
	3/15/2000	1.97408		222
	9/24/2003	1.93152		220
	3/11/2004	1.80829		218
	10/12/2004	1.84055		219
	4/1/2005	ND<0		68
	10/25/2005	0.19062	J	159
	4/29/2006	0.329304	J	166
	11/18/2006	-0.18633	J	145
	5/23/2007	ND<0		68
	11/28/2007	0.139762	J	158
	6/5/2008	0.223144	J	160
	11/20/2008	-0.478036	J	142
	6/11/2009	ND<-2.07944		68

	11/16/2009	-1.04982	J	136
	6/30/2010	ND<-2.07944		68
	11/12/2010	0		150
	7/5/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68

Rank Sum = 2707
Rank Mean = 128.905

MW-7	7/20/1995	0.470004	J	168
	8/24/1995	0.0953102	J	155
	9/28/1995	0	J	151
	10/26/1995	0.693147		173
	11/19/1996	ND<0		68
	12/19/1996	2.19722		227
	3/24/1997	ND<0		68
	9/24/1997	ND<0		68
	4/7/1998	2.48491		231
	9/23/1998	2.48491		232
	3/16/1999	ND<0		68
	9/23/1999	1.77495		216
	3/15/2000	ND<0		68
	9/24/2003	ND<0		68
	3/11/2004	ND<0		68
	10/12/2004	ND<0		68
	4/1/2005	ND<0		68
	10/25/2005	ND<0		68
	4/29/2006	ND<0		68
	11/18/2006	ND<0		68
	5/23/2007	ND<0		68
	11/28/2007	ND<0		68
	6/5/2008	ND<0		68
	11/20/2008	ND<0		68
	6/11/2009	ND<-2.07944		68
	11/16/2009	ND<-2.07944		68
	6/30/2010	ND<-2.07944		68
	11/12/2010	ND<-2.07944	U	68
	7/5/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68

Rank Sum = 3117
Rank Mean = 100.548

MW-10	7/20/1995	-0.223144	J	144
	8/24/1995	1.25276		197
	9/28/1995	1.94591		221
	10/26/1995	1.79176		217
	11/19/1996	ND<0		68
	12/19/1996	1.60944		209
	3/24/1997	2.63906		235
	9/24/1997	1.75786		215
	4/7/1998	ND<0		68
	9/23/1998	ND<0		68
	3/16/1999	1.54756		207
	9/23/1999	0.955511		185
	3/15/2000	ND<0		68
	9/24/2003	ND<0		68
	3/11/2004	ND<0		68
	10/12/2004	ND<0		68
	4/1/2005	0.223144	J	161
	10/25/2005	0.470004	J	169
	4/29/2006	0.647103	J	171

	11/18/2006	0.113329	J	157
	5/23/2007	ND<0	68	
	11/28/2007	0.300105		164
	6/5/2008	0.231112	J	162
	11/20/2008	-0.083816	J	148
	6/11/2009	-0.030459	2 J	149
	11/16/2009	0.0953102		156
	6/30/2010	-0.71335	J	140
	11/12/2010	-0.34249	J	143
	7/5/2011	0.262364		163
	11/22/2011	0		152
	11/22/2011	0		153

Rank Sum = 4562
Rank Mean = 147.161

MW-8	7/20/1995	-0.755023	J	139
	8/24/1995	2.48491		233
	9/28/1995	2.3979	230	
	10/26/1995	0 J	154	
	11/19/1996	ND<0	68	
	12/19/1996	2.94444		242
	3/24/1997	2.89037		239
	9/24/1997	3.09104		245
	4/7/1998	2.77259		236
	9/23/1998	3.3322	246	
	3/16/1999	2.79117		238
	9/23/1999	2.78501		237
	3/15/2000	ND<0	68	
	9/24/2003	ND<0	68	
	3/11/2004	ND<0	68	
	10/12/2004	ND<0	68	
	4/1/2005	0.647103	J	172
	10/25/2005	1.23256		196
	4/29/2006	0.746688		177
	11/18/2006	1.05082		186
	5/23/2007	ND<0	68	
	11/28/2007	1.41342		203
	6/5/2008	1.4884	205	
	11/20/2008	1.12493		191
	6/11/2009	1.64866		211
	6/30/2010	0.916291		182
	11/12/2010	0.875469		181
	7/5/2011	1.1314	192	
	11/22/2011	0.916291		183
	11/22/2011	0.916291		184

Rank Sum = 5310
Rank Mean = 177

MW-12BR	3/16/1999	1.98787		223
	9/23/1999	1.74047		214
	3/15/2000	ND<0	68	
	9/24/2003	ND<0	68	
	3/11/2004	ND<0	68	
	10/12/2004	ND<0	68	
	4/1/2005	1.44692		204
	10/25/2005	ND<0	68	
	4/29/2006	ND<0	68	
	11/18/2006	ND<0	68	
	5/23/2007	ND<0	68	
	11/28/2007	ND<0	68	
	6/5/2008	ND<0	68	
	11/20/2008	ND<0	68	

	6/11/2009	ND<-2.07944		68
	11/16/2009	ND<-2.07944		68
	6/30/2010	ND<-2.07944		68
	11/12/2010	ND<-2.07944	U	68
	7/5/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68
	11/22/2011	ND<-2.07944	U	68

Rank Sum = 1865
Rank Mean = 88.8095

MW-9	7/20/1995	-0.174353	J	146
	8/24/1995	-0.174353	J	147
	9/28/1995	0.693147		174
	10/26/1995	1.09861		190
	11/19/1996	ND<0	68	
	12/19/1996	ND<0	68	
	3/24/1997	ND<0	68	
	9/24/1997	ND<0	68	
	4/7/1998	ND<0	68	
	9/23/1998	1.66771		212
	3/16/1999	1.28093		199
	9/23/1999	1.25276		198
	3/15/2000	ND<0	68	
	9/24/2003	ND<0	68	
	3/11/2004	ND<0	68	
	10/12/2004	ND<0	68	
	4/1/2005	1.09527	189	
	10/25/2005	0.71295		175
	4/29/2006	0.322083	J	165
	11/18/2006	ND<0	68	
	5/23/2007	ND<0	68	
	11/28/2007	1.15373		194
	6/5/2008	1.17557	195	
	11/20/2008	1.13462		193
	6/11/2009	2.02815		224
	11/16/2009	1.56862		208
	6/30/2010	1.52606		206
	11/12/2010	1.335	200	
	7/5/2011	0.405465	167	
	11/22/2011	0.788457		179
	11/22/2011	0.788457		180

Rank Sum = 4489
Rank Mean = 144.806

Calculation Results:

Kruskal-Wallis H Statistic = 69.6621
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 83.4541
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
69.6621 > 15.5073 indicating a significant group difference at 5% significance level
83.4541 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 68

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**68**	**0**	**48.231**
MW-11R	**159.065**	**91.0645**	**48.231**
MW-12AR	**128.905**	**60.9048**	**52.4134**
MW-7	**100.548**	**32.5484**	**48.231**

MW-10	147.161	79.1613	48.231	
MW-8	177	109	48.5355	
MW-12BR		88.8095	20.8095	52.4134
MW-9	144.806	76.8065	48.231	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 68

Well	Mean Rank		Dif from Bkg	Critical Value
MW-6	68	0	52.0829	
MW-11R	159.065	91.0645	52.0829	
MW-12AR		128.905	60.9048	56.5994
MW-7	100.548	32.5484	52.0829	
MW-10	147.161	79.1613	52.0829	
MW-8	177	109	52.4118	
MW-12BR		88.8095	20.8095	56.5994
MW-9	144.806	76.8065	52.0829	

Shewhart-CUSUM Control Chart

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.36075
Baseline Std Dev = 1.20864
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-1.95322
3/24/1997	0	0	-1.95322
9/24/1997	1.62924	0	-0.605233
9/24/1997	1.62924	0	-0.605233
4/7/1998	2.12823	0	-0.192381
4/7/1998	2.12823	0	-0.192381
9/23/1998	2.56495	0	0.168948
9/23/1998	2.56495	0	0.168948
3/16/1999	2.37955	0	0.0155502
3/16/1999	2.37955	0	0.0155502
9/23/1999	1.70475	0	-0.54276
9/23/1999	1.70475	0	-0.54276
3/15/2000	2.29253	0	-0.0564407
3/15/2000	2.29253	0	-0.0564407
9/24/2003	0	0	-1.95322
9/24/2003	0	0	-1.95322
3/11/2004	0	0	-1.95322
3/11/2004	0	0	-1.95322
10/12/2004	0	0	-1.95322
10/12/2004	0	0	-1.95322
4/1/2005	1.35067	0	-0.835717
4/1/2005	1.35067	0	-0.835717
10/25/2005	0.779325	0	-1.30843
10/25/2005	0.779325	0	-1.30843
4/29/2006	0.518794	0	-1.52399
4/29/2006	0.518794	0	-1.52399
11/18/2006	0.727549	0	-1.35127
11/18/2006	0.727549	0	-1.35127
5/23/2007	0	0	-1.95322
5/23/2007	0	0	-1.95322
11/28/2007	1.39872	0	-0.795962
11/28/2007	1.39872	0	-0.795962
6/5/2008	0	0	-1.95322
6/5/2008	0	0	-1.95322
11/20/2008	-0.579818	0	-2.43295
11/20/2008	-0.579818	0	-2.43295
6/11/2009	1.06471	0	-1.07231
6/11/2009	1.06471	0	-1.07231
11/16/2009	-0.867501	0	-2.67097
11/16/2009	-0.867501	0	-2.67097
6/30/2010	1.06471	0	-1.07231
6/30/2010	1.06471	0	-1.07231
11/12/2010	-2.07944	0	-3.6737
11/12/2010	-2.07944	0	-3.6737
7/5/2011	-0.891598	0	-2.69091

7/5/2011	-0.891598	0	-2.69091
11/22/2011	-2.07944	0	-5.19539
11/22/2011	-2.07944	0	-5.19539

Shewhart-CUSUM Control Chart

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.25907
Baseline Std Dev = 0.977109
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
4/1/2005	0	0	-1.28857	
4/1/2005	0	0	-1.28857	
10/25/2005	0.190662	0	-1.09348	
10/25/2005	0.190662	0	-1.09348	
4/29/2006	0.329304	0	-0.951552	
4/29/2006	0.329304	0	-0.951552	
11/18/2006	-0.186330	0	-1.47927	
11/18/2006	-0.186330	0	-1.47927	
5/23/2007	0	0	-1.28857	
5/23/2007	0	0	-1.28857	
11/28/2007	0.139762	0	-1.14553	
11/28/2007	0.139762	0	-1.14553	
6/5/2008	0.223144	0	-1.0602	
6/5/2008	0.223144	0	-1.0602	
11/20/2008	-0.478036	0	-1.77781	
11/20/2008	-0.478036	0	-1.77781	
6/11/2009	-2.07944	0	-3.41673	
6/11/2009	-2.07944	0	-3.41673	
11/16/2009	-1.04982	0	-2.36299	
11/16/2009	-1.04982	0	-2.36299	
6/30/2010	-2.07944	0	-3.41673	
6/30/2010	-2.07944	0	-3.41673	
11/12/2010	0	0	-1.28857	
11/12/2010	0	0	-1.28857	
7/5/2011	-2.07944	0	-3.41673	
7/5/2011	-2.07944	0	-3.41673	
11/22/2011	-2.07944	0	-4.83198	
11/22/2011	-2.07944	0	-4.83198	

Shewhart-CUSUM Control Chart

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.06279
Baseline Std Dev = 0.941208
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	2.63906	0.674731		1.67473
3/24/1997	2.63906	0.674731		1.67473
9/24/1997	1.75786	0.413218		0.738488
9/24/1997	1.75786	0.413218		0.738488
4/7/1998	0	0	-1.12917	
4/7/1998	0	0	-1.12917	
9/23/1998	0	0	-1.12917	
9/23/1998	0	0	-1.12917	
3/16/1999	1.54756	0	0.515056	
3/16/1999	1.54756	0	0.515056	
9/23/1999	0.955511	0		-0.113977
9/23/1999	0.955511	0		-0.113977
3/15/2000	0	0	-1.12917	
3/15/2000	0	0	-1.12917	
9/24/2003	0	0	-1.12917	
9/24/2003	0	0	-1.12917	
3/11/2004	0	0	-1.12917	
3/11/2004	0	0	-1.12917	
10/12/2004	0	0	-1.12917	
10/12/2004	0	0	-1.12917	
4/1/2005	0.223144	0	-0.892093	
4/1/2005	0.223144	0	-0.892093	
10/25/2005	0.470004	0		-0.629812
10/25/2005	0.470004	0		-0.629812
4/29/2006	0.647103	0		-0.44165
4/29/2006	0.647103	0		-0.44165
11/18/2006	0.113329	0		-1.00877
11/18/2006	0.113329	0		-1.00877
5/23/2007	0	0	-1.12917	
5/23/2007	0	0	-1.12917	
11/28/2007	0.300105	0		-0.810324
11/28/2007	0.300105	0		-0.810324
6/5/2008	0.231112	0	-0.883627	
6/5/2008	0.231112	0	-0.883627	
11/20/2008	-0.0833816	0		-1.21776
11/20/2008	-0.0833816	0		-1.21776
6/11/2009	-0.0304592	0		-1.16154
6/11/2009	-0.0304592	0		-1.16154
11/16/2009	0.0953102	0		-1.02791
11/16/2009	0.0953102	0		-1.02791
6/30/2010	-0.71335	0	-1.88708	
6/30/2010	-0.71335	0	-1.88708	
11/12/2010	-0.34249	0	-1.49306	
11/12/2010	-0.34249	0	-1.49306	
7/5/2011	0.262364	0	-0.850422	

7/5/2011	0.262364	0	-0.850422
11/22/2011	0	0	-1.59689
11/22/2011	0	0	-1.59689

Shewhart-CUSUM Control Chart

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.1787
Baseline Std Dev = 1.60177
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	2.89037	0.0686082		1.06861
3/24/1997	2.89037	0.0686082		1.06861
9/24/1997	3.09104	0.262497		1.19389
9/24/1997	3.09104	0.262497		1.19389
4/7/1998	2.77259	0.257572	0.995075	
4/7/1998	2.77259	0.257572	0.995075	
9/23/1998	3.3322	0.60202	1.34445	
9/23/1998	3.3322	0.60202	1.34445	
3/16/1999	2.79117	0.608693		1.00667
3/16/1999	2.79117	0.608693		1.00667
9/23/1999	2.78501	0.611523		1.00283
9/23/1999	2.78501	0.611523		1.00283
3/15/2000	0	0	-0.735874	
3/15/2000	0	0	-0.735874	
9/24/2003	0	0	-0.735874	
9/24/2003	0	0	-0.735874	
3/11/2004	0	0	-0.735874	
3/11/2004	0	0	-0.735874	
10/12/2004	0	0	-0.735874	
10/12/2004	0	0	-0.735874	
4/1/2005	0.647103	0	-0.331882	
4/1/2005	0.647103	0	-0.331882	
10/25/2005	1.23256	0	0.0336235	
10/25/2005	1.23256	0	0.0336235	
4/29/2006	0.746688		0	-0.26971
4/29/2006	0.746688		0	-0.26971
11/18/2006	1.05082	0	-0.0798374	
11/18/2006	1.05082	0	-0.0798374	
5/23/2007	0	0	-0.735874	
5/23/2007	0	0	-0.735874	
11/28/2007	1.41342	0	0.146538	
11/28/2007	1.41342	0	0.146538	
6/5/2008	1.4884	0	0.193346	
6/5/2008	1.4884	0	0.193346	
11/20/2008	1.12493	0	-0.0335712	
11/20/2008	1.12493	0	-0.0335712	
6/11/2009	1.64866	0	0.293397	
6/11/2009	1.64866	0	0.293397	
6/30/2010	0.916291		0	-0.163826
6/30/2010	0.916291		0	-0.163826
11/12/2010	0.875469		0	-0.189312
11/12/2010	0.875469		0	-0.189312
7/5/2011	1.1314	0	-0.0295303	
7/5/2011	1.1314	0	-0.0295303	
11/22/2011	0.916291		0	-0.231685

11/22/2011	0.916291	0	-0.231685

Shewhart-CUSUM Control Chart

Parameter: 1,1-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.240509
Baseline Std Dev = 0.529364
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std Mean
3/24/1997	0	0		-0.454335
3/24/1997	0	0		-0.454335
9/24/1997	0	0		-0.454335
9/24/1997	0	0		-0.454335
4/7/1998	0	0	-0.454335	
4/7/1998	0	0	-0.454335	
9/23/1998	1.66771	1.69606	2.69606	
9/23/1998	1.66771	1.69606	2.69606	
3/16/1999	1.28093	2.66148	1.96542	
3/16/1999	1.28093	2.66148	1.96542	
9/23/1999	1.25276	3.57369	1.91221	
9/23/1999	1.25276	3.57369	1.91221	
3/15/2000	0	2.11935	-0.454335	
3/15/2000	0	2.11935	-0.454335	
9/24/2003	0	0.66502	-0.454335	
9/24/2003	0	0.66502	-0.454335	
3/11/2004	0	0	-0.454335	
3/11/2004	0	0	-0.454335	
10/12/2004	0	0	-0.454335	
10/12/2004	0	0	-0.454335	
4/1/2005	1.09527	0.6147	1.6147	
4/1/2005	1.09527	0.6147	1.6147	
10/25/2005	0.71295	0.507168		0.892468
10/25/2005	0.71295	0.507168		0.892468
4/29/2006	0.322083		0	0.154099
4/29/2006	0.322083		0	0.154099
11/18/2006	0	0	-0.454335	
11/18/2006	0	0	-0.454335	
5/23/2007	0	0	-0.454335	
5/23/2007	0	0	-0.454335	
11/28/2007	1.15373	0.725131		1.72513
11/28/2007	1.15373	0.725131		1.72513
6/5/2008	1.17557	1.49152	1.76639	
6/5/2008	1.17557	1.49152	1.76639	
11/20/2008	1.13462	2.18055	1.68903	
11/20/2008	1.13462	2.18055	1.68903	
6/11/2009	2.02815	4.55751	3.37695	
6/11/2009	2.02815	4.55751	3.37695	
11/16/2009	1.56862	6.06638	2.50887	
11/16/2009	1.56862	6.06638	2.50887	
6/30/2010	1.52606	7.49485	2.42847	
6/30/2010	1.52606	7.49485	2.42847	
11/12/2010	1.335	8.56241	2.06756	
11/12/2010	1.335	8.56241	2.06756	
7/5/2011	0.405465	7.87403	0.311612	

7/5/2011	0.405465	7.87403	0.311612	
11/22/2011	0.788457	8.33789	1.46386	
11/22/2011	0.788457	8.33789	1.46386	

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
3.04452	(8/24/1995)	2.14007 (7/20/1995)	(3.04452 - 2.14007)/(2 - 1)
0.904456			
2.94444	(9/28/1995)	2.14007 (7/20/1995)	(2.94444 - 2.14007)/(3 - 1)
0.402186			
3.09104	(10/26/1995)	2.14007 (7/20/1995)	(3.09104 - 2.14007)/(4 - 1)
0.316992			
ND<0	(11/19/1996)	2.14007 (7/20/1995)	(0 - 2.14007)/(5 - 1)
-0.535017			
2.94444	(12/19/1996)	2.14007 (7/20/1995)	(2.94444 - 2.14007)/(6 - 1)
0.160875			
ND<0	(3/24/1997)	2.14007 (7/20/1995)	(0 - 2.14007)/(7 - 1)
-0.356678			
1.62924	(9/24/1997)	2.14007 (7/20/1995)	(1.62924 - 2.14007)/(8 - 1)
-0.0729751			
2.12823	(4/7/1998)	2.14007 (7/20/1995)	(2.12823 - 2.14007)/(9 - 1)
-0.00147931			
2.56495	(9/23/1998)	2.14007 (7/20/1995)	(2.56495 - 2.14007)/(10 - 1)
0.0472092			
2.37955	(3/16/1999)	2.14007 (7/20/1995)	(2.37955 - 2.14007)/(11 - 1)
0.023948			
1.70475	(9/23/1999)	2.14007 (7/20/1995)	(1.70475 - 2.14007)/(12 - 1)
-0.0395744			
2.29253	(3/15/2000)	2.14007 (7/20/1995)	(2.29253 - 2.14007)/(13 - 1)
0.0127057			
ND<0	(9/24/2003)	2.14007 (7/20/1995)	(0 - 2.14007)/(14 - 1) -0.16462
ND<0	(3/11/2004)	2.14007 (7/20/1995)	(0 - 2.14007)/(15 - 1)
-0.152862			
ND<0	(10/12/2004)	2.14007 (7/20/1995)	(0 - 2.14007)/(16 - 1)
-0.142671			
1.35067	(4/1/2005)	2.14007 (7/20/1995)	(1.35067 - 2.14007)/(17 - 1)
-0.0493374			
0.779325	(10/25/2005)	2.14007 (7/20/1995)	(0.779325 - 2.14007)/(18 - 1)
-0.0800436			
0.518794 J	(4/29/2006)	2.14007 (7/20/1995)	(0.518794 - 2.14007)/(19 - 1)
-0.0900707			
0.727549	(11/18/2006)	2.14007 (7/20/1995)	(0.727549 - 2.14007)/(20 - 1)
-0.074343			
ND<0	(5/23/2007)	2.14007 (7/20/1995)	(0 - 2.14007)/(21 - 1)
-0.107003			
1.39872	(11/28/2007)	2.14007 (7/20/1995)	(1.39872 - 2.14007)/(22 - 1)
-0.0353023			
ND<0	(6/5/2008)	2.14007 (7/20/1995)	(0 - 2.14007)/(23 - 1)
-0.0972757			
-0.579818 J	(11/20/2008)	2.14007 (7/20/1995)	(-0.579818 - 2.14007)/(24 - 1)
-0.118256			
1.06471	(6/11/2009)	2.14007 (7/20/1995)	(1.06471 - 2.14007)/(25 - 1)
-0.0448065			
-0.867501 J	(11/16/2009)	2.14007 (7/20/1995)	(-0.867501 - 2.14007)/(26 - 1)
-0.120303			
1.06471	(6/30/2010)	2.14007 (7/20/1995)	(1.06471 - 2.14007)/(27 - 1)
-0.0413598			

ND<-2.07944 U (11/12/2010) 2.14007 (7/20/1995) (-2.07944 - 2.14007)/(28 - 1)
-0.156278
-0.891598 J (7/5/2011) 2.14007 (7/20/1995) (-0.891598 - 2.14007)/(29 - 1)
-0.108274
ND<-2.07944 U (11/22/2011) 2.14007 (7/20/1995) (-2.07944 - 2.14007)/(30 - 1)
-0.1455
ND<-2.07944 U (11/22/2011) 2.14007 (7/20/1995) (-2.07944 - 2.14007)/(30 - 1)
-0.1455

2.94444 (9/28/1995) 3.04452 (8/24/1995) (2.94444 - 3.04452)/(3 - 2)
-0.100083
3.09104 (10/26/1995) 3.04452 (8/24/1995) (3.09104 - 3.04452)/(4 - 2) 0.02326
ND<0 (11/19/1996) 3.04452 (8/24/1995) (0 - 3.04452)/(5 - 2) -1.01484
2.94444 (12/19/1996) 3.04452 (8/24/1995) (2.94444 - 3.04452)/(6 - 2)
-0.0250209
ND<0 (3/24/1997) 3.04452 (8/24/1995) (0 - 3.04452)/(7 - 2)
-0.608904
1.62924 (9/24/1997) 3.04452 (8/24/1995) (1.62924 - 3.04452)/(8 - 2) -0.23588
2.12823 (4/7/1998) 3.04452 (8/24/1995) (2.12823 - 3.04452)/(9 - 2)
-0.130899
2.56495 (9/23/1998) 3.04452 (8/24/1995) (2.56495 - 3.04452)/(10 - 2)
-0.0599466
2.37955 (3/16/1999) 3.04452 (8/24/1995) (2.37955 - 3.04452)/(11 - 2)
-0.0738863
1.70475 (9/23/1999) 3.04452 (8/24/1995) (1.70475 - 3.04452)/(12 - 2)
-0.133977
2.29253 (3/15/2000) 3.04452 (8/24/1995) (2.29253 - 3.04452)/(13 - 2)
-0.0683625
ND<0 (9/24/2003) 3.04452 (8/24/1995) (0 - 3.04452)/(14 - 2) -0.25371
ND<0 (3/11/2004) 3.04452 (8/24/1995) (0 - 3.04452)/(15 - 2)
-0.234194
ND<0 (10/12/2004) 3.04452 (8/24/1995) (0 - 3.04452)/(16 - 2)
-0.217466
1.35067 (4/1/2005) 3.04452 (8/24/1995) (1.35067 - 3.04452)/(17 - 2)
-0.112924
0.779325 (10/25/2005) 3.04452 (8/24/1995) (0.779325 - 3.04452)/(18 - 2)
-0.141575
0.518794 J (4/29/2006) 3.04452 (8/24/1995) (0.518794 - 3.04452)/(19 - 2)
-0.148572
0.727549 (11/18/2006) 3.04452 (8/24/1995) (0.727549 - 3.04452)/(20 - 2)
-0.128721
ND<0 (5/23/2007) 3.04452 (8/24/1995) (0 - 3.04452)/(21 - 2)
-0.160238
1.39872 (11/28/2007) 3.04452 (8/24/1995) (1.39872 - 3.04452)/(22 - 2)
-0.0822903
ND<0 (6/5/2008) 3.04452 (8/24/1995) (0 - 3.04452)/(23 - 2)
-0.144977
-0.579818 J (11/20/2008) 3.04452 (8/24/1995) (-0.579818 - 3.04452)/(24 - 2)
-0.164743
1.06471 (6/11/2009) 3.04452 (8/24/1995) (1.06471 - 3.04452)/(25 - 2)
-0.0860788
-0.867501 J (11/16/2009) 3.04452 (8/24/1995) (-0.867501 - 3.04452)/(26 - 2)
-0.163001
1.06471 (6/30/2010) 3.04452 (8/24/1995) (1.06471 - 3.04452)/(27 - 2)
-0.0791925
ND<-2.07944 U (11/12/2010) 3.04452 (8/24/1995) (-2.07944 - 3.04452)/(28 - 2)
-0.197076
-0.891598 J (7/5/2011) 3.04452 (8/24/1995) (-0.891598 - 3.04452)/(29 - 2)
-0.145782
ND<-2.07944 U (11/22/2011) 3.04452 (8/24/1995) (-2.07944 - 3.04452)/(30 - 2)
-0.182999

ND<-2.07944 U (11/22/2011) 3.04452 (8/24/1995) (-2.07944 - 3.04452)/(30 - 2)
-0.182999

3.09104 (10/26/1995) 2.94444 (9/28/1995) (3.09104 - 2.94444)/(4 - 3)
0.146603
ND<0 (11/19/1996) 2.94444 (9/28/1995) (0 - 2.94444)/(5 - 3) -1.47222
2.94444 (12/19/1996) 2.94444 (9/28/1995) (2.94444 - 2.94444)/(6 - 3) 0
ND<0 (3/24/1997) 2.94444 (9/28/1995) (0 - 2.94444)/(7 - 3) -0.73611
1.62924 (9/24/1997) 2.94444 (9/28/1995) (1.62924 - 2.94444)/(8 - 3) -0.26304
2.12823 (4/7/1998) 2.94444 (9/28/1995) (2.12823 - 2.94444)/(9 - 3)
-0.136035
2.56495 (9/23/1998) 2.94444 (9/28/1995) (2.56495 - 2.94444)/(10 - 3)
-0.0542128
2.37955 (3/16/1999) 2.94444 (9/28/1995) (2.37955 - 2.94444)/(11 - 3)
-0.0706116
1.70475 (9/23/1999) 2.94444 (9/28/1995) (1.70475 - 2.94444)/(12 - 3)
-0.137743
2.29253 (3/15/2000) 2.94444 (9/28/1995) (2.29253 - 2.94444)/(13 - 3)
-0.0651904
ND<0 (9/24/2003) 2.94444 (9/28/1995) (0 - 2.94444)/(14 - 3)
-0.267676
ND<0 (3/11/2004) 2.94444 (9/28/1995) (0 - 2.94444)/(15 - 3) -0.24537
ND<0 (10/12/2004) 2.94444 (9/28/1995) (0 - 2.94444)/(16 - 3)
-0.226495
1.35067 (4/1/2005) 2.94444 (9/28/1995) (1.35067 - 2.94444)/(17 - 3)
-0.113841
0.779325 (10/25/2005) 2.94444 (9/28/1995) (0.779325 - 2.94444)/(18 - 3)
-0.144341
0.518794 J (4/29/2006) 2.94444 (9/28/1995) (0.518794 - 2.94444)/(19 - 3)
-0.151603
0.727549 (11/18/2006) 2.94444 (9/28/1995) (0.727549 - 2.94444)/(20 - 3)
-0.130405
ND<0 (5/23/2007) 2.94444 (9/28/1995) (0 - 2.94444)/(21 - 3) -0.16358
1.39872 (11/28/2007) 2.94444 (9/28/1995) (1.39872 - 2.94444)/(22 - 3)
-0.0813538
ND<0 (6/5/2008) 2.94444 (9/28/1995) (0 - 2.94444)/(23 - 3)
-0.147222
-0.579818 J (11/20/2008) 2.94444 (9/28/1995) (-0.579818 - 2.94444)/(24 - 3)
-0.167822
1.06471 (6/11/2009) 2.94444 (9/28/1995) (1.06471 - 2.94444)/(25 - 3)
-0.0854422
-0.867501 J (11/16/2009) 2.94444 (9/28/1995) (-0.867501 - 2.94444)/(26 - 3)
-0.165737
1.06471 (6/30/2010) 2.94444 (9/28/1995) (1.06471 - 2.94444)/(27 - 3)
-0.078322
ND<-2.07944 U (11/12/2010) 2.94444 (9/28/1995) (-2.07944 - 2.94444)/(28 - 3)
-0.200955
-0.891598 J (7/5/2011) 2.94444 (9/28/1995) (-0.891598 - 2.94444)/(29 - 3)
-0.14754
ND<-2.07944 U (11/22/2011) 2.94444 (9/28/1995) (-2.07944 - 2.94444)/(30 - 3)
-0.18607
ND<-2.07944 U (11/22/2011) 2.94444 (9/28/1995) (-2.07944 - 2.94444)/(30 - 3)
-0.18607

ND<0 (11/19/1996) 3.09104 (10/26/1995) (0 - 3.09104)/(5 - 4) -3.09104
2.94444 (12/19/1996) 3.09104 (10/26/1995) (2.94444 - 3.09104)/(6 - 4)
-0.0733017
ND<0 (3/24/1997) 3.09104 (10/26/1995) (0 - 3.09104)/(7 - 4) -1.03035
1.62924 (9/24/1997) 3.09104 (10/26/1995) (1.62924 - 3.09104)/(8 - 4) -0.36545
2.12823 (4/7/1998) 3.09104 (10/26/1995) (2.12823 - 3.09104)/(9 - 4)
-0.192562

2.56495 (9/23/1998) 3.09104 (10/26/1995) (2.56495 - 3.09104)/(10 - 4)
-0.0876822
2.37955 (3/16/1999) 3.09104 (10/26/1995) (2.37955 - 3.09104)/(11 - 4)
-0.101642
1.70475 (9/23/1999) 3.09104 (10/26/1995) (1.70475 - 3.09104)/(12 - 4)
-0.173287
2.29253 (3/15/2000) 3.09104 (10/26/1995) (2.29253 - 3.09104)/(13 - 4)
-0.0887231
ND<0 (9/24/2003) 3.09104 (10/26/1995) (0 - 3.09104)/(14 - 4)
-0.309104
ND<0 (3/11/2004) 3.09104 (10/26/1995) (0 - 3.09104)/(15 - 4)
-0.281004
ND<0 (10/12/2004) 3.09104 (10/26/1995) (0 - 3.09104)/(16 - 4)
-0.257587
1.35067 (4/1/2005) 3.09104 (10/26/1995) (1.35067 - 3.09104)/(17 - 4)
-0.133875
0.779325 (10/25/2005) 3.09104 (10/26/1995) (0.779325 - 3.09104)/(18 - 4)
-0.165123
0.518794 J (4/29/2006) 3.09104 (10/26/1995) (0.518794 - 3.09104)/(19 - 4)
-0.171483
0.727549 (11/18/2006) 3.09104 (10/26/1995) (0.727549 - 3.09104)/(20 - 4)
-0.147718
ND<0 (5/23/2007) 3.09104 (10/26/1995) (0 - 3.09104)/(21 - 4)
-0.181826
1.39872 (11/28/2007) 3.09104 (10/26/1995) (1.39872 - 3.09104)/(22 - 4)
-0.0940181
ND<0 (6/5/2008) 3.09104 (10/26/1995) (0 - 3.09104)/(23 - 4)
-0.162686
-0.579818 J (11/20/2008) 3.09104 (10/26/1995) (-0.579818 - 3.09104)/(24 - 4)
-0.183543
1.06471 (6/11/2009) 3.09104 (10/26/1995) (1.06471 - 3.09104)/(25 - 4)
-0.096492
-0.867501 J (11/16/2009) 3.09104 (10/26/1995) (-0.867501 - 3.09104)/(26 - 4)
-0.179934
1.06471 (6/30/2010) 3.09104 (10/26/1995) (1.06471 - 3.09104)/(27 - 4)
-0.0881014
ND<-2.07944 U (11/12/2010) 3.09104 (10/26/1995) (-2.07944 - 3.09104)/(28 - 4)
-0.215437
-0.891598 J (7/5/2011) 3.09104 (10/26/1995) (-0.891598 - 3.09104)/(29 - 4)
-0.159306
ND<-2.07944 U (11/22/2011) 3.09104 (10/26/1995) (-2.07944 - 3.09104)/(30 - 4)
-0.198865
ND<-2.07944 U (11/22/2011) 3.09104 (10/26/1995) (-2.07944 - 3.09104)/(30 - 4)
-0.198865

2.94444 (12/19/1996) ND<0 (11/19/1996) (2.94444 - 0)/(6 - 5) 2.94444
ND<0 (3/24/1997) ND<0 (11/19/1996) (0 - 0)/(7 - 5) 0
1.62924 (9/24/1997) ND<0 (11/19/1996) (1.62924 - 0)/(8 - 5) 0.54308
2.12823 (4/7/1998) ND<0 (11/19/1996) (2.12823 - 0)/(9 - 5)
0.532058
2.56495 (9/23/1998) ND<0 (11/19/1996) (2.56495 - 0)/(10 - 5) 0.51299
2.37955 (3/16/1999) ND<0 (11/19/1996) (2.37955 - 0)/(11 - 5)
0.396591
1.70475 (9/23/1999) ND<0 (11/19/1996) (1.70475 - 0)/(12 - 5)
0.243535
2.29253 (3/15/2000) ND<0 (11/19/1996) (2.29253 - 0)/(13 - 5)
0.286567
ND<0 (9/24/2003) ND<0 (11/19/1996) (0 - 0)/(14 - 5) 0
ND<0 (3/11/2004) ND<0 (11/19/1996) (0 - 0)/(15 - 5) 0
ND<0 (10/12/2004) ND<0 (11/19/1996) (0 - 0)/(16 - 5) 0
1.35067 (4/1/2005) ND<0 (11/19/1996) (1.35067 - 0)/(17 - 5)
0.112556

0.779325 (10/25/2005)	ND<0 (11/19/1996)	(0.779325 - 0)/(18 - 5)		
0.0599481				
0.518794 J (4/29/2006)	ND<0 (11/19/1996)	(0.518794 - 0)/(19 - 5)		
0.0370567				
0.727549 (11/18/2006)	ND<0 (11/19/1996)	(0.727549 - 0)/(20 - 5)		
0.0485032				
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
1.39872 (11/28/2007)	ND<0 (11/19/1996)	(1.39872 - 0)/(22 - 5)		
0.0822775				
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0	
-0.579818 J (11/20/2008)	ND<0 (11/19/1996)	(-0.579818 - 0)/(24 - 5)		
-0.0305168				
1.06471 (6/11/2009)	ND<0 (11/19/1996)	(1.06471 - 0)/(25 - 5)		
0.0532355				
-0.867501 J (11/16/2009)	ND<0 (11/19/1996)	(-0.867501 - 0)/(26 - 5)		
-0.0413096				
1.06471 (6/30/2010)	ND<0 (11/19/1996)	(1.06471 - 0)/(27 - 5)		
0.0483959				
ND<-2.07944 U (11/12/2010)	ND<0 (11/19/1996)	(-2.07944 - 0)/(28 - 5)		
-0.0904105				
-0.891598 J (7/5/2011)	ND<0 (11/19/1996)	(-0.891598 - 0)/(29 - 5)		
-0.0371499				
ND<-2.07944 U (11/22/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(30 - 5)		
-0.0831777				
ND<-2.07944 U (11/22/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(30 - 5)		
-0.0831777				
ND<0 (3/24/1997)	2.94444 (12/19/1996)	(0 - 2.94444)/(7 - 6)		-2.94444
1.62924 (9/24/1997)	2.94444 (12/19/1996)	(1.62924 - 2.94444)/(8 - 6)		
-0.657599				
2.12823 (4/7/1998)	2.94444 (12/19/1996)	(2.12823 - 2.94444)/(9 - 6)		
-0.272069				
2.56495 (9/23/1998)	2.94444 (12/19/1996)	(2.56495 - 2.94444)/(10 - 6)		
-0.0948724				
2.37955 (3/16/1999)	2.94444 (12/19/1996)	(2.37955 - 2.94444)/(11 - 6)		
-0.112979				
1.70475 (9/23/1999)	2.94444 (12/19/1996)	(1.70475 - 2.94444)/(12 - 6)		
-0.206615				
2.29253 (3/15/2000)	2.94444 (12/19/1996)	(2.29253 - 2.94444)/(13 - 6)		
-0.0931292				
ND<0 (9/24/2003)	2.94444 (12/19/1996)	(0 - 2.94444)/(14 - 6)		
-0.368055				
ND<0 (3/11/2004)	2.94444 (12/19/1996)	(0 - 2.94444)/(15 - 6)		-0.32716
ND<0 (10/12/2004)	2.94444 (12/19/1996)	(0 - 2.94444)/(16 - 6)		
-0.294444				
1.35067 (4/1/2005)	2.94444 (12/19/1996)	(1.35067 - 2.94444)/(17 - 6)		
-0.144888				
0.779325 (10/25/2005)	2.94444 (12/19/1996)	(0.779325 - 2.94444)/(18 - 6)		
-0.180426				
0.518794 J (4/29/2006)	2.94444 (12/19/1996)	(0.518794 - 2.94444)/(19 - 6)		
-0.186588				
0.727549 (11/18/2006)	2.94444 (12/19/1996)	(0.727549 - 2.94444)/(20 - 6)		
-0.158349				
ND<0 (5/23/2007)	2.94444 (12/19/1996)	(0 - 2.94444)/(21 - 6)		
-0.196296				
1.39872 (11/28/2007)	2.94444 (12/19/1996)	(1.39872 - 2.94444)/(22 - 6)		
-0.0966076				
ND<0 (6/5/2008)	2.94444 (12/19/1996)	(0 - 2.94444)/(23 - 6)		
-0.173202				
-0.579818 J (11/20/2008)	2.94444 (12/19/1996)	(-0.579818 - 2.94444)/(24 - 6)		
-0.195792				

1.06471 (6/11/2009)	2.94444 (12/19/1996)	(1.06471 - 2.94444)/(25 - 6)	-0.0989331
-0.867501 J (11/16/2009)	2.94444 (12/19/1996)	(-0.867501 - 2.94444)/(26 - 6)	-0.190597
1.06471 (6/30/2010)	2.94444 (12/19/1996)	(1.06471 - 2.94444)/(27 - 6)	-0.0895109
ND<-2.07944 U (11/12/2010)	2.94444 (12/19/1996)	(-2.07944 - 2.94444)/(28 - 6)	-0.228358
-0.891598 J (7/5/2011)	2.94444 (12/19/1996)	(-0.891598 - 2.94444)/(29 - 6)	-0.166784
ND<-2.07944 U (11/22/2011)	2.94444 (12/19/1996)	(-2.07944 - 2.94444)/(30 - 6)	-0.209328
ND<-2.07944 U (11/22/2011)	2.94444 (12/19/1996)	(-2.07944 - 2.94444)/(30 - 6)	-0.209328

1.62924 (9/24/1997)	ND<0 (3/24/1997)	(1.62924 - 0)/(8 - 7)		1.62924
2.12823 (4/7/1998)	ND<0 (3/24/1997)	(2.12823 - 0)/(9 - 7)		1.06412
2.56495 (9/23/1998)	ND<0 (3/24/1997)	(2.56495 - 0)/(10 - 7)		0.854983
2.37955 (3/16/1999)	ND<0 (3/24/1997)	(2.37955 - 0)/(11 - 7)		0.594887
1.70475 (9/23/1999)	ND<0 (3/24/1997)	(1.70475 - 0)/(12 - 7)		0.34095
2.29253 (3/15/2000)	ND<0 (3/24/1997)	(2.29253 - 0)/(13 - 7)		0.382089
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0	
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0	
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0	
1.35067 (4/1/2005)	ND<0 (3/24/1997)	(1.35067 - 0)/(17 - 7)		0.135067
0.779325 (10/25/2005)	ND<0 (3/24/1997)	(0.779325 - 0)/(18 - 7)		0.0708477
0.518794 J (4/29/2006)	ND<0 (3/24/1997)	(0.518794 - 0)/(19 - 7)		0.0432328
0.727549 (11/18/2006)	ND<0 (3/24/1997)	(0.727549 - 0)/(20 - 7)		0.0559653
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0	
1.39872 (11/28/2007)	ND<0 (3/24/1997)	(1.39872 - 0)/(22 - 7)		0.0932478
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0	
-0.579818 J (11/20/2008)	ND<0 (3/24/1997)	(-0.579818 - 0)/(24 - 7)		-0.034107
1.06471 (6/11/2009)	ND<0 (3/24/1997)	(1.06471 - 0)/(25 - 7)		0.0591506
-0.867501 J (11/16/2009)	ND<0 (3/24/1997)	(-0.867501 - 0)/(26 - 7)		-0.0456579
1.06471 (6/30/2010)	ND<0 (3/24/1997)	(1.06471 - 0)/(27 - 7)		0.0532355
ND<-2.07944 U (11/12/2010)	ND<0 (3/24/1997)	(-2.07944 - 0)/(28 - 7)		-0.099021
-0.891598 J (7/5/2011)	ND<0 (3/24/1997)	(-0.891598 - 0)/(29 - 7)		-0.0405272
ND<-2.07944 U (11/22/2011)	ND<0 (3/24/1997)	(-2.07944 - 0)/(30 - 7)		-0.0904105
ND<-2.07944 U (11/22/2011)	ND<0 (3/24/1997)	(-2.07944 - 0)/(30 - 7)		-0.0904105

2.12823 (4/7/1998)	1.62924 (9/24/1997)	(2.12823 - 1.62924)/(9 - 8)	0.498991
2.56495 (9/23/1998)	1.62924 (9/24/1997)	(2.56495 - 1.62924)/(10 - 8)	0.467854
2.37955 (3/16/1999)	1.62924 (9/24/1997)	(2.37955 - 1.62924)/(11 - 8)	0.250102

1.70475 (9/23/1999)	1.62924 (9/24/1997)	(1.70475 - 1.62924)/(12 - 8)		0.0188769
2.29253 (3/15/2000)	1.62924 (9/24/1997)	(2.29253 - 1.62924)/(13 - 8)		0.132659
ND<0 (9/24/2003)	1.62924 (9/24/1997)	(0 - 1.62924)/(14 - 8)	-0.27154	
ND<0 (3/11/2004)	1.62924 (9/24/1997)	(0 - 1.62924)/(15 - 8)		-0.232749
ND<0 (10/12/2004)	1.62924 (9/24/1997)	(0 - 1.62924)/(16 - 8)		-0.203655
1.35067 (4/1/2005)	1.62924 (9/24/1997)	(1.35067 - 1.62924)/(17 - 8)		-0.0309526
0.779325 (10/25/2005)	1.62924 (9/24/1997)	(0.779325 - 1.62924)/(18 - 8)		-0.0849916
0.518794 J (4/29/2006)	1.62924 (9/24/1997)	(0.518794 - 1.62924)/(19 - 8)		-0.10095
0.727549 (11/18/2006)	1.62924 (9/24/1997)	(0.727549 - 1.62924)/(20 - 8)		-0.075141
ND<0 (5/23/2007)	1.62924 (9/24/1997)	(0 - 1.62924)/(21 - 8)		-0.125326
1.39872 (11/28/2007)	1.62924 (9/24/1997)	(1.39872 - 1.62924)/(22 - 8)		-0.016466
ND<0 (6/5/2008)	1.62924 (9/24/1997)	(0 - 1.62924)/(23 - 8)		-0.108616
-0.579818 J (11/20/2008)	1.62924 (9/24/1997)	(-0.579818 - 1.62924)/(24 - 8)		-0.138066
1.06471 (6/11/2009)	1.62924 (9/24/1997)	(1.06471 - 1.62924)/(25 - 8)		-0.0332076
-0.867501 J (11/16/2009)	1.62924 (9/24/1997)	(-0.867501 - 1.62924)/(26 - 8)		-0.138708
1.06471 (6/30/2010)	1.62924 (9/24/1997)	(1.06471 - 1.62924)/(27 - 8)		-0.0297121
ND<-2.07944 U (11/12/2010)	1.62924 (9/24/1997)	(-2.07944 - 1.62924)/(28 - 8)		-0.185434
-0.891598 J (7/5/2011)	1.62924 (9/24/1997)	(-0.891598 - 1.62924)/(29 - 8)		-0.12004
ND<-2.07944 U (11/22/2011)	1.62924 (9/24/1997)	(-2.07944 - 1.62924)/(30 - 8)		-0.168576
ND<-2.07944 U (11/22/2011)	1.62924 (9/24/1997)	(-2.07944 - 1.62924)/(30 - 8)		-0.168576
2.56495 (9/23/1998)	2.12823 (4/7/1998)	(2.56495 - 2.12823)/(10 - 9)		0.436718
2.37955 (3/16/1999)	2.12823 (4/7/1998)	(2.37955 - 2.12823)/(11 - 9)		0.125657
1.70475 (9/23/1999)	2.12823 (4/7/1998)	(1.70475 - 2.12823)/(12 - 9)		-0.141161
2.29253 (3/15/2000)	2.12823 (4/7/1998)	(2.29253 - 2.12823)/(13 - 9)		0.0410758
ND<0 (9/24/2003)	2.12823 (4/7/1998)	(0 - 2.12823)/(14 - 9)		-0.425646
ND<0 (3/11/2004)	2.12823 (4/7/1998)	(0 - 2.12823)/(15 - 9)		-0.354705
ND<0 (10/12/2004)	2.12823 (4/7/1998)	(0 - 2.12823)/(16 - 9)		-0.304033
1.35067 (4/1/2005)	2.12823 (4/7/1998)	(1.35067 - 2.12823)/(17 - 9)		-0.0971956
0.779325 (10/25/2005)	2.12823 (4/7/1998)	(0.779325 - 2.12823)/(18 - 9)		-0.149879
0.518794 J (4/29/2006)	2.12823 (4/7/1998)	(0.518794 - 2.12823)/(19 - 9)		-0.160944
0.727549 (11/18/2006)	2.12823 (4/7/1998)	(0.727549 - 2.12823)/(20 - 9)		-0.127335

ND<0 (5/23/2007) 2.12823 (4/7/1998) (0 - 2.12823)/(21 - 9)
-0.177353
1.39872 (11/28/2007) 2.12823 (4/7/1998) (1.39872 - 2.12823)/(22 - 9)
-0.0561165
ND<0 (6/5/2008) 2.12823 (4/7/1998) (0 - 2.12823)/(23 - 9)
-0.152017
-0.579818 J (11/20/2008) 2.12823 (4/7/1998) (-0.579818 - 2.12823)/(24 - 9)
-0.180537
1.06471 (6/11/2009) 2.12823 (4/7/1998) (1.06471 - 2.12823)/(25 - 9)
-0.0664701
-0.867501 J (11/16/2009) 2.12823 (4/7/1998) (-0.867501 - 2.12823)/(26 - 9)
-0.17622
1.06471 (6/30/2010) 2.12823 (4/7/1998) (1.06471 - 2.12823)/(27 - 9)
-0.0590845
ND<-2.07944 U (11/12/2010) 2.12823 (4/7/1998) (-2.07944 - 2.12823)/(28 - 9)
-0.221456
-0.891598 J (7/5/2011) 2.12823 (4/7/1998) (-0.891598 - 2.12823)/(29 - 9)
-0.150991
ND<-2.07944 U (11/22/2011) 2.12823 (4/7/1998) (-2.07944 - 2.12823)/(30 - 9)
-0.200365
ND<-2.07944 U (11/22/2011) 2.12823 (4/7/1998) (-2.07944 - 2.12823)/(30 - 9)
-0.200365

2.37955 (3/16/1999) 2.56495 (9/23/1998) (2.37955 - 2.56495)/(11 - 10)
-0.185403
1.70475 (9/23/1999) 2.56495 (9/23/1998) (1.70475 - 2.56495)/(12 - 10)
-0.430101
2.29253 (3/15/2000) 2.56495 (9/23/1998) (2.29253 - 2.56495)/(13 - 10)
-0.0908049
ND<0 (9/24/2003) 2.56495 (9/23/1998) (0 - 2.56495)/(14 - 10)
-0.641237
ND<0 (3/11/2004) 2.56495 (9/23/1998) (0 - 2.56495)/(15 - 10) -0.51299
ND<0 (10/12/2004) 2.56495 (9/23/1998) (0 - 2.56495)/(16 - 10)
-0.427492
1.35067 (4/1/2005) 2.56495 (9/23/1998) (1.35067 - 2.56495)/(17 - 10)
-0.173469
0.779325 (10/25/2005) 2.56495 (9/23/1998) (0.779325 - 2.56495)/(18 - 10)
-0.223203
0.518794 J (4/29/2006) 2.56495 (9/23/1998) (0.518794 - 2.56495)/(19 - 10)
-0.227351
0.727549 (11/18/2006) 2.56495 (9/23/1998) (0.727549 - 2.56495)/(20 - 10)
-0.18374
ND<0 (5/23/2007) 2.56495 (9/23/1998) (0 - 2.56495)/(21 - 10)
-0.233177
1.39872 (11/28/2007) 2.56495 (9/23/1998) (1.39872 - 2.56495)/(22 - 10)
-0.097186
ND<0 (6/5/2008) 2.56495 (9/23/1998) (0 - 2.56495)/(23 - 10)
-0.197304
-0.579818 J (11/20/2008) 2.56495 (9/23/1998) (-0.579818 - 2.56495)/(24 - 10)
-0.224626
1.06471 (6/11/2009) 2.56495 (9/23/1998) (1.06471 - 2.56495)/(25 - 10)
-0.100016
-0.867501 J (11/16/2009) 2.56495 (9/23/1998) (-0.867501 - 2.56495)/(26 - 10)
-0.214528
1.06471 (6/30/2010) 2.56495 (9/23/1998) (1.06471 - 2.56495)/(27 - 10)
-0.0882493
ND<-2.07944 U (11/12/2010) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(28 - 10)
-0.258022
-0.891598 J (7/5/2011) 2.56495 (9/23/1998) (-0.891598 - 2.56495)/(29 - 10)
-0.181924
ND<-2.07944 U (11/22/2011) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(30 - 10)
-0.23222

ND<-2.07944 U (11/22/2011) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(30 - 10)
-0.23222

1.70475 (9/23/1999) 2.37955 (3/16/1999) (1.70475 - 2.37955)/(12 - 11)
-0.674798
2.29253 (3/15/2000) 2.37955 (3/16/1999) (2.29253 - 2.37955)/(13 - 11)
-0.0435057
ND<0 (9/24/2003) 2.37955 (3/16/1999) (0 - 2.37955)/(14 - 11)
-0.793182
ND<0 (3/11/2004) 2.37955 (3/16/1999) (0 - 2.37955)/(15 - 11)
-0.594887
ND<0 (10/12/2004) 2.37955 (3/16/1999) (0 - 2.37955)/(16 - 11)
-0.475909
1.35067 (4/1/2005) 2.37955 (3/16/1999) (1.35067 - 2.37955)/(17 - 11)
-0.17148
0.779325 (10/25/2005) 2.37955 (3/16/1999) (0.779325 - 2.37955)/(18 - 11)
-0.228603
0.518794 J (4/29/2006) 2.37955 (3/16/1999) (0.518794 - 2.37955)/(19 - 11)
-0.232594
0.727549 (11/18/2006) 2.37955 (3/16/1999) (0.727549 - 2.37955)/(20 - 11)
-0.183555
ND<0 (5/23/2007) 2.37955 (3/16/1999) (0 - 2.37955)/(21 - 11)
-0.237955
1.39872 (11/28/2007) 2.37955 (3/16/1999) (1.39872 - 2.37955)/(22 - 11)
-0.0891663
ND<0 (6/5/2008) 2.37955 (3/16/1999) (0 - 2.37955)/(23 - 11)
-0.198296
-0.579818 J (11/20/2008) 2.37955 (3/16/1999) (-0.579818 - 2.37955)/(24 - 11)
-0.227643
1.06471 (6/11/2009) 2.37955 (3/16/1999) (1.06471 - 2.37955)/(25 - 11)
-0.0939168
-0.867501 J (11/16/2009) 2.37955 (3/16/1999) (-0.867501 - 2.37955)/(26 - 11)
-0.21647
1.06471 (6/30/2010) 2.37955 (3/16/1999) (1.06471 - 2.37955)/(27 - 11)
-0.0821772
ND<-2.07944 U (11/12/2010) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(28 - 11)
-0.262293
-0.891598 J (7/5/2011) 2.37955 (3/16/1999) (-0.891598 - 2.37955)/(29 - 11)
-0.18173
ND<-2.07944 U (11/22/2011) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(30 - 11)
-0.234684
ND<-2.07944 U (11/22/2011) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(30 - 11)
-0.234684

2.29253 (3/15/2000) 1.70475 (9/23/1999) (2.29253 - 1.70475)/(13 - 12)
0.587787
ND<0 (9/24/2003) 1.70475 (9/23/1999) (0 - 1.70475)/(14 - 12)
-0.852374
ND<0 (3/11/2004) 1.70475 (9/23/1999) (0 - 1.70475)/(15 - 12)
-0.568249
ND<0 (10/12/2004) 1.70475 (9/23/1999) (0 - 1.70475)/(16 - 12)
-0.426187
1.35067 (4/1/2005) 1.70475 (9/23/1999) (1.35067 - 1.70475)/(17 - 12)
-0.0708162
0.779325 (10/25/2005) 1.70475 (9/23/1999) (0.779325 - 1.70475)/(18 - 12)
-0.154237
0.518794 J (4/29/2006) 1.70475 (9/23/1999) (0.518794 - 1.70475)/(19 - 12)
-0.169422
0.727549 (11/18/2006) 1.70475 (9/23/1999) (0.727549 - 1.70475)/(20 - 12)
-0.12215
ND<0 (5/23/2007) 1.70475 (9/23/1999) (0 - 1.70475)/(21 - 12)
-0.189416

1.39872 (11/28/2007)	1.70475 (9/23/1999)	(1.39872 - 1.70475)/(22 - 12)	
-0.0306031			
ND<0 (6/5/2008)	1.70475 (9/23/1999)	(0 - 1.70475)/(23 - 12)	
-0.154977			
-0.579818 J (11/20/2008)	1.70475 (9/23/1999)	(-0.579818 - 1.70475)/(24 - 12)	
-0.190381			
1.06471 (6/11/2009)	1.70475 (9/23/1999)	(1.06471 - 1.70475)/(25 - 12)	
-0.0492336			
-0.867501 J (11/16/2009)	1.70475 (9/23/1999)	(-0.867501 - 1.70475)/(26 - 12)	
-0.183732			
1.06471 (6/30/2010)	1.70475 (9/23/1999)	(1.06471 - 1.70475)/(27 - 12)	
-0.0426692			
ND<-2.07944 U (11/12/2010)	1.70475 (9/23/1999)	(-2.07944 - 1.70475)/(28 - 12)	
-0.236512			
-0.891598 J (7/5/2011)	1.70475 (9/23/1999)	(-0.891598 - 1.70475)/(29 - 12)	
-0.152726			
ND<-2.07944 U (11/22/2011)	1.70475 (9/23/1999)	(-2.07944 - 1.70475)/(30 - 12)	
-0.210233			
ND<-2.07944 U (11/22/2011)	1.70475 (9/23/1999)	(-2.07944 - 1.70475)/(30 - 12)	
-0.210233			
ND<0 (9/24/2003)	2.29253 (3/15/2000)	(0 - 2.29253)/(14 - 13)	-2.29253
ND<0 (3/11/2004)	2.29253 (3/15/2000)	(0 - 2.29253)/(15 - 13)	-1.14627
ND<0 (10/12/2004)	2.29253 (3/15/2000)	(0 - 2.29253)/(16 - 13)	
-0.764178			
1.35067 (4/1/2005)	2.29253 (3/15/2000)	(1.35067 - 2.29253)/(17 - 13)	
-0.235467			
0.779325 (10/25/2005)	2.29253 (3/15/2000)	(0.779325 - 2.29253)/(18 - 13)	
-0.302642			
0.518794 J (4/29/2006)	2.29253 (3/15/2000)	(0.518794 - 2.29253)/(19 - 13)	
-0.295623			
0.727549 (11/18/2006)	2.29253 (3/15/2000)	(0.727549 - 2.29253)/(20 - 13)	
-0.223569			
ND<0 (5/23/2007)	2.29253 (3/15/2000)	(0 - 2.29253)/(21 - 13)	
-0.286567			
1.39872 (11/28/2007)	2.29253 (3/15/2000)	(1.39872 - 2.29253)/(22 - 13)	
-0.0993131			
ND<0 (6/5/2008)	2.29253 (3/15/2000)	(0 - 2.29253)/(23 - 13)	
-0.229253			
-0.579818 J (11/20/2008)	2.29253 (3/15/2000)	(-0.579818 - 2.29253)/(24 - 13)	
-0.261123			
1.06471 (6/11/2009)	2.29253 (3/15/2000)	(1.06471 - 2.29253)/(25 - 13)	
-0.102319			
-0.867501 J (11/16/2009)	2.29253 (3/15/2000)	(-0.867501 - 2.29253)/(26 - 13)	
-0.24308			
1.06471 (6/30/2010)	2.29253 (3/15/2000)	(1.06471 - 2.29253)/(27 - 13)	
-0.0877017			
ND<-2.07944 U (11/12/2010)	2.29253 (3/15/2000)	(-2.07944 - 2.29253)/(28 - 13)	
-0.291465			
-0.891598 J (7/5/2011)	2.29253 (3/15/2000)	(-0.891598 - 2.29253)/(29 - 13)	
-0.199008			
ND<-2.07944 U (11/22/2011)	2.29253 (3/15/2000)	(-2.07944 - 2.29253)/(30 - 13)	
-0.257175			
ND<-2.07944 U (11/22/2011)	2.29253 (3/15/2000)	(-2.07944 - 2.29253)/(30 - 13)	
-0.257175			
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0
1.35067 (4/1/2005)	ND<0 (9/24/2003)	(1.35067 - 0)/(17 - 14)	
0.450222			
0.779325 (10/25/2005)	ND<0 (9/24/2003)	(0.779325 - 0)/(18 - 14)	
0.194831			

0.518794 J (4/29/2006)	ND<0 (9/24/2003)	(0.518794 - 0)/(19 - 14)		
0.103759				
0.727549 (11/18/2006)	ND<0 (9/24/2003)	(0.727549 - 0)/(20 - 14)		
0.121258				
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0	
1.39872 (11/28/2007)	ND<0 (9/24/2003)	(1.39872 - 0)/(22 - 14)		0.17484
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0	
-0.579818 J (11/20/2008)	ND<0 (9/24/2003)	(-0.579818 - 0)/(24 - 14)		
-0.0579818				
1.06471 (6/11/2009)	ND<0 (9/24/2003)	(1.06471 - 0)/(25 - 14)		
0.0967919				
-0.867501 J (11/16/2009)	ND<0 (9/24/2003)	(-0.867501 - 0)/(26 - 14)		
-0.0722917				
1.06471 (6/30/2010)	ND<0 (9/24/2003)	(1.06471 - 0)/(27 - 14)		
0.0819008				
ND<-2.07944 U (11/12/2010)	ND<0 (9/24/2003)	(-2.07944 - 0)/(28 - 14)		
-0.148532				
-0.891598 J (7/5/2011)	ND<0 (9/24/2003)	(-0.891598 - 0)/(29 - 14)		
-0.0594399				
ND<-2.07944 U (11/22/2011)	ND<0 (9/24/2003)	(-2.07944 - 0)/(30 - 14)		
-0.129965				
ND<-2.07944 U (11/22/2011)	ND<0 (9/24/2003)	(-2.07944 - 0)/(30 - 14)		
-0.129965				
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0	
1.35067 (4/1/2005)	ND<0 (3/11/2004)	(1.35067 - 0)/(17 - 15)		
0.675334				
0.779325 (10/25/2005)	ND<0 (3/11/2004)	(0.779325 - 0)/(18 - 15)		
0.259775				
0.518794 J (4/29/2006)	ND<0 (3/11/2004)	(0.518794 - 0)/(19 - 15)		
0.129698				
0.727549 (11/18/2006)	ND<0 (3/11/2004)	(0.727549 - 0)/(20 - 15)		0.14551
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0	
1.39872 (11/28/2007)	ND<0 (3/11/2004)	(1.39872 - 0)/(22 - 15)		
0.199817				
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0	
-0.579818 J (11/20/2008)	ND<0 (3/11/2004)	(-0.579818 - 0)/(24 - 15)		
-0.0644243				
1.06471 (6/11/2009)	ND<0 (3/11/2004)	(1.06471 - 0)/(25 - 15)		
0.106471				
-0.867501 J (11/16/2009)	ND<0 (3/11/2004)	(-0.867501 - 0)/(26 - 15)		
-0.0788637				
1.06471 (6/30/2010)	ND<0 (3/11/2004)	(1.06471 - 0)/(27 - 15)		
0.0887259				
ND<-2.07944 U (11/12/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(28 - 15)		
-0.159957				
-0.891598 J (7/5/2011)	ND<0 (3/11/2004)	(-0.891598 - 0)/(29 - 15)		
-0.0636856				
ND<-2.07944 U (11/22/2011)	ND<0 (3/11/2004)	(-2.07944 - 0)/(30 - 15)		
-0.138629				
ND<-2.07944 U (11/22/2011)	ND<0 (3/11/2004)	(-2.07944 - 0)/(30 - 15)		
-0.138629				
1.35067 (4/1/2005)	ND<0 (10/12/2004)	(1.35067 - 0)/(17 - 16)		1.35067
0.779325 (10/25/2005)	ND<0 (10/12/2004)	(0.779325 - 0)/(18 - 16)		
0.389662				
0.518794 J (4/29/2006)	ND<0 (10/12/2004)	(0.518794 - 0)/(19 - 16)		
0.172931				
0.727549 (11/18/2006)	ND<0 (10/12/2004)	(0.727549 - 0)/(20 - 16)		
0.181887				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	

1.39872 (11/28/2007)	ND<0 (10/12/2004)	(1.39872 - 0)/(22 - 16)	0.233119
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0
-0.579818 J (11/20/2008)	ND<0 (10/12/2004)	(-0.579818 - 0)/(24 - 16)	-0.0724773
1.06471 (6/11/2009)	ND<0 (10/12/2004)	(1.06471 - 0)/(25 - 16)	0.118301
-0.867501 J (11/16/2009)	ND<0 (10/12/2004)	(-0.867501 - 0)/(26 - 16)	-0.0867501
1.06471 (6/30/2010)	ND<0 (10/12/2004)	(1.06471 - 0)/(27 - 16)	0.0967919
ND<-2.07944 U (11/12/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(28 - 16)	-0.173287
-0.891598 J (7/5/2011)	ND<0 (10/12/2004)	(-0.891598 - 0)/(29 - 16)	-0.0685845
ND<-2.07944 U (11/22/2011)	ND<0 (10/12/2004)	(-2.07944 - 0)/(30 - 16)	-0.148532
ND<-2.07944 U (11/22/2011)	ND<0 (10/12/2004)	(-2.07944 - 0)/(30 - 16)	-0.148532

0.779325 (10/25/2005)	1.35067 (4/1/2005)	(0.779325 - 1.35067)/(18 - 17)	-0.571342
0.518794 J (4/29/2006)	1.35067 (4/1/2005)	(0.518794 - 1.35067)/(19 - 17)	-0.415937
0.727549 (11/18/2006)	1.35067 (4/1/2005)	(0.727549 - 1.35067)/(20 - 17)	-0.207706
ND<0 (5/23/2007)	1.35067 (4/1/2005)	(0 - 1.35067)/(21 - 17)	-0.337667
1.39872 (11/28/2007)	1.35067 (4/1/2005)	(1.39872 - 1.35067)/(22 - 17)	0.00960994
ND<0 (6/5/2008)	1.35067 (4/1/2005)	(0 - 1.35067)/(23 - 17)	-0.225111
-0.579818 J (11/20/2008)	1.35067 (4/1/2005)	(-0.579818 - 1.35067)/(24 - 17)	-0.275784
1.06471 (6/11/2009)	1.35067 (4/1/2005)	(1.06471 - 1.35067)/(25 - 17)	-0.0357446
-0.867501 J (11/16/2009)	1.35067 (4/1/2005)	(-0.867501 - 1.35067)/(26 - 17)	-0.246463
1.06471 (6/30/2010)	1.35067 (4/1/2005)	(1.06471 - 1.35067)/(27 - 17)	-0.0285956
ND<-2.07944 U (11/12/2010)	1.35067 (4/1/2005)	(-2.07944 - 1.35067)/(28 - 17)	-0.311828
-0.891598 J (7/5/2011)	1.35067 (4/1/2005)	(-0.891598 - 1.35067)/(29 - 17)	-0.186855
ND<-2.07944 U (11/22/2011)	1.35067 (4/1/2005)	(-2.07944 - 1.35067)/(30 - 17)	-0.263855
ND<-2.07944 U (11/22/2011)	1.35067 (4/1/2005)	(-2.07944 - 1.35067)/(30 - 17)	-0.263855

0.518794 J (4/29/2006)	0.779325 (10/25/2005)	(0.518794 - 0.779325)/(19 - 18)	-0.260531
0.727549 (11/18/2006)	0.779325 (10/25/2005)	(0.727549 - 0.779325)/(20 - 18)	-0.0258881
ND<0 (5/23/2007)	0.779325 (10/25/2005)	(0 - 0.779325)/(21 - 18)	-0.259775
1.39872 (11/28/2007)	0.779325 (10/25/2005)	(1.39872 - 0.779325)/(22 - 18)	0.154848
ND<0 (6/5/2008)	0.779325 (10/25/2005)	(0 - 0.779325)/(23 - 18)	-0.155865
-0.579818 J (11/20/2008)	0.779325 (10/25/2005)	(-0.579818 - 0.779325)/(24 - 18)	-0.226524

1.06471 (6/11/2009) 0.779325 (10/25/2005) (1.06471 - 0.779325)/(25 - 18)
0.0407694
-0.867501 J (11/16/2009) 0.779325 (10/25/2005) (-0.867501 - 0.779325)/(26 - 18)
-0.205853
1.06471 (6/30/2010) 0.779325 (10/25/2005) (1.06471 - 0.779325)/(27 - 18)
0.0317095
ND<-2.07944 U (11/12/2010) 0.779325 (10/25/2005) (-2.07944 - 0.779325)/(28 - 18)
-0.285877
-0.891598 J (7/5/2011) 0.779325 (10/25/2005) (-0.891598 - 0.779325)/(29 - 18)
-0.151902
ND<-2.07944 U (11/22/2011) 0.779325 (10/25/2005) (-2.07944 - 0.779325)/(30 - 18)
-0.238231
ND<-2.07944 U (11/22/2011) 0.779325 (10/25/2005) (-2.07944 - 0.779325)/(30 - 18)
-0.238231

0.727549 (11/18/2006) 0.518794 J (4/29/2006) (0.727549 - 0.518794)/(20 - 19)
0.208755
ND<0 (5/23/2007) 0.518794 J (4/29/2006) (0 - 0.518794)/(21 - 19)
-0.259397
1.39872 (11/28/2007) 0.518794 J (4/29/2006) (1.39872 - 0.518794)/(22 - 19)
0.293308
ND<0 (6/5/2008) 0.518794 J (4/29/2006) (0 - 0.518794)/(23 - 19)
-0.129698
-0.579818 J (11/20/2008) 0.518794 J (4/29/2006) (-0.579818 - 0.518794)/(24 - 19)
-0.219722
1.06471 (6/11/2009) 0.518794 J (4/29/2006) (1.06471 - 0.518794)/(25 - 19)
0.0909862
-0.867501 J (11/16/2009) 0.518794 J (4/29/2006) (-0.867501 - 0.518794)/(26 - 19)
-0.198042
1.06471 (6/30/2010) 0.518794 J (4/29/2006) (1.06471 - 0.518794)/(27 - 19)
0.0682396
ND<-2.07944 U (11/12/2010) 0.518794 J (4/29/2006) (-2.07944 - 0.518794)/(28 - 19)
-0.288693
-0.891598 J (7/5/2011) 0.518794 J (4/29/2006) (-0.891598 - 0.518794)/(29 - 19)
-0.141039
ND<-2.07944 U (11/22/2011) 0.518794 J (4/29/2006) (-2.07944 - 0.518794)/(30 - 19)
-0.236203
ND<-2.07944 U (11/22/2011) 0.518794 J (4/29/2006) (-2.07944 - 0.518794)/(30 - 19)
-0.236203

ND<0 (5/23/2007) 0.727549 (11/18/2006) (0 - 0.727549)/(21 - 20)
-0.727549
1.39872 (11/28/2007) 0.727549 (11/18/2006) (1.39872 - 0.727549)/(22 - 20)
0.335584
ND<0 (6/5/2008) 0.727549 (11/18/2006) (0 - 0.727549)/(23 - 20)
-0.242516
-0.579818 J (11/20/2008) 0.727549 (11/18/2006) (-0.579818 - 0.727549)/(24 - 20)
-0.326842
1.06471 (6/11/2009) 0.727549 (11/18/2006) (1.06471 - 0.727549)/(25 - 20)
0.0674324
-0.867501 J (11/16/2009) 0.727549 (11/18/2006) (-0.867501 - 0.727549)/(26 - 20)
-0.265842
1.06471 (6/30/2010) 0.727549 (11/18/2006) (1.06471 - 0.727549)/(27 - 20)
0.048166
ND<-2.07944 U (11/12/2010) 0.727549 (11/18/2006) (-2.07944 - 0.727549)/(28 - 20)
-0.350874
-0.891598 J (7/5/2011) 0.727549 (11/18/2006) (-0.891598 - 0.727549)/(29 - 20)
-0.179905
ND<-2.07944 U (11/22/2011) 0.727549 (11/18/2006) (-2.07944 - 0.727549)/(30 - 20)
-0.280699
ND<-2.07944 U (11/22/2011) 0.727549 (11/18/2006) (-2.07944 - 0.727549)/(30 - 20)
-0.280699

1.39872 (11/28/2007) ND<0 (5/23/2007) (1.39872 - 0)/(22 - 21) 1.39872
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
-0.579818 J (11/20/2008) ND<0 (5/23/2007) (-0.579818 - 0)/(24 - 21)
-0.193273
1.06471 (6/11/2009) ND<0 (5/23/2007) (1.06471 - 0)/(25 - 21)
0.266178
-0.867501 J (11/16/2009) ND<0 (5/23/2007) (-0.867501 - 0)/(26 - 21) -0.1735
1.06471 (6/30/2010) ND<0 (5/23/2007) (1.06471 - 0)/(27 - 21)
0.177452
ND<-2.07944 U (11/12/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(28 - 21)
-0.297063
-0.891598 J (7/5/2011) ND<0 (5/23/2007) (-0.891598 - 0)/(29 - 21) -0.11145
ND<-2.07944 U (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(30 - 21)
-0.231049
ND<-2.07944 U (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(30 - 21)
-0.231049

ND<0 (6/5/2008) 1.39872 (11/28/2007) (0 - 1.39872)/(23 - 22) -1.39872
-0.579818 J (11/20/2008) 1.39872 (11/28/2007) (-0.579818 - 1.39872)/(24 - 22)
-0.989268
1.06471 (6/11/2009) 1.39872 (11/28/2007) (1.06471 - 1.39872)/(25 - 22)
-0.111335
-0.867501 J (11/16/2009) 1.39872 (11/28/2007) (-0.867501 - 1.39872)/(26 - 22)
-0.566554
1.06471 (6/30/2010) 1.39872 (11/28/2007) (1.06471 - 1.39872)/(27 - 22)
-0.0668012
ND<-2.07944 U (11/12/2010) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(28 - 22)
-0.579693
-0.891598 J (7/5/2011) 1.39872 (11/28/2007) (-0.891598 - 1.39872)/(29 - 22)
-0.327188
ND<-2.07944 U (11/22/2011) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(30 - 22)
-0.43477
ND<-2.07944 U (11/22/2011) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(30 - 22)
-0.43477

-0.579818 J (11/20/2008) ND<0 (6/5/2008) (-0.579818 - 0)/(24 - 23)
-0.579818
1.06471 (6/11/2009) ND<0 (6/5/2008) (1.06471 - 0)/(25 - 23)
0.532355
-0.867501 J (11/16/2009) ND<0 (6/5/2008) (-0.867501 - 0)/(26 - 23)
-0.289167
1.06471 (6/30/2010) ND<0 (6/5/2008) (1.06471 - 0)/(27 - 23)
0.266178
ND<-2.07944 U (11/12/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(28 - 23)
-0.415888
-0.891598 J (7/5/2011) ND<0 (6/5/2008) (-0.891598 - 0)/(29 - 23) -0.1486
ND<-2.07944 U (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063
ND<-2.07944 U (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063

1.06471 (6/11/2009) -0.579818 J (11/20/2008) (1.06471 - -0.579818)/(25 - 24)
1.64453
-0.867501 J (11/16/2009) -0.579818 J (11/20/2008) (-0.867501 - -0.579818)/(26 - 24)
-0.143841
1.06471 (6/30/2010) -0.579818 J (11/20/2008) (1.06471 - -0.579818)/(27 - 24)
0.548176
ND<-2.07944 U (11/12/2010) -0.579818 J (11/20/2008) (-2.07944 - -0.579818)/(28 - 24)
-0.374906
-0.891598 J (7/5/2011) -0.579818 J (11/20/2008) (-0.891598 - -0.579818)/(29 - 24)
-0.0623559

ND<-2.07944 U (11/22/2011) -0.579818 J (11/20/2008) (-2.07944 - -0.579818)/(30 - 24)
-0.249937
ND<-2.07944 U (11/22/2011) -0.579818 J (11/20/2008) (-2.07944 - -0.579818)/(30 - 24)
-0.249937

-0.867501 J (11/16/2009) 1.06471 (6/11/2009) (-0.867501 - 1.06471)/(26 - 25)
-1.93221
1.06471 (6/30/2010) 1.06471 (6/11/2009) (1.06471 - 1.06471)/(27 - 25)
0
ND<-2.07944 U (11/12/2010) 1.06471 (6/11/2009) (-2.07944 - 1.06471)/(28 - 25)
-1.04805
-0.891598 J (7/5/2011) 1.06471 (6/11/2009) (-0.891598 - 1.06471)/(29 - 25)
-0.489077
ND<-2.07944 U (11/22/2011) 1.06471 (6/11/2009) (-2.07944 - 1.06471)/(30 - 25)
-0.62883
ND<-2.07944 U (11/22/2011) 1.06471 (6/11/2009) (-2.07944 - 1.06471)/(30 - 25)
-0.62883

1.06471 (6/30/2010) -0.867501 J (11/16/2009) (1.06471 - -0.867501)/(27 - 26)
1.93221
ND<-2.07944 U (11/12/2010) -0.867501 J (11/16/2009) (-2.07944 - -0.867501)/(28 - 26)
-0.60597
-0.891598 J (7/5/2011) -0.867501 J (11/16/2009) (-0.891598 - -0.867501)/(29 - 26)
-0.00803252
ND<-2.07944 U (11/22/2011) -0.867501 J (11/16/2009) (-2.07944 - -0.867501)/(30 - 26)
-0.302985
ND<-2.07944 U (11/22/2011) -0.867501 J (11/16/2009) (-2.07944 - -0.867501)/(30 - 26)
-0.302985

ND<-2.07944 U (11/12/2010) 1.06471 (6/30/2010) (-2.07944 - 1.06471)/(28 - 27)
-3.14415
-0.891598 J (7/5/2011) 1.06471 (6/30/2010) (-0.891598 - 1.06471)/(29 - 27)
-0.978154
ND<-2.07944 U (11/22/2011) 1.06471 (6/30/2010) (-2.07944 - 1.06471)/(30 - 27)
-1.04805
ND<-2.07944 U (11/22/2011) 1.06471 (6/30/2010) (-2.07944 - 1.06471)/(30 - 27)
-1.04805

-0.891598 J (7/5/2011) ND<-2.07944 U (11/12/2010) (-0.891598 - -2.07944)/(29 - 28)
1.18784
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0

ND<-2.07944 U (11/22/2011) -0.891598 J (7/5/2011) (-2.07944 - -0.891598)/(30 - 29)
-1.18784
ND<-2.07944 U (11/22/2011) -0.891598 J (7/5/2011) (-2.07944 - -0.891598)/(30 - 29)
-1.18784

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-3.14415
2	-3.09104
3	-2.94444

4	-2.29253
5	-1.93221
6	-1.47222
7	-1.39872
8	-1.18784
9	-1.18784
10	-1.14627
11	-1.04805
12	-1.04805
13	-1.04805
14	-1.03035
15	-1.01484
16	-0.989268
17	-0.978154
18	-0.852374
19	-0.793182
20	-0.764178
21	-0.73611
22	-0.727549
23	-0.674798
24	-0.657599
25	-0.641237
26	-0.62883
27	-0.62883
28	-0.608904
29	-0.60597
30	-0.594887
31	-0.579818
32	-0.579693
33	-0.571342
34	-0.568249
35	-0.566554
36	-0.535017
37	-0.51299
38	-0.489077
39	-0.475909
40	-0.43477
41	-0.43477
42	-0.430101
43	-0.427492
44	-0.426187
45	-0.425646
46	-0.415937
47	-0.415888
48	-0.374906
49	-0.368055
50	-0.36545
51	-0.356678
52	-0.354705
53	-0.350874
54	-0.337667
55	-0.327188
56	-0.32716
57	-0.326842
58	-0.311828
59	-0.309104
60	-0.304033
61	-0.302985
62	-0.302985
63	-0.302642
64	-0.297063
65	-0.297063

66	-0.297063
67	-0.295623
68	-0.294444
69	-0.291465
70	-0.289167
71	-0.288693
72	-0.286567
73	-0.285877
74	-0.281004
75	-0.280699
76	-0.280699
77	-0.275784
78	-0.272069
79	-0.27154
80	-0.267676
81	-0.265842
82	-0.263855
83	-0.263855
84	-0.26304
85	-0.262293
86	-0.261123
87	-0.260531
88	-0.259775
89	-0.259397
90	-0.258022
91	-0.257587
92	-0.257175
93	-0.257175
94	-0.25371
95	-0.249937
96	-0.249937
97	-0.246463
98	-0.24537
99	-0.24308
100	-0.242516
101	-0.238231
102	-0.238231
103	-0.237955
104	-0.236512
105	-0.236203
106	-0.236203
107	-0.23588
108	-0.235467
109	-0.234684
110	-0.234684
111	-0.234194
112	-0.233177
113	-0.232749
114	-0.232594
115	-0.23222
116	-0.23222
117	-0.231049
118	-0.231049
119	-0.229253
120	-0.228603
121	-0.228358
122	-0.227643
123	-0.227351
124	-0.226524
125	-0.226495
126	-0.225111
127	-0.224626

128	-0.223569
129	-0.223203
130	-0.221456
131	-0.219722
132	-0.217466
133	-0.21647
134	-0.215437
135	-0.214528
136	-0.210233
137	-0.210233
138	-0.209328
139	-0.209328
140	-0.207706
141	-0.206615
142	-0.205853
143	-0.203655
144	-0.200955
145	-0.200365
146	-0.200365
147	-0.199008
148	-0.198865
149	-0.198865
150	-0.198296
151	-0.198042
152	-0.197304
153	-0.197076
154	-0.196296
155	-0.195792
156	-0.193273
157	-0.192562
158	-0.190597
159	-0.190381
160	-0.189416
161	-0.186855
162	-0.186588
163	-0.18607
164	-0.18607
165	-0.185434
166	-0.185403
167	-0.18374
168	-0.183732
169	-0.183555
170	-0.183543
171	-0.182999
172	-0.182999
173	-0.181924
174	-0.181826
175	-0.18173
176	-0.180537
177	-0.180426
178	-0.179934
179	-0.179905
180	-0.177353
181	-0.17622
182	-0.1735
183	-0.173469
184	-0.173287
185	-0.173287
186	-0.173202
187	-0.171483
188	-0.17148
189	-0.169422

190	-0.168576
191	-0.168576
192	-0.167822
193	-0.166784
194	-0.165737
195	-0.165123
196	-0.164743
197	-0.16462
198	-0.16358
199	-0.163001
200	-0.162686
201	-0.160944
202	-0.160238
203	-0.159957
204	-0.159306
205	-0.158349
206	-0.156278
207	-0.155865
208	-0.154977
209	-0.154237
210	-0.152862
211	-0.152726
212	-0.152017
213	-0.151902
214	-0.151603
215	-0.150991
216	-0.149879
217	-0.1486
218	-0.148572
219	-0.148532
220	-0.148532
221	-0.148532
222	-0.147718
223	-0.14754
224	-0.147222
225	-0.145782
226	-0.1455
227	-0.1455
228	-0.144977
229	-0.144888
230	-0.144341
231	-0.143841
232	-0.142671
233	-0.141575
234	-0.141161
235	-0.141039
236	-0.138708
237	-0.138629
238	-0.138629
239	-0.138066
240	-0.137743
241	-0.136035
242	-0.133977
243	-0.133875
244	-0.130899
245	-0.130405
246	-0.129965
247	-0.129965
248	-0.129698
249	-0.128721
250	-0.127335
251	-0.125326

252	-0.12215
253	-0.120303
254	-0.12004
255	-0.118256
256	-0.113841
257	-0.112979
258	-0.112924
259	-0.11145
260	-0.111335
261	-0.108616
262	-0.108274
263	-0.107003
264	-0.102319
265	-0.101642
266	-0.10095
267	-0.100083
268	-0.100016
269	-0.0993131
270	-0.099021
271	-0.0989331
272	-0.0972757
273	-0.0971956
274	-0.097186
275	-0.0966076
276	-0.096492
277	-0.0948724
278	-0.0940181
279	-0.0939168
280	-0.0931292
281	-0.0908049
282	-0.0904105
283	-0.0904105
284	-0.0904105
285	-0.0900707
286	-0.0895109
287	-0.0891663
288	-0.0887231
289	-0.0882493
290	-0.0881014
291	-0.0877017
292	-0.0876822
293	-0.0867501
294	-0.0860788
295	-0.0854422
296	-0.0849916
297	-0.0831777
298	-0.0831777
299	-0.0822903
300	-0.0821772
301	-0.0813538
302	-0.0800436
303	-0.0791925
304	-0.0788637
305	-0.078322
306	-0.075141
307	-0.074343
308	-0.0738863
309	-0.0733017
310	-0.0729751
311	-0.0724773
312	-0.0722917
313	-0.0708162

314	-0.0706116
315	-0.0685845
316	-0.0683625
317	-0.0668012
318	-0.0664701
319	-0.0651904
320	-0.0644243
321	-0.0636856
322	-0.0623559
323	-0.0599466
324	-0.0594399
325	-0.0590845
326	-0.0579818
327	-0.0561165
328	-0.0542128
329	-0.0493374
330	-0.0492336
331	-0.0456579
332	-0.0448065
333	-0.0435057
334	-0.0426692
335	-0.0413598
336	-0.0413096
337	-0.0405272
338	-0.0395744
339	-0.0371499
340	-0.0357446
341	-0.0353023
342	-0.034107
343	-0.0332076
344	-0.0309526
345	-0.0306031
346	-0.0305168
347	-0.0297121
348	-0.0285956
349	-0.0258881
350	-0.0250209
351	-0.016466
352	-0.00803252
353	-0.00147931
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0
364	0
365	0
366	0
367	0
368	0
369	0
370	0
371	0
372	0
373	0
374	0
375	0

376	0
377	0
378	0
379	0.00960994
380	0.0127057
381	0.0188769
382	0.02326
383	0.023948
384	0.0317095
385	0.0370567
386	0.0407694
387	0.0410758
388	0.0432328
389	0.0472092
390	0.048166
391	0.0483959
392	0.0485032
393	0.0532355
394	0.0532355
395	0.0559653
396	0.0591506
397	0.0599481
398	0.0674324
399	0.0682396
400	0.0708477
401	0.0819008
402	0.0822775
403	0.0887259
404	0.0909862
405	0.0932478
406	0.0967919
407	0.0967919
408	0.103759
409	0.106471
410	0.112556
411	0.118301
412	0.121258
413	0.125657
414	0.129698
415	0.132659
416	0.135067
417	0.14551
418	0.146603
419	0.154848
420	0.160875
421	0.172931
422	0.17484
423	0.177452
424	0.181887
425	0.194831
426	0.199817
427	0.208755
428	0.233119
429	0.243535
430	0.250102
431	0.259775
432	0.266178
433	0.266178
434	0.286567
435	0.293308
436	0.316992
437	0.335584

438	0.34095
439	0.382089
440	0.389662
441	0.396591
442	0.402186
443	0.436718
444	0.450222
445	0.467854
446	0.498991
447	0.51299
448	0.532058
449	0.532355
450	0.54308
451	0.548176
452	0.587787
453	0.594887
454	0.675334
455	0.854983
456	0.904456
457	1.06412
458	1.18784
459	1.35067
460	1.39872
461	1.62924
462	1.64453
463	1.93221
464	2.94444

Sen's Estimator (Median Q) is -0.142123

Tied Group	Value	Members
1	2.94444	2
2	0	7
3	1.06471	2
4	-2.07944	3

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1

11/16/2009 1
6/30/2010 1
11/12/2010 1
7/5/2011 1
11/22/2011 2
There are 1 time periods with multiple data

A = 900
B = 18
C = 216
D = 0
E = 52
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3410.72
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.0617
M1 = (464 - 96.0617)/2.0 = 183.969
M2 = (464 + 96.0617)/2.0 + 1 = 281.031
Lower limit is -0.173287 = Q(184)
Upper limit is -0.0908049 = Q(281)
-0.0908049 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-12AR
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(2 - 1)	0
1.97408 (3/15/2000)	ND<0 (3/16/1999)	(1.97408 - 0)/(3 - 1)	0.987041
1.93152 (9/24/2003)	ND<0 (3/16/1999)	(1.93152 - 0)/(4 - 1)	0.64384
1.80829 (3/11/2004)	ND<0 (3/16/1999)	(1.80829 - 0)/(5 - 1)	0.452072
1.84055 (10/12/2004)	ND<0 (3/16/1999)	(1.84055 - 0)/(6 - 1)	0.36811
ND<0 (4/1/2005)	ND<0 (3/16/1999)	(0 - 0)/(7 - 1)	0
0.19062 J (10/25/2005)	ND<0 (3/16/1999)	(0.19062 - 0)/(8 - 1)	0.0272315
0.329304 J (4/29/2006)	ND<0 (3/16/1999)	(0.329304 - 0)/(9 - 1)	0.041163
-0.18633 J (11/18/2006)	ND<0 (3/16/1999)	(-0.18633 - 0)/(10 - 1)	-0.0207033
ND<0 (5/23/2007)	ND<0 (3/16/1999)	(0 - 0)/(11 - 1)	0
0.139762 J (11/28/2007)	ND<0 (3/16/1999)	(0.139762 - 0)/(12 - 1)	0.0127056
0.223144 J (6/5/2008)	ND<0 (3/16/1999)	(0.223144 - 0)/(13 - 1)	0.0185953
-0.478036 J (11/20/2008)	ND<0 (3/16/1999)	(-0.478036 - 0)/(14 - 1)	-0.036772
ND<-2.07944 (6/11/2009)	ND<0 (3/16/1999)	(-2.07944 - 0)/(15 - 1)	-0.148532
-1.04982 J (11/16/2009)	ND<0 (3/16/1999)	(-1.04982 - 0)/(16 - 1)	-0.0699881
ND<-2.07944 (6/30/2010)	ND<0 (3/16/1999)	(-2.07944 - 0)/(17 - 1)	-0.129965
0 (11/12/2010)	ND<0 (3/16/1999)	(0 - 0)/(18 - 1)	0
ND<-2.07944 U (7/5/2011)	ND<0 (3/16/1999)	(-2.07944 - 0)/(19 - 1)	-0.115525
ND<-2.07944 U (11/22/2011)	ND<0 (3/16/1999)	(-2.07944 - 0)/(20 - 1)	-0.109444
ND<-2.07944 U (11/22/2011)	ND<0 (3/16/1999)	(-2.07944 - 0)/(20 - 1)	-0.109444

1.97408 (3/15/2000)	ND<0 (9/23/1999)	(1.97408 - 0)/(3 - 2)	1.97408
1.93152 (9/24/2003)	ND<0 (9/23/1999)	(1.93152 - 0)/(4 - 2)	0.965761
1.80829 (3/11/2004)	ND<0 (9/23/1999)	(1.80829 - 0)/(5 - 2)	0.602763
1.84055 (10/12/2004)	ND<0 (9/23/1999)	(1.84055 - 0)/(6 - 2)	0.460137
ND<0 (4/1/2005)	ND<0 (9/23/1999)	(0 - 0)/(7 - 2)	0
0.19062 J (10/25/2005)	ND<0 (9/23/1999)	(0.19062 - 0)/(8 - 2)	0.0317701
0.329304 J (4/29/2006)	ND<0 (9/23/1999)	(0.329304 - 0)/(9 - 2)	0.0470434
-0.18633 J (11/18/2006)	ND<0 (9/23/1999)	(-0.18633 - 0)/(10 - 2)	-0.0232912
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(11 - 2)	0

0.139762 J (11/28/2007) ND<0 (9/23/1999) (0.139762 - 0)/(12 - 2)
0.0139762
0.223144 J (6/5/2008) ND<0 (9/23/1999) (0.223144 - 0)/(13 - 2)
0.0202858
-0.478036 J (11/20/2008) ND<0 (9/23/1999) (-0.478036 - 0)/(14 - 2)
-0.0398363
ND<-2.07944 (6/11/2009) ND<0 (9/23/1999) (-2.07944 - 0)/(15 - 2)
-0.159957
-1.04982 J (11/16/2009) ND<0 (9/23/1999) (-1.04982 - 0)/(16 - 2)
-0.0749873
ND<-2.07944 (6/30/2010) ND<0 (9/23/1999) (-2.07944 - 0)/(17 - 2)
-0.138629
0 (11/12/2010) ND<0 (9/23/1999) (0 - 0)/(18 - 2) 0
ND<-2.07944 U (7/5/2011) ND<0 (9/23/1999) (-2.07944 - 0)/(19 - 2) -0.12232
ND<-2.07944 U (11/22/2011) ND<0 (9/23/1999) (-2.07944 - 0)/(20 - 2)
-0.115525
ND<-2.07944 U (11/22/2011) ND<0 (9/23/1999) (-2.07944 - 0)/(20 - 2)
-0.115525

1.93152 (9/24/2003) 1.97408 (3/15/2000) (1.93152 - 1.97408)/(4 - 3)
-0.0425596
1.80829 (3/11/2004) 1.97408 (3/15/2000) (1.80829 - 1.97408)/(5 - 3)
-0.0828961
1.84055 (10/12/2004) 1.97408 (3/15/2000) (1.84055 - 1.97408)/(6 - 3)
-0.0445105
ND<0 (4/1/2005) 1.97408 (3/15/2000) (0 - 1.97408)/(7 - 3) -0.49352
0.19062 J (10/25/2005) 1.97408 (3/15/2000) (0.19062 - 1.97408)/(8 - 3)
-0.356692
0.329304 J (4/29/2006) 1.97408 (3/15/2000) (0.329304 - 1.97408)/(9 - 3)
-0.27413
-0.18633 J (11/18/2006) 1.97408 (3/15/2000) (-0.18633 - 1.97408)/(10 - 3)
-0.30863
ND<0 (5/23/2007) 1.97408 (3/15/2000) (0 - 1.97408)/(11 - 3) -0.24676
0.139762 J (11/28/2007) 1.97408 (3/15/2000) (0.139762 - 1.97408)/(12 - 3)
-0.203813
0.223144 J (6/5/2008) 1.97408 (3/15/2000) (0.223144 - 1.97408)/(13 - 3)
-0.175094
-0.478036 J (11/20/2008) 1.97408 (3/15/2000) (-0.478036 - 1.97408)/(14 - 3)
-0.22292
ND<-2.07944 (6/11/2009) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(15 - 3)
-0.337794
-1.04982 J (11/16/2009) 1.97408 (3/15/2000) (-1.04982 - 1.97408)/(16 - 3)
-0.232608
ND<-2.07944 (6/30/2010) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(17 - 3)
-0.289537
0 (11/12/2010) 1.97408 (3/15/2000) (0 - 1.97408)/(18 - 3) -0.131605
ND<-2.07944 U (7/5/2011) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(19 - 3)
-0.253345
ND<-2.07944 U (11/22/2011) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(20 - 3)
-0.238443
ND<-2.07944 U (11/22/2011) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(20 - 3)
-0.238443

1.80829 (3/11/2004) 1.93152 (9/24/2003) (1.80829 - 1.93152)/(5 - 4)
-0.123233
1.84055 (10/12/2004) 1.93152 (9/24/2003) (1.84055 - 1.93152)/(6 - 4)
-0.0454859
ND<0 (4/1/2005) 1.93152 (9/24/2003) (0 - 1.93152)/(7 - 4) -0.64384
0.19062 J (10/25/2005) 1.93152 (9/24/2003) (0.19062 - 1.93152)/(8 - 4)
-0.435225
0.329304 J (4/29/2006) 1.93152 (9/24/2003) (0.329304 - 1.93152)/(9 - 4)
-0.320444

-0.18633 J (11/18/2006) 1.93152 (9/24/2003) (-0.18633 - 1.93152)/(10 - 4)
-0.352975
ND<0 (5/23/2007) 1.93152 (9/24/2003) (0 - 1.93152)/(11 - 4)
-0.275932
0.139762 J (11/28/2007) 1.93152 (9/24/2003) (0.139762 - 1.93152)/(12 - 4)
-0.22397
0.223144 J (6/5/2008) 1.93152 (9/24/2003) (0.223144 - 1.93152)/(13 - 4)
-0.18982
-0.478036 J (11/20/2008) 1.93152 (9/24/2003) (-0.478036 - 1.93152)/(14 - 4)
-0.240956
ND<-2.07944 (6/11/2009) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(15 - 4)
-0.364633
-1.04982 J (11/16/2009) 1.93152 (9/24/2003) (-1.04982 - 1.93152)/(16 - 4)
-0.248445
ND<-2.07944 (6/30/2010) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(17 - 4)
-0.308536
0 (11/12/2010) 1.93152 (9/24/2003) (0 - 1.93152)/(18 - 4) -0.137966
ND<-2.07944 U (7/5/2011) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(19 - 4)
-0.267398
ND<-2.07944 U (11/22/2011) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(20 - 4)
-0.250685
ND<-2.07944 U (11/22/2011) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(20 - 4)
-0.250685

1.84055 (10/12/2004) 1.80829 (3/11/2004) (1.84055 - 1.80829)/(6 - 5)
0.0322609
ND<0 (4/1/2005) 1.80829 (3/11/2004) (0 - 1.80829)/(7 - 5)
-0.904144
0.19062 J (10/25/2005) 1.80829 (3/11/2004) (0.19062 - 1.80829)/(8 - 5)
-0.539223
0.329304 J (4/29/2006) 1.80829 (3/11/2004) (0.329304 - 1.80829)/(9 - 5)
-0.369746
-0.18633 J (11/18/2006) 1.80829 (3/11/2004) (-0.18633 - 1.80829)/(10 - 5)
-0.398924
ND<0 (5/23/2007) 1.80829 (3/11/2004) (0 - 1.80829)/(11 - 5)
-0.301381
0.139762 J (11/28/2007) 1.80829 (3/11/2004) (0.139762 - 1.80829)/(12 - 5)
-0.238361
0.223144 J (6/5/2008) 1.80829 (3/11/2004) (0.223144 - 1.80829)/(13 - 5)
-0.198143
-0.478036 J (11/20/2008) 1.80829 (3/11/2004) (-0.478036 - 1.80829)/(14 - 5)
-0.254036
ND<-2.07944 (6/11/2009) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(15 - 5)
-0.388773
-1.04982 J (11/16/2009) 1.80829 (3/11/2004) (-1.04982 - 1.80829)/(16 - 5)
-0.259828
ND<-2.07944 (6/30/2010) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(17 - 5)
-0.323978
0 (11/12/2010) 1.80829 (3/11/2004) (0 - 1.80829)/(18 - 5) -0.139099
ND<-2.07944 U (7/5/2011) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(19 - 5)
-0.277695
ND<-2.07944 U (11/22/2011) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(20 - 5)
-0.259182
ND<-2.07944 U (11/22/2011) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(20 - 5)
-0.259182

ND<0 (4/1/2005) 1.84055 (10/12/2004) (0 - 1.84055)/(7 - 6) -1.84055
0.19062 J (10/25/2005) 1.84055 (10/12/2004) (0.19062 - 1.84055)/(8 - 6)
-0.824965
0.329304 J (4/29/2006) 1.84055 (10/12/2004) (0.329304 - 1.84055)/(9 - 6)
-0.503749

-0.18633 J (11/18/2006) 1.84055 (10/12/2004) (-0.18633 - 1.84055)/(10 - 6)
-0.50672
ND<0 (5/23/2007) 1.84055 (10/12/2004) (0 - 1.84055)/(11 - 6) -0.36811
0.139762 J (11/28/2007) 1.84055 (10/12/2004) (0.139762 - 1.84055)/(12 - 6)
-0.283465
0.223144 J (6/5/2008) 1.84055 (10/12/2004) (0.223144 - 1.84055)/(13 - 6)
-0.231058
-0.478036 J (11/20/2008) 1.84055 (10/12/2004) (-0.478036 - 1.84055)/(14 - 6)
-0.289823
ND<-2.07944 (6/11/2009) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(15 - 6)
-0.435555
-1.04982 J (11/16/2009) 1.84055 (10/12/2004) (-1.04982 - 1.84055)/(16 - 6)
-0.289037
ND<-2.07944 (6/30/2010) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(17 - 6)
-0.356363
0 (11/12/2010) 1.84055 (10/12/2004) (0 - 1.84055)/(18 - 6) -0.153379
ND<-2.07944 U (7/5/2011) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(19 - 6)
-0.301538
ND<-2.07944 U (11/22/2011) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(20 - 6)
-0.279999
ND<-2.07944 U (11/22/2011) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(20 - 6)
-0.279999

0.19062 J (10/25/2005) ND<0 (4/1/2005) (0.19062 - 0)/(8 - 7) 0.19062
0.329304 J (4/29/2006) ND<0 (4/1/2005) (0.329304 - 0)/(9 - 7)
0.164652
-0.18633 J (11/18/2006) ND<0 (4/1/2005) (-0.18633 - 0)/(10 - 7)
-0.0621099
ND<0 (5/23/2007) ND<0 (4/1/2005) (0 - 0)/(11 - 7) 0
0.139762 J (11/28/2007) ND<0 (4/1/2005) (0.139762 - 0)/(12 - 7)
0.0279524
0.223144 J (6/5/2008) ND<0 (4/1/2005) (0.223144 - 0)/(13 - 7)
0.0371906
-0.478036 J (11/20/2008) ND<0 (4/1/2005) (-0.478036 - 0)/(14 - 7)
-0.0682908
ND<-2.07944 (6/11/2009) ND<0 (4/1/2005) (-2.07944 - 0)/(15 - 7) -0.25993
-1.04982 J (11/16/2009) ND<0 (4/1/2005) (-1.04982 - 0)/(16 - 7)
-0.116647
ND<-2.07944 (6/30/2010) ND<0 (4/1/2005) (-2.07944 - 0)/(17 - 7)
-0.207944
0 (11/12/2010) ND<0 (4/1/2005) (0 - 0)/(18 - 7) 0
ND<-2.07944 U (7/5/2011) ND<0 (4/1/2005) (-2.07944 - 0)/(19 - 7)
-0.173287
ND<-2.07944 U (11/22/2011) ND<0 (4/1/2005) (-2.07944 - 0)/(20 - 7)
-0.159957
ND<-2.07944 U (11/22/2011) ND<0 (4/1/2005) (-2.07944 - 0)/(20 - 7)
-0.159957

0.329304 J (4/29/2006) 0.19062 J (10/25/2005) (0.329304 - 0.19062)/(9 - 8)
0.138683
-0.18633 J (11/18/2006) 0.19062 J (10/25/2005) (-0.18633 - 0.19062)/(10 - 8)
-0.188475
ND<0 (5/23/2007) 0.19062 J (10/25/2005) (0 - 0.19062)/(11 - 8)
-0.0635401
0.139762 J (11/28/2007) 0.19062 J (10/25/2005) (0.139762 - 0.19062)/(12 - 8)
-0.0127146
0.223144 J (6/5/2008) 0.19062 J (10/25/2005) (0.223144 - 0.19062)/(13 - 8)
0.00650464
-0.478036 J (11/20/2008) 0.19062 J (10/25/2005) (-0.478036 - 0.19062)/(14 - 8)
-0.111443
ND<-2.07944 (6/11/2009) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(15 - 8)
-0.324295

-1.04982 J (11/16/2009) 0.19062 J (10/25/2005) (-1.04982 - 0.19062)/(16 - 8)
-0.155055
ND<-2.07944 (6/30/2010) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(17 - 8)
-0.252229
0 (11/12/2010) 0.19062 J (10/25/2005) (0 - 0.19062)/(18 - 8) -0.019062
ND<-2.07944 U (7/5/2011) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(19 - 8)
-0.206369
ND<-2.07944 U (11/22/2011) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(20 - 8)
-0.189172
ND<-2.07944 U (11/22/2011) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(20 - 8)
-0.189172

-0.18633 J (11/18/2006) 0.329304 J (4/29/2006) (-0.18633 - 0.329304)/(10 - 9)
-0.515633
ND<0 (5/23/2007) 0.329304 J (4/29/2006) (0 - 0.329304)/(11 - 9)
-0.164652
0.139762 J (11/28/2007) 0.329304 J (4/29/2006) (0.139762 - 0.329304)/(12 - 9)
-0.0631806
0.223144 J (6/5/2008) 0.329304 J (4/29/2006) (0.223144 - 0.329304)/(13 - 9)
-0.02654
-0.478036 J (11/20/2008) 0.329304 J (4/29/2006) (-0.478036 - 0.329304)/(14 - 9)
-0.161468
ND<-2.07944 (6/11/2009) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(15 - 9)
-0.401458
-1.04982 J (11/16/2009) 0.329304 J (4/29/2006) (-1.04982 - 0.329304)/(16 - 9)
-0.197018
ND<-2.07944 (6/30/2010) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(17 - 9)
-0.301093
0 (11/12/2010) 0.329304 J (4/29/2006) (0 - 0.329304)/(18 - 9) -0.0365893
ND<-2.07944 U (7/5/2011) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(19 - 9)
-0.240875
ND<-2.07944 U (11/22/2011) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(20 - 9)
-0.218977
ND<-2.07944 U (11/22/2011) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(20 - 9)
-0.218977

ND<0 (5/23/2007) -0.18633 J (11/18/2006) (0 - -0.18633)/(11 - 10) 0.18633
0.139762 J (11/28/2007) -0.18633 J (11/18/2006) (0.139762 - -0.18633)/(12 - 10)
0.163046
0.223144 J (6/5/2008) -0.18633 J (11/18/2006) (0.223144 - -0.18633)/(13 - 10)
0.136491
-0.478036 J (11/20/2008) -0.18633 J (11/18/2006) (-0.478036 - -0.18633)/(14 - 10)
-0.0729266
ND<-2.07944 (6/11/2009) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(15 - 10)
-0.378622
-1.04982 J (11/16/2009) -0.18633 J (11/18/2006) (-1.04982 - -0.18633)/(16 - 10)
-0.143915
ND<-2.07944 (6/30/2010) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(17 - 10)
-0.270445
0 (11/12/2010) -0.18633 J (11/18/2006) (0 - -0.18633)/(18 - 10) 0.0232912
ND<-2.07944 U (7/5/2011) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(19 - 10)
-0.210346
ND<-2.07944 U (11/22/2011) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(20 - 10)
-0.189311
ND<-2.07944 U (11/22/2011) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(20 - 10)
-0.189311

0.139762 J (11/28/2007) ND<0 (5/23/2007) (0.139762 - 0)/(12 - 11)
0.139762
0.223144 J (6/5/2008) ND<0 (5/23/2007) (0.223144 - 0)/(13 - 11)
0.111572

-0.478036 J (11/20/2008) ND<0 (5/23/2007) (-0.478036 - 0)/(14 - 11)
-0.159345
ND<-2.07944 (6/11/2009) ND<0 (5/23/2007) (-2.07944 - 0)/(15 - 11) -0.51986
-1.04982 J (11/16/2009) ND<0 (5/23/2007) (-1.04982 - 0)/(16 - 11)
-0.209964
ND<-2.07944 (6/30/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(17 - 11)
-0.346574
0 (11/12/2010) ND<0 (5/23/2007) (0 - 0)/(18 - 11) 0
ND<-2.07944 U (7/5/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(19 - 11) -0.25993
ND<-2.07944 U (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(20 - 11)
-0.231049
ND<-2.07944 U (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(20 - 11)
-0.231049

0.223144 J (6/5/2008) 0.139762 J (11/28/2007) (0.223144 - 0.139762)/(13 - 12)
0.0833816
-0.478036 J (11/20/2008) 0.139762 J (11/28/2007) (-0.478036 - 0.139762)/(14 - 12)
-0.308899
ND<-2.07944 (6/11/2009) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(15 - 12)
-0.739734
-1.04982 J (11/16/2009) 0.139762 J (11/28/2007) (-1.04982 - 0.139762)/(16 - 12)
-0.297396
ND<-2.07944 (6/30/2010) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(17 - 12)
-0.443841
0 (11/12/2010) 0.139762 J (11/28/2007) (0 - 0.139762)/(18 - 12) -0.0232937
ND<-2.07944 U (7/5/2011) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(19 - 12)
-0.317029
ND<-2.07944 U (11/22/2011) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(20 - 12)
-0.2774
ND<-2.07944 U (11/22/2011) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(20 - 12)
-0.2774

-0.478036 J (11/20/2008) 0.223144 J (6/5/2008) (-0.478036 - 0.223144)/(14 - 13)
-0.701179
ND<-2.07944 (6/11/2009) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(15 - 13)
-1.15129
-1.04982 J (11/16/2009) 0.223144 J (6/5/2008) (-1.04982 - 0.223144)/(16 - 13)
-0.424322
ND<-2.07944 (6/30/2010) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(17 - 13)
-0.575646
0 (11/12/2010) 0.223144 J (6/5/2008) (0 - 0.223144)/(18 - 13) -0.0446287
ND<-2.07944 U (7/5/2011) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(19 - 13)
-0.383764
ND<-2.07944 U (11/22/2011) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(20 - 13)
-0.328941
ND<-2.07944 U (11/22/2011) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(20 - 13)
-0.328941

ND<-2.07944 (6/11/2009) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(15 - 14)
-1.60141
-1.04982 J (11/16/2009) -0.478036 J (11/20/2008) (-1.04982 - -0.478036)/(16 - 14)
-0.285893
ND<-2.07944 (6/30/2010) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(17 - 14)
-0.533802
0 (11/12/2010) -0.478036 J (11/20/2008) (0 - -0.478036)/(18 - 14) 0.119509
ND<-2.07944 U (7/5/2011) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(19 - 14)
-0.320281
ND<-2.07944 U (11/22/2011) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(20 - 14)
-0.266901
ND<-2.07944 U (11/22/2011) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(20 - 14)
-0.266901

-1.04982 J (11/16/2009) ND<-2.07944 (6/11/2009) (-1.04982 - -2.07944)/(16 - 15)
1.02962
ND<-2.07944 (6/30/2010) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(17 - 15)
0
0 (11/12/2010) ND<-2.07944 (6/11/2009) (0 - -2.07944)/(18 - 15) 0.693147
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(19 - 15)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(20 - 15)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(20 - 15)
0

ND<-2.07944 (6/30/2010) -1.04982 J (11/16/2009) (-2.07944 - -1.04982)/(17 - 16)
-1.02962
0 (11/12/2010) -1.04982 J (11/16/2009) (0 - -1.04982)/(18 - 16) 0.524911
ND<-2.07944 U (7/5/2011) -1.04982 J (11/16/2009) (-2.07944 - -1.04982)/(19 - 16)
-0.343206
ND<-2.07944 U (11/22/2011) -1.04982 J (11/16/2009) (-2.07944 - -1.04982)/(20 - 16)
-0.257405
ND<-2.07944 U (11/22/2011) -1.04982 J (11/16/2009) (-2.07944 - -1.04982)/(20 - 16)
-0.257405

0 (11/12/2010) ND<-2.07944 (6/30/2010) (0 - -2.07944)/(18 - 17) 2.07944
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(19 - 17)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(20 - 17)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(20 - 17)
0

ND<-2.07944 U (7/5/2011) 0 (11/12/2010) (-2.07944 - 0)/(19 - 18) -2.07944
ND<-2.07944 U (11/22/2011) 0 (11/12/2010) (-2.07944 - 0)/(20 - 18) -1.03972
ND<-2.07944 U (11/22/2011) 0 (11/12/2010) (-2.07944 - 0)/(20 - 18) -1.03972

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(20 - 19)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(20 - 19)
0

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(20 -
20) Same Date

Number of Q values = 209

Ordered Q Values

n	Q
1	-2.07944
2	-1.84055
3	-1.60141
4	-1.15129
5	-1.03972
6	-1.03972
7	-1.02962
8	-0.904144
9	-0.824965
10	-0.739734
11	-0.701179
12	-0.64384
13	-0.575646
14	-0.539223

15	-0.533802
16	-0.51986
17	-0.515633
18	-0.50672
19	-0.503749
20	-0.49352
21	-0.443841
22	-0.435555
23	-0.435225
24	-0.424322
25	-0.401458
26	-0.398924
27	-0.388773
28	-0.383764
29	-0.378622
30	-0.369746
31	-0.36811
32	-0.364633
33	-0.356692
34	-0.356363
35	-0.352975
36	-0.346574
37	-0.343206
38	-0.337794
39	-0.328941
40	-0.328941
41	-0.324295
42	-0.323978
43	-0.320444
44	-0.320281
45	-0.317029
46	-0.308899
47	-0.30863
48	-0.308536
49	-0.301538
50	-0.301381
51	-0.301093
52	-0.297396
53	-0.289823
54	-0.289537
55	-0.289037
56	-0.285893
57	-0.283465
58	-0.279999
59	-0.279999
60	-0.277695
61	-0.2774
62	-0.2774
63	-0.275932
64	-0.27413
65	-0.270445
66	-0.267398
67	-0.266901
68	-0.266901
69	-0.25993
70	-0.25993
71	-0.259828
72	-0.259182
73	-0.259182
74	-0.257405
75	-0.257405
76	-0.254036

77	-0.253345
78	-0.252229
79	-0.250685
80	-0.250685
81	-0.248445
82	-0.24676
83	-0.240956
84	-0.240875
85	-0.238443
86	-0.238443
87	-0.238361
88	-0.232608
89	-0.231058
90	-0.231049
91	-0.231049
92	-0.22397
93	-0.22292
94	-0.218977
95	-0.218977
96	-0.210346
97	-0.209964
98	-0.207944
99	-0.206369
100	-0.203813
101	-0.198143
102	-0.197018
103	-0.18982
104	-0.189311
105	-0.189311
106	-0.189172
107	-0.189172
108	-0.188475
109	-0.175094
110	-0.173287
111	-0.164652
112	-0.161468
113	-0.159957
114	-0.159957
115	-0.159957
116	-0.159345
117	-0.155055
118	-0.153379
119	-0.148532
120	-0.143915
121	-0.139099
122	-0.138629
123	-0.137966
124	-0.131605
125	-0.129965
126	-0.123233
127	-0.12232
128	-0.116647
129	-0.115525
130	-0.115525
131	-0.115525
132	-0.111443
133	-0.109444
134	-0.109444
135	-0.0828961
136	-0.0749873
137	-0.0729266
138	-0.0699881

139	-0.0682908
140	-0.0635401
141	-0.0631806
142	-0.0621099
143	-0.0454859
144	-0.0446287
145	-0.0445105
146	-0.0425596
147	-0.0398363
148	-0.036772
149	-0.0365893
150	-0.02654
151	-0.0232937
152	-0.0232912
153	-0.0207033
154	-0.019062
155	-0.0127146
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0.00650464
176	0.0127056
177	0.0139762
178	0.0185953
179	0.0202858
180	0.0232912
181	0.0272315
182	0.0279524
183	0.0317701
184	0.0322609
185	0.0371906
186	0.041163
187	0.0470434
188	0.0833816
189	0.111572
190	0.119509
191	0.136491
192	0.138683
193	0.139762
194	0.163046
195	0.164652
196	0.18633
197	0.19062
198	0.36811
199	0.452072
200	0.460137

201	0.524911
202	0.602763
203	0.64384
204	0.693147
205	0.965761
206	0.987041
207	1.02962
208	1.97408
209	2.07944

Sen's Estimator (Median Q) is -0.189311

Tied Group	Value	Members
1	0	5
2	-2.07944	5

Time Period		Observations
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 600
B = 18
C = 120
D = 0
E = 40
F = 2
a = 19740
b = 71820
c = 840
Group Variance = 1062.43
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 53.6138
M1 = (209 - 53.6138)/2.0 = 77.6931
M2 = (209 + 53.6138)/2.0 + 1 = 132.307
Lower limit is -0.252229 = Q(78)
Upper limit is -0.111443 = Q(132)
-0.111443 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
1.25276	(8/24/1995)	-0.223144 J (7/20/1995)	(1.25276 - -0.223144)/(2 - 1)
1.47591			
1.94591	(9/28/1995)	-0.223144 J (7/20/1995)	(1.94591 - -0.223144)/(3 - 1)
1.08453			
1.79176	(10/26/1995)	-0.223144 J (7/20/1995)	(1.79176 - -0.223144)/(4 - 1)
0.671634			
ND<0	(11/19/1996)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(5 - 1)
0.0557859			
1.60944	(12/19/1996)	-0.223144 J (7/20/1995)	(1.60944 - -0.223144)/(6 - 1)
0.366516			
2.63906	(3/24/1997)	-0.223144 J (7/20/1995)	(2.63906 - -0.223144)/(7 - 1)
0.477033			
1.75786	(9/24/1997)	-0.223144 J (7/20/1995)	(1.75786 - -0.223144)/(8 - 1)
0.283			
ND<0	(4/7/1998)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(9 - 1)
0.0278929			
ND<0	(9/23/1998)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(10 - 1)
0.0247937			
1.54756	(3/16/1999)	-0.223144 J (7/20/1995)	(1.54756 - -0.223144)/(11 - 1)
0.177071			
0.955511	(9/23/1999)	-0.223144 J (7/20/1995)	(0.955511 - -0.223144)/(12 - 1)
0.10715			
ND<0	(3/15/2000)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(13 - 1)
0.0185953			
ND<0	(9/24/2003)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(14 - 1)
0.0171649			
ND<0	(3/11/2004)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(15 - 1)
0.0159388			
ND<0	(10/12/2004)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(16 - 1)
0.0148762			
0.223144 J	(4/1/2005)	-0.223144 J (7/20/1995)	(0.223144 - -0.223144)/(17 - 1)
0.0278929			
0.470004 J	(10/25/2005)	-0.223144 J (7/20/1995)	(0.470004 - -0.223144)/(18 - 1)
0.0407734			
0.647103 J	(4/29/2006)	-0.223144 J (7/20/1995)	(0.647103 - -0.223144)/(19 - 1)
0.048347			
0.113329 J	(11/18/2006)	-0.223144 J (7/20/1995)	(0.113329 - -0.223144)/(20 - 1)
0.0177091			
ND<0	(5/23/2007)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(21 - 1)
0.0111572			
0.300105	(11/28/2007)	-0.223144 J (7/20/1995)	(0.300105 - -0.223144)/(22 - 1)
0.0249166			
0.231112 J	(6/5/2008)	-0.223144 J (7/20/1995)	(0.231112 - -0.223144)/(23 - 1)
0.020648			
-0.0833816 J	(11/20/2008)	-0.223144 J (7/20/1995)	(-0.0833816 - -0.223144)/(24 - 1)
0.00607661			
-0.0304592 J	(6/11/2009)	-0.223144 J (7/20/1995)	(-0.0304592 - -0.223144)/(25 - 1)
0.00802851			
0.0953102	(11/16/2009)	-0.223144 J (7/20/1995)	(0.0953102 - -0.223144)/(26 - 1)
0.0127381			

-0.71335 J (6/30/2010)	-0.223144 J (7/20/1995)	(-0.71335 - -0.223144)/(27 - 1)	-0.0188541
-0.34249 J (11/12/2010)	-0.223144 J (7/20/1995)	(-0.34249 - -0.223144)/(28 - 1)	-0.00442025
0.262364 (7/5/2011)	-0.223144 J (7/20/1995)	(0.262364 - -0.223144)/(29 - 1)	0.0173396
0 (11/22/2011)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(30 - 1)	0.00769461
0 (11/22/2011)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(30 - 1)	0.00769461

1.94591 (9/28/1995)	1.25276 (8/24/1995)	(1.94591 - 1.25276)/(3 - 2)	0.693147
1.79176 (10/26/1995)	1.25276 (8/24/1995)	(1.79176 - 1.25276)/(4 - 2)	0.269498
ND<0 (11/19/1996)	1.25276 (8/24/1995)	(0 - 1.25276)/(5 - 2)	-0.417588
1.60944 (12/19/1996)	1.25276 (8/24/1995)	(1.60944 - 1.25276)/(6 - 2)	0.0891687
2.63906 (3/24/1997)	1.25276 (8/24/1995)	(2.63906 - 1.25276)/(7 - 2)	0.277259
1.75786 (9/24/1997)	1.25276 (8/24/1995)	(1.75786 - 1.25276)/(8 - 2)	0.0841825
ND<0 (4/7/1998)	1.25276 (8/24/1995)	(0 - 1.25276)/(9 - 2)	-0.178966
ND<0 (9/23/1998)	1.25276 (8/24/1995)	(0 - 1.25276)/(10 - 2)	-0.156595
1.54756 (3/16/1999)	1.25276 (8/24/1995)	(1.54756 - 1.25276)/(11 - 2)	0.0327555
0.955511 (9/23/1999)	1.25276 (8/24/1995)	(0.955511 - 1.25276)/(12 - 2)	-0.0297252
ND<0 (3/15/2000)	1.25276 (8/24/1995)	(0 - 1.25276)/(13 - 2)	-0.113888
ND<0 (9/24/2003)	1.25276 (8/24/1995)	(0 - 1.25276)/(14 - 2)	-0.104397
ND<0 (3/11/2004)	1.25276 (8/24/1995)	(0 - 1.25276)/(15 - 2)	-0.0963664
ND<0 (10/12/2004)	1.25276 (8/24/1995)	(0 - 1.25276)/(16 - 2)	-0.0894831
0.223144 J (4/1/2005)	1.25276 (8/24/1995)	(0.223144 - 1.25276)/(17 - 2)	-0.0686413
0.470004 J (10/25/2005)	1.25276 (8/24/1995)	(0.470004 - 1.25276)/(18 - 2)	-0.0489225
0.647103 J (4/29/2006)	1.25276 (8/24/1995)	(0.647103 - 1.25276)/(19 - 2)	-0.035627
0.113329 J (11/18/2006)	1.25276 (8/24/1995)	(0.113329 - 1.25276)/(20 - 2)	-0.0633019
ND<0 (5/23/2007)	1.25276 (8/24/1995)	(0 - 1.25276)/(21 - 2)	-0.0659349
0.300105 (11/28/2007)	1.25276 (8/24/1995)	(0.300105 - 1.25276)/(22 - 2)	-0.0476329
0.231112 J (6/5/2008)	1.25276 (8/24/1995)	(0.231112 - 1.25276)/(23 - 2)	-0.0486501
-0.0833816 J (11/20/2008)	1.25276 (8/24/1995)	(-0.0833816 - 1.25276)/(24 - 2)	-0.0607338
-0.0304592 J (6/11/2009)	1.25276 (8/24/1995)	(-0.0304592 - 1.25276)/(25 - 2)	-0.0557923
0.0953102 (11/16/2009)	1.25276 (8/24/1995)	(0.0953102 - 1.25276)/(26 - 2)	-0.0482272
-0.71335 J (6/30/2010)	1.25276 (8/24/1995)	(-0.71335 - 1.25276)/(27 - 2)	-0.0786445
-0.34249 J (11/12/2010)	1.25276 (8/24/1995)	(-0.34249 - 1.25276)/(28 - 2)	-0.0613559

0.262364 (7/5/2011) 1.25276 (8/24/1995) (0.262364 - 1.25276)/(29 - 2)
-0.0366814
0 (11/22/2011) 1.25276 (8/24/1995) (0 - 1.25276)/(30 - 2) -0.0447415
0 (11/22/2011) 1.25276 (8/24/1995) (0 - 1.25276)/(30 - 2) -0.0447415

1.79176 (10/26/1995) 1.94591 (9/28/1995) (1.79176 - 1.94591)/(4 - 3)
-0.154151
ND<0 (11/19/1996) 1.94591 (9/28/1995) (0 - 1.94591)/(5 - 3)
-0.972955
1.60944 (12/19/1996) 1.94591 (9/28/1995) (1.60944 - 1.94591)/(6 - 3)
-0.112157
2.63906 (3/24/1997) 1.94591 (9/28/1995) (2.63906 - 1.94591)/(7 - 3)
0.173287
1.75786 (9/24/1997) 1.94591 (9/28/1995) (1.75786 - 1.94591)/(8 - 3)
-0.0376104
ND<0 (4/7/1998) 1.94591 (9/28/1995) (0 - 1.94591)/(9 - 3)
-0.324318
ND<0 (9/23/1998) 1.94591 (9/28/1995) (0 - 1.94591)/(10 - 3)
-0.277987
1.54756 (3/16/1999) 1.94591 (9/28/1995) (1.54756 - 1.94591)/(11 - 3)
-0.0497935
0.955511 (9/23/1999) 1.94591 (9/28/1995) (0.955511 - 1.94591)/(12 - 3)
-0.110044
ND<0 (3/15/2000) 1.94591 (9/28/1995) (0 - 1.94591)/(13 - 3)
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ND<0 (9/24/2003) 1.94591 (9/28/1995) (0 - 1.94591)/(14 - 3)
-0.176901
ND<0 (3/11/2004) 1.94591 (9/28/1995) (0 - 1.94591)/(15 - 3)
-0.162159
ND<0 (10/12/2004) 1.94591 (9/28/1995) (0 - 1.94591)/(16 - 3)
-0.149685
0.223144 J (4/1/2005) 1.94591 (9/28/1995) (0.223144 - 1.94591)/(17 - 3)
-0.123055
0.470004 J (10/25/2005) 1.94591 (9/28/1995) (0.470004 - 1.94591)/(18 - 3)
-0.0983938
0.647103 J (4/29/2006) 1.94591 (9/28/1995) (0.647103 - 1.94591)/(19 - 3)
-0.0811754
0.113329 J (11/18/2006) 1.94591 (9/28/1995) (0.113329 - 1.94591)/(20 - 3)
-0.107799
ND<0 (5/23/2007) 1.94591 (9/28/1995) (0 - 1.94591)/(21 - 3)
-0.108106
0.300105 (11/28/2007) 1.94591 (9/28/1995) (0.300105 - 1.94591)/(22 - 3)
-0.0866213
0.231112 J (6/5/2008) 1.94591 (9/28/1995) (0.231112 - 1.94591)/(23 - 3)
-0.0857399
-0.0833816 J (11/20/2008) 1.94591 (9/28/1995) (-0.0833816 - 1.94591)/(24 - 3)
-0.0966329
-0.0304592 J (6/11/2009) 1.94591 (9/28/1995) (-0.0304592 - 1.94591)/(25 - 3)
-0.089835
0.0953102 (11/16/2009) 1.94591 (9/28/1995) (0.0953102 - 1.94591)/(26 - 3)
-0.0804609
-0.71335 J (6/30/2010) 1.94591 (9/28/1995) (-0.71335 - 1.94591)/(27 - 3)
-0.110803
-0.34249 J (11/12/2010) 1.94591 (9/28/1995) (-0.34249 - 1.94591)/(28 - 3)
-0.091536
0.262364 (7/5/2011) 1.94591 (9/28/1995) (0.262364 - 1.94591)/(29 - 3)
-0.0647518
0 (11/22/2011) 1.94591 (9/28/1995) (0 - 1.94591)/(30 - 3) -0.0720707
0 (11/22/2011) 1.94591 (9/28/1995) (0 - 1.94591)/(30 - 3) -0.0720707

ND<0 (11/19/1996) 1.79176 (10/26/1995) (0 - 1.79176)/(5 - 4) -1.79176

1.60944	(12/19/1996)	1.79176	(10/26/1995)	(1.60944 - 1.79176)/(6 - 4)	-0.0911608
2.63906	(3/24/1997)	1.79176	(10/26/1995)	(2.63906 - 1.79176)/(7 - 4)	0.282433
1.75786	(9/24/1997)	1.79176	(10/26/1995)	(1.75786 - 1.79176)/(8 - 4)	-0.00847539
ND<0	(4/7/1998)	1.79176	(10/26/1995)	(0 - 1.79176)/(9 - 4)	-0.358352
ND<0	(9/23/1998)	1.79176	(10/26/1995)	(0 - 1.79176)/(10 - 4)	-0.298627
1.54756	(3/16/1999)	1.79176	(10/26/1995)	(1.54756 - 1.79176)/(11 - 4)	-0.0348853
0.955511	(9/23/1999)	1.79176	(10/26/1995)	(0.955511 - 1.79176)/(12 - 4)	-0.104531
ND<0	(3/15/2000)	1.79176	(10/26/1995)	(0 - 1.79176)/(13 - 4)	-0.199084
ND<0	(9/24/2003)	1.79176	(10/26/1995)	(0 - 1.79176)/(14 - 4)	-0.179176
ND<0	(3/11/2004)	1.79176	(10/26/1995)	(0 - 1.79176)/(15 - 4)	-0.162887
ND<0	(10/12/2004)	1.79176	(10/26/1995)	(0 - 1.79176)/(16 - 4)	-0.149313
0.223144 J	(4/1/2005)	1.79176	(10/26/1995)	(0.223144 - 1.79176)/(17 - 4)	-0.120663
0.470004 J	(10/25/2005)	1.79176	(10/26/1995)	(0.470004 - 1.79176)/(18 - 4)	-0.0944111
0.647103 J	(4/29/2006)	1.79176	(10/26/1995)	(0.647103 - 1.79176)/(19 - 4)	-0.0763104
0.113329 J	(11/18/2006)	1.79176	(10/26/1995)	(0.113329 - 1.79176)/(20 - 4)	-0.104902
ND<0	(5/23/2007)	1.79176	(10/26/1995)	(0 - 1.79176)/(21 - 4)	-0.105398
0.300105	(11/28/2007)	1.79176	(10/26/1995)	(0.300105 - 1.79176)/(22 - 4)	-0.0828697
0.231112 J	(6/5/2008)	1.79176	(10/26/1995)	(0.231112 - 1.79176)/(23 - 4)	-0.0821394
-0.0833816 J	(11/20/2008)	1.79176	(10/26/1995)	(-0.0833816 - 1.79176)/(24 - 4)	-0.0937571
-0.0304592 J	(6/11/2009)	1.79176	(10/26/1995)	(-0.0304592 - 1.79176)/(25 - 4)	-0.0867723
0.0953102	(11/16/2009)	1.79176	(10/26/1995)	(0.0953102 - 1.79176)/(26 - 4)	-0.0771113
-0.71335 J	(6/30/2010)	1.79176	(10/26/1995)	(-0.71335 - 1.79176)/(27 - 4)	-0.108918
-0.34249 J	(11/12/2010)	1.79176	(10/26/1995)	(-0.34249 - 1.79176)/(28 - 4)	-0.0889271
0.262364	(7/5/2011)	1.79176	(10/26/1995)	(0.262364 - 1.79176)/(29 - 4)	-0.0611758
0	(11/22/2011)	1.79176	(10/26/1995)	(0 - 1.79176)/(30 - 4)	-0.0689138
0	(11/22/2011)	1.79176	(10/26/1995)	(0 - 1.79176)/(30 - 4)	-0.0689138

1.60944	(12/19/1996)	ND<0	(11/19/1996)	(1.60944 - 0)/(6 - 5)	1.60944
2.63906	(3/24/1997)	ND<0	(11/19/1996)	(2.63906 - 0)/(7 - 5)	1.31953
1.75786	(9/24/1997)	ND<0	(11/19/1996)	(1.75786 - 0)/(8 - 5)	0.585953
ND<0	(4/7/1998)	ND<0	(11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0	(9/23/1998)	ND<0	(11/19/1996)	(0 - 0)/(10 - 5)	0
1.54756	(3/16/1999)	ND<0	(11/19/1996)	(1.54756 - 0)/(11 - 5)	0.257927
0.955511	(9/23/1999)	ND<0	(11/19/1996)	(0.955511 - 0)/(12 - 5)	0.136502
ND<0	(3/15/2000)	ND<0	(11/19/1996)	(0 - 0)/(13 - 5)	0

ND<0	(9/24/2003)	ND<0	(11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0	(3/11/2004)	ND<0	(11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0	(10/12/2004)	ND<0	(11/19/1996)	(0 - 0)/(16 - 5)	0
0.223144	J (4/1/2005)	ND<0	(11/19/1996)	(0.223144 - 0)/(17 - 5)	0.0185953
0.470004	J (10/25/2005)	ND<0	(11/19/1996)	(0.470004 - 0)/(18 - 5)	0.0361541
0.647103	J (4/29/2006)	ND<0	(11/19/1996)	(0.647103 - 0)/(19 - 5)	0.0462217
0.113329	J (11/18/2006)	ND<0	(11/19/1996)	(0.113329 - 0)/(20 - 5)	0.00755525
ND<0	(5/23/2007)	ND<0	(11/19/1996)	(0 - 0)/(21 - 5)	0
0.300105	(11/28/2007)	ND<0	(11/19/1996)	(0.300105 - 0)/(22 - 5)	0.0176532
0.231112	J (6/5/2008)	ND<0	(11/19/1996)	(0.231112 - 0)/(23 - 5)	0.0128395
-0.0833816	J (11/20/2008)	ND<0	(11/19/1996)	(-0.0833816 - 0)/(24 - 5)	-0.00438851
-0.0304592	J (6/11/2009)	ND<0	(11/19/1996)	(-0.0304592 - 0)/(25 - 5)	-0.00152296
0.0953102	(11/16/2009)	ND<0	(11/19/1996)	(0.0953102 - 0)/(26 - 5)	0.00453858
-0.71335	J (6/30/2010)	ND<0	(11/19/1996)	(-0.71335 - 0)/(27 - 5)	-0.032425
-0.34249	J (11/12/2010)	ND<0	(11/19/1996)	(-0.34249 - 0)/(28 - 5)	-0.0148909
0.262364	(7/5/2011)	ND<0	(11/19/1996)	(0.262364 - 0)/(29 - 5)	0.0109318
0	(11/22/2011)	ND<0	(11/19/1996)	(0 - 0)/(30 - 5)	0
0	(11/22/2011)	ND<0	(11/19/1996)	(0 - 0)/(30 - 5)	0

2.63906	(3/24/1997)	1.60944	(12/19/1996)	(2.63906 - 1.60944)/(7 - 6)	1.02962
1.75786	(9/24/1997)	1.60944	(12/19/1996)	(1.75786 - 1.60944)/(8 - 6)	0.07421
ND<0	(4/7/1998)	1.60944	(12/19/1996)	(0 - 1.60944)/(9 - 6)	-0.536479
ND<0	(9/23/1998)	1.60944	(12/19/1996)	(0 - 1.60944)/(10 - 6)	-0.402359
1.54756	(3/16/1999)	1.60944	(12/19/1996)	(1.54756 - 1.60944)/(11 - 6)	-0.0123751
0.955511	(9/23/1999)	1.60944	(12/19/1996)	(0.955511 - 1.60944)/(12 - 6)	-0.108988
ND<0	(3/15/2000)	1.60944	(12/19/1996)	(0 - 1.60944)/(13 - 6)	-0.22992
ND<0	(9/24/2003)	1.60944	(12/19/1996)	(0 - 1.60944)/(14 - 6)	-0.20118
ND<0	(3/11/2004)	1.60944	(12/19/1996)	(0 - 1.60944)/(15 - 6)	-0.178826
ND<0	(10/12/2004)	1.60944	(12/19/1996)	(0 - 1.60944)/(16 - 6)	-0.160944
0.223144	J (4/1/2005)	1.60944	(12/19/1996)	(0.223144 - 1.60944)/(17 - 6)	-0.126027
0.470004	J (10/25/2005)	1.60944	(12/19/1996)	(0.470004 - 1.60944)/(18 - 6)	-0.0949529
0.647103	J (4/29/2006)	1.60944	(12/19/1996)	(0.647103 - 1.60944)/(19 - 6)	-0.0740257
0.113329	J (11/18/2006)	1.60944	(12/19/1996)	(0.113329 - 1.60944)/(20 - 6)	-0.106865
ND<0	(5/23/2007)	1.60944	(12/19/1996)	(0 - 1.60944)/(21 - 6)	-0.107296
0.300105	(11/28/2007)	1.60944	(12/19/1996)	(0.300105 - 1.60944)/(22 - 6)	-0.0818333
0.231112	J (6/5/2008)	1.60944	(12/19/1996)	(0.231112 - 1.60944)/(23 - 6)	-0.081078

-0.0833816 J (11/20/2008) 1.60944 (12/19/1996) (-0.0833816 - 1.60944)/(24 - 6)
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-0.0304592 J (6/11/2009) 1.60944 (12/19/1996) (-0.0304592 - 1.60944)/(25 - 6)
-0.0863104
0.0953102 (11/16/2009) 1.60944 (12/19/1996) (0.0953102 - 1.60944)/(26 - 6)
-0.0757064
-0.71335 J (6/30/2010) 1.60944 (12/19/1996) (-0.71335 - 1.60944)/(27 - 6)
-0.110609
-0.34249 J (11/12/2010) 1.60944 (12/19/1996) (-0.34249 - 1.60944)/(28 - 6)
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0.262364 (7/5/2011) 1.60944 (12/19/1996) (0.262364 - 1.60944)/(29 - 6)
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0 (11/22/2011) 1.60944 (12/19/1996) (0 - 1.60944)/(30 - 6) -0.0670599
0 (11/22/2011) 1.60944 (12/19/1996) (0 - 1.60944)/(30 - 6) -0.0670599

1.75786 (9/24/1997) 2.63906 (3/24/1997) (1.75786 - 2.63906)/(8 - 7)
-0.881199
ND<0 (4/7/1998) 2.63906 (3/24/1997) (0 - 2.63906)/(9 - 7) -1.31953
ND<0 (9/23/1998) 2.63906 (3/24/1997) (0 - 2.63906)/(10 - 7)
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1.54756 (3/16/1999) 2.63906 (3/24/1997) (1.54756 - 2.63906)/(11 - 7)
-0.272874
0.955511 (9/23/1999) 2.63906 (3/24/1997) (0.955511 - 2.63906)/(12 - 7)
-0.336709
ND<0 (3/15/2000) 2.63906 (3/24/1997) (0 - 2.63906)/(13 - 7)
-0.439843
ND<0 (9/24/2003) 2.63906 (3/24/1997) (0 - 2.63906)/(14 - 7)
-0.377008
ND<0 (3/11/2004) 2.63906 (3/24/1997) (0 - 2.63906)/(15 - 7)
-0.329882
ND<0 (10/12/2004) 2.63906 (3/24/1997) (0 - 2.63906)/(16 - 7)
-0.293229
0.223144 J (4/1/2005) 2.63906 (3/24/1997) (0.223144 - 2.63906)/(17 - 7)
-0.241591
0.470004 J (10/25/2005) 2.63906 (3/24/1997) (0.470004 - 2.63906)/(18 - 7)
-0.197187
0.647103 J (4/29/2006) 2.63906 (3/24/1997) (0.647103 - 2.63906)/(19 - 7)
-0.165996
0.113329 J (11/18/2006) 2.63906 (3/24/1997) (0.113329 - 2.63906)/(20 - 7)
-0.194287
ND<0 (5/23/2007) 2.63906 (3/24/1997) (0 - 2.63906)/(21 - 7)
-0.188504
0.300105 (11/28/2007) 2.63906 (3/24/1997) (0.300105 - 2.63906)/(22 - 7)
-0.15593
0.231112 J (6/5/2008) 2.63906 (3/24/1997) (0.231112 - 2.63906)/(23 - 7)
-0.150497
-0.0833816 J (11/20/2008) 2.63906 (3/24/1997) (-0.0833816 - 2.63906)/(24 - 7)
-0.160143
-0.0304592 J (6/11/2009) 2.63906 (3/24/1997) (-0.0304592 - 2.63906)/(25 - 7)
-0.148306
0.0953102 (11/16/2009) 2.63906 (3/24/1997) (0.0953102 - 2.63906)/(26 - 7)
-0.133881
-0.71335 J (6/30/2010) 2.63906 (3/24/1997) (-0.71335 - 2.63906)/(27 - 7)
-0.16762
-0.34249 J (11/12/2010) 2.63906 (3/24/1997) (-0.34249 - 2.63906)/(28 - 7)
-0.141978
0.262364 (7/5/2011) 2.63906 (3/24/1997) (0.262364 - 2.63906)/(29 - 7)
-0.108032
0 (11/22/2011) 2.63906 (3/24/1997) (0 - 2.63906)/(30 - 7) -0.114742
0 (11/22/2011) 2.63906 (3/24/1997) (0 - 2.63906)/(30 - 7) -0.114742

ND<0 (4/7/1998) 1.75786 (9/24/1997) (0 - 1.75786)/(9 - 8) -1.75786

ND<0	(9/23/1998)	1.75786	(9/24/1997)	(0 - 1.75786)/(10 - 8)	-0.878929
1.54756	(3/16/1999)	1.75786	(9/24/1997)	(1.54756 - 1.75786)/(11 - 8)	-0.0700985
0.955511	(9/23/1999)	1.75786	(9/24/1997)	(0.955511 - 1.75786)/(12 - 8)	-0.200587
ND<0	(3/15/2000)	1.75786	(9/24/1997)	(0 - 1.75786)/(13 - 8)	-0.351572
ND<0	(9/24/2003)	1.75786	(9/24/1997)	(0 - 1.75786)/(14 - 8)	-0.292976
ND<0	(3/11/2004)	1.75786	(9/24/1997)	(0 - 1.75786)/(15 - 8)	-0.251123
ND<0	(10/12/2004)	1.75786	(9/24/1997)	(0 - 1.75786)/(16 - 8)	-0.219732
0.223144 J	(4/1/2005)	1.75786	(9/24/1997)	(0.223144 - 1.75786)/(17 - 8)	-0.170524
0.470004 J	(10/25/2005)	1.75786	(9/24/1997)	(0.470004 - 1.75786)/(18 - 8)	-0.128785
0.647103 J	(4/29/2006)	1.75786	(9/24/1997)	(0.647103 - 1.75786)/(19 - 8)	-0.100978
0.113329 J	(11/18/2006)	1.75786	(9/24/1997)	(0.113329 - 1.75786)/(20 - 8)	-0.137044
ND<0	(5/23/2007)	1.75786	(9/24/1997)	(0 - 1.75786)/(21 - 8)	-0.13522
0.300105	(11/28/2007)	1.75786	(9/24/1997)	(0.300105 - 1.75786)/(22 - 8)	-0.104125
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ND<0	(9/23/1998)	ND<0	(4/7/1998)	(0 - 0)/(10 - 9)	0
1.54756	(3/16/1999)	ND<0	(4/7/1998)	(1.54756 - 0)/(11 - 9)	0.773781
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ND<0	(3/15/2000)	ND<0	(4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0	(9/24/2003)	ND<0	(4/7/1998)	(0 - 0)/(14 - 9)	0
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ND<0	(5/23/2007)	ND<0	(4/7/1998)	(0 - 0)/(21 - 9)	0
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0.0953102 (11/16/2009) 0.470004 J (10/25/2005) (0.0953102 - 0.470004)/(26 - 18)
-0.0468367
-0.71335 J (6/30/2010) 0.470004 J (10/25/2005) (-0.71335 - 0.470004)/(27 - 18)
-0.131484
-0.34249 J (11/12/2010) 0.470004 J (10/25/2005) (-0.34249 - 0.470004)/(28 - 18)
-0.0812494
0.262364 (7/5/2011) 0.470004 J (10/25/2005) (0.262364 - 0.470004)/(29 - 18)
-0.0188763
0 (11/22/2011) 0.470004 J (10/25/2005) (0 - 0.470004)/(30 - 18) -0.039167
0 (11/22/2011) 0.470004 J (10/25/2005) (0 - 0.470004)/(30 - 18) -0.039167

0.113329 J (11/18/2006) 0.647103 J (4/29/2006) (0.113329 - 0.647103)/(20 - 19)
-0.533775
ND<0 (5/23/2007) 0.647103 J (4/29/2006) (0 - 0.647103)/(21 - 19)
-0.323552
0.300105 (11/28/2007) 0.647103 J (4/29/2006) (0.300105 - 0.647103)/(22 - 19)
-0.115666
0.231112 J (6/5/2008) 0.647103 J (4/29/2006) (0.231112 - 0.647103)/(23 - 19)
-0.103998
-0.0833816 J (11/20/2008) 0.647103 J (4/29/2006) (-0.0833816 - 0.647103)/(24 - 19)
-0.146097

-0.0304592 J (6/11/2009) 0.647103 J (4/29/2006) (-0.0304592 - 0.647103)/(25 - 19)
-0.112927
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-0.0788276
-0.71335 J (6/30/2010) 0.647103 J (4/29/2006) (-0.71335 - 0.647103)/(27 - 19)
-0.170057
-0.34249 J (11/12/2010) 0.647103 J (4/29/2006) (-0.34249 - 0.647103)/(28 - 19)
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0.262364 (7/5/2011) 0.647103 J (4/29/2006) (0.262364 - 0.647103)/(29 - 19)
-0.0384739
0 (11/22/2011) 0.647103 J (4/29/2006) (0 - 0.647103)/(30 - 19) -0.0588276
0 (11/22/2011) 0.647103 J (4/29/2006) (0 - 0.647103)/(30 - 19) -0.0588276

ND<0 (5/23/2007) 0.113329 J (11/18/2006) (0 - 0.113329)/(21 - 20)
-0.113329
0.300105 (11/28/2007) 0.113329 J (11/18/2006) (0.300105 - 0.113329)/(22 - 20)
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0.231112 J (6/5/2008) 0.113329 J (11/18/2006) (0.231112 - 0.113329)/(23 - 20)
0.039261
-0.0833816 J (11/20/2008) 0.113329 J (11/18/2006) (-0.0833816 - 0.113329)/(24 - 20)
-0.0491776
-0.0304592 J (6/11/2009) 0.113329 J (11/18/2006) (-0.0304592 - 0.113329)/(25 - 20)
-0.0287576
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-0.00300308
-0.71335 J (6/30/2010) 0.113329 J (11/18/2006) (-0.71335 - 0.113329)/(27 - 20)
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-0.34249 J (11/12/2010) 0.113329 J (11/18/2006) (-0.34249 - 0.113329)/(28 - 20)
-0.0569774
0.262364 (7/5/2011) 0.113329 J (11/18/2006) (0.262364 - 0.113329)/(29 - 20)
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0 (11/22/2011) 0.113329 J (11/18/2006) (0 - 0.113329)/(30 - 20) -0.0113329
0 (11/22/2011) 0.113329 J (11/18/2006) (0 - 0.113329)/(30 - 20) -0.0113329

0.300105 (11/28/2007) ND<0 (5/23/2007) (0.300105 - 0)/(22 - 21)
0.300105
0.231112 J (6/5/2008) ND<0 (5/23/2007) (0.231112 - 0)/(23 - 21)
0.115556
-0.0833816 J (11/20/2008) ND<0 (5/23/2007) (-0.0833816 - 0)/(24 - 21)
-0.0277939
-0.0304592 J (6/11/2009) ND<0 (5/23/2007) (-0.0304592 - 0)/(25 - 21)
-0.0076148
0.0953102 (11/16/2009) ND<0 (5/23/2007) (0.0953102 - 0)/(26 - 21)
0.019062
-0.71335 J (6/30/2010) ND<0 (5/23/2007) (-0.71335 - 0)/(27 - 21)
-0.118892
-0.34249 J (11/12/2010) ND<0 (5/23/2007) (-0.34249 - 0)/(28 - 21)
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0.262364 (7/5/2011) ND<0 (5/23/2007) (0.262364 - 0)/(29 - 21)
0.0327955
0 (11/22/2011) ND<0 (5/23/2007) (0 - 0)/(30 - 21) 0
0 (11/22/2011) ND<0 (5/23/2007) (0 - 0)/(30 - 21) 0

0.231112 J (6/5/2008) 0.300105 (11/28/2007) (0.231112 - 0.300105)/(23 - 22)
-0.0689929
-0.0833816 J (11/20/2008) 0.300105 (11/28/2007) (-0.0833816 - 0.300105)/(24 - 22)
-0.191743
-0.0304592 J (6/11/2009) 0.300105 (11/28/2007) (-0.0304592 - 0.300105)/(25 - 22)
-0.110188
0.0953102 (11/16/2009) 0.300105 (11/28/2007) (0.0953102 - 0.300105)/(26 - 22)
-0.0511986

-0.71335 J (6/30/2010) 0.300105 (11/28/2007) (-0.71335 - 0.300105)/(27 - 22)
-0.202691
-0.34249 J (11/12/2010) 0.300105 (11/28/2007) (-0.34249 - 0.300105)/(28 - 22)
-0.107099
0.262364 (7/5/2011) 0.300105 (11/28/2007) (0.262364 - 0.300105)/(29 - 22)
-0.00539148
0 (11/22/2011) 0.300105 (11/28/2007) (0 - 0.300105)/(30 - 22) -0.0375131
0 (11/22/2011) 0.300105 (11/28/2007) (0 - 0.300105)/(30 - 22) -0.0375131

-0.0833816 J (11/20/2008) 0.231112 J (6/5/2008) (-0.0833816 - 0.231112)/(24 - 23)
-0.314493
-0.0304592 J (6/11/2009) 0.231112 J (6/5/2008) (-0.0304592 - 0.231112)/(25 - 23)
-0.130785
0.0953102 (11/16/2009) 0.231112 J (6/5/2008) (0.0953102 - 0.231112)/(26 - 23)
-0.0452672
-0.71335 J (6/30/2010) 0.231112 J (6/5/2008) (-0.71335 - 0.231112)/(27 - 23)
-0.236115
-0.34249 J (11/12/2010) 0.231112 J (6/5/2008) (-0.34249 - 0.231112)/(28 - 23)
-0.11472
0.262364 (7/5/2011) 0.231112 J (6/5/2008) (0.262364 - 0.231112)/(29 - 23)
0.00520876
0 (11/22/2011) 0.231112 J (6/5/2008) (0 - 0.231112)/(30 - 23) -0.033016
0 (11/22/2011) 0.231112 J (6/5/2008) (0 - 0.231112)/(30 - 23) -0.033016

-0.0304592 J (6/11/2009) -0.0833816 J (11/20/2008) (-0.0304592 - -0.0833816)/(25 - 24)
0.0529224
0.0953102 (11/16/2009) -0.0833816 J (11/20/2008) (0.0953102 - -0.0833816)/(26 - 24)
0.0893459
-0.71335 J (6/30/2010) -0.0833816 J (11/20/2008) (-0.71335 - -0.0833816)/(27 - 24)
-0.209989
-0.34249 J (11/12/2010) -0.0833816 J (11/20/2008) (-0.34249 - -0.0833816)/(28 - 24)
-0.0647772
0.262364 (7/5/2011) -0.0833816 J (11/20/2008) (0.262364 - -0.0833816)/(29 - 24)
0.0691492
0 (11/22/2011) -0.0833816 J (11/20/2008) (0 - -0.0833816)/(30 - 24) 0.0138969
0 (11/22/2011) -0.0833816 J (11/20/2008) (0 - -0.0833816)/(30 - 24) 0.0138969

0.0953102 (11/16/2009) -0.0304592 J (6/11/2009) (0.0953102 - -0.0304592)/(26 - 25)
0.125769
-0.71335 J (6/30/2010) -0.0304592 J (6/11/2009) (-0.71335 - -0.0304592)/(27 - 25)
-0.341445
-0.34249 J (11/12/2010) -0.0304592 J (6/11/2009) (-0.34249 - -0.0304592)/(28 - 25)
-0.10401
0.262364 (7/5/2011) -0.0304592 J (6/11/2009) (0.262364 - -0.0304592)/(29 - 25)
0.0732059
0 (11/22/2011) -0.0304592 J (6/11/2009) (0 - -0.0304592)/(30 - 25) 0.00609184
0 (11/22/2011) -0.0304592 J (6/11/2009) (0 - -0.0304592)/(30 - 25) 0.00609184

-0.71335 J (6/30/2010) 0.0953102 (11/16/2009) (-0.71335 - 0.0953102)/(27 - 26)
-0.80866
-0.34249 J (11/12/2010) 0.0953102 (11/16/2009) (-0.34249 - 0.0953102)/(28 - 26)
-0.2189
0.262364 (7/5/2011) 0.0953102 (11/16/2009) (0.262364 - 0.0953102)/(29 - 26)
0.0556847
0 (11/22/2011) 0.0953102 (11/16/2009) (0 - 0.0953102)/(30 - 26) -0.0238275
0 (11/22/2011) 0.0953102 (11/16/2009) (0 - 0.0953102)/(30 - 26) -0.0238275

-0.34249 J (11/12/2010) -0.71335 J (6/30/2010) (-0.34249 - -0.71335)/(28 - 27)
0.37086
0.262364 (7/5/2011) -0.71335 J (6/30/2010) (0.262364 - -0.71335)/(29 - 27)
0.487857
0 (11/22/2011) -0.71335 J (6/30/2010) (0 - -0.71335)/(30 - 27) 0.237783

0	(11/22/2011)	-0.71335 J (6/30/2010)	(0 - -0.71335)/(30 - 27)	0.237783
0.262364	(7/5/2011)	-0.34249 J (11/12/2010)	(0.262364 - -0.34249)/(29 - 28)	0.604855
0	(11/22/2011)	-0.34249 J (11/12/2010)	(0 - -0.34249)/(30 - 28)	0.171245
0	(11/22/2011)	-0.34249 J (11/12/2010)	(0 - -0.34249)/(30 - 28)	0.171245
0	(11/22/2011)	0.262364 (7/5/2011)	(0 - 0.262364)/(30 - 29)	-0.262364
0	(11/22/2011)	0.262364 (7/5/2011)	(0 - 0.262364)/(30 - 29)	-0.262364
0	(11/22/2011)	0 (11/22/2011)	(0 - 0)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.79176
2	-1.75786
3	-1.31953
4	-0.972955
5	-0.955511
6	-0.881199
7	-0.879686
8	-0.878929
9	-0.80866
10	-0.773781
11	-0.592051
12	-0.536479
13	-0.533775
14	-0.515854
15	-0.477756
16	-0.439843
17	-0.417588
18	-0.402359
19	-0.386891
20	-0.377008
21	-0.358352
22	-0.351572
23	-0.341445
24	-0.336709
25	-0.329882
26	-0.324318
27	-0.323552
28	-0.318504
29	-0.314493
30	-0.309513
31	-0.298627
32	-0.293229
33	-0.292976
34	-0.277987
35	-0.272874
36	-0.262364
37	-0.262364
38	-0.251123
39	-0.241591
40	-0.238878
41	-0.236115
42	-0.22992
43	-0.220736
44	-0.219732

45	-0.2189
46	-0.209989
47	-0.202691
48	-0.20118
49	-0.200587
50	-0.199084
51	-0.197187
52	-0.194591
53	-0.194287
54	-0.191743
55	-0.188504
56	-0.179176
57	-0.178966
58	-0.178826
59	-0.178337
60	-0.176901
61	-0.170524
62	-0.170057
63	-0.16762
64	-0.165996
65	-0.162887
66	-0.162159
67	-0.160944
68	-0.160143
69	-0.159359
70	-0.156668
71	-0.156595
72	-0.15593
73	-0.154756
74	-0.154151
75	-0.153937
76	-0.150497
77	-0.149685
78	-0.149313
79	-0.148306
80	-0.146474
81	-0.146097
82	-0.141978
83	-0.141307
84	-0.137044
85	-0.13522
86	-0.133881
87	-0.131484
88	-0.130785
89	-0.130064
90	-0.128785
91	-0.126027
92	-0.125457
93	-0.123055
94	-0.120663
95	-0.118892
96	-0.118097
97	-0.115666
98	-0.115077
99	-0.114742
100	-0.114742
101	-0.11472
102	-0.113888
103	-0.113405
104	-0.113329
105	-0.112927
106	-0.112716

107	-0.112557
108	-0.112157
109	-0.111257
110	-0.11118
111	-0.110803
112	-0.110609
113	-0.110188
114	-0.110044
115	-0.109955
116	-0.109704
117	-0.108988
118	-0.108918
119	-0.108106
120	-0.108032
121	-0.107799
122	-0.107296
123	-0.107099
124	-0.106865
125	-0.106168
126	-0.105398
127	-0.105273
128	-0.105195
129	-0.105017
130	-0.104902
131	-0.104531
132	-0.104397
133	-0.104125
134	-0.10401
135	-0.103998
136	-0.101783
137	-0.100978
138	-0.0983938
139	-0.0968168
140	-0.0966329
141	-0.0963664
142	-0.0949529
143	-0.0944111
144	-0.0940455
145	-0.0937571
146	-0.0936493
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152	-0.0894831
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176	-0.0763104
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178	-0.0757064
179	-0.0740257
180	-0.0720707
181	-0.0720707
182	-0.0714947
183	-0.0713999
184	-0.071214
185	-0.0700985
186	-0.0689929
187	-0.0689138
188	-0.0689138
189	-0.0686413
190	-0.0670599
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192	-0.0659349
193	-0.0658545
194	-0.0655407
195	-0.06485
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205	-0.0588276
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207	-0.0569774
208	-0.0557923
209	-0.0557859
210	-0.0548731
211	-0.053084
212	-0.053084
213	-0.0514213
214	-0.0511986
215	-0.0509536
216	-0.0497935
217	-0.0491776
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237	-0.0376104
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239	-0.0375131
240	-0.0366814
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242	-0.035627
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244	-0.033016
245	-0.033016
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263	-0.0148909
264	-0.0142037
265	-0.0123751
266	-0.0113329
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268	-0.0104227
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325	0
326	0
327	0
328	0
329	0
330	0
331	0.00132803
332	0.00326839
333	0.00453858
334	0.00520876
335	0.00560648
336	0.00595689
337	0.00607661
338	0.00609184
339	0.00609184
340	0.00733155
341	0.00755525
342	0.00769461
343	0.00769461
344	0.00794251
345	0.00802851
346	0.00866456
347	0.00953102
348	0.0103026
349	0.0109318
350	0.0111572
351	0.0113329
352	0.0127381
353	0.0128395
354	0.0131182

355	0.0138086
356	0.0138969
357	0.0138969
358	0.0148762
359	0.0153922
360	0.0159388
361	0.0161898
362	0.0163978
363	0.016508
364	0.0165595
365	0.0171649
366	0.0173396
367	0.017491
368	0.0176532
369	0.0177091
370	0.0177778
371	0.0185953
372	0.0185953
373	0.0187403
374	0.0188881
375	0.019062
376	0.0201819
377	0.020648
378	0.0226657
379	0.023085
380	0.0231112
381	0.0247937
382	0.0249166
383	0.0250087
384	0.0256791
385	0.0278929
386	0.0278929
387	0.0278929
388	0.0283322
389	0.028889
390	0.0318777
391	0.0327555
392	0.0327955
393	0.033016
394	0.033345
395	0.0361541
396	0.0375131
397	0.039261
398	0.0407734
399	0.0428721
400	0.0462217
401	0.048347
402	0.0500174
403	0.0522226
404	0.0529224
405	0.0556847
406	0.0557859
407	0.0557859
408	0.0587505
409	0.0647103
410	0.0691492
411	0.0719004
412	0.0732059
413	0.07421
414	0.0743812
415	0.0841825
416	0.0891687

417	0.0893459
418	0.093388
419	0.0940007
420	0.10715
421	0.107851
422	0.111572
423	0.115556
424	0.117501
425	0.125769
426	0.129421
427	0.136502
428	0.156668
429	0.161776
430	0.171245
431	0.171245
432	0.173287
433	0.177071
434	0.1771
435	0.21198
436	0.215701
437	0.223144
438	0.235002
439	0.237783
440	0.237783
441	0.24686
442	0.257927
443	0.269498
444	0.277259
445	0.282433
446	0.283
447	0.300105
448	0.318504
449	0.366516
450	0.37086
451	0.477033
452	0.477756
453	0.487857
454	0.585953
455	0.604855
456	0.671634
457	0.693147
458	0.773781
459	1.02962
460	1.08453
461	1.31953
462	1.47591
463	1.54756
464	1.60944

Sen's Estimator (Median Q) is -0.040202

Tied Group	Value	Members
1	0	10

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1

9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 2250
B = 18
C = 720
D = 0
E = 90
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3335.76
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 95.0002
M1 = (464 - 95.0002)/2.0 = 184.5
M2 = (464 + 95.0002)/2.0 + 1 = 280.5
Lower limit is -0.071214 = Q(184)
Upper limit is -0.00300308 = Q(281)
-0.00300308 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
2.48491	(8/24/1995)	-0.755023 J (7/20/1995)	(2.48491 - -0.755023)/(2 - 1)
3.23993			
2.3979	(9/28/1995)	-0.755023 J (7/20/1995)	(2.3979 - -0.755023)/(3 - 1)
1.57646			
0 J	(10/26/1995)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(4 - 1)
0.251674			
ND<0	(11/19/1996)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(5 - 1)
0.188756			
2.94444	(12/19/1996)	-0.755023 J (7/20/1995)	(2.94444 - -0.755023)/(6 - 1)
0.739892			
2.89037	(3/24/1997)	-0.755023 J (7/20/1995)	(2.89037 - -0.755023)/(7 - 1)
0.607566			
3.09104	(9/24/1997)	-0.755023 J (7/20/1995)	(3.09104 - -0.755023)/(8 - 1)
0.549438			
2.77259	(4/7/1998)	-0.755023 J (7/20/1995)	(2.77259 - -0.755023)/(9 - 1)
0.440951			
3.3322	(9/23/1998)	-0.755023 J (7/20/1995)	(3.3322 - -0.755023)/(10 - 1)
0.454136			
2.79117	(3/16/1999)	-0.755023 J (7/20/1995)	(2.79117 - -0.755023)/(11 - 1)
0.354619			
2.78501	(9/23/1999)	-0.755023 J (7/20/1995)	(2.78501 - -0.755023)/(12 - 1)
0.321821			
ND<0	(3/15/2000)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(13 - 1)
0.0629185			
ND<0	(9/24/2003)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(14 - 1)
0.0580787			
ND<0	(3/11/2004)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(15 - 1)
0.0539302			
ND<0	(10/12/2004)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(16 - 1)
0.0503348			
0.647103 J	(4/1/2005)	-0.755023 J (7/20/1995)	(0.647103 - -0.755023)/(17 - 1)
0.0876329			
1.23256	(10/25/2005)	-0.755023 J (7/20/1995)	(1.23256 - -0.755023)/(18 - 1)
0.116917			
0.746688	(4/29/2006)	-0.755023 J (7/20/1995)	(0.746688 - -0.755023)/(19 - 1)
0.0834284			
1.05082	(11/18/2006)	-0.755023 J (7/20/1995)	(1.05082 - -0.755023)/(20 - 1)
0.0950444			
ND<0	(5/23/2007)	-0.755023 J (7/20/1995)	(0 - -0.755023)/(21 - 1)
0.0377511			
1.41342	(11/28/2007)	-0.755023 J (7/20/1995)	(1.41342 - -0.755023)/(22 - 1)
0.103259			
1.4884	(6/5/2008)	-0.755023 J (7/20/1995)	(1.4884 - -0.755023)/(23 - 1)
0.101974			
1.12493	(11/20/2008)	-0.755023 J (7/20/1995)	(1.12493 - -0.755023)/(24 - 1)
0.0817371			
1.64866	(6/11/2009)	-0.755023 J (7/20/1995)	(1.64866 - -0.755023)/(25 - 1)
0.100153			
0.916291	(6/30/2010)	-0.755023 J (7/20/1995)	(0.916291 - -0.755023)/(26 - 1)
0.0668525			
0.875469	(11/12/2010)	-0.755023 J (7/20/1995)	(0.875469 - -0.755023)/(27 - 1)
0.0627112			

1.1314 (7/5/2011) -0.755023 J (7/20/1995) (1.1314 - -0.755023)/(28 - 1)
0.0698676
0.916291 (11/22/2011) -0.755023 J (7/20/1995) (0.916291 - -0.755023)/(29 - 1)
0.0596898
0.916291 (11/22/2011) -0.755023 J (7/20/1995) (0.916291 - -0.755023)/(29 - 1)
0.0596898

2.3979 (9/28/1995) 2.48491 (8/24/1995) (2.3979 - 2.48491)/(3 - 2)
-0.0870114
0 J (10/26/1995) 2.48491 (8/24/1995) (0 - 2.48491)/(4 - 2) -1.24245
ND<0 (11/19/1996) 2.48491 (8/24/1995) (0 - 2.48491)/(5 - 2)
-0.828302
2.94444 (12/19/1996) 2.48491 (8/24/1995) (2.94444 - 2.48491)/(6 - 2)
0.114883
2.89037 (3/24/1997) 2.48491 (8/24/1995) (2.89037 - 2.48491)/(7 - 2)
0.081093
3.09104 (9/24/1997) 2.48491 (8/24/1995) (3.09104 - 2.48491)/(8 - 2)
0.101023
2.77259 (4/7/1998) 2.48491 (8/24/1995) (2.77259 - 2.48491)/(9 - 2)
0.0410974
3.3322 (9/23/1998) 2.48491 (8/24/1995) (3.3322 - 2.48491)/(10 - 2)
0.105912
2.79117 (3/16/1999) 2.48491 (8/24/1995) (2.79117 - 2.48491)/(11 - 2)
0.0340287
2.78501 (9/23/1999) 2.48491 (8/24/1995) (2.78501 - 2.48491)/(12 - 2)
0.0300105
ND<0 (3/15/2000) 2.48491 (8/24/1995) (0 - 2.48491)/(13 - 2)
-0.225901
ND<0 (9/24/2003) 2.48491 (8/24/1995) (0 - 2.48491)/(14 - 2)
-0.207076
ND<0 (3/11/2004) 2.48491 (8/24/1995) (0 - 2.48491)/(15 - 2)
-0.191147
ND<0 (10/12/2004) 2.48491 (8/24/1995) (0 - 2.48491)/(16 - 2)
-0.177493
0.647103 J (4/1/2005) 2.48491 (8/24/1995) (0.647103 - 2.48491)/(17 - 2)
-0.12252
1.23256 (10/25/2005) 2.48491 (8/24/1995) (1.23256 - 2.48491)/(18 - 2)
-0.0782716
0.746688 (4/29/2006) 2.48491 (8/24/1995) (0.746688 - 2.48491)/(19 - 2)
-0.102248
1.05082 (11/18/2006) 2.48491 (8/24/1995) (1.05082 - 2.48491)/(20 - 2)
-0.0796714
ND<0 (5/23/2007) 2.48491 (8/24/1995) (0 - 2.48491)/(21 - 2)
-0.130785
1.41342 (11/28/2007) 2.48491 (8/24/1995) (1.41342 - 2.48491)/(22 - 2)
-0.0535742
1.4884 (6/5/2008) 2.48491 (8/24/1995) (1.4884 - 2.48491)/(23 - 2)
-0.0474527
1.12493 (11/20/2008) 2.48491 (8/24/1995) (1.12493 - 2.48491)/(24 - 2)
-0.0618171
1.64866 (6/11/2009) 2.48491 (8/24/1995) (1.64866 - 2.48491)/(25 - 2)
-0.0363586
0.916291 (6/30/2010) 2.48491 (8/24/1995) (0.916291 - 2.48491)/(26 - 2)
-0.065359
0.875469 (11/12/2010) 2.48491 (8/24/1995) (0.875469 - 2.48491)/(27 - 2)
-0.0643775
1.1314 (7/5/2011) 2.48491 (8/24/1995) (1.1314 - 2.48491)/(28 - 2)
-0.0520579
0.916291 (11/22/2011) 2.48491 (8/24/1995) (0.916291 - 2.48491)/(29 - 2)
-0.0580969
0.916291 (11/22/2011) 2.48491 (8/24/1995) (0.916291 - 2.48491)/(29 - 2)
-0.0580969

0 J (10/26/1995) 2.3979 (9/28/1995) (0 - 2.3979)/(4 - 3) -2.3979
ND<0 (11/19/1996) 2.3979 (9/28/1995) (0 - 2.3979)/(5 - 3) -1.19895
2.94444 (12/19/1996) 2.3979 (9/28/1995) (2.94444 - 2.3979)/(6 - 3)
0.182181
2.89037 (3/24/1997) 2.3979 (9/28/1995) (2.89037 - 2.3979)/(7 - 3)
0.123119
3.09104 (9/24/1997) 2.3979 (9/28/1995) (3.09104 - 2.3979)/(8 - 3)
0.138629
2.77259 (4/7/1998) 2.3979 (9/28/1995) (2.77259 - 2.3979)/(9 - 3)
0.0624489
3.3322 (9/23/1998) 2.3979 (9/28/1995) (3.3322 - 2.3979)/(10 - 3)
0.133473
2.79117 (3/16/1999) 2.3979 (9/28/1995) (2.79117 - 2.3979)/(11 - 3)
0.0491587
2.78501 (9/23/1999) 2.3979 (9/28/1995) (2.78501 - 2.3979)/(12 - 3)
0.0430129
ND<0 (3/15/2000) 2.3979 (9/28/1995) (0 - 2.3979)/(13 - 3) -0.23979
ND<0 (9/24/2003) 2.3979 (9/28/1995) (0 - 2.3979)/(14 - 3) -0.21799
ND<0 (3/11/2004) 2.3979 (9/28/1995) (0 - 2.3979)/(15 - 3)
-0.199825
ND<0 (10/12/2004) 2.3979 (9/28/1995) (0 - 2.3979)/(16 - 3)
-0.184453
0.647103 J (4/1/2005) 2.3979 (9/28/1995) (0.647103 - 2.3979)/(17 - 3)
-0.125057
1.23256 (10/25/2005) 2.3979 (9/28/1995) (1.23256 - 2.3979)/(18 - 3)
-0.077689
0.746688 (4/29/2006) 2.3979 (9/28/1995) (0.746688 - 2.3979)/(19 - 3)
-0.1032
1.05082 (11/18/2006) 2.3979 (9/28/1995) (1.05082 - 2.3979)/(20 - 3)
-0.0792396
ND<0 (5/23/2007) 2.3979 (9/28/1995) (0 - 2.3979)/(21 - 3)
-0.133216
1.41342 (11/28/2007) 2.3979 (9/28/1995) (1.41342 - 2.3979)/(22 - 3)
-0.0518143
1.4884 (6/5/2008) 2.3979 (9/28/1995) (1.4884 - 2.3979)/(23 - 3)
-0.0454748
1.12493 (11/20/2008) 2.3979 (9/28/1995) (1.12493 - 2.3979)/(24 - 3)
-0.0606174
1.64866 (6/11/2009) 2.3979 (9/28/1995) (1.64866 - 2.3979)/(25 - 3)
-0.0340562
0.916291 (6/30/2010) 2.3979 (9/28/1995) (0.916291 - 2.3979)/(26 - 3)
-0.0644176
0.875469 (11/12/2010) 2.3979 (9/28/1995) (0.875469 - 2.3979)/(27 - 3)
-0.0634344
1.1314 (7/5/2011) 2.3979 (9/28/1995) (1.1314 - 2.3979)/(28 - 3)
-0.0506597
0.916291 (11/22/2011) 2.3979 (9/28/1995) (0.916291 - 2.3979)/(29 - 3)
-0.0569848
0.916291 (11/22/2011) 2.3979 (9/28/1995) (0.916291 - 2.3979)/(29 - 3)
-0.0569848

ND<0 (11/19/1996) 0 J (10/26/1995) (0 - 0)/(5 - 4) 0
2.94444 (12/19/1996) 0 J (10/26/1995) (2.94444 - 0)/(6 - 4) 1.47222
2.89037 (3/24/1997) 0 J (10/26/1995) (2.89037 - 0)/(7 - 4) 0.963457
3.09104 (9/24/1997) 0 J (10/26/1995) (3.09104 - 0)/(8 - 4) 0.772761
2.77259 (4/7/1998) 0 J (10/26/1995) (2.77259 - 0)/(9 - 4) 0.554518
3.3322 (9/23/1998) 0 J (10/26/1995) (3.3322 - 0)/(10 - 4) 0.555367
2.79117 (3/16/1999) 0 J (10/26/1995) (2.79117 - 0)/(11 - 4) 0.398738
2.78501 (9/23/1999) 0 J (10/26/1995) (2.78501 - 0)/(12 - 4) 0.348126
ND<0 (3/15/2000) 0 J (10/26/1995) (0 - 0)/(13 - 4) 0
ND<0 (9/24/2003) 0 J (10/26/1995) (0 - 0)/(14 - 4) 0

ND<0 (3/11/2004)	0 J (10/26/1995)	(0 - 0)/(15 - 4)	0	
ND<0 (10/12/2004)	0 J (10/26/1995)	(0 - 0)/(16 - 4)	0	
0.647103 J (4/1/2005)	0 J (10/26/1995)	(0.647103 - 0)/(17 - 4)		0.0497772
1.23256 (10/25/2005)	0 J (10/26/1995)	(1.23256 - 0)/(18 - 4)		0.08804
0.746688 (4/29/2006)	0 J (10/26/1995)	(0.746688 - 0)/(19 - 4)		0.0497792
1.05082 (11/18/2006)	0 J (10/26/1995)	(1.05082 - 0)/(20 - 4)		0.0656764
ND<0 (5/23/2007)	0 J (10/26/1995)	(0 - 0)/(21 - 4)	0	
1.41342 (11/28/2007)	0 J (10/26/1995)	(1.41342 - 0)/(22 - 4)		0.0785235
1.4884 (6/5/2008)	0 J (10/26/1995)	(1.4884 - 0)/(23 - 4)		0.0783368
1.12493 (11/20/2008)	0 J (10/26/1995)	(1.12493 - 0)/(24 - 4)		0.0562465
1.64866 (6/11/2009)	0 J (10/26/1995)	(1.64866 - 0)/(25 - 4)		0.0785076
0.916291 (6/30/2010)	0 J (10/26/1995)	(0.916291 - 0)/(26 - 4)		0.0416496
0.875469 (11/12/2010)	0 J (10/26/1995)	(0.875469 - 0)/(27 - 4)		0.0380639
1.1314 (7/5/2011)	0 J (10/26/1995)	(1.1314 - 0)/(28 - 4)		0.0471418
0.916291 (11/22/2011)	0 J (10/26/1995)	(0.916291 - 0)/(29 - 4)		0.0366516
0.916291 (11/22/2011)	0 J (10/26/1995)	(0.916291 - 0)/(29 - 4)		0.0366516

2.94444 (12/19/1996)	ND<0 (11/19/1996)	(2.94444 - 0)/(6 - 5)	2.94444
2.89037 (3/24/1997)	ND<0 (11/19/1996)	(2.89037 - 0)/(7 - 5)	1.44519
3.09104 (9/24/1997)	ND<0 (11/19/1996)	(3.09104 - 0)/(8 - 5)	1.03035
2.77259 (4/7/1998)	ND<0 (11/19/1996)	(2.77259 - 0)/(9 - 5)	
0.693147			
3.3322 (9/23/1998)	ND<0 (11/19/1996)	(3.3322 - 0)/(10 - 5)	
0.666441			
2.79117 (3/16/1999)	ND<0 (11/19/1996)	(2.79117 - 0)/(11 - 5)	
0.465194			
2.78501 (9/23/1999)	ND<0 (11/19/1996)	(2.78501 - 0)/(12 - 5)	
0.397859			
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
0.647103 J (4/1/2005)	ND<0 (11/19/1996)	(0.647103 - 0)/(17 - 5)	
0.0539253			
1.23256 (10/25/2005)	ND<0 (11/19/1996)	(1.23256 - 0)/(18 - 5)	
0.0948123			
0.746688 (4/29/2006)	ND<0 (11/19/1996)	(0.746688 - 0)/(19 - 5)	
0.0533349			
1.05082 (11/18/2006)	ND<0 (11/19/1996)	(1.05082 - 0)/(20 - 5)	
0.0700548			
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
1.41342 (11/28/2007)	ND<0 (11/19/1996)	(1.41342 - 0)/(22 - 5)	
0.0831425			
1.4884 (6/5/2008)	ND<0 (11/19/1996)	(1.4884 - 0)/(23 - 5)	
0.0826889			
1.12493 (11/20/2008)	ND<0 (11/19/1996)	(1.12493 - 0)/(24 - 5)	
0.0592068			
1.64866 (6/11/2009)	ND<0 (11/19/1996)	(1.64866 - 0)/(25 - 5)	
0.0824329			
0.916291 (6/30/2010)	ND<0 (11/19/1996)	(0.916291 - 0)/(26 - 5)	
0.0436329			
0.875469 (11/12/2010)	ND<0 (11/19/1996)	(0.875469 - 0)/(27 - 5)	
0.039794			
1.1314 (7/5/2011)	ND<0 (11/19/1996)	(1.1314 - 0)/(28 - 5)	
0.0491914			
0.916291 (11/22/2011)	ND<0 (11/19/1996)	(0.916291 - 0)/(29 - 5)	
0.0381788			
0.916291 (11/22/2011)	ND<0 (11/19/1996)	(0.916291 - 0)/(29 - 5)	
0.0381788			

2.89037 (3/24/1997)	2.94444 (12/19/1996)	(2.89037 - 2.94444)/(7 - 6)
-0.0540672		

3.09104	(9/24/1997)	2.94444	(12/19/1996)	(3.09104 - 2.94444)/(8 - 6)	
0.0733017					
2.77259	(4/7/1998)	2.94444	(12/19/1996)	(2.77259 - 2.94444)/(9 - 6)	
-0.0572834					
3.3322	(9/23/1998)	2.94444	(12/19/1996)	(3.3322 - 2.94444)/(10 - 6)	
0.0969414					
2.79117	(3/16/1999)	2.94444	(12/19/1996)	(2.79117 - 2.94444)/(11 - 6)	
-0.0306548					
2.78501	(9/23/1999)	2.94444	(12/19/1996)	(2.78501 - 2.94444)/(12 - 6)	
-0.0265713					
ND<0	(3/15/2000)	2.94444	(12/19/1996)	(0 - 2.94444)/(13 - 6)	
-0.420634					
ND<0	(9/24/2003)	2.94444	(12/19/1996)	(0 - 2.94444)/(14 - 6)	
-0.368055					
ND<0	(3/11/2004)	2.94444	(12/19/1996)	(0 - 2.94444)/(15 - 6)	-0.32716
ND<0	(10/12/2004)	2.94444	(12/19/1996)	(0 - 2.94444)/(16 - 6)	
-0.294444					
0.647103 J	(4/1/2005)	2.94444	(12/19/1996)	(0.647103 - 2.94444)/(17 - 6)	
-0.208849					
1.23256	(10/25/2005)	2.94444	(12/19/1996)	(1.23256 - 2.94444)/(18 - 6)	
-0.142657					
0.746688	(4/29/2006)	2.94444	(12/19/1996)	(0.746688 - 2.94444)/(19 - 6)	
-0.169058					
1.05082	(11/18/2006)	2.94444	(12/19/1996)	(1.05082 - 2.94444)/(20 - 6)	
-0.135258					
ND<0	(5/23/2007)	2.94444	(12/19/1996)	(0 - 2.94444)/(21 - 6)	
-0.196296					
1.41342	(11/28/2007)	2.94444	(12/19/1996)	(1.41342 - 2.94444)/(22 - 6)	
-0.0956885					
1.4884	(6/5/2008)	2.94444	(12/19/1996)	(1.4884 - 2.94444)/(23 - 6)	
-0.0856494					
1.12493	(11/20/2008)	2.94444	(12/19/1996)	(1.12493 - 2.94444)/(24 - 6)	
-0.101084					
1.64866	(6/11/2009)	2.94444	(12/19/1996)	(1.64866 - 2.94444)/(25 - 6)	
-0.068199					
0.916291	(6/30/2010)	2.94444	(12/19/1996)	(0.916291 - 2.94444)/(26 - 6)	
-0.101407					
0.875469	(11/12/2010)	2.94444	(12/19/1996)	(0.875469 - 2.94444)/(27 - 6)	
-0.0985224					
1.1314	(7/5/2011)	2.94444	(12/19/1996)	(1.1314 - 2.94444)/(28 - 6)	
-0.0824108					
0.916291	(11/22/2011)	2.94444	(12/19/1996)	(0.916291 - 2.94444)/(29 - 6)	
-0.0881804					
0.916291	(11/22/2011)	2.94444	(12/19/1996)	(0.916291 - 2.94444)/(29 - 6)	
-0.0881804					
3.09104	(9/24/1997)	2.89037	(3/24/1997)	(3.09104 - 2.89037)/(8 - 7)	
0.200671					
2.77259	(4/7/1998)	2.89037	(3/24/1997)	(2.77259 - 2.89037)/(9 - 7)	
-0.0588915					
3.3322	(9/23/1998)	2.89037	(3/24/1997)	(3.3322 - 2.89037)/(10 - 7)	
0.147278					
2.79117	(3/16/1999)	2.89037	(3/24/1997)	(2.79117 - 2.89037)/(11 - 7)	
-0.0248017					
2.78501	(9/23/1999)	2.89037	(3/24/1997)	(2.78501 - 2.89037)/(12 - 7)	
-0.0210721					
ND<0	(3/15/2000)	2.89037	(3/24/1997)	(0 - 2.89037)/(13 - 7)	
-0.481729					
ND<0	(9/24/2003)	2.89037	(3/24/1997)	(0 - 2.89037)/(14 - 7)	-0.41291
ND<0	(3/11/2004)	2.89037	(3/24/1997)	(0 - 2.89037)/(15 - 7)	
-0.361296					

ND<0 (10/12/2004)	2.89037	(3/24/1997)	(0 - 2.89037)/(16 - 7)	
-0.321152				
0.647103 J (4/1/2005)	2.89037	(3/24/1997)	(0.647103 - 2.89037)/(17 - 7)	
-0.224327				
1.23256 (10/25/2005)	2.89037	(3/24/1997)	(1.23256 - 2.89037)/(18 - 7)	
-0.15071				
0.746688 (4/29/2006)	2.89037	(3/24/1997)	(0.746688 - 2.89037)/(19 - 7)	
-0.17864				
1.05082 (11/18/2006)	2.89037	(3/24/1997)	(1.05082 - 2.89037)/(20 - 7)	
-0.141504				
ND<0 (5/23/2007)	2.89037	(3/24/1997)	(0 - 2.89037)/(21 - 7)	
-0.206455				
1.41342 (11/28/2007)	2.89037	(3/24/1997)	(1.41342 - 2.89037)/(22 - 7)	
-0.0984632				
1.4884 (6/5/2008)	2.89037	(3/24/1997)	(1.4884 - 2.89037)/(23 - 7)	
-0.0876233				
1.12493 (11/20/2008)	2.89037	(3/24/1997)	(1.12493 - 2.89037)/(24 - 7)	
-0.10385				
1.64866 (6/11/2009)	2.89037	(3/24/1997)	(1.64866 - 2.89037)/(25 - 7)	
-0.0689841				
0.916291 (6/30/2010)	2.89037	(3/24/1997)	(0.916291 - 2.89037)/(26 - 7)	
-0.103899				
0.875469 (11/12/2010)	2.89037	(3/24/1997)	(0.875469 - 2.89037)/(27 - 7)	
-0.100745				
1.1314 (7/5/2011)	2.89037	(3/24/1997)	(1.1314 - 2.89037)/(28 - 7)	
-0.0837605				
0.916291 (11/22/2011)	2.89037	(3/24/1997)	(0.916291 - 2.89037)/(29 - 7)	
-0.089731				
0.916291 (11/22/2011)	2.89037	(3/24/1997)	(0.916291 - 2.89037)/(29 - 7)	
-0.089731				
2.77259 (4/7/1998)	3.09104	(9/24/1997)	(2.77259 - 3.09104)/(9 - 8)	
-0.318454				
3.3322 (9/23/1998)	3.09104	(9/24/1997)	(3.3322 - 3.09104)/(10 - 8)	
0.120581				
2.79117 (3/16/1999)	3.09104	(9/24/1997)	(2.79117 - 3.09104)/(11 - 8)	
-0.0999591				
2.78501 (9/23/1999)	3.09104	(9/24/1997)	(2.78501 - 3.09104)/(12 - 8)	
-0.0765078				
ND<0 (3/15/2000)	3.09104	(9/24/1997)	(0 - 3.09104)/(13 - 8)	
-0.618208				
ND<0 (9/24/2003)	3.09104	(9/24/1997)	(0 - 3.09104)/(14 - 8)	
-0.515174				
ND<0 (3/11/2004)	3.09104	(9/24/1997)	(0 - 3.09104)/(15 - 8)	
-0.441577				
ND<0 (10/12/2004)	3.09104	(9/24/1997)	(0 - 3.09104)/(16 - 8)	-0.38638
0.647103 J (4/1/2005)	3.09104	(9/24/1997)	(0.647103 - 3.09104)/(17 - 8)	
-0.271549				
1.23256 (10/25/2005)	3.09104	(9/24/1997)	(1.23256 - 3.09104)/(18 - 8)	
-0.185848				
0.746688 (4/29/2006)	3.09104	(9/24/1997)	(0.746688 - 3.09104)/(19 - 8)	
-0.213123				
1.05082 (11/18/2006)	3.09104	(9/24/1997)	(1.05082 - 3.09104)/(20 - 8)	
-0.170018				
ND<0 (5/23/2007)	3.09104	(9/24/1997)	(0 - 3.09104)/(21 - 8)	
-0.237772				
1.41342 (11/28/2007)	3.09104	(9/24/1997)	(1.41342 - 3.09104)/(22 - 8)	
-0.11983				
1.4884 (6/5/2008)	3.09104	(9/24/1997)	(1.4884 - 3.09104)/(23 - 8)	
-0.106843				
1.12493 (11/20/2008)	3.09104	(9/24/1997)	(1.12493 - 3.09104)/(24 - 8)	
-0.122882				

1.64866 (6/11/2009)	3.09104 (9/24/1997)	(1.64866 - 3.09104)/(25 - 8)	
-0.0848461			
0.916291 (6/30/2010)	3.09104 (9/24/1997)	(0.916291 - 3.09104)/(26 - 8)	
-0.12082			
0.875469 (11/12/2010)	3.09104 (9/24/1997)	(0.875469 - 3.09104)/(27 - 8)	
-0.116609			
1.1314 (7/5/2011)	3.09104 (9/24/1997)	(1.1314 - 3.09104)/(28 - 8)	
-0.097982			
0.916291 (11/22/2011)	3.09104 (9/24/1997)	(0.916291 - 3.09104)/(29 - 8)	
-0.10356			
0.916291 (11/22/2011)	3.09104 (9/24/1997)	(0.916291 - 3.09104)/(29 - 8)	
-0.10356			
3.3322 (9/23/1998)	2.77259 (4/7/1998)	(3.3322 - 2.77259)/(10 - 9)	
0.559616			
2.79117 (3/16/1999)	2.77259 (4/7/1998)	(2.79117 - 2.77259)/(11 - 9)	
0.00928819			
2.78501 (9/23/1999)	2.77259 (4/7/1998)	(2.78501 - 2.77259)/(12 - 9)	
0.00414084			
ND<0 (3/15/2000)	2.77259 (4/7/1998)	(0 - 2.77259)/(13 - 9)	
-0.693147			
ND<0 (9/24/2003)	2.77259 (4/7/1998)	(0 - 2.77259)/(14 - 9)	
-0.554518			
ND<0 (3/11/2004)	2.77259 (4/7/1998)	(0 - 2.77259)/(15 - 9)	
-0.462098			
ND<0 (10/12/2004)	2.77259 (4/7/1998)	(0 - 2.77259)/(16 - 9)	
-0.396084			
0.647103 J (4/1/2005)	2.77259 (4/7/1998)	(0.647103 - 2.77259)/(17 - 9)	
-0.265686			
1.23256 (10/25/2005)	2.77259 (4/7/1998)	(1.23256 - 2.77259)/(18 - 9)	
-0.171114			
0.746688 (4/29/2006)	2.77259 (4/7/1998)	(0.746688 - 2.77259)/(19 - 9)	
-0.20259			
1.05082 (11/18/2006)	2.77259 (4/7/1998)	(1.05082 - 2.77259)/(20 - 9)	
-0.156524			
ND<0 (5/23/2007)	2.77259 (4/7/1998)	(0 - 2.77259)/(21 - 9)	
-0.231049			
1.41342 (11/28/2007)	2.77259 (4/7/1998)	(1.41342 - 2.77259)/(22 - 9)	
-0.104551			
1.4884 (6/5/2008)	2.77259 (4/7/1998)	(1.4884 - 2.77259)/(23 - 9)	
-0.0917278			
1.12493 (11/20/2008)	2.77259 (4/7/1998)	(1.12493 - 2.77259)/(24 - 9)	
-0.109844			
1.64866 (6/11/2009)	2.77259 (4/7/1998)	(1.64866 - 2.77259)/(25 - 9)	
-0.0702456			
0.916291 (6/30/2010)	2.77259 (4/7/1998)	(0.916291 - 2.77259)/(26 - 9)	
-0.109194			
0.875469 (11/12/2010)	2.77259 (4/7/1998)	(0.875469 - 2.77259)/(27 - 9)	
-0.105396			
1.1314 (7/5/2011)	2.77259 (4/7/1998)	(1.1314 - 2.77259)/(28 - 9)	
-0.0863782			
0.916291 (11/22/2011)	2.77259 (4/7/1998)	(0.916291 - 2.77259)/(29 - 9)	
-0.0928149			
0.916291 (11/22/2011)	2.77259 (4/7/1998)	(0.916291 - 2.77259)/(29 - 9)	
-0.0928149			
2.79117 (3/16/1999)	3.3322 (9/23/1998)	(2.79117 - 3.3322)/(11 - 10)	
-0.541039			
2.78501 (9/23/1999)	3.3322 (9/23/1998)	(2.78501 - 3.3322)/(12 - 10)	
-0.273597			
ND<0 (3/15/2000)	3.3322 (9/23/1998)	(0 - 3.3322)/(13 - 10)	-1.11073

ND<0 (9/24/2003)	3.3322 (9/23/1998)	(0 - 3.3322)/(14 - 10)		
-0.833051				
ND<0 (3/11/2004)	3.3322 (9/23/1998)	(0 - 3.3322)/(15 - 10)		
-0.666441				
ND<0 (10/12/2004)	3.3322 (9/23/1998)	(0 - 3.3322)/(16 - 10)		
-0.555367				
0.647103 J (4/1/2005)	3.3322 (9/23/1998)	(0.647103 - 3.3322)/(17 - 10)		
-0.383586				
1.23256 (10/25/2005)	3.3322 (9/23/1998)	(1.23256 - 3.3322)/(18 - 10)		
-0.262456				
0.746688 (4/29/2006)	3.3322 (9/23/1998)	(0.746688 - 3.3322)/(19 - 10)		
-0.28728				
1.05082 (11/18/2006)	3.3322 (9/23/1998)	(1.05082 - 3.3322)/(20 - 10)		
-0.228138				
ND<0 (5/23/2007)	3.3322 (9/23/1998)	(0 - 3.3322)/(21 - 10)		
-0.302928				
1.41342 (11/28/2007)	3.3322 (9/23/1998)	(1.41342 - 3.3322)/(22 - 10)		
-0.159898				
1.4884 (6/5/2008)	3.3322 (9/23/1998)	(1.4884 - 3.3322)/(23 - 10)		
-0.141831				
1.12493 (11/20/2008)	3.3322 (9/23/1998)	(1.12493 - 3.3322)/(24 - 10)		
-0.157662				
1.64866 (6/11/2009)	3.3322 (9/23/1998)	(1.64866 - 3.3322)/(25 - 10)		
-0.112236				
0.916291 (6/30/2010)	3.3322 (9/23/1998)	(0.916291 - 3.3322)/(26 - 10)		
-0.150995				
0.875469 (11/12/2010)	3.3322 (9/23/1998)	(0.875469 - 3.3322)/(27 - 10)		
-0.144514				
1.1314 (7/5/2011)	3.3322 (9/23/1998)	(1.1314 - 3.3322)/(28 - 10)		
-0.122267				
0.916291 (11/22/2011)	3.3322 (9/23/1998)	(0.916291 - 3.3322)/(29 - 10)		
-0.127153				
0.916291 (11/22/2011)	3.3322 (9/23/1998)	(0.916291 - 3.3322)/(29 - 10)		
-0.127153				
2.78501 (9/23/1999)	2.79117 (3/16/1999)	(2.78501 - 2.79117)/(12 - 11)		
-0.00615387				
ND<0 (3/15/2000)	2.79117 (3/16/1999)	(0 - 2.79117)/(13 - 11)	-1.39558	
ND<0 (9/24/2003)	2.79117 (3/16/1999)	(0 - 2.79117)/(14 - 11)		
-0.930388				
ND<0 (3/11/2004)	2.79117 (3/16/1999)	(0 - 2.79117)/(15 - 11)		
-0.697791				
ND<0 (10/12/2004)	2.79117 (3/16/1999)	(0 - 2.79117)/(16 - 11)		
-0.558233				
0.647103 J (4/1/2005)	2.79117 (3/16/1999)	(0.647103 - 2.79117)/(17 - 11)		
-0.357344				
1.23256 (10/25/2005)	2.79117 (3/16/1999)	(1.23256 - 2.79117)/(18 - 11)		
-0.222658				
0.746688 (4/29/2006)	2.79117 (3/16/1999)	(0.746688 - 2.79117)/(19 - 11)		
-0.25556				
1.05082 (11/18/2006)	2.79117 (3/16/1999)	(1.05082 - 2.79117)/(20 - 11)		
-0.193371				
ND<0 (5/23/2007)	2.79117 (3/16/1999)	(0 - 2.79117)/(21 - 11)		
-0.279117				
1.41342 (11/28/2007)	2.79117 (3/16/1999)	(1.41342 - 2.79117)/(22 - 11)		
-0.125249				
1.4884 (6/5/2008)	2.79117 (3/16/1999)	(1.4884 - 2.79117)/(23 - 11)		
-0.108564				
1.12493 (11/20/2008)	2.79117 (3/16/1999)	(1.12493 - 2.79117)/(24 - 11)		
-0.128172				
1.64866 (6/11/2009)	2.79117 (3/16/1999)	(1.64866 - 2.79117)/(25 - 11)		
-0.0816076				

0.916291 (6/30/2010)	2.79117 (3/16/1999)	(0.916291 - 2.79117)/(26 - 11)		
-0.124992				
0.875469 (11/12/2010)	2.79117 (3/16/1999)	(0.875469 - 2.79117)/(27 - 11)		
-0.119731				
1.1314 (7/5/2011)	2.79117 (3/16/1999)	(1.1314 - 2.79117)/(28 - 11)		
-0.0976331				
0.916291 (11/22/2011)	2.79117 (3/16/1999)	(0.916291 - 2.79117)/(29 - 11)		
-0.10416				
0.916291 (11/22/2011)	2.79117 (3/16/1999)	(0.916291 - 2.79117)/(29 - 11)		
-0.10416				
ND<0 (3/15/2000)	2.78501 (9/23/1999)	(0 - 2.78501)/(13 - 12)		-2.78501
ND<0 (9/24/2003)	2.78501 (9/23/1999)	(0 - 2.78501)/(14 - 12)		-1.39251
ND<0 (3/11/2004)	2.78501 (9/23/1999)	(0 - 2.78501)/(15 - 12)		
-0.928337				
ND<0 (10/12/2004)	2.78501 (9/23/1999)	(0 - 2.78501)/(16 - 12)		
-0.696253				
0.647103 J (4/1/2005)	2.78501 (9/23/1999)	(0.647103 - 2.78501)/(17 - 12)		
-0.427582				
1.23256 (10/25/2005)	2.78501 (9/23/1999)	(1.23256 - 2.78501)/(18 - 12)		
-0.258742				
0.746688 (4/29/2006)	2.78501 (9/23/1999)	(0.746688 - 2.78501)/(19 - 12)		
-0.291189				
1.05082 (11/18/2006)	2.78501 (9/23/1999)	(1.05082 - 2.78501)/(20 - 12)		
-0.216774				
ND<0 (5/23/2007)	2.78501 (9/23/1999)	(0 - 2.78501)/(21 - 12)		
-0.309446				
1.41342 (11/28/2007)	2.78501 (9/23/1999)	(1.41342 - 2.78501)/(22 - 12)		
-0.137159				
1.4884 (6/5/2008)	2.78501 (9/23/1999)	(1.4884 - 2.78501)/(23 - 12)		
-0.117874				
1.12493 (11/20/2008)	2.78501 (9/23/1999)	(1.12493 - 2.78501)/(24 - 12)		
-0.13834				
1.64866 (6/11/2009)	2.78501 (9/23/1999)	(1.64866 - 2.78501)/(25 - 12)		
-0.0874117				
0.916291 (6/30/2010)	2.78501 (9/23/1999)	(0.916291 - 2.78501)/(26 - 12)		
-0.13348				
0.875469 (11/12/2010)	2.78501 (9/23/1999)	(0.875469 - 2.78501)/(27 - 12)		
-0.127303				
1.1314 (7/5/2011)	2.78501 (9/23/1999)	(1.1314 - 2.78501)/(28 - 12)		
-0.103351				
0.916291 (11/22/2011)	2.78501 (9/23/1999)	(0.916291 - 2.78501)/(29 - 12)		
-0.109925				
0.916291 (11/22/2011)	2.78501 (9/23/1999)	(0.916291 - 2.78501)/(29 - 12)		
-0.109925				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
0.647103 J (4/1/2005)	ND<0 (3/15/2000)	(0.647103 - 0)/(17 - 13)		
0.161776				
1.23256 (10/25/2005)	ND<0 (3/15/2000)	(1.23256 - 0)/(18 - 13)		
0.246512				
0.746688 (4/29/2006)	ND<0 (3/15/2000)	(0.746688 - 0)/(19 - 13)		
0.124448				
1.05082 (11/18/2006)	ND<0 (3/15/2000)	(1.05082 - 0)/(20 - 13)		
0.150117				
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
1.41342 (11/28/2007)	ND<0 (3/15/2000)	(1.41342 - 0)/(22 - 13)		
0.157047				
1.4884 (6/5/2008)	ND<0 (3/15/2000)	(1.4884 - 0)/(23 - 13)		0.14884

1.12493 (11/20/2008)	ND<0 (3/15/2000)	(1.12493 - 0)/(24 - 13)			
0.102266					
1.64866 (6/11/2009)	ND<0 (3/15/2000)	(1.64866 - 0)/(25 - 13)			
0.137388					
0.916291 (6/30/2010)	ND<0 (3/15/2000)	(0.916291 - 0)/(26 - 13)			
0.0704839					
0.875469 (11/12/2010)	ND<0 (3/15/2000)	(0.875469 - 0)/(27 - 13)			
0.0625335					
1.1314 (7/5/2011)	ND<0 (3/15/2000)	(1.1314 - 0)/(28 - 13)			
0.0754268					
0.916291 (11/22/2011)	ND<0 (3/15/2000)	(0.916291 - 0)/(29 - 13)			
0.0572682					
0.916291 (11/22/2011)	ND<0 (3/15/2000)	(0.916291 - 0)/(29 - 13)			
0.0572682					
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0		
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0		
0.647103 J (4/1/2005)	ND<0 (9/24/2003)	(0.647103 - 0)/(17 - 14)			
0.215701					
1.23256 (10/25/2005)	ND<0 (9/24/2003)	(1.23256 - 0)/(18 - 14)		0.30814	
0.746688 (4/29/2006)	ND<0 (9/24/2003)	(0.746688 - 0)/(19 - 14)			
0.149338					
1.05082 (11/18/2006)	ND<0 (9/24/2003)	(1.05082 - 0)/(20 - 14)			
0.175137					
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0		
1.41342 (11/28/2007)	ND<0 (9/24/2003)	(1.41342 - 0)/(22 - 14)			
0.176678					
1.4884 (6/5/2008)	ND<0 (9/24/2003)	(1.4884 - 0)/(23 - 14)			
0.165378					
1.12493 (11/20/2008)	ND<0 (9/24/2003)	(1.12493 - 0)/(24 - 14)			
0.112493					
1.64866 (6/11/2009)	ND<0 (9/24/2003)	(1.64866 - 0)/(25 - 14)			
0.149878					
0.916291 (6/30/2010)	ND<0 (9/24/2003)	(0.916291 - 0)/(26 - 14)			
0.0763576					
0.875469 (11/12/2010)	ND<0 (9/24/2003)	(0.875469 - 0)/(27 - 14)			
0.0673437					
1.1314 (7/5/2011)	ND<0 (9/24/2003)	(1.1314 - 0)/(28 - 14)			
0.0808144					
0.916291 (11/22/2011)	ND<0 (9/24/2003)	(0.916291 - 0)/(29 - 14)			
0.061086					
0.916291 (11/22/2011)	ND<0 (9/24/2003)	(0.916291 - 0)/(29 - 14)			
0.061086					
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0		
0.647103 J (4/1/2005)	ND<0 (3/11/2004)	(0.647103 - 0)/(17 - 15)			
0.323552					
1.23256 (10/25/2005)	ND<0 (3/11/2004)	(1.23256 - 0)/(18 - 15)			
0.410853					
0.746688 (4/29/2006)	ND<0 (3/11/2004)	(0.746688 - 0)/(19 - 15)			
0.186672					
1.05082 (11/18/2006)	ND<0 (3/11/2004)	(1.05082 - 0)/(20 - 15)			
0.210164					
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0		
1.41342 (11/28/2007)	ND<0 (3/11/2004)	(1.41342 - 0)/(22 - 15)			
0.201918					
1.4884 (6/5/2008)	ND<0 (3/11/2004)	(1.4884 - 0)/(23 - 15)		0.18605	
1.12493 (11/20/2008)	ND<0 (3/11/2004)	(1.12493 - 0)/(24 - 15)			
0.124992					
1.64866 (6/11/2009)	ND<0 (3/11/2004)	(1.64866 - 0)/(25 - 15)			
0.164866					

0.916291 (6/30/2010)	ND<0 (3/11/2004)	(0.916291 - 0)/(26 - 15)		
0.0832992				
0.875469 (11/12/2010)	ND<0 (3/11/2004)	(0.875469 - 0)/(27 - 15)		
0.0729557				
1.1314 (7/5/2011)	ND<0 (3/11/2004)	(1.1314 - 0)/(28 - 15)		
0.0870309				
0.916291 (11/22/2011)	ND<0 (3/11/2004)	(0.916291 - 0)/(29 - 15)		
0.0654493				
0.916291 (11/22/2011)	ND<0 (3/11/2004)	(0.916291 - 0)/(29 - 15)		
0.0654493				
0.647103 J (4/1/2005)	ND<0 (10/12/2004)	(0.647103 - 0)/(17 - 16)		
0.647103				
1.23256 (10/25/2005)	ND<0 (10/12/2004)	(1.23256 - 0)/(18 - 16)		0.61628
0.746688 (4/29/2006)	ND<0 (10/12/2004)	(0.746688 - 0)/(19 - 16)		
0.248896				
1.05082 (11/18/2006)	ND<0 (10/12/2004)	(1.05082 - 0)/(20 - 16)		
0.262705				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
1.41342 (11/28/2007)	ND<0 (10/12/2004)	(1.41342 - 0)/(22 - 16)		
0.235571				
1.4884 (6/5/2008)	ND<0 (10/12/2004)	(1.4884 - 0)/(23 - 16)		
0.212629				
1.12493 (11/20/2008)	ND<0 (10/12/2004)	(1.12493 - 0)/(24 - 16)		
0.140616				
1.64866 (6/11/2009)	ND<0 (10/12/2004)	(1.64866 - 0)/(25 - 16)		
0.183184				
0.916291 (6/30/2010)	ND<0 (10/12/2004)	(0.916291 - 0)/(26 - 16)		
0.0916291				
0.875469 (11/12/2010)	ND<0 (10/12/2004)	(0.875469 - 0)/(27 - 16)		
0.0795881				
1.1314 (7/5/2011)	ND<0 (10/12/2004)	(1.1314 - 0)/(28 - 16)		
0.0942835				
0.916291 (11/22/2011)	ND<0 (10/12/2004)	(0.916291 - 0)/(29 - 16)		
0.0704839				
0.916291 (11/22/2011)	ND<0 (10/12/2004)	(0.916291 - 0)/(29 - 16)		
0.0704839				
1.23256 (10/25/2005)	0.647103 J (4/1/2005)	(1.23256 - 0.647103)/(18 - 17)		
0.585457				
0.746688 (4/29/2006)	0.647103 J (4/1/2005)	(0.746688 - 0.647103)/(19 - 17)		
0.0497924				
1.05082 (11/18/2006)	0.647103 J (4/1/2005)	(1.05082 - 0.647103)/(20 - 17)		
0.134573				
ND<0 (5/23/2007)	0.647103 J (4/1/2005)	(0 - 0.647103)/(21 - 17)		
-0.161776				
1.41342 (11/28/2007)	0.647103 J (4/1/2005)	(1.41342 - 0.647103)/(22 - 17)		
0.153264				
1.4884 (6/5/2008)	0.647103 J (4/1/2005)	(1.4884 - 0.647103)/(23 - 17)		
0.140216				
1.12493 (11/20/2008)	0.647103 J (4/1/2005)	(1.12493 - 0.647103)/(24 - 17)		
0.0682609				
1.64866 (6/11/2009)	0.647103 J (4/1/2005)	(1.64866 - 0.647103)/(25 - 17)		
0.125194				
0.916291 (6/30/2010)	0.647103 J (4/1/2005)	(0.916291 - 0.647103)/(26 - 17)		
0.0299097				
0.875469 (11/12/2010)	0.647103 J (4/1/2005)	(0.875469 - 0.647103)/(27 - 17)		
0.0228365				
1.1314 (7/5/2011)	0.647103 J (4/1/2005)	(1.1314 - 0.647103)/(28 - 17)		
0.0440272				
0.916291 (11/22/2011)	0.647103 J (4/1/2005)	(0.916291 - 0.647103)/(29 - 17)		
0.0224323				

0.916291 (11/22/2011)	0.647103 J (4/1/2005)	(0.916291 - 0.647103)/(29 - 17)		
0.0224323				
0.746688 (4/29/2006)	1.23256 (10/25/2005)	(0.746688 - 1.23256)/(19 - 18)		
-0.485872				
1.05082 (11/18/2006)	1.23256 (10/25/2005)	(1.05082 - 1.23256)/(20 - 18)		
-0.0908693				
ND<0 (5/23/2007)	1.23256 (10/25/2005)	(0 - 1.23256)/(21 - 18)		
-0.410853				
1.41342 (11/28/2007)	1.23256 (10/25/2005)	(1.41342 - 1.23256)/(22 - 18)		
0.0452157				
1.4884 (6/5/2008)	1.23256 (10/25/2005)	(1.4884 - 1.23256)/(23 - 18)		
0.0511679				
1.12493 (11/20/2008)	1.23256 (10/25/2005)	(1.12493 - 1.23256)/(24 - 18)		
-0.0179384				
1.64866 (6/11/2009)	1.23256 (10/25/2005)	(1.64866 - 1.23256)/(25 - 18)		
0.0594426				
0.916291 (6/30/2010)	1.23256 (10/25/2005)	(0.916291 - 1.23256)/(26 - 18)		
-0.0395337				
0.875469 (11/12/2010)	1.23256 (10/25/2005)	(0.875469 - 1.23256)/(27 - 18)		
-0.0396768				
1.1314 (7/5/2011)	1.23256 (10/25/2005)	(1.1314 - 1.23256)/(28 - 18)		
-0.0101158				
0.916291 (11/22/2011)	1.23256 (10/25/2005)	(0.916291 - 1.23256)/(29 - 18)		
-0.0287518				
0.916291 (11/22/2011)	1.23256 (10/25/2005)	(0.916291 - 1.23256)/(29 - 18)		
-0.0287518				
1.05082 (11/18/2006)	0.746688 (4/29/2006)	(1.05082 - 0.746688)/(20 - 19)		
0.304134				
ND<0 (5/23/2007)	0.746688 (4/29/2006)	(0 - 0.746688)/(21 - 19)		
-0.373344				
1.41342 (11/28/2007)	0.746688 (4/29/2006)	(1.41342 - 0.746688)/(22 - 19)		
0.222245				
1.4884 (6/5/2008)	0.746688 (4/29/2006)	(1.4884 - 0.746688)/(23 - 19)		
0.185428				
1.12493 (11/20/2008)	0.746688 (4/29/2006)	(1.12493 - 0.746688)/(24 - 19)		
0.0756483				
1.64866 (6/11/2009)	0.746688 (4/29/2006)	(1.64866 - 0.746688)/(25 - 19)		
0.150328				
0.916291 (6/30/2010)	0.746688 (4/29/2006)	(0.916291 - 0.746688)/(26 - 19)		
0.024229				
0.875469 (11/12/2010)	0.746688 (4/29/2006)	(0.875469 - 0.746688)/(27 - 19)		
0.0160976				
1.1314 (7/5/2011)	0.746688 (4/29/2006)	(1.1314 - 0.746688)/(28 - 19)		
0.042746				
0.916291 (11/22/2011)	0.746688 (4/29/2006)	(0.916291 - 0.746688)/(29 - 19)		
0.0169603				
0.916291 (11/22/2011)	0.746688 (4/29/2006)	(0.916291 - 0.746688)/(29 - 19)		
0.0169603				
ND<0 (5/23/2007)	1.05082 (11/18/2006)	(0 - 1.05082)/(21 - 20)	-1.05082	
1.41342 (11/28/2007)	1.05082 (11/18/2006)	(1.41342 - 1.05082)/(22 - 20)		
0.181301				
1.4884 (6/5/2008)	1.05082 (11/18/2006)	(1.4884 - 1.05082)/(23 - 20)		
0.145859				
1.12493 (11/20/2008)	1.05082 (11/18/2006)	(1.12493 - 1.05082)/(24 - 20)		
0.018527				
1.64866 (6/11/2009)	1.05082 (11/18/2006)	(1.64866 - 1.05082)/(25 - 20)		
0.119567				
0.916291 (6/30/2010)	1.05082 (11/18/2006)	(0.916291 - 1.05082)/(26 - 20)		
-0.0224218				

0.875469 (11/12/2010)	1.05082 (11/18/2006)	(0.875469 - 1.05082)/(27 - 20)		
-0.0250504				
1.1314 (7/5/2011)	1.05082 (11/18/2006)	(1.1314 - 1.05082)/(28 - 20)		
0.0100726				
0.916291 (11/22/2011)	1.05082 (11/18/2006)	(0.916291 - 1.05082)/(29 - 20)		
-0.0149479				
0.916291 (11/22/2011)	1.05082 (11/18/2006)	(0.916291 - 1.05082)/(29 - 20)		
-0.0149479				
1.41342 (11/28/2007)	ND<0 (5/23/2007)	(1.41342 - 0)/(22 - 21)	1.41342	
1.4884 (6/5/2008)	ND<0 (5/23/2007)	(1.4884 - 0)/(23 - 21)	0.7442	
1.12493 (11/20/2008)	ND<0 (5/23/2007)	(1.12493 - 0)/(24 - 21)		
0.374977				
1.64866 (6/11/2009)	ND<0 (5/23/2007)	(1.64866 - 0)/(25 - 21)		
0.412165				
0.916291 (6/30/2010)	ND<0 (5/23/2007)	(0.916291 - 0)/(26 - 21)		
0.183258				
0.875469 (11/12/2010)	ND<0 (5/23/2007)	(0.875469 - 0)/(27 - 21)		
0.145911				
1.1314 (7/5/2011)	ND<0 (5/23/2007)	(1.1314 - 0)/(28 - 21)		
0.161629				
0.916291 (11/22/2011)	ND<0 (5/23/2007)	(0.916291 - 0)/(29 - 21)		
0.114536				
0.916291 (11/22/2011)	ND<0 (5/23/2007)	(0.916291 - 0)/(29 - 21)		
0.114536				
1.4884 (6/5/2008)	1.41342 (11/28/2007)	(1.4884 - 1.41342)/(23 - 22)		
0.0749766				
1.12493 (11/20/2008)	1.41342 (11/28/2007)	(1.12493 - 1.41342)/(24 - 22)		
-0.144247				
1.64866 (6/11/2009)	1.41342 (11/28/2007)	(1.64866 - 1.41342)/(25 - 22)		
0.0784119				
0.916291 (6/30/2010)	1.41342 (11/28/2007)	(0.916291 - 1.41342)/(26 - 22)		
-0.124283				
0.875469 (11/12/2010)	1.41342 (11/28/2007)	(0.875469 - 1.41342)/(27 - 22)		
-0.107591				
1.1314 (7/5/2011)	1.41342 (11/28/2007)	(1.1314 - 1.41342)/(28 - 22)		
-0.0470035				
0.916291 (11/22/2011)	1.41342 (11/28/2007)	(0.916291 - 1.41342)/(29 - 22)		
-0.0710189				
0.916291 (11/22/2011)	1.41342 (11/28/2007)	(0.916291 - 1.41342)/(29 - 22)		
-0.0710189				
1.12493 (11/20/2008)	1.4884 (6/5/2008)	(1.12493 - 1.4884)/(24 - 23)		
-0.36347				
1.64866 (6/11/2009)	1.4884 (6/5/2008)	(1.64866 - 1.4884)/(25 - 23)		
0.0801295				
0.916291 (6/30/2010)	1.4884 (6/5/2008)	(0.916291 - 1.4884)/(26 - 23)		
-0.190703				
0.875469 (11/12/2010)	1.4884 (6/5/2008)	(0.875469 - 1.4884)/(27 - 23)		
-0.153233				
1.1314 (7/5/2011)	1.4884 (6/5/2008)	(1.1314 - 1.4884)/(28 - 23)		
-0.0713995				
0.916291 (11/22/2011)	1.4884 (6/5/2008)	(0.916291 - 1.4884)/(29 - 23)		
-0.0953515				
0.916291 (11/22/2011)	1.4884 (6/5/2008)	(0.916291 - 1.4884)/(29 - 23)		
-0.0953515				
1.64866 (6/11/2009)	1.12493 (11/20/2008)	(1.64866 - 1.12493)/(25 - 24)		
0.523729				
0.916291 (6/30/2010)	1.12493 (11/20/2008)	(0.916291 - 1.12493)/(26 - 24)		
-0.104319				

0.875469	(11/12/2010)	1.12493	(11/20/2008)	(0.875469 - 1.12493)/(27 - 24)	-0.0831536
1.1314	(7/5/2011)	1.12493	(11/20/2008)	(1.1314 - 1.12493)/(28 - 24)	0.00161813
0.916291	(11/22/2011)	1.12493	(11/20/2008)	(0.916291 - 1.12493)/(29 - 24)	-0.0417278
0.916291	(11/22/2011)	1.12493	(11/20/2008)	(0.916291 - 1.12493)/(29 - 24)	-0.0417278
0.916291	(6/30/2010)	1.64866	(6/11/2009)	(0.916291 - 1.64866)/(26 - 25)	-0.732368
0.875469	(11/12/2010)	1.64866	(6/11/2009)	(0.875469 - 1.64866)/(27 - 25)	-0.386595
1.1314	(7/5/2011)	1.64866	(6/11/2009)	(1.1314 - 1.64866)/(28 - 25)	-0.172419
0.916291	(11/22/2011)	1.64866	(6/11/2009)	(0.916291 - 1.64866)/(29 - 25)	-0.183092
0.916291	(11/22/2011)	1.64866	(6/11/2009)	(0.916291 - 1.64866)/(29 - 25)	-0.183092
0.875469	(11/12/2010)	0.916291	(6/30/2010)	(0.875469 - 0.916291)/(27 - 26)	-0.040822
1.1314	(7/5/2011)	0.916291	(6/30/2010)	(1.1314 - 0.916291)/(28 - 26)	0.107556
0.916291	(11/22/2011)	0.916291	(6/30/2010)	(0.916291 - 0.916291)/(29 - 26)	0
0.916291	(11/22/2011)	0.916291	(6/30/2010)	(0.916291 - 0.916291)/(29 - 26)	0
1.1314	(7/5/2011)	0.875469	(11/12/2010)	(1.1314 - 0.875469)/(28 - 27)	0.255933
0.916291	(11/22/2011)	0.875469	(11/12/2010)	(0.916291 - 0.875469)/(29 - 27)	0.020411
0.916291	(11/22/2011)	0.875469	(11/12/2010)	(0.916291 - 0.875469)/(29 - 27)	0.020411
0.916291	(11/22/2011)	1.1314	(7/5/2011)	(0.916291 - 1.1314)/(29 - 28)	-0.215111
0.916291	(11/22/2011)	1.1314	(7/5/2011)	(0.916291 - 1.1314)/(29 - 28)	-0.215111
0.916291	(11/22/2011)	0.916291	(11/22/2011)	(0.916291 - 0.916291)/(29 - 29)	Same Date

Number of Q values = 434

Ordered Q Values

n	Q
1	-2.78501
2	-2.3979
3	-1.39558
4	-1.39251
5	-1.24245
6	-1.19895
7	-1.11073
8	-1.05082
9	-0.930388
10	-0.928337
11	-0.833051
12	-0.828302

13	-0.732368
14	-0.697791
15	-0.696253
16	-0.693147
17	-0.666441
18	-0.618208
19	-0.558233
20	-0.555367
21	-0.554518
22	-0.541039
23	-0.515174
24	-0.485872
25	-0.481729
26	-0.462098
27	-0.441577
28	-0.427582
29	-0.420634
30	-0.41291
31	-0.410853
32	-0.396084
33	-0.386595
34	-0.38638
35	-0.383586
36	-0.373344
37	-0.368055
38	-0.36347
39	-0.361296
40	-0.357344
41	-0.32716
42	-0.321152
43	-0.318454
44	-0.309446
45	-0.302928
46	-0.294444
47	-0.291189
48	-0.28728
49	-0.279117
50	-0.273597
51	-0.271549
52	-0.265686
53	-0.262456
54	-0.258742
55	-0.25556
56	-0.23979
57	-0.237772
58	-0.231049
59	-0.228138
60	-0.225901
61	-0.224327
62	-0.222658
63	-0.21799
64	-0.216774
65	-0.215111
66	-0.215111
67	-0.213123
68	-0.208849
69	-0.207076
70	-0.206455
71	-0.20259
72	-0.199825
73	-0.196296
74	-0.193371

75	-0.191147
76	-0.190703
77	-0.185848
78	-0.184453
79	-0.183092
80	-0.183092
81	-0.17864
82	-0.177493
83	-0.172419
84	-0.171114
85	-0.170018
86	-0.169058
87	-0.161776
88	-0.159898
89	-0.157662
90	-0.156524
91	-0.153233
92	-0.150995
93	-0.15071
94	-0.144514
95	-0.144247
96	-0.142657
97	-0.141831
98	-0.141504
99	-0.13834
100	-0.137159
101	-0.135258
102	-0.13348
103	-0.133216
104	-0.130785
105	-0.128172
106	-0.127303
107	-0.127153
108	-0.127153
109	-0.125249
110	-0.125057
111	-0.124992
112	-0.124283
113	-0.122882
114	-0.12252
115	-0.122267
116	-0.12082
117	-0.11983
118	-0.119731
119	-0.117874
120	-0.116609
121	-0.112236
122	-0.109925
123	-0.109925
124	-0.109844
125	-0.109194
126	-0.108564
127	-0.107591
128	-0.106843
129	-0.105396
130	-0.104551
131	-0.104319
132	-0.10416
133	-0.10416
134	-0.103899
135	-0.10385
136	-0.10356

137	-0.10356
138	-0.103351
139	-0.1032
140	-0.102248
141	-0.101407
142	-0.101084
143	-0.100745
144	-0.0999591
145	-0.0985224
146	-0.0984632
147	-0.097982
148	-0.0976331
149	-0.0956885
150	-0.0953515
151	-0.0953515
152	-0.0928149
153	-0.0928149
154	-0.0917278
155	-0.0908693
156	-0.089731
157	-0.089731
158	-0.0881804
159	-0.0881804
160	-0.0876233
161	-0.0874117
162	-0.0870114
163	-0.0863782
164	-0.0856494
165	-0.0848461
166	-0.0837605
167	-0.0831536
168	-0.0824108
169	-0.0816076
170	-0.0796714
171	-0.0792396
172	-0.0782716
173	-0.077689
174	-0.0765078
175	-0.0713995
176	-0.0710189
177	-0.0710189
178	-0.0702456
179	-0.0689841
180	-0.068199
181	-0.065359
182	-0.0644176
183	-0.0643775
184	-0.0634344
185	-0.0618171
186	-0.0606174
187	-0.0588915
188	-0.0580969
189	-0.0580969
190	-0.0572834
191	-0.0569848
192	-0.0569848
193	-0.0540672
194	-0.0535742
195	-0.0520579
196	-0.0518143
197	-0.0506597
198	-0.0474527

199	-0.0470035
200	-0.0454748
201	-0.0417278
202	-0.0417278
203	-0.040822
204	-0.0396768
205	-0.0395337
206	-0.0363586
207	-0.0340562
208	-0.0306548
209	-0.0287518
210	-0.0287518
211	-0.0265713
212	-0.0250504
213	-0.0248017
214	-0.0224218
215	-0.0210721
216	-0.0179384
217	-0.0149479
218	-0.0149479
219	-0.0101158
220	-0.00615387
221	0
222	0
223	0
224	0
225	0
226	0
227	0
228	0
229	0
230	0
231	0
232	0
233	0
234	0
235	0
236	0
237	0
238	0
239	0
240	0
241	0
242	0
243	0
244	0.00161813
245	0.00414084
246	0.00928819
247	0.0100726
248	0.0160976
249	0.0169603
250	0.0169603
251	0.018527
252	0.020411
253	0.020411
254	0.0224323
255	0.0224323
256	0.0228365
257	0.024229
258	0.0299097
259	0.0300105
260	0.0340287

261	0.0366516
262	0.0366516
263	0.0377511
264	0.0380639
265	0.0381788
266	0.0381788
267	0.039794
268	0.0410974
269	0.0416496
270	0.042746
271	0.0430129
272	0.0436329
273	0.0440272
274	0.0452157
275	0.0471418
276	0.0491587
277	0.0491914
278	0.0497772
279	0.0497792
280	0.0497924
281	0.0503348
282	0.0511679
283	0.0533349
284	0.0539253
285	0.0539302
286	0.0562465
287	0.0572682
288	0.0572682
289	0.0580787
290	0.0592068
291	0.0594426
292	0.0596898
293	0.0596898
294	0.061086
295	0.061086
296	0.0624489
297	0.0625335
298	0.0627112
299	0.0629185
300	0.0654493
301	0.0654493
302	0.0656764
303	0.0668525
304	0.0673437
305	0.0682609
306	0.0698676
307	0.0700548
308	0.0704839
309	0.0704839
310	0.0704839
311	0.0729557
312	0.0733017
313	0.0749766
314	0.0754268
315	0.0756483
316	0.0763576
317	0.0783368
318	0.0784119
319	0.0785076
320	0.0785235
321	0.0795881
322	0.0801295

323	0.0808144
324	0.081093
325	0.0817371
326	0.0824329
327	0.0826889
328	0.0831425
329	0.0832992
330	0.0834284
331	0.0870309
332	0.0876329
333	0.08804
334	0.0916291
335	0.0942835
336	0.0948123
337	0.0950444
338	0.0969414
339	0.100153
340	0.101023
341	0.101974
342	0.102266
343	0.103259
344	0.105912
345	0.107556
346	0.112493
347	0.114536
348	0.114536
349	0.114883
350	0.116917
351	0.119567
352	0.120581
353	0.123119
354	0.124448
355	0.124992
356	0.125194
357	0.133473
358	0.134573
359	0.137388
360	0.138629
361	0.140216
362	0.140616
363	0.145859
364	0.145911
365	0.147278
366	0.14884
367	0.149338
368	0.149878
369	0.150117
370	0.150328
371	0.153264
372	0.157047
373	0.161629
374	0.161776
375	0.164866
376	0.165378
377	0.175137
378	0.176678
379	0.181301
380	0.182181
381	0.183184
382	0.183258
383	0.185428
384	0.18605

385	0.186672
386	0.188756
387	0.200671
388	0.201918
389	0.210164
390	0.212629
391	0.215701
392	0.222245
393	0.235571
394	0.246512
395	0.248896
396	0.251674
397	0.255933
398	0.262705
399	0.304134
400	0.30814
401	0.321821
402	0.323552
403	0.348126
404	0.354619
405	0.374977
406	0.397859
407	0.398738
408	0.410853
409	0.412165
410	0.440951
411	0.454136
412	0.465194
413	0.523729
414	0.549438
415	0.554518
416	0.555367
417	0.559616
418	0.585457
419	0.607566
420	0.61628
421	0.647103
422	0.666441
423	0.693147
424	0.739892
425	0.7442
426	0.772761
427	0.963457
428	1.03035
429	1.41342
430	1.44519
431	1.47222
432	1.57646
433	2.94444
434	3.23993

Sen's Estimator (Median Q) is -0.0149479

Tied Group	Value	Members
1	0	7
2	0.916291	3

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1

11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 864
B = 18
C = 216
D = 0
E = 48
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3092.72
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.474
M1 = (434 - 91.474)/2.0 = 171.263
M2 = (434 + 91.474)/2.0 + 1 = 263.737
Lower limit is -0.0792396 = Q(171)
Upper limit is 0.0380639 = Q(264)
-0.0792396 < 0 < 0.0380639 indicating no trend in data.

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-0.174353 J	(8/24/1995)	-0.174353 J (7/20/1995)	(-0.174353 - -0.174353)/(2 - 1)
0			
0.693147	(9/28/1995)	-0.174353 J (7/20/1995)	(0.693147 - -0.174353)/(3 - 1)
0.43375			
1.09861	(10/26/1995)	-0.174353 J (7/20/1995)	(1.09861 - -0.174353)/(4 - 1)
0.424322			
ND<0	(11/19/1996)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(5 - 1)
0.0435883			
ND<0	(12/19/1996)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(6 - 1)
0.0348707			
ND<0	(3/24/1997)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(7 - 1)
0.0290589			
ND<0	(9/24/1997)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(8 - 1)
0.0249076			
ND<0	(4/7/1998)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(9 - 1)
0.0217942			
1.66771	(9/23/1998)	-0.174353 J (7/20/1995)	(1.66771 - -0.174353)/(10 - 1)
0.204673			
1.28093	(3/16/1999)	-0.174353 J (7/20/1995)	(1.28093 - -0.174353)/(11 - 1)
0.145529			
1.25276	(9/23/1999)	-0.174353 J (7/20/1995)	(1.25276 - -0.174353)/(12 - 1)
0.129738			
ND<0	(3/15/2000)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(13 - 1)
0.0145294			
ND<0	(9/24/2003)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(14 - 1)
0.0134118			
ND<0	(3/11/2004)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(15 - 1)
0.0124538			
ND<0	(10/12/2004)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(16 - 1)
0.0116236			
1.09527	(4/1/2005)	-0.174353 J (7/20/1995)	(1.09527 - -0.174353)/(17 - 1)
0.0793517			
0.71295	(10/25/2005)	-0.174353 J (7/20/1995)	(0.71295 - -0.174353)/(18 - 1)
0.0521943			
0.322083 J	(4/29/2006)	-0.174353 J (7/20/1995)	(0.322083 - -0.174353)/(19 - 1)
0.0275798			
ND<0	(11/18/2006)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(20 - 1)
0.00917649			
ND<0	(5/23/2007)	-0.174353 J (7/20/1995)	(0 - -0.174353)/(21 - 1)
0.00871767			
1.15373	(11/28/2007)	-0.174353 J (7/20/1995)	(1.15373 - -0.174353)/(22 - 1)
0.0632421			
1.17557	(6/5/2008)	-0.174353 J (7/20/1995)	(1.17557 - -0.174353)/(23 - 1)
0.0613603			
1.13462	(11/20/2008)	-0.174353 J (7/20/1995)	(1.13462 - -0.174353)/(24 - 1)
0.056912			
2.02815	(6/11/2009)	-0.174353 J (7/20/1995)	(2.02815 - -0.174353)/(25 - 1)
0.0917709			
1.56862	(11/16/2009)	-0.174353 J (7/20/1995)	(1.56862 - -0.174353)/(26 - 1)
0.0697188			

1.52606 (6/30/2010)	-0.174353 J (7/20/1995)	(1.52606 - -0.174353)/(27 - 1)
0.0654004		
1.335 (11/12/2010)	-0.174353 J (7/20/1995)	(1.335 - -0.174353)/(28 - 1)
0.055902		
0.405465 (7/5/2011)	-0.174353 J (7/20/1995)	(0.405465 - -0.174353)/(29 - 1)
0.0207078		
0.788457 (11/22/2011)	-0.174353 J (7/20/1995)	(0.788457 - -0.174353)/(30 - 1)
0.0332004		
0.788457 (11/22/2011)	-0.174353 J (7/20/1995)	(0.788457 - -0.174353)/(30 - 1)
0.0332004		
0.693147 (9/28/1995)	-0.174353 J (8/24/1995)	(0.693147 - -0.174353)/(3 - 2)
0.867501		
1.09861 (10/26/1995)	-0.174353 J (8/24/1995)	(1.09861 - -0.174353)/(4 - 2)
0.636483		
ND<0 (11/19/1996)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(5 - 2)
0.0581178		
ND<0 (12/19/1996)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(6 - 2)
0.0435883		
ND<0 (3/24/1997)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(7 - 2)
0.0348707		
ND<0 (9/24/1997)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(8 - 2)
0.0290589		
ND<0 (4/7/1998)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(9 - 2)
0.0249076		
1.66771 (9/23/1998)	-0.174353 J (8/24/1995)	(1.66771 - -0.174353)/(10 - 2)
0.230258		
1.28093 (3/16/1999)	-0.174353 J (8/24/1995)	(1.28093 - -0.174353)/(11 - 2)
0.161699		
1.25276 (9/23/1999)	-0.174353 J (8/24/1995)	(1.25276 - -0.174353)/(12 - 2)
0.142712		
ND<0 (3/15/2000)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(13 - 2)
0.0158503		
ND<0 (9/24/2003)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(14 - 2)
0.0145294		
ND<0 (3/11/2004)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(15 - 2)
0.0134118		
ND<0 (10/12/2004)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(16 - 2)
0.0124538		
1.09527 (4/1/2005)	-0.174353 J (8/24/1995)	(1.09527 - -0.174353)/(17 - 2)
0.0846418		
0.71295 (10/25/2005)	-0.174353 J (8/24/1995)	(0.71295 - -0.174353)/(18 - 2)
0.0554564		
0.322083 J (4/29/2006)	-0.174353 J (8/24/1995)	(0.322083 - -0.174353)/(19 - 2)
0.0292022		
ND<0 (11/18/2006)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(20 - 2)
0.0096863		
ND<0 (5/23/2007)	-0.174353 J (8/24/1995)	(0 - -0.174353)/(21 - 2)
0.00917649		
1.15373 (11/28/2007)	-0.174353 J (8/24/1995)	(1.15373 - -0.174353)/(22 - 2)
0.0664042		
1.17557 (6/5/2008)	-0.174353 J (8/24/1995)	(1.17557 - -0.174353)/(23 - 2)
0.0642822		
1.13462 (11/20/2008)	-0.174353 J (8/24/1995)	(1.13462 - -0.174353)/(24 - 2)
0.0594989		
2.02815 (6/11/2009)	-0.174353 J (8/24/1995)	(2.02815 - -0.174353)/(25 - 2)
0.0957609		
1.56862 (11/16/2009)	-0.174353 J (8/24/1995)	(1.56862 - -0.174353)/(26 - 2)
0.0726237		
1.52606 (6/30/2010)	-0.174353 J (8/24/1995)	(1.52606 - -0.174353)/(27 - 2)
0.0680164		

1.335 (11/12/2010)	-0.174353 J (8/24/1995)	(1.335 - -0.174353)/(28 - 2)
0.0580521		
0.405465 (7/5/2011)	-0.174353 J (8/24/1995)	(0.405465 - -0.174353)/(29 - 2)
0.0214748		
0.788457 (11/22/2011)	-0.174353 J (8/24/1995)	(0.788457 - -0.174353)/(30 - 2)
0.0343861		
0.788457 (11/22/2011)	-0.174353 J (8/24/1995)	(0.788457 - -0.174353)/(30 - 2)
0.0343861		
1.09861 (10/26/1995)	0.693147 (9/28/1995)	(1.09861 - 0.693147)/(4 - 3)
0.405465		
ND<0 (11/19/1996)	0.693147 (9/28/1995)	(0 - 0.693147)/(5 - 3)
-0.346574		
ND<0 (12/19/1996)	0.693147 (9/28/1995)	(0 - 0.693147)/(6 - 3)
-0.231049		
ND<0 (3/24/1997)	0.693147 (9/28/1995)	(0 - 0.693147)/(7 - 3)
-0.173287		
ND<0 (9/24/1997)	0.693147 (9/28/1995)	(0 - 0.693147)/(8 - 3)
-0.138629		
ND<0 (4/7/1998)	0.693147 (9/28/1995)	(0 - 0.693147)/(9 - 3)
-0.115525		
1.66771 (9/23/1998)	0.693147 (9/28/1995)	(1.66771 - 0.693147)/(10 - 3)
0.139223		
1.28093 (3/16/1999)	0.693147 (9/28/1995)	(1.28093 - 0.693147)/(11 - 3)
0.0734733		
1.25276 (9/23/1999)	0.693147 (9/28/1995)	(1.25276 - 0.693147)/(12 - 3)
0.0621795		
ND<0 (3/15/2000)	0.693147 (9/28/1995)	(0 - 0.693147)/(13 - 3)
-0.0693147		
ND<0 (9/24/2003)	0.693147 (9/28/1995)	(0 - 0.693147)/(14 - 3)
-0.0630134		
ND<0 (3/11/2004)	0.693147 (9/28/1995)	(0 - 0.693147)/(15 - 3)
-0.0577623		
ND<0 (10/12/2004)	0.693147 (9/28/1995)	(0 - 0.693147)/(16 - 3)
-0.053319		
1.09527 (4/1/2005)	0.693147 (9/28/1995)	(1.09527 - 0.693147)/(17 - 3)
0.0287233		
0.71295 (10/25/2005)	0.693147 (9/28/1995)	(0.71295 - 0.693147)/(18 - 3)
0.00132018		
0.322083 J (4/29/2006)	0.693147 (9/28/1995)	(0.322083 - 0.693147)/(19 - 3)
-0.0231915		
ND<0 (11/18/2006)	0.693147 (9/28/1995)	(0 - 0.693147)/(20 - 3)
-0.0407734		
ND<0 (5/23/2007)	0.693147 (9/28/1995)	(0 - 0.693147)/(21 - 3)
-0.0385082		
1.15373 (11/28/2007)	0.693147 (9/28/1995)	(1.15373 - 0.693147)/(22 - 3)
0.0242413		
1.17557 (6/5/2008)	0.693147 (9/28/1995)	(1.17557 - 0.693147)/(23 - 3)
0.0241213		
1.13462 (11/20/2008)	0.693147 (9/28/1995)	(1.13462 - 0.693147)/(24 - 3)
0.0210226		
2.02815 (6/11/2009)	0.693147 (9/28/1995)	(2.02815 - 0.693147)/(25 - 3)
0.0606819		
1.56862 (11/16/2009)	0.693147 (9/28/1995)	(1.56862 - 0.693147)/(26 - 3)
0.0380639		
1.52606 (6/30/2010)	0.693147 (9/28/1995)	(1.52606 - 0.693147)/(27 - 3)
0.0347045		
1.335 (11/12/2010)	0.693147 (9/28/1995)	(1.335 - 0.693147)/(28 - 3)
0.0256742		
0.405465 (7/5/2011)	0.693147 (9/28/1995)	(0.405465 - 0.693147)/(29 - 3)
-0.0110647		

0.788457 (11/22/2011)	0.693147 (9/28/1995)	(0.788457 - 0.693147)/(30 - 3)		
0.00353001				
0.788457 (11/22/2011)	0.693147 (9/28/1995)	(0.788457 - 0.693147)/(30 - 3)		
0.00353001				
ND<0 (11/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(5 - 4)	-1.09861	
ND<0 (12/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(6 - 4)		
-0.549306				
ND<0 (3/24/1997)	1.09861 (10/26/1995)	(0 - 1.09861)/(7 - 4)		
-0.366204				
ND<0 (9/24/1997)	1.09861 (10/26/1995)	(0 - 1.09861)/(8 - 4)		
-0.274653				
ND<0 (4/7/1998)	1.09861 (10/26/1995)	(0 - 1.09861)/(9 - 4)		
-0.219722				
1.66771 (9/23/1998)	1.09861 (10/26/1995)	(1.66771 - 1.09861)/(10 - 4)		
0.0948491				
1.28093 (3/16/1999)	1.09861 (10/26/1995)	(1.28093 - 1.09861)/(11 - 4)		
0.0260459				
1.25276 (9/23/1999)	1.09861 (10/26/1995)	(1.25276 - 1.09861)/(12 - 4)		
0.0192688				
ND<0 (3/15/2000)	1.09861 (10/26/1995)	(0 - 1.09861)/(13 - 4)		
-0.122068				
ND<0 (9/24/2003)	1.09861 (10/26/1995)	(0 - 1.09861)/(14 - 4)		
-0.109861				
ND<0 (3/11/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(15 - 4)		
-0.0998738				
ND<0 (10/12/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(16 - 4)		
-0.091551				
1.09527 (4/1/2005)	1.09861 (10/26/1995)	(1.09527 - 1.09861)/(17 - 4)		
-0.000256839				
0.71295 (10/25/2005)	1.09861 (10/26/1995)	(0.71295 - 1.09861)/(18 - 4)		
-0.0275473				
0.322083 J (4/29/2006)	1.09861 (10/26/1995)	(0.322083 - 1.09861)/(19 - 4)		
-0.0517686				
ND<0 (11/18/2006)	1.09861 (10/26/1995)	(0 - 1.09861)/(20 - 4)		
-0.0686633				
ND<0 (5/23/2007)	1.09861 (10/26/1995)	(0 - 1.09861)/(21 - 4)		
-0.0646243				
1.15373 (11/28/2007)	1.09861 (10/26/1995)	(1.15373 - 1.09861)/(22 - 4)		
0.00306218				
1.17557 (6/5/2008)	1.09861 (10/26/1995)	(1.17557 - 1.09861)/(23 - 4)		
0.00405058				
1.13462 (11/20/2008)	1.09861 (10/26/1995)	(1.13462 - 1.09861)/(24 - 4)		
0.00180052				
2.02815 (6/11/2009)	1.09861 (10/26/1995)	(2.02815 - 1.09861)/(25 - 4)		
0.0442636				
1.56862 (11/16/2009)	1.09861 (10/26/1995)	(1.56862 - 1.09861)/(26 - 4)		
0.0213638				
1.52606 (6/30/2010)	1.09861 (10/26/1995)	(1.52606 - 1.09861)/(27 - 4)		
0.0185845				
1.335 (11/12/2010)	1.09861 (10/26/1995)	(1.335 - 1.09861)/(28 - 4)		
0.00984953				
0.405465 (7/5/2011)	1.09861 (10/26/1995)	(0.405465 - 1.09861)/(29 - 4)		
-0.0277259				
0.788457 (11/22/2011)	1.09861 (10/26/1995)	(0.788457 - 1.09861)/(30 - 4)		
-0.011929				
0.788457 (11/22/2011)	1.09861 (10/26/1995)	(0.788457 - 1.09861)/(30 - 4)		
-0.011929				
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	

ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
1.66771 (9/23/1998)	ND<0 (11/19/1996)	(1.66771 - 0)/(10 - 5)	
0.333541			
1.28093 (3/16/1999)	ND<0 (11/19/1996)	(1.28093 - 0)/(11 - 5)	
0.213489			
1.25276 (9/23/1999)	ND<0 (11/19/1996)	(1.25276 - 0)/(12 - 5)	
0.178966			
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
1.09527 (4/1/2005)	ND<0 (11/19/1996)	(1.09527 - 0)/(17 - 5)	
0.0912728			
0.71295 (10/25/2005)	ND<0 (11/19/1996)	(0.71295 - 0)/(18 - 5)	
0.0548423			
0.322083 J (4/29/2006)	ND<0 (11/19/1996)	(0.322083 - 0)/(19 - 5)	
0.023006			
ND<0 (11/18/2006)	ND<0 (11/19/1996)	(0 - 0)/(20 - 5)	0
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
1.15373 (11/28/2007)	ND<0 (11/19/1996)	(1.15373 - 0)/(22 - 5)	
0.0678666			
1.17557 (6/5/2008)	ND<0 (11/19/1996)	(1.17557 - 0)/(23 - 5)	
0.0653096			
1.13462 (11/20/2008)	ND<0 (11/19/1996)	(1.13462 - 0)/(24 - 5)	
0.059717			
2.02815 (6/11/2009)	ND<0 (11/19/1996)	(2.02815 - 0)/(25 - 5)	
0.101407			
1.56862 (11/16/2009)	ND<0 (11/19/1996)	(1.56862 - 0)/(26 - 5)	
0.074696			
1.52606 (6/30/2010)	ND<0 (11/19/1996)	(1.52606 - 0)/(27 - 5)	
0.0693662			
1.335 (11/12/2010)	ND<0 (11/19/1996)	(1.335 - 0)/(28 - 5)	
0.0580435			
0.405465 (7/5/2011)	ND<0 (11/19/1996)	(0.405465 - 0)/(29 - 5)	
0.0168944			
0.788457 (11/22/2011)	ND<0 (11/19/1996)	(0.788457 - 0)/(30 - 5)	
0.0315383			
0.788457 (11/22/2011)	ND<0 (11/19/1996)	(0.788457 - 0)/(30 - 5)	
0.0315383			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
1.66771 (9/23/1998)	ND<0 (12/19/1996)	(1.66771 - 0)/(10 - 6)	
0.416927			
1.28093 (3/16/1999)	ND<0 (12/19/1996)	(1.28093 - 0)/(11 - 6)	
0.256187			
1.25276 (9/23/1999)	ND<0 (12/19/1996)	(1.25276 - 0)/(12 - 6)	
0.208794			
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
1.09527 (4/1/2005)	ND<0 (12/19/1996)	(1.09527 - 0)/(17 - 6)	
0.0995703			
0.71295 (10/25/2005)	ND<0 (12/19/1996)	(0.71295 - 0)/(18 - 6)	
0.0594125			
0.322083 J (4/29/2006)	ND<0 (12/19/1996)	(0.322083 - 0)/(19 - 6)	
0.0247757			
ND<0 (11/18/2006)	ND<0 (12/19/1996)	(0 - 0)/(20 - 6)	0
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0

1.15373	(11/28/2007)	ND<0	(12/19/1996)	(1.15373 - 0)/(22 - 6)	
0.0721082					
1.17557	(6/5/2008)	ND<0	(12/19/1996)	(1.17557 - 0)/(23 - 6)	
0.0691514					
1.13462	(11/20/2008)	ND<0	(12/19/1996)	(1.13462 - 0)/(24 - 6)	
0.0630346					
2.02815	(6/11/2009)	ND<0	(12/19/1996)	(2.02815 - 0)/(25 - 6)	
0.106745					
1.56862	(11/16/2009)	ND<0	(12/19/1996)	(1.56862 - 0)/(26 - 6)	
0.0784308					
1.52606	(6/30/2010)	ND<0	(12/19/1996)	(1.52606 - 0)/(27 - 6)	
0.0726693					
1.335	(11/12/2010)	ND<0	(12/19/1996)	(1.335 - 0)/(28 - 6)	
0.0606819					
0.405465	(7/5/2011)	ND<0	(12/19/1996)	(0.405465 - 0)/(29 - 6)	
0.0176289					
0.788457	(11/22/2011)	ND<0	(12/19/1996)	(0.788457 - 0)/(30 - 6)	
0.0328524					
0.788457	(11/22/2011)	ND<0	(12/19/1996)	(0.788457 - 0)/(30 - 6)	
0.0328524					
ND<0	(9/24/1997)	ND<0	(3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0	(4/7/1998)	ND<0	(3/24/1997)	(0 - 0)/(9 - 7)	0
1.66771	(9/23/1998)	ND<0	(3/24/1997)	(1.66771 - 0)/(10 - 7)	
0.555902					
1.28093	(3/16/1999)	ND<0	(3/24/1997)	(1.28093 - 0)/(11 - 7)	
0.320233					
1.25276	(9/23/1999)	ND<0	(3/24/1997)	(1.25276 - 0)/(12 - 7)	
0.250553					
ND<0	(3/15/2000)	ND<0	(3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0	(9/24/2003)	ND<0	(3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0	(3/11/2004)	ND<0	(3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0	(10/12/2004)	ND<0	(3/24/1997)	(0 - 0)/(16 - 7)	0
1.09527	(4/1/2005)	ND<0	(3/24/1997)	(1.09527 - 0)/(17 - 7)	
0.109527					
0.71295	(10/25/2005)	ND<0	(3/24/1997)	(0.71295 - 0)/(18 - 7)	
0.0648136					
0.322083 J	(4/29/2006)	ND<0	(3/24/1997)	(0.322083 - 0)/(19 - 7)	
0.0268403					
ND<0	(11/18/2006)	ND<0	(3/24/1997)	(0 - 0)/(20 - 7)	0
ND<0	(5/23/2007)	ND<0	(3/24/1997)	(0 - 0)/(21 - 7)	0
1.15373	(11/28/2007)	ND<0	(3/24/1997)	(1.15373 - 0)/(22 - 7)	
0.0769154					
1.17557	(6/5/2008)	ND<0	(3/24/1997)	(1.17557 - 0)/(23 - 7)	
0.0734733					
1.13462	(11/20/2008)	ND<0	(3/24/1997)	(1.13462 - 0)/(24 - 7)	
0.0667425					
2.02815	(6/11/2009)	ND<0	(3/24/1997)	(2.02815 - 0)/(25 - 7)	
0.112675					
1.56862	(11/16/2009)	ND<0	(3/24/1997)	(1.56862 - 0)/(26 - 7)	
0.0825587					
1.52606	(6/30/2010)	ND<0	(3/24/1997)	(1.52606 - 0)/(27 - 7)	
0.0763028					
1.335	(11/12/2010)	ND<0	(3/24/1997)	(1.335 - 0)/(28 - 7)	
0.0635715					
0.405465	(7/5/2011)	ND<0	(3/24/1997)	(0.405465 - 0)/(29 - 7)	
0.0184302					
0.788457	(11/22/2011)	ND<0	(3/24/1997)	(0.788457 - 0)/(30 - 7)	
0.0342808					
0.788457	(11/22/2011)	ND<0	(3/24/1997)	(0.788457 - 0)/(30 - 7)	
0.0342808					

ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
1.66771 (9/23/1998) 0.833853	ND<0 (9/24/1997)	(1.66771 - 0)/(10 - 8)		
1.28093 (3/16/1999) 0.426978	ND<0 (9/24/1997)	(1.28093 - 0)/(11 - 8)		
1.25276 (9/23/1999) 0.313191	ND<0 (9/24/1997)	(1.25276 - 0)/(12 - 8)		
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
1.09527 (4/1/2005) 0.121697	ND<0 (9/24/1997)	(1.09527 - 0)/(17 - 8)		
0.71295 (10/25/2005) 0.071295	ND<0 (9/24/1997)	(0.71295 - 0)/(18 - 8)		
0.322083 J (4/29/2006) 0.0292803	ND<0 (9/24/1997)	(0.322083 - 0)/(19 - 8)		
ND<0 (11/18/2006)	ND<0 (9/24/1997)	(0 - 0)/(20 - 8)	0	
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0	
1.15373 (11/28/2007) 0.0824094	ND<0 (9/24/1997)	(1.15373 - 0)/(22 - 8)		
1.17557 (6/5/2008) 0.0783716	ND<0 (9/24/1997)	(1.17557 - 0)/(23 - 8)		
1.13462 (11/20/2008) 0.0709139	ND<0 (9/24/1997)	(1.13462 - 0)/(24 - 8)		
2.02815 (6/11/2009) 0.119303	ND<0 (9/24/1997)	(2.02815 - 0)/(25 - 8)		
1.56862 (11/16/2009) 0.0871453	ND<0 (9/24/1997)	(1.56862 - 0)/(26 - 8)		
1.52606 (6/30/2010) 0.0803188	ND<0 (9/24/1997)	(1.52606 - 0)/(27 - 8)		
1.335 (11/12/2010) 0.0667501	ND<0 (9/24/1997)	(1.335 - 0)/(28 - 8)		
0.405465 (7/5/2011) 0.0193079	ND<0 (9/24/1997)	(0.405465 - 0)/(29 - 8)		
0.788457 (11/22/2011) 0.035839	ND<0 (9/24/1997)	(0.788457 - 0)/(30 - 8)		
0.788457 (11/22/2011) 0.035839	ND<0 (9/24/1997)	(0.788457 - 0)/(30 - 8)		
1.66771 (9/23/1998)	ND<0 (4/7/1998)	(1.66771 - 0)/(10 - 9)		1.66771
1.28093 (3/16/1999) 0.640467	ND<0 (4/7/1998)	(1.28093 - 0)/(11 - 9)		
1.25276 (9/23/1999) 0.417588	ND<0 (4/7/1998)	(1.25276 - 0)/(12 - 9)		
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0	
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
1.09527 (4/1/2005) 0.136909	ND<0 (4/7/1998)	(1.09527 - 0)/(17 - 9)		
0.71295 (10/25/2005) 0.0792166	ND<0 (4/7/1998)	(0.71295 - 0)/(18 - 9)		
0.322083 J (4/29/2006) 0.0322083	ND<0 (4/7/1998)	(0.322083 - 0)/(19 - 9)		
ND<0 (11/18/2006)	ND<0 (4/7/1998)	(0 - 0)/(20 - 9)	0	
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0	
1.15373 (11/28/2007) 0.0887486	ND<0 (4/7/1998)	(1.15373 - 0)/(22 - 9)		
1.17557 (6/5/2008) 0.0839695	ND<0 (4/7/1998)	(1.17557 - 0)/(23 - 9)		

1.13462	(11/20/2008)	ND<0	(4/7/1998)	(1.13462 - 0)/(24 - 9)	
0.0756415					
2.02815	(6/11/2009)	ND<0	(4/7/1998)	(2.02815 - 0)/(25 - 9)	
0.126759					
1.56862	(11/16/2009)	ND<0	(4/7/1998)	(1.56862 - 0)/(26 - 9)	
0.0922715					
1.52606	(6/30/2010)	ND<0	(4/7/1998)	(1.52606 - 0)/(27 - 9)	
0.0847809					
1.335	(11/12/2010)	ND<0	(4/7/1998)	(1.335 - 0)/(28 - 9)	
0.0702632					
0.405465	(7/5/2011)	ND<0	(4/7/1998)	(0.405465 - 0)/(29 - 9)	
0.0202733					
0.788457	(11/22/2011)	ND<0	(4/7/1998)	(0.788457 - 0)/(30 - 9)	
0.0375456					
0.788457	(11/22/2011)	ND<0	(4/7/1998)	(0.788457 - 0)/(30 - 9)	
0.0375456					
1.28093	(3/16/1999)	1.66771	(9/23/1998)	(1.28093 - 1.66771)/(11 - 10)	
-0.386773					
1.25276	(9/23/1999)	1.66771	(9/23/1998)	(1.25276 - 1.66771)/(12 - 10)	
-0.207472					
ND<0	(3/15/2000)	1.66771	(9/23/1998)	(0 - 1.66771)/(13 - 10)	
-0.555902					
ND<0	(9/24/2003)	1.66771	(9/23/1998)	(0 - 1.66771)/(14 - 10)	
-0.416927					
ND<0	(3/11/2004)	1.66771	(9/23/1998)	(0 - 1.66771)/(15 - 10)	
-0.333541					
ND<0	(10/12/2004)	1.66771	(9/23/1998)	(0 - 1.66771)/(16 - 10)	
-0.277951					
1.09527	(4/1/2005)	1.66771	(9/23/1998)	(1.09527 - 1.66771)/(17 - 10)	
-0.0817762					
0.71295	(10/25/2005)	1.66771	(9/23/1998)	(0.71295 - 1.66771)/(18 - 10)	
-0.119345					
0.322083 J	(4/29/2006)	1.66771	(9/23/1998)	(0.322083 - 1.66771)/(19 - 10)	
-0.149514					
ND<0	(11/18/2006)	1.66771	(9/23/1998)	(0 - 1.66771)/(20 - 10)	
-0.166771					
ND<0	(5/23/2007)	1.66771	(9/23/1998)	(0 - 1.66771)/(21 - 10)	-0.15161
1.15373	(11/28/2007)	1.66771	(9/23/1998)	(1.15373 - 1.66771)/(22 - 10)	
-0.0428313					
1.17557	(6/5/2008)	1.66771	(9/23/1998)	(1.17557 - 1.66771)/(23 - 10)	
-0.0378564					
1.13462	(11/20/2008)	1.66771	(9/23/1998)	(1.13462 - 1.66771)/(24 - 10)	
-0.0380774					
2.02815	(6/11/2009)	1.66771	(9/23/1998)	(2.02815 - 1.66771)/(25 - 10)	
0.0240294					
1.56862	(11/16/2009)	1.66771	(9/23/1998)	(1.56862 - 1.66771)/(26 - 10)	
-0.00619318					
1.52606	(6/30/2010)	1.66771	(9/23/1998)	(1.52606 - 1.66771)/(27 - 10)	
-0.00833238					
1.335	(11/12/2010)	1.66771	(9/23/1998)	(1.335 - 1.66771)/(28 - 10)	
-0.0184837					
0.405465	(7/5/2011)	1.66771	(9/23/1998)	(0.405465 - 1.66771)/(29 - 10)	
-0.0664338					
0.788457	(11/22/2011)	1.66771	(9/23/1998)	(0.788457 - 1.66771)/(30 - 10)	
-0.0439625					
0.788457	(11/22/2011)	1.66771	(9/23/1998)	(0.788457 - 1.66771)/(30 - 10)	
-0.0439625					
1.25276	(9/23/1999)	1.28093	(3/16/1999)	(1.25276 - 1.28093)/(12 - 11)	
-0.0281709					

ND<0 (3/15/2000)	1.28093	(3/16/1999)	(0 - 1.28093)/(13 - 11)	
-0.640467				
ND<0 (9/24/2003)	1.28093	(3/16/1999)	(0 - 1.28093)/(14 - 11)	
-0.426978				
ND<0 (3/11/2004)	1.28093	(3/16/1999)	(0 - 1.28093)/(15 - 11)	
-0.320233				
ND<0 (10/12/2004)	1.28093	(3/16/1999)	(0 - 1.28093)/(16 - 11)	
-0.256187				
1.09527 (4/1/2005)	1.28093	(3/16/1999)	(1.09527 - 1.28093)/(17 - 11)	
-0.0309434				
0.71295 (10/25/2005)	1.28093	(3/16/1999)	(0.71295 - 1.28093)/(18 - 11)	
-0.0811406				
0.322083 J (4/29/2006)	1.28093	(3/16/1999)	(0.322083 - 1.28093)/(19 - 11)	
-0.119856				
ND<0 (11/18/2006)	1.28093	(3/16/1999)	(0 - 1.28093)/(20 - 11)	
-0.142326				
ND<0 (5/23/2007)	1.28093	(3/16/1999)	(0 - 1.28093)/(21 - 11)	
-0.128093				
1.15373 (11/28/2007)	1.28093	(3/16/1999)	(1.15373 - 1.28093)/(22 - 11)	
-0.0115638				
1.17557 (6/5/2008)	1.28093	(3/16/1999)	(1.17557 - 1.28093)/(23 - 11)	
-0.00878004				
1.13462 (11/20/2008)	1.28093	(3/16/1999)	(1.13462 - 1.28093)/(24 - 11)	
-0.0112547				
2.02815 (6/11/2009)	1.28093	(3/16/1999)	(2.02815 - 1.28093)/(25 - 11)	
0.0533725				
1.56862 (11/16/2009)	1.28093	(3/16/1999)	(1.56862 - 1.28093)/(26 - 11)	
0.0191788				
1.52606 (6/30/2010)	1.28093	(3/16/1999)	(1.52606 - 1.28093)/(27 - 11)	
0.0153202				
1.335 (11/12/2010)	1.28093	(3/16/1999)	(1.335 - 1.28093)/(28 - 11)	
0.00318042				
0.405465 (7/5/2011)	1.28093	(3/16/1999)	(0.405465 - 1.28093)/(29 - 11)	
-0.0486372				
0.788457 (11/22/2011)	1.28093	(3/16/1999)	(0.788457 - 1.28093)/(30 - 11)	
-0.0259198				
0.788457 (11/22/2011)	1.28093	(3/16/1999)	(0.788457 - 1.28093)/(30 - 11)	
-0.0259198				
ND<0 (3/15/2000)	1.25276	(9/23/1999)	(0 - 1.25276)/(13 - 12)	-1.25276
ND<0 (9/24/2003)	1.25276	(9/23/1999)	(0 - 1.25276)/(14 - 12)	
-0.626381				
ND<0 (3/11/2004)	1.25276	(9/23/1999)	(0 - 1.25276)/(15 - 12)	
-0.417588				
ND<0 (10/12/2004)	1.25276	(9/23/1999)	(0 - 1.25276)/(16 - 12)	
-0.313191				
1.09527 (4/1/2005)	1.25276	(9/23/1999)	(1.09527 - 1.25276)/(17 - 12)	
-0.0314979				
0.71295 (10/25/2005)	1.25276	(9/23/1999)	(0.71295 - 1.25276)/(18 - 12)	
-0.0899689				
0.322083 J (4/29/2006)	1.25276	(9/23/1999)	(0.322083 - 1.25276)/(19 - 12)	
-0.132954				
ND<0 (11/18/2006)	1.25276	(9/23/1999)	(0 - 1.25276)/(20 - 12)	
-0.156595				
ND<0 (5/23/2007)	1.25276	(9/23/1999)	(0 - 1.25276)/(21 - 12)	
-0.139196				
1.15373 (11/28/2007)	1.25276	(9/23/1999)	(1.15373 - 1.25276)/(22 - 12)	
-0.00990314				
1.17557 (6/5/2008)	1.25276	(9/23/1999)	(1.17557 - 1.25276)/(23 - 12)	
-0.00701724				
1.13462 (11/20/2008)	1.25276	(9/23/1999)	(1.13462 - 1.25276)/(24 - 12)	
-0.00984502				

2.02815 (6/11/2009)	1.25276 (9/23/1999)	(2.02815 - 1.25276)/(25 - 12)			
0.059645					
1.56862 (11/16/2009)	1.25276 (9/23/1999)	(1.56862 - 1.25276)/(26 - 12)			
0.0225609					
1.52606 (6/30/2010)	1.25276 (9/23/1999)	(1.52606 - 1.25276)/(27 - 12)			
0.0182196					
1.335 (11/12/2010)	1.25276 (9/23/1999)	(1.335 - 1.25276)/(28 - 12)			
0.00513988					
0.405465 (7/5/2011)	1.25276 (9/23/1999)	(0.405465 - 1.25276)/(29 - 12)			
-0.0498411					
0.788457 (11/22/2011)	1.25276 (9/23/1999)	(0.788457 - 1.25276)/(30 - 12)			
-0.0257948					
0.788457 (11/22/2011)	1.25276 (9/23/1999)	(0.788457 - 1.25276)/(30 - 12)			
-0.0257948					
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0		
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0		
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0		
1.09527 (4/1/2005)	ND<0 (3/15/2000)	(1.09527 - 0)/(17 - 13)			
0.273818					
0.71295 (10/25/2005)	ND<0 (3/15/2000)	(0.71295 - 0)/(18 - 13)		0.14259	
0.322083 J (4/29/2006)	ND<0 (3/15/2000)	(0.322083 - 0)/(19 - 13)			
0.0536806					
ND<0 (11/18/2006)	ND<0 (3/15/2000)	(0 - 0)/(20 - 13)	0		
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0		
1.15373 (11/28/2007)	ND<0 (3/15/2000)	(1.15373 - 0)/(22 - 13)			
0.128192					
1.17557 (6/5/2008)	ND<0 (3/15/2000)	(1.17557 - 0)/(23 - 13)			
0.117557					
1.13462 (11/20/2008)	ND<0 (3/15/2000)	(1.13462 - 0)/(24 - 13)			
0.103148					
2.02815 (6/11/2009)	ND<0 (3/15/2000)	(2.02815 - 0)/(25 - 13)			
0.169012					
1.56862 (11/16/2009)	ND<0 (3/15/2000)	(1.56862 - 0)/(26 - 13)			
0.120663					
1.52606 (6/30/2010)	ND<0 (3/15/2000)	(1.52606 - 0)/(27 - 13)			
0.109004					
1.335 (11/12/2010)	ND<0 (3/15/2000)	(1.335 - 0)/(28 - 13)			
0.0890001					
0.405465 (7/5/2011)	ND<0 (3/15/2000)	(0.405465 - 0)/(29 - 13)			
0.0253416					
0.788457 (11/22/2011)	ND<0 (3/15/2000)	(0.788457 - 0)/(30 - 13)			
0.0463798					
0.788457 (11/22/2011)	ND<0 (3/15/2000)	(0.788457 - 0)/(30 - 13)			
0.0463798					
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0		
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0		
1.09527 (4/1/2005)	ND<0 (9/24/2003)	(1.09527 - 0)/(17 - 14)			
0.365091					
0.71295 (10/25/2005)	ND<0 (9/24/2003)	(0.71295 - 0)/(18 - 14)			
0.178237					
0.322083 J (4/29/2006)	ND<0 (9/24/2003)	(0.322083 - 0)/(19 - 14)			
0.0644167					
ND<0 (11/18/2006)	ND<0 (9/24/2003)	(0 - 0)/(20 - 14)	0		
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0		
1.15373 (11/28/2007)	ND<0 (9/24/2003)	(1.15373 - 0)/(22 - 14)			
0.144216					
1.17557 (6/5/2008)	ND<0 (9/24/2003)	(1.17557 - 0)/(23 - 14)			
0.130619					
1.13462 (11/20/2008)	ND<0 (9/24/2003)	(1.13462 - 0)/(24 - 14)			
0.113462					

2.02815 (6/11/2009)	ND<0 (9/24/2003)	(2.02815 - 0)/(25 - 14)			
0.184377					
1.56862 (11/16/2009)	ND<0 (9/24/2003)	(1.56862 - 0)/(26 - 14)			
0.130718					
1.52606 (6/30/2010)	ND<0 (9/24/2003)	(1.52606 - 0)/(27 - 14)			
0.117389					
1.335 (11/12/2010)	ND<0 (9/24/2003)	(1.335 - 0)/(28 - 14)			
0.0953572					
0.405465 (7/5/2011)	ND<0 (9/24/2003)	(0.405465 - 0)/(29 - 14)			
0.027031					
0.788457 (11/22/2011)	ND<0 (9/24/2003)	(0.788457 - 0)/(30 - 14)			
0.0492786					
0.788457 (11/22/2011)	ND<0 (9/24/2003)	(0.788457 - 0)/(30 - 14)			
0.0492786					
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0		
1.09527 (4/1/2005)	ND<0 (3/11/2004)	(1.09527 - 0)/(17 - 15)			
0.547637					
0.71295 (10/25/2005)	ND<0 (3/11/2004)	(0.71295 - 0)/(18 - 15)			0.23765
0.322083 J (4/29/2006)	ND<0 (3/11/2004)	(0.322083 - 0)/(19 - 15)			
0.0805209					
ND<0 (11/18/2006)	ND<0 (3/11/2004)	(0 - 0)/(20 - 15)	0		
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0		
1.15373 (11/28/2007)	ND<0 (3/11/2004)	(1.15373 - 0)/(22 - 15)			
0.164819					
1.17557 (6/5/2008)	ND<0 (3/11/2004)	(1.17557 - 0)/(23 - 15)			
0.146947					
1.13462 (11/20/2008)	ND<0 (3/11/2004)	(1.13462 - 0)/(24 - 15)			
0.126069					
2.02815 (6/11/2009)	ND<0 (3/11/2004)	(2.02815 - 0)/(25 - 15)			
0.202815					
1.56862 (11/16/2009)	ND<0 (3/11/2004)	(1.56862 - 0)/(26 - 15)			
0.142601					
1.52606 (6/30/2010)	ND<0 (3/11/2004)	(1.52606 - 0)/(27 - 15)			
0.127171					
1.335 (11/12/2010)	ND<0 (3/11/2004)	(1.335 - 0)/(28 - 15)			
0.102692					
0.405465 (7/5/2011)	ND<0 (3/11/2004)	(0.405465 - 0)/(29 - 15)			
0.0289618					
0.788457 (11/22/2011)	ND<0 (3/11/2004)	(0.788457 - 0)/(30 - 15)			
0.0525638					
0.788457 (11/22/2011)	ND<0 (3/11/2004)	(0.788457 - 0)/(30 - 15)			
0.0525638					
1.09527 (4/1/2005)	ND<0 (10/12/2004)	(1.09527 - 0)/(17 - 16)			1.09527
0.71295 (10/25/2005)	ND<0 (10/12/2004)	(0.71295 - 0)/(18 - 16)			
0.356475					
0.322083 J (4/29/2006)	ND<0 (10/12/2004)	(0.322083 - 0)/(19 - 16)			
0.107361					
ND<0 (11/18/2006)	ND<0 (10/12/2004)	(0 - 0)/(20 - 16)	0		
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0		
1.15373 (11/28/2007)	ND<0 (10/12/2004)	(1.15373 - 0)/(22 - 16)			
0.192289					
1.17557 (6/5/2008)	ND<0 (10/12/2004)	(1.17557 - 0)/(23 - 16)			
0.167939					
1.13462 (11/20/2008)	ND<0 (10/12/2004)	(1.13462 - 0)/(24 - 16)			
0.141828					
2.02815 (6/11/2009)	ND<0 (10/12/2004)	(2.02815 - 0)/(25 - 16)			0.22535
1.56862 (11/16/2009)	ND<0 (10/12/2004)	(1.56862 - 0)/(26 - 16)			
0.156862					
1.52606 (6/30/2010)	ND<0 (10/12/2004)	(1.52606 - 0)/(27 - 16)			
0.138732					

1.335 (11/12/2010)	ND<0 (10/12/2004)	(1.335 - 0)/(28 - 16)	0.11125
0.405465 (7/5/2011)	ND<0 (10/12/2004)	(0.405465 - 0)/(29 - 16)	
0.0311896			
0.788457 (11/22/2011)	ND<0 (10/12/2004)	(0.788457 - 0)/(30 - 16)	
0.0563184			
0.788457 (11/22/2011)	ND<0 (10/12/2004)	(0.788457 - 0)/(30 - 16)	
0.0563184			
0.71295 (10/25/2005)	1.09527 (4/1/2005)	(0.71295 - 1.09527)/(18 - 17)	
-0.382324			
0.322083 J (4/29/2006)	1.09527 (4/1/2005)	(0.322083 - 1.09527)/(19 - 17)	
-0.386595			
ND<0 (11/18/2006)	1.09527 (4/1/2005)	(0 - 1.09527)/(20 - 17)	
-0.365091			
ND<0 (5/23/2007)	1.09527 (4/1/2005)	(0 - 1.09527)/(21 - 17)	
-0.273818			
1.15373 (11/28/2007)	1.09527 (4/1/2005)	(1.15373 - 1.09527)/(22 - 17)	
0.0116916			
1.17557 (6/5/2008)	1.09527 (4/1/2005)	(1.17557 - 1.09527)/(23 - 17)	
0.0133833			
1.13462 (11/20/2008)	1.09527 (4/1/2005)	(1.13462 - 1.09527)/(24 - 17)	
0.00562133			
2.02815 (6/11/2009)	1.09527 (4/1/2005)	(2.02815 - 1.09527)/(25 - 17)	
0.116609			
1.56862 (11/16/2009)	1.09527 (4/1/2005)	(1.56862 - 1.09527)/(26 - 17)	
0.0525936			
1.52606 (6/30/2010)	1.09527 (4/1/2005)	(1.52606 - 1.09527)/(27 - 17)	
0.0430783			
1.335 (11/12/2010)	1.09527 (4/1/2005)	(1.335 - 1.09527)/(28 - 17)	
0.0217934			
0.405465 (7/5/2011)	1.09527 (4/1/2005)	(0.405465 - 1.09527)/(29 - 17)	
-0.057484			
0.788457 (11/22/2011)	1.09527 (4/1/2005)	(0.788457 - 1.09527)/(30 - 17)	
-0.0236012			
0.788457 (11/22/2011)	1.09527 (4/1/2005)	(0.788457 - 1.09527)/(30 - 17)	
-0.0236012			
0.322083 J (4/29/2006)	0.71295 (10/25/2005)	(0.322083 - 0.71295)/(19 - 18)	
-0.390866			
ND<0 (11/18/2006)	0.71295 (10/25/2005)	(0 - 0.71295)/(20 - 18)	
-0.356475			
ND<0 (5/23/2007)	0.71295 (10/25/2005)	(0 - 0.71295)/(21 - 18)	-0.23765
1.15373 (11/28/2007)	0.71295 (10/25/2005)	(1.15373 - 0.71295)/(22 - 18)	
0.110195			
1.17557 (6/5/2008)	0.71295 (10/25/2005)	(1.17557 - 0.71295)/(23 - 18)	
0.0925247			
1.13462 (11/20/2008)	0.71295 (10/25/2005)	(1.13462 - 0.71295)/(24 - 18)	
0.0702788			
2.02815 (6/11/2009)	0.71295 (10/25/2005)	(2.02815 - 0.71295)/(25 - 18)	
0.187885			
1.56862 (11/16/2009)	0.71295 (10/25/2005)	(1.56862 - 0.71295)/(26 - 18)	
0.106958			
1.52606 (6/30/2010)	0.71295 (10/25/2005)	(1.52606 - 0.71295)/(27 - 18)	
0.0903452			
1.335 (11/12/2010)	0.71295 (10/25/2005)	(1.335 - 0.71295)/(28 - 18)	
0.0622051			
0.405465 (7/5/2011)	0.71295 (10/25/2005)	(0.405465 - 0.71295)/(29 - 18)	
-0.0279532			
0.788457 (11/22/2011)	0.71295 (10/25/2005)	(0.788457 - 0.71295)/(30 - 18)	
0.0062923			
0.788457 (11/22/2011)	0.71295 (10/25/2005)	(0.788457 - 0.71295)/(30 - 18)	
0.0062923			

ND<0 (11/18/2006)	0.322083 J (4/29/2006)	(0 - 0.322083)/(20 - 19)		
-0.322083				
ND<0 (5/23/2007)	0.322083 J (4/29/2006)	(0 - 0.322083)/(21 - 19)		
-0.161042				
1.15373 (11/28/2007)	0.322083 J (4/29/2006)	(1.15373 - 0.322083)/(22 - 19)		
0.277216				
1.17557 (6/5/2008)	0.322083 J (4/29/2006)	(1.17557 - 0.322083)/(23 - 19)		
0.213372				
1.13462 (11/20/2008)	0.322083 J (4/29/2006)	(1.13462 - 0.322083)/(24 - 19)		
0.162508				
2.02815 (6/11/2009)	0.322083 J (4/29/2006)	(2.02815 - 0.322083)/(25 - 19)		
0.284344				
1.56862 (11/16/2009)	0.322083 J (4/29/2006)	(1.56862 - 0.322083)/(26 - 19)		
0.178076				
1.52606 (6/30/2010)	0.322083 J (4/29/2006)	(1.52606 - 0.322083)/(27 - 19)		
0.150497				
1.335 (11/12/2010)	0.322083 J (4/29/2006)	(1.335 - 0.322083)/(28 - 19)		
0.112546				
0.405465 (7/5/2011)	0.322083 J (4/29/2006)	(0.405465 - 0.322083)/(29 - 19)		
0.00833816				
0.788457 (11/22/2011)	0.322083 J (4/29/2006)	(0.788457 - 0.322083)/(30 - 19)		
0.0423976				
0.788457 (11/22/2011)	0.322083 J (4/29/2006)	(0.788457 - 0.322083)/(30 - 19)		
0.0423976				
ND<0 (5/23/2007)	ND<0 (11/18/2006)	(0 - 0)/(21 - 20)	0	
1.15373 (11/28/2007)	ND<0 (11/18/2006)	(1.15373 - 0)/(22 - 20)		
0.576866				
1.17557 (6/5/2008)	ND<0 (11/18/2006)	(1.17557 - 0)/(23 - 20)		
0.391858				
1.13462 (11/20/2008)	ND<0 (11/18/2006)	(1.13462 - 0)/(24 - 20)		
0.283656				
2.02815 (6/11/2009)	ND<0 (11/18/2006)	(2.02815 - 0)/(25 - 20)		0.40563
1.56862 (11/16/2009)	ND<0 (11/18/2006)	(1.56862 - 0)/(26 - 20)		
0.261436				
1.52606 (6/30/2010)	ND<0 (11/18/2006)	(1.52606 - 0)/(27 - 20)		
0.218008				
1.335 (11/12/2010)	ND<0 (11/18/2006)	(1.335 - 0)/(28 - 20)		
0.166875				
0.405465 (7/5/2011)	ND<0 (11/18/2006)	(0.405465 - 0)/(29 - 20)		
0.0450517				
0.788457 (11/22/2011)	ND<0 (11/18/2006)	(0.788457 - 0)/(30 - 20)		
0.0788457				
0.788457 (11/22/2011)	ND<0 (11/18/2006)	(0.788457 - 0)/(30 - 20)		
0.0788457				
1.15373 (11/28/2007)	ND<0 (5/23/2007)	(1.15373 - 0)/(22 - 21)		1.15373
1.17557 (6/5/2008)	ND<0 (5/23/2007)	(1.17557 - 0)/(23 - 21)		
0.587787				
1.13462 (11/20/2008)	ND<0 (5/23/2007)	(1.13462 - 0)/(24 - 21)		
0.378208				
2.02815 (6/11/2009)	ND<0 (5/23/2007)	(2.02815 - 0)/(25 - 21)		
0.507037				
1.56862 (11/16/2009)	ND<0 (5/23/2007)	(1.56862 - 0)/(26 - 21)		
0.313723				
1.52606 (6/30/2010)	ND<0 (5/23/2007)	(1.52606 - 0)/(27 - 21)		
0.254343				
1.335 (11/12/2010)	ND<0 (5/23/2007)	(1.335 - 0)/(28 - 21)		
0.190714				
0.405465 (7/5/2011)	ND<0 (5/23/2007)	(0.405465 - 0)/(29 - 21)		
0.0506831				

0.788457 (11/22/2011)	ND<0 (5/23/2007)	(0.788457 - 0)/(30 - 21)
0.0876064		
0.788457 (11/22/2011)	ND<0 (5/23/2007)	(0.788457 - 0)/(30 - 21)
0.0876064		
1.17557 (6/5/2008)	1.15373 (11/28/2007)	(1.17557 - 1.15373)/(23 - 22)
0.0218417		
1.13462 (11/20/2008)	1.15373 (11/28/2007)	(1.13462 - 1.15373)/(24 - 22)
-0.00955443		
2.02815 (6/11/2009)	1.15373 (11/28/2007)	(2.02815 - 1.15373)/(25 - 22)
0.291472		
1.56862 (11/16/2009)	1.15373 (11/28/2007)	(1.56862 - 1.15373)/(26 - 22)
0.103721		
1.52606 (6/30/2010)	1.15373 (11/28/2007)	(1.52606 - 1.15373)/(27 - 22)
0.0744649		
1.335 (11/12/2010)	1.15373 (11/28/2007)	(1.335 - 1.15373)/(28 - 22)
0.0302116		
0.405465 (7/5/2011)	1.15373 (11/28/2007)	(0.405465 - 1.15373)/(29 - 22)
-0.106895		
0.788457 (11/22/2011)	1.15373 (11/28/2007)	(0.788457 - 1.15373)/(30 - 22)
-0.0456593		
0.788457 (11/22/2011)	1.15373 (11/28/2007)	(0.788457 - 1.15373)/(30 - 22)
-0.0456593		
1.13462 (11/20/2008)	1.17557 (6/5/2008)	(1.13462 - 1.17557)/(24 - 23)
-0.0409506		
2.02815 (6/11/2009)	1.17557 (6/5/2008)	(2.02815 - 1.17557)/(25 - 23)
0.426287		
1.56862 (11/16/2009)	1.17557 (6/5/2008)	(1.56862 - 1.17557)/(26 - 23)
0.131014		
1.52606 (6/30/2010)	1.17557 (6/5/2008)	(1.52606 - 1.17557)/(27 - 23)
0.0876207		
1.335 (11/12/2010)	1.17557 (6/5/2008)	(1.335 - 1.17557)/(28 - 23)
0.0318855		
0.405465 (7/5/2011)	1.17557 (6/5/2008)	(0.405465 - 1.17557)/(29 - 23)
-0.128351		
0.788457 (11/22/2011)	1.17557 (6/5/2008)	(0.788457 - 1.17557)/(30 - 23)
-0.0553023		
0.788457 (11/22/2011)	1.17557 (6/5/2008)	(0.788457 - 1.17557)/(30 - 23)
-0.0553023		
2.02815 (6/11/2009)	1.13462 (11/20/2008)	(2.02815 - 1.13462)/(25 - 24)
0.893526		
1.56862 (11/16/2009)	1.13462 (11/20/2008)	(1.56862 - 1.13462)/(26 - 24)
0.216997		
1.52606 (6/30/2010)	1.13462 (11/20/2008)	(1.52606 - 1.13462)/(27 - 24)
0.130478		
1.335 (11/12/2010)	1.13462 (11/20/2008)	(1.335 - 1.13462)/(28 - 24)
0.0500946		
0.405465 (7/5/2011)	1.13462 (11/20/2008)	(0.405465 - 1.13462)/(29 - 24)
-0.145832		
0.788457 (11/22/2011)	1.13462 (11/20/2008)	(0.788457 - 1.13462)/(30 - 24)
-0.0576942		
0.788457 (11/22/2011)	1.13462 (11/20/2008)	(0.788457 - 1.13462)/(30 - 24)
-0.0576942		
1.56862 (11/16/2009)	2.02815 (6/11/2009)	(1.56862 - 2.02815)/(26 - 25)
-0.459532		
1.52606 (6/30/2010)	2.02815 (6/11/2009)	(1.52606 - 2.02815)/(27 - 25)
-0.251046		
1.335 (11/12/2010)	2.02815 (6/11/2009)	(1.335 - 2.02815)/(28 - 25)
-0.231049		

0.405465 (7/5/2011)	2.02815 (6/11/2009)	(0.405465 - 2.02815)/(29 - 25)
-0.405671		
0.788457 (11/22/2011)	2.02815 (6/11/2009)	(0.788457 - 2.02815)/(30 - 25)
-0.247938		
0.788457 (11/22/2011)	2.02815 (6/11/2009)	(0.788457 - 2.02815)/(30 - 25)
-0.247938		
1.52606 (6/30/2010)	1.56862 (11/16/2009)	(1.52606 - 1.56862)/(27 - 26)
-0.0425596		
1.335 (11/12/2010)	1.56862 (11/16/2009)	(1.335 - 1.56862)/(28 - 26)
-0.116807		
0.405465 (7/5/2011)	1.56862 (11/16/2009)	(0.405465 - 1.56862)/(29 - 26)
-0.387717		
0.788457 (11/22/2011)	1.56862 (11/16/2009)	(0.788457 - 1.56862)/(30 - 26)
-0.19504		
0.788457 (11/22/2011)	1.56862 (11/16/2009)	(0.788457 - 1.56862)/(30 - 26)
-0.19504		
1.335 (11/12/2010)	1.52606 (6/30/2010)	(1.335 - 1.52606)/(28 - 27)
-0.191055		
0.405465 (7/5/2011)	1.52606 (6/30/2010)	(0.405465 - 1.52606)/(29 - 27)
-0.560296		
0.788457 (11/22/2011)	1.52606 (6/30/2010)	(0.788457 - 1.52606)/(30 - 27)
-0.245866		
0.788457 (11/22/2011)	1.52606 (6/30/2010)	(0.788457 - 1.52606)/(30 - 27)
-0.245866		
0.405465 (7/5/2011)	1.335 (11/12/2010)	(0.405465 - 1.335)/(29 - 28)
-0.929536		
0.788457 (11/22/2011)	1.335 (11/12/2010)	(0.788457 - 1.335)/(30 - 28)
-0.273272		
0.788457 (11/22/2011)	1.335 (11/12/2010)	(0.788457 - 1.335)/(30 - 28)
-0.273272		
0.788457 (11/22/2011)	0.405465 (7/5/2011)	(0.788457 - 0.405465)/(30 - 29)
0.382992		
0.788457 (11/22/2011)	0.405465 (7/5/2011)	(0.788457 - 0.405465)/(30 - 29)
0.382992		
0.788457 (11/22/2011)	0.788457 (11/22/2011)	(0.788457 - 0.788457)/(30 - 30)
Same Date		

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.25276
2	-1.09861
3	-0.929536
4	-0.640467
5	-0.626381
6	-0.560296
7	-0.555902
8	-0.549306
9	-0.459532
10	-0.426978
11	-0.417588
12	-0.416927
13	-0.405671
14	-0.390866

15	-0.387717
16	-0.386773
17	-0.386595
18	-0.382324
19	-0.366204
20	-0.365091
21	-0.356475
22	-0.346574
23	-0.333541
24	-0.322083
25	-0.320233
26	-0.313191
27	-0.277951
28	-0.274653
29	-0.273818
30	-0.273272
31	-0.273272
32	-0.256187
33	-0.251046
34	-0.247938
35	-0.247938
36	-0.245866
37	-0.245866
38	-0.23765
39	-0.231049
40	-0.231049
41	-0.219722
42	-0.207472
43	-0.19504
44	-0.19504
45	-0.191055
46	-0.173287
47	-0.166771
48	-0.161042
49	-0.156595
50	-0.15161
51	-0.149514
52	-0.145832
53	-0.142326
54	-0.139196
55	-0.138629
56	-0.132954
57	-0.128351
58	-0.128093
59	-0.122068
60	-0.119856
61	-0.119345
62	-0.116807
63	-0.115525
64	-0.109861
65	-0.106895
66	-0.0998738
67	-0.091551
68	-0.0899689
69	-0.0817762
70	-0.0811406
71	-0.0693147
72	-0.0686633
73	-0.0664338
74	-0.0646243
75	-0.0630134
76	-0.0577623

77	-0.0576942
78	-0.0576942
79	-0.057484
80	-0.0553023
81	-0.0553023
82	-0.053319
83	-0.0517686
84	-0.0498411
85	-0.0486372
86	-0.0456593
87	-0.0456593
88	-0.0439625
89	-0.0439625
90	-0.0428313
91	-0.0425596
92	-0.0409506
93	-0.0407734
94	-0.0385082
95	-0.0380774
96	-0.0378564
97	-0.0314979
98	-0.0309434
99	-0.0281709
100	-0.0279532
101	-0.0277259
102	-0.0275473
103	-0.0259198
104	-0.0259198
105	-0.0257948
106	-0.0257948
107	-0.0236012
108	-0.0236012
109	-0.0231915
110	-0.0184837
111	-0.011929
112	-0.011929
113	-0.0115638
114	-0.0112547
115	-0.0110647
116	-0.00990314
117	-0.00984502
118	-0.00955443
119	-0.00878004
120	-0.00833238
121	-0.00701724
122	-0.00619318
123	-0.000256839
124	0
125	0
126	0
127	0
128	0
129	0
130	0
131	0
132	0
133	0
134	0
135	0
136	0
137	0
138	0

139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0
154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0.00132018
181	0.00180052
182	0.00306218
183	0.00318042
184	0.00353001
185	0.00353001
186	0.00405058
187	0.00513988
188	0.00562133
189	0.0062923
190	0.0062923
191	0.00833816
192	0.00871767
193	0.00917649
194	0.00917649
195	0.0096863
196	0.00984953
197	0.0116236
198	0.0116916
199	0.0124538
200	0.0124538

201	0.0133833
202	0.0134118
203	0.0134118
204	0.0145294
205	0.0145294
206	0.0153202
207	0.0158503
208	0.0168944
209	0.0176289
210	0.0182196
211	0.0184302
212	0.0185845
213	0.0191788
214	0.0192688
215	0.0193079
216	0.0202733
217	0.0207078
218	0.0210226
219	0.0213638
220	0.0214748
221	0.0217934
222	0.0217942
223	0.0218417
224	0.0225609
225	0.023006
226	0.0240294
227	0.0241213
228	0.0242413
229	0.0247757
230	0.0249076
231	0.0249076
232	0.0253416
233	0.0256742
234	0.0260459
235	0.0268403
236	0.027031
237	0.0275798
238	0.0287233
239	0.0289618
240	0.0290589
241	0.0290589
242	0.0292022
243	0.0292803
244	0.0302116
245	0.0311896
246	0.0315383
247	0.0315383
248	0.0318855
249	0.0322083
250	0.0328524
251	0.0328524
252	0.0332004
253	0.0332004
254	0.0342808
255	0.0342808
256	0.0343861
257	0.0343861
258	0.0347045
259	0.0348707
260	0.0348707
261	0.035839
262	0.035839

263	0.0375456
264	0.0375456
265	0.0380639
266	0.0423976
267	0.0423976
268	0.0430783
269	0.0435883
270	0.0435883
271	0.0442636
272	0.0450517
273	0.0463798
274	0.0463798
275	0.0492786
276	0.0492786
277	0.0500946
278	0.0506831
279	0.0521943
280	0.0525638
281	0.0525638
282	0.0525936
283	0.0533725
284	0.0536806
285	0.0548423
286	0.0554564
287	0.055902
288	0.0563184
289	0.0563184
290	0.056912
291	0.0580435
292	0.0580521
293	0.0581178
294	0.0594125
295	0.0594989
296	0.059645
297	0.059717
298	0.0606819
299	0.0606819
300	0.0613603
301	0.0621795
302	0.0622051
303	0.0630346
304	0.0632421
305	0.0635715
306	0.0642822
307	0.0644167
308	0.0648136
309	0.0653096
310	0.0654004
311	0.0664042
312	0.0667425
313	0.0667501
314	0.0678666
315	0.0680164
316	0.0691514
317	0.0693662
318	0.0697188
319	0.0702632
320	0.0702788
321	0.0709139
322	0.071295
323	0.0721082
324	0.0726237

325	0.0726693
326	0.0734733
327	0.0734733
328	0.0744649
329	0.074696
330	0.0756415
331	0.0763028
332	0.0769154
333	0.0783716
334	0.0784308
335	0.0788457
336	0.0788457
337	0.0792166
338	0.0793517
339	0.0803188
340	0.0805209
341	0.0824094
342	0.0825587
343	0.0839695
344	0.0846418
345	0.0847809
346	0.0871453
347	0.0876064
348	0.0876064
349	0.0876207
350	0.0887486
351	0.0890001
352	0.0903452
353	0.0912728
354	0.0917709
355	0.0922715
356	0.0925247
357	0.0948491
358	0.0953572
359	0.0957609
360	0.0995703
361	0.101407
362	0.102692
363	0.103148
364	0.103721
365	0.106745
366	0.106958
367	0.107361
368	0.109004
369	0.109527
370	0.110195
371	0.11125
372	0.112546
373	0.112675
374	0.113462
375	0.116609
376	0.117389
377	0.117557
378	0.119303
379	0.120663
380	0.121697
381	0.126069
382	0.126759
383	0.127171
384	0.128192
385	0.129738
386	0.130478

387	0.130619
388	0.130718
389	0.131014
390	0.136909
391	0.138732
392	0.139223
393	0.141828
394	0.14259
395	0.142601
396	0.142712
397	0.144216
398	0.145529
399	0.146947
400	0.150497
401	0.156862
402	0.161699
403	0.162508
404	0.164819
405	0.166875
406	0.167939
407	0.169012
408	0.178076
409	0.178237
410	0.178966
411	0.184377
412	0.187885
413	0.190714
414	0.192289
415	0.202815
416	0.204673
417	0.208794
418	0.213372
419	0.213489
420	0.216997
421	0.218008
422	0.22535
423	0.230258
424	0.23765
425	0.250553
426	0.254343
427	0.256187
428	0.261436
429	0.273818
430	0.277216
431	0.283656
432	0.284344
433	0.291472
434	0.313191
435	0.313723
436	0.320233
437	0.333541
438	0.356475
439	0.365091
440	0.378208
441	0.382992
442	0.382992
443	0.391858
444	0.405465
445	0.40563
446	0.416927
447	0.417588
448	0.424322

449	0.426287
450	0.426978
451	0.43375
452	0.507037
453	0.547637
454	0.555902
455	0.576866
456	0.587787
457	0.636483
458	0.640467
459	0.833853
460	0.867501
461	0.893526
462	1.09527
463	1.15373
464	1.66771

Sen's Estimator (Median Q) is 0.0255079

Tied Group	Value	Members
1	-0.174353	2
2	0	11
3	0.788457	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 3006
B = 18
C = 990
D = 0
E = 114

F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3293.79
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 94.4007
M1 = (464 - 94.4007)/2.0 = 184.8
M2 = (464 + 94.4007)/2.0 + 1 = 280.2
Lower limit is 0.00353001 = Q(185)
Upper limit is 0.0525638 = Q(280)
0.00353001 > 0 indicating an upward trend in data.

Concentrations (ppb)

Parameter: 1,2-Dichloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 236
Percent Non-Detects: 95.935%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.1	ND<0.1
			11/16/2009	ND<0.1	ND<0.1
			6/30/2010	ND<0.1	ND<0.1
			11/12/2010	ND<0.1 U	ND<0.1 U
			7/5/2011	ND<0.1 U	ND<0.1 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12BR	21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.1	ND<0.1
			11/16/2009	ND<0.1	ND<0.1
			6/30/2010	ND<0.1	ND<0.1
			11/12/2010	ND<0.1 U	ND<0.1 U
			7/5/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2

			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.1	ND<0.1	
			11/16/2009	ND<0.1	ND<0.1	
			6/30/2010	ND<0.1	ND<0.1	
			11/12/2010	ND<0.1 U	ND<0.1 U	
			7/5/2011	ND<0.1 U	ND<0.1 U	
			11/22/2011	ND<0.1 U	ND<0.1 U	
			11/22/2011	ND<0.1 U	ND<0.1 U	
MW-8	30	30 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.1	ND<0.1	
			6/30/2010	ND<0.1	ND<0.1	
			11/12/2010	ND<0.1 U	ND<0.1 U	
			7/5/2011	ND<0.1 U	ND<0.1 U	
			11/22/2011	ND<0.1 U	ND<0.1 U	
			11/22/2011	ND<0.1 U	ND<0.1 U	
MW-7	31	31 (100%)	7/20/1995	ND<2	ND<2	

		8/24/1995	ND<2	ND<2	
		9/28/1995	ND<2	ND<2	
		10/26/1995	ND<2	ND<2	
		11/19/1996	ND<2	ND<2	
		12/19/1996	ND<2	ND<2	
		3/24/1997	ND<2	ND<2	
		9/24/1997	ND<2	ND<2	
		4/7/1998	ND<2	ND<2	
		9/23/1998	ND<2	ND<2	
		3/16/1999	ND<2	ND<2	
		9/23/1999	ND<2	ND<2	
		3/15/2000	ND<2	ND<2	
		9/24/2003	ND<2	ND<2	
		3/11/2004	ND<2	ND<2	
		10/12/2004	ND<2	ND<2	
		4/1/2005	ND<2	ND<2	
		10/25/2005	ND<2	ND<2	
		4/29/2006	ND<2	ND<2	
		11/18/2006	ND<2	ND<2	
		5/23/2007	ND<2	ND<2	
		11/28/2007	ND<2	ND<2	
		6/5/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	ND<0.1	ND<0.1	
		11/16/2009	ND<0.1	ND<0.1	
		6/30/2010	ND<0.1	ND<0.1	
		11/12/2010	ND<0.1 U	ND<0.1 U	
		7/5/2011	ND<0.1 U	ND<0.1 U	
		11/22/2011	ND<0.1 U	ND<0.1 U	
		11/22/2011	ND<0.1 U	ND<0.1 U	
MW-11R	31	31 (100%)	7/20/1995	ND<2	ND<2
		8/24/1995	ND<2	ND<2	
		9/28/1995	ND<2	ND<2	
		10/26/1995	ND<2	ND<2	
		11/19/1996	ND<2	ND<2	
		12/19/1996	ND<2	ND<2	
		3/24/1997	ND<2	ND<2	
		9/24/1997	ND<2	ND<2	
		4/7/1998	ND<2	ND<2	
		9/23/1998	ND<2	ND<2	
		3/16/1999	ND<2	ND<2	
		9/23/1999	ND<2	ND<2	
		3/15/2000	ND<2	ND<2	
		9/24/2003	ND<2	ND<2	
		3/11/2004	ND<2	ND<2	
		10/12/2004	ND<2	ND<2	
		4/1/2005	ND<2	ND<2	
		10/25/2005	ND<2	ND<2	
		4/29/2006	ND<2	ND<2	
		11/18/2006	ND<2	ND<2	
		5/23/2007	ND<2	ND<2	
		11/28/2007	ND<2	ND<2	
		6/5/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	ND<0.1	ND<0.1	
		11/16/2009	ND<0.1	ND<0.1	
		6/30/2010	ND<0.1	ND<0.1	
		11/12/2010	ND<0.1 U	ND<0.1 U	
		7/5/2011	ND<0.1 U	ND<0.1 U	
		11/22/2011	ND<0.1 U	ND<0.1 U	
		11/22/2011	ND<0.1 U	ND<0.1 U	

MW-9	31	30 (96.7742%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	1.39 J	1.39 J
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.1	ND<0.1
			11/16/2009	ND<0.1	ND<0.1
			6/30/2010	ND<0.1	ND<0.1
			11/12/2010	ND<0.1 U	ND<0.1 U
			7/5/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
MW-12A R	21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.1	ND<0.1
			11/16/2009	ND<0.1	ND<0.1
			6/30/2010	ND<0.1	ND<0.1
			11/12/2010	ND<0.1 U	ND<0.1 U
			7/5/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
MW-10	31	22 (70.9677%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2

9/24/1997	ND<2	ND<2
4/7/1998 ND<2	ND<2	
9/23/1998	ND<2	ND<2
3/16/1999	ND<2	ND<2
9/23/1999	ND<2	ND<2
3/15/2000	ND<2	ND<2
9/24/2003	ND<2	ND<2
3/11/2004	ND<2	ND<2
10/12/2004	ND<2	ND<2
4/1/2005 ND<2	ND<2	
10/25/2005	ND<2	ND<2
4/29/2006	0.58 J	0.58 J
11/18/2006	ND<2	ND<2
5/23/2007	ND<2	ND<2
11/28/2007	0.42 J	0.42 J
6/5/2008 0.67 J	0.67 J	
11/20/2008	ND<2	ND<2
6/11/2009	ND<0.1	ND<0.1
11/16/2009	0.45 J	0.45 J
6/30/2010	0.2 J	0.2 J
11/12/2010	0.35 J	0.35 J
7/5/2011 0.53 J	0.53 J	
11/22/2011	0.41 J	0.41 J
11/22/2011	0.41 J	0.41 J

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: 1,2-Dichloroethane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.05	-2.65209	7.03356	-0.132604
2	0.05	-2.40892	12.8365	-0.253051
3	0.05	-2.25713	17.9311	-0.365907
4	0.05	-2.14441	22.5296	-0.473127
5	0.05	-2.05375	26.7475	-0.575815
6	0.05	-1.97737	30.6575	-0.674683
7	0.05	-1.91103	34.3095	-0.770235
8	0.05	-1.85218	37.7401	-0.862844
9	0.05	-1.79912	40.9769	-0.952799
10	0.05	-1.75069	44.0418	-1.04033
11	0.05	-1.70604	46.9524	-1.12564
12	0.05	-1.66456	49.7231	-1.20886
13	0.05	-1.62576	52.3662	-1.29015
14	0.05	-1.58927	54.892	-1.36962
15	0.05	-1.55477	57.3093	-1.44735
16	0.05	-1.52203	59.6259	-1.52346
17	0.05	-1.49085	61.8486	-1.598
18	0.05	-1.46106	63.9833	-1.67105
19	0.05	-1.4325	66.0353	-1.74268
20	0.05	-1.40507	68.0096	-1.81293
21	0.05	-1.3722	69.8925	-1.88154
22	0.05	-1.34694	71.7067	-1.94889
23	0.05	-1.32251	73.4558	-2.01501
24	0.05	-1.29884	75.1427	-2.07995
25	0.05	-1.27588	76.7706	-2.14375
26	0.05	-1.25357	78.342	-2.20643
27	0.05	-1.23187	79.8595	-2.26802
28	0.05	-1.21073	81.3254	-2.32856
29	0.05	-1.19012	82.7418	-2.38806
30	0.05	-1.17	84.1107	-2.44656
31	0.05	-1.15035	85.434	-2.50408
32	0.05	-1.13113	86.7134	-2.56064
33	0.05	-1.11232	87.9507	-2.61625
34	0.05	-1.0939	89.1473	-2.67095
35	0.05	-1.07584	90.3047	-2.72474
36	0.05	-1.05812	91.4243	-2.77765
37	0.05	-1.04073	92.5075	-2.82968
38	0.05	-1.02365	93.5553	-2.88086
39	0.05	-1.00687	94.5691	-2.93121
40	0.05	-0.990356	95.5499	-2.98073
41	0.05	-0.974114	96.4988	-3.02943
42	0.05	-0.954165	97.4092	-3.07714
43	0.05	-0.938476	98.29	-3.12406
44	0.05	-0.923014	99.1419	-3.17021
45	0.05	-0.907769	99.966	-3.2156
46	0.05	-0.892733	100.763	-3.26024
47	0.05	-0.877897	101.534	-3.30413
48	0.05	-0.863249	102.279	-3.3473
49	0.05	-0.848786	102.999	-3.38974
50	0.05	-0.834498	103.696	-3.43146
51	0.05	-0.820379	104.369	-3.47248

52	0.05	-0.806422	105.019	-3.5128
53	0.05	-0.792618	105.647	-3.55243
54	0.05	-0.778966	106.254	-3.59138
55	0.2	-0.765456	106.84	-3.74447
56	0.35	-0.752084	107.406	-4.0077
57	0.41	-0.738846	107.951	-4.31063
58	0.41	-0.725736	108.478	-4.60818
59	0.42	-0.712751	108.986	-4.90753
60	0.45	-0.699883	109.476	-5.22248
61	0.53	-0.687131	109.948	-5.58666
62	0.58	-0.671346	110.399	-5.97604
63	0.67	-0.658838	110.833	-6.41746
64	1	-0.646431	111.251	-7.06389
65	1	-0.634124	111.653	-7.69802
66	1	-0.621911	112.04	-8.31993
67	1	-0.609791	112.412	-8.92972
68	1	-0.597761	112.769	-9.52748
69	1	-0.585815	113.112	-10.1133
70	1	-0.573953	113.441	-10.6872
71	1	-0.56217	113.758	-11.2494
72	1	-0.550465	114.061	-11.7999
73	1	-0.538836	114.351	-12.3387
74	1	-0.52728	114.629	-12.866
75	1	-0.515791	114.895	-13.3818
76	1	-0.504372	115.149	-13.8862
77	1	-0.493018	115.392	-14.3792
78	1	-0.481728	115.624	-14.8609
79	1	-0.470498	115.846	-15.3314
80	1	-0.459327	116.057	-15.7907
81	1	-0.448213	116.258	-16.2389
82	1	-0.437153	116.449	-16.6761
83	1	-0.423405	116.628	-17.0995
84	1	-0.412463	116.798	-17.512
85	1	-0.401571	116.959	-17.9135
86	1	-0.390726	117.112	-18.3043
87	1	-0.379927	117.256	-18.6842
88	1	-0.369171	117.393	-19.0534
89	1	-0.358459	117.521	-19.4118
90	1	-0.347787	117.642	-19.7596
91	1	-0.337155	117.756	-20.0968
92	1	-0.326561	117.863	-20.4233
93	1	-0.316004	117.962	-20.7393
94	1	-0.305481	118.056	-21.0448
95	1	-0.294992	118.143	-21.3398
96	1	-0.284535	118.224	-21.6243
97	1	-0.27411	118.299	-21.8984
98	1	-0.263715	118.368	-22.1622
99	1	-0.253347	118.433	-22.4155
100	1	-0.243007	118.492	-22.6585
101	1	-0.232693	118.546	-22.8912
102	1	-0.222403	118.595	-23.1136
103	1	-0.209575	118.639	-23.3232
104	1	-0.199336	118.679	-23.5225
105	1	-0.189118	118.715	-23.7116
106	1	-0.17892	118.747	-23.8906
107	1	-0.168741	118.775	-24.0593
108	1	-0.158579	118.8	-24.2179
109	1	-0.148434	118.822	-24.3663
110	1	-0.138305	118.841	-24.5046
111	1	-0.128189	118.858	-24.6328
112	1	-0.118085	118.872	-24.7509
113	1	-0.107995	118.883	-24.8589

114	1	-0.0979139	118.893	-24.9568
115	1	-0.0878447	118.901	-25.0446
116	1	-0.0777834	118.907	-25.1224
117	1	-0.0677301	118.911	-25.1902
118	1	-0.0576847	118.915	-25.2478
119	1	-0.0476439	118.917	-25.2955
120	1	-0.0376076	118.918	-25.3331
121	1	-0.0275759	118.919	-25.3607
122	1	-0.0175476	118.919	-25.3782
123	1	-0.00751925	118.92	-25.3857
124	1	0.00751925	118.92	-25.3782
125	1	0.0175476	118.92	-25.3607
126	1	0.0275759	118.921	-25.3331
127	1	0.0376076	118.922	-25.2955
128	1	0.0476439	118.924	-25.2478
129	1	0.0576847	118.928	-25.1902
130	1	0.0677301	118.932	-25.1224
131	1	0.0777834	118.938	-25.0446
132	1	0.0878447	118.946	-24.9568
133	1	0.0979139	118.956	-24.8589
134	1	0.107995	118.967	-24.7509
135	1	0.118085	118.981	-24.6328
136	1	0.128189	118.998	-24.5046
137	1	0.138305	119.017	-24.3663
138	1	0.148434	119.039	-24.2179
139	1	0.158579	119.064	-24.0593
140	1	0.168741	119.092	-23.8906
141	1	0.17892	119.124	-23.7116
142	1	0.189118	119.16	-23.5225
143	1	0.199336	119.2	-23.3232
144	1	0.209575	119.244	-23.1136
145	1	0.222403	119.293	-22.8912
146	1	0.232693	119.347	-22.6585
147	1	0.243007	119.407	-22.4155
148	1	0.253347	119.471	-22.1622
149	1	0.263715	119.54	-21.8984
150	1	0.27411	119.615	-21.6243
151	1	0.284535	119.696	-21.3398
152	1	0.294992	119.783	-21.0448
153	1	0.305481	119.877	-20.7393
154	1	0.316004	119.977	-20.4233
155	1	0.326561	120.083	-20.0968
156	1	0.337155	120.197	-19.7596
157	1	0.347787	120.318	-19.4118
158	1	0.358459	120.446	-19.0534
159	1	0.369171	120.583	-18.6842
160	1	0.379927	120.727	-18.3043
161	1	0.390726	120.88	-17.9135
162	1	0.401571	121.041	-17.512
163	1	0.412463	121.211	-17.0995
164	1	0.423405	121.39	-16.6761
165	1	0.437153	121.581	-16.2389
166	1	0.448213	121.782	-15.7907
167	1	0.459327	121.993	-15.3314
168	1	0.470498	122.215	-14.8609
169	1	0.481728	122.447	-14.3792
170	1	0.493018	122.69	-13.8862
171	1	0.504372	122.944	-13.3818
172	1	0.515791	123.21	-12.866
173	1	0.52728	123.488	-12.3387
174	1	0.538836	123.779	-11.7999
175	1	0.550465	124.082	-11.2494

176	1	0.56217	124.398	-10.6872	
177	1	0.573953		124.727	-10.1133
178	1	0.585815		125.07	-9.52748
179	1	0.597761		125.428	-8.92972
180	1	0.609791		125.799	-8.31993
181	1	0.621911		126.186	-7.69802
182	1	0.634124		126.588	-7.06389
183	1	0.646431		127.006	-6.41746
184	1	0.658838		127.44	-5.75863
185	1	0.671346		127.891	-5.08728
186	1	0.687131		128.363	-4.40015
187	1	0.699883		128.853	-3.70026
188	1	0.712751		129.361	-2.98751
189	1	0.725736		129.888	-2.26178
190	1	0.738846		130.433	-1.52293
191	1	0.752084		130.999	-0.770848
192	1	0.765456		131.585	-0.00539258
193	1	0.778966		132.192	0.773574
194	1	0.792618		132.82	1.56619
195	1	0.806422		133.47	2.37261
196	1	0.820379		134.143	3.19299
197	1	0.834498		134.84	4.02749
198	1	0.848786		135.56	4.87628
199	1	0.863249		136.305	5.73953
200	1	0.877897		137.076	6.61742
201	1	0.892733		137.873	7.51015
202	1	0.907769		138.697	8.41792
203	1	0.923014		139.549	9.34094
204	1	0.938476		140.43	10.2794
205	1	0.954165		141.34	11.2336
206	1	0.974114		142.289	12.2077
207	1	0.990356		143.27	13.198
208	1	1.00687	144.284	14.2049	
209	1	1.02365	145.332	15.2286	
210	1	1.04073	146.415	16.2693	
211	1	1.05812	147.534	17.3274	
212	1	1.07584	148.692	18.4033	
213	1	1.0939	149.888	19.4972	
214	1	1.11232	151.126	20.6095	
215	1	1.13113	152.405	21.7406	
216	1	1.15035	153.728	22.891	
217	1	1.17	155.097	24.061	
218	1	1.19012	156.514	25.2511	
219	1	1.21073	157.98	26.4618	
220	1	1.23187	159.497	27.6937	
221	1	1.25357	161.068	28.9472	
222	1	1.27588	162.696	30.2231	
223	1	1.29884	164.383	31.5219	
224	1	1.32251	166.132	32.8445	
225	1	1.34694	167.947	34.1914	
226	1	1.3722	169.83	35.5636	
227	1	1.40507	171.804	36.9687	
228	1	1.4325	173.856	38.4012	
229	1	1.46106	175.991	39.8622	
230	1	1.49085	178.213	41.3531	
231	1	1.52203	180.53	42.8751	
232	1	1.55477	182.947	44.4299	
233	1	1.58927	185.473	46.0192	
234	1	1.62576	188.116	47.6449	
235	1	1.66456	190.887	49.3095	
236	1	1.70604	193.797	51.0155	
237	1	1.75069	196.862	52.7662	

238	1	1.79912	200.099	54.5653
239	1	1.85218	203.53	56.4175
240	1	1.91103	207.182	58.3285
241	1	1.97737	211.092	60.3059
242	1	2.05375	215.309	62.3597
243	1	2.14441	219.908	64.5041
244	1	2.25713	225.003	66.7612
245	1	2.40892	230.806	69.1701
246	1.39	2.65209	237.839	72.8565

Data Set Standard Deviation = 0.399454
Numerator = 5308.07
Denominator = 9297.83
W Statistic = 0.570893 = 5308.07 / 9297.83

5% Critical value of 0.976 exceeds 0.570893
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.570893
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-Dichloroethane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.753749
0.753749 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.05	0.00404858	-2.65209	52.375	344.01	
2	0.05	0.00809717	-2.40892	52.375	332.136	
3	0.05	0.0121457	-2.25713	52.375	324.723	
4	0.05	0.0161943	-2.14441	52.375	319.219	
5	0.05	0.0202429	-2.05375	52.375	314.791	
6	0.05	0.0242915	-1.97737	52.375	311.062	
7	0.05	0.0283401	-1.91103	52.375	307.822	
8	0.05	0.0323887	-1.85218	52.375	304.948	
9	0.05	0.0364372	-1.79912	52.375	302.357	
10	0.05	0.0404858	-1.75069	52.375	299.992	
11	0.05	0.0445344	-1.70604	52.375	297.812	
12	0.05	0.048583	-1.66456	52.375	295.786	
13	0.05	0.0526316	-1.62576	52.375	293.891	
14	0.05	0.0566802	-1.58927	52.375	292.109	
15	0.05	0.0607287	-1.55477	52.375	290.425	
16	0.05	0.0647773	-1.52203	52.375	288.826	
17	0.05	0.0688259	-1.49085	52.375	287.303	
18	0.05	0.0728745	-1.46106	52.375	285.848	
19	0.05	0.0769231	-1.4325	52.375	284.454	
20	0.05	0.0809717	-1.40507	52.375	283.114	
21	0.05	0.0850202	-1.3722	52.375	281.509	
22	0.05	0.0890688	-1.34694	52.375	280.276	
23	0.05	0.0931174	-1.32251	52.375	279.082	
24	0.05	0.097166	-1.29884	52.375	277.926	
25	0.05	0.101215	-1.27588	52.375	276.805	
26	0.05	0.105263	-1.25357	52.375	275.716	
27	0.05	0.109312	-1.23187	52.375	274.656	
28	0.05	0.11336	-1.21073	52.375	273.624	
29	0.05	0.117409	-1.19012	52.375	272.617	
30	0.05	0.121457	-1.17	52.375	271.635	
31	0.05	0.125506	-1.15035	52.375	270.675	
32	0.05	0.129555	-1.13113	52.375	269.737	
33	0.05	0.133603	-1.11232	52.375	268.818	
34	0.05	0.137652	-1.0939	52.375	267.919	
35	0.05	0.1417	-1.07584	52.375	267.037	
36	0.05	0.145749	-1.05812	52.375	266.172	
37	0.05	0.149798	-1.04073	52.375	265.322	
38	0.05	0.153846	-1.02365	52.375	264.488	
39	0.05	0.157895	-1.00687	52.375	263.669	
40	0.05	0.161943	-0.990356	52.375	262.862	
41	0.05	0.165992	-0.974114	52.375	262.069	
42	0.05	0.17004	-0.954165	52.375	261.095	
43	0.05	0.174089	-0.938476	52.375	260.329	
44	0.05	0.178138	-0.923014	52.375	259.574	
45	0.05	0.182186	-0.907769	52.375	258.829	
46	0.05	0.186235	-0.892733	52.375	258.095	
47	0.05	0.190283	-0.877897	52.375	257.371	
48	0.05	0.194332	-0.863249	52.375	256.655	

49	0.05	0.198381	-0.848786	52.375	255.949
50	0.05	0.202429	-0.834498	52.375	255.251
51	0.05	0.206478	-0.820379	52.375	254.562
52	0.05	0.210526	-0.806422	52.375	253.88
53	0.05	0.214575	-0.792618	52.375	253.206
54	0.05	0.218623	-0.778966	52.375	252.54
55	0.2	0.222672	-0.765456	92.5	251.88
56	0.35	0.226721	-0.752084	132.625	251.227
57	0.41	0.230769	-0.738846	148.675	250.58
58	0.41	0.234818	-0.725736	148.675	249.94
59	0.42	0.238866	-0.712751	151.35	249.306
60	0.45	0.242915	-0.699883	159.375	248.678
61	0.53	0.246964	-0.687131	180.775	248.055
62	0.58	0.251012	-0.671346	194.15	247.284
63	0.67	0.255061	-0.658838	218.225	246.673
64	1	0.259109	-0.646431	306.5	246.067
65	1	0.263158	-0.634124	306.5	245.466
66	1	0.267206	-0.621911	306.5	244.87
67	1	0.271255	-0.609791	306.5	244.278
68	1	0.275304	-0.597761	306.5	243.691
69	1	0.279352	-0.585815	306.5	243.107
70	1	0.283401	-0.573953	306.5	242.528
71	1	0.287449	-0.56217	306.5	241.953
72	1	0.291498	-0.550465	306.5	241.381
73	1	0.295547	-0.538836	306.5	240.813
74	1	0.299595	-0.52728	306.5	240.249
75	1	0.303644	-0.515791	306.5	239.688
76	1	0.307692	-0.504372	306.5	239.13
77	1	0.311741	-0.493018	306.5	238.576
78	1	0.315789	-0.481728	306.5	238.024
79	1	0.319838	-0.470498	306.5	237.476
80	1	0.323887	-0.459327	306.5	236.93
81	1	0.327935	-0.448213	306.5	236.388
82	1	0.331984	-0.437153	306.5	235.848
83	1	0.336032	-0.423405	306.5	235.176
84	1	0.340081	-0.412463	306.5	234.642
85	1	0.34413	-0.401571	306.5	234.11
86	1	0.348178	-0.390726	306.5	233.58
87	1	0.352227	-0.379927	306.5	233.053
88	1	0.356275	-0.369171	306.5	232.528
89	1	0.360324	-0.358459	306.5	232.005
90	1	0.364372	-0.347787	306.5	231.484
91	1	0.368421	-0.337155	306.5	230.964
92	1	0.37247	-0.326561	306.5	230.447
93	1	0.376518	-0.316004	306.5	229.932
94	1	0.380567	-0.305481	306.5	229.418
95	1	0.384615	-0.294992	306.5	228.905
96	1	0.388664	-0.284535	306.5	228.395
97	1	0.392713	-0.27411	306.5	227.886
98	1	0.396761	-0.263715	306.5	227.378
99	1	0.40081	-0.253347	306.5	226.872
100	1	0.404858	-0.243007	306.5	226.367
101	1	0.408907	-0.232693	306.5	225.863
102	1	0.412955	-0.222403	306.5	225.361
103	1	0.417004	-0.209575	306.5	224.734
104	1	0.421053	-0.199336	306.5	224.234
105	1	0.425101	-0.189118	306.5	223.735
106	1	0.42915	-0.17892	306.5	223.237
107	1	0.433198	-0.168741	306.5	222.74
108	1	0.437247	-0.158579	306.5	222.244
109	1	0.441296	-0.148434	306.5	221.749
110	1	0.445344	-0.138305	306.5	221.254

111	1	0.449393	-0.128189	306.5	220.76
112	1	0.453441	-0.118085	306.5	220.267
113	1	0.45749	-0.107995	306.5	219.774
114	1	0.461538	-0.0979139	306.5	219.281
115	1	0.465587	-0.0878447	306.5	218.79
116	1	0.469636	-0.0777834	306.5	218.298
117	1	0.473684	-0.0677301	306.5	217.807
118	1	0.477733	-0.0576847	306.5	217.317
119	1	0.481781	-0.0476439	306.5	216.827
120	1	0.48583	-0.0376076	306.5	216.337
121	1	0.489879	-0.0275759	306.5	215.847
122	1	0.493927	-0.0175476	306.5	215.357
123	1	0.497976	-0.00751925	306.5	214.867
124	1	0.502024	0.00751925	306.5	214.133
125	1	0.506073	0.0175476	306.5	213.643
126	1	0.510121	0.0275759	306.5	213.153
127	1	0.51417	0.0376076	306.5	212.663
128	1	0.518219	0.0476439	306.5	212.173
129	1	0.522267	0.0576847	306.5	211.683
130	1	0.526316	0.0677301	306.5	211.193
131	1	0.530364	0.0777834	306.5	210.702
132	1	0.534413	0.0878447	306.5	210.21
133	1	0.538462	0.0979139	306.5	209.719
134	1	0.54251	0.107995	306.5	209.226
135	1	0.546559	0.118085	306.5	208.733
136	1	0.550607	0.128189	306.5	208.24
137	1	0.554656	0.138305	306.5	207.746
138	1	0.558704	0.148434	306.5	207.251
139	1	0.562753	0.158579	306.5	206.756
140	1	0.566802	0.168741	306.5	206.26
141	1	0.57085	0.17892	306.5	205.763
142	1	0.574899	0.189118	306.5	205.265
143	1	0.578947	0.199336	306.5	204.766
144	1	0.582996	0.209575	306.5	204.266
145	1	0.587045	0.222403	306.5	203.639
146	1	0.591093	0.232693	306.5	203.137
147	1	0.595142	0.243007	306.5	202.633
148	1	0.59919	0.253347	306.5	202.128
149	1	0.603239	0.263715	306.5	201.622
150	1	0.607287	0.27411	306.5	201.114
151	1	0.611336	0.284535	306.5	200.605
152	1	0.615385	0.294992	306.5	200.095
153	1	0.619433	0.305481	306.5	199.582
154	1	0.623482	0.316004	306.5	199.068
155	1	0.62753	0.326561	306.5	198.553
156	1	0.631579	0.337155	306.5	198.036
157	1	0.635628	0.347787	306.5	197.516
158	1	0.639676	0.358459	306.5	196.995
159	1	0.643725	0.369171	306.5	196.472
160	1	0.647773	0.379927	306.5	195.947
161	1	0.651822	0.390726	306.5	195.42
162	1	0.65587	0.401571	306.5	194.89
163	1	0.659919	0.412463	306.5	194.358
164	1	0.663968	0.423405	306.5	193.824
165	1	0.668016	0.437153	306.5	193.152
166	1	0.672065	0.448213	306.5	192.612
167	1	0.676113	0.459327	306.5	192.07
168	1	0.680162	0.470498	306.5	191.524
169	1	0.684211	0.481728	306.5	190.976
170	1	0.688259	0.493018	306.5	190.424
171	1	0.692308	0.504372	306.5	189.87
172	1	0.696356	0.515791	306.5	189.312

173	1	0.700405	0.52728	306.5	188.751	
174	1	0.704453	0.538836	306.5	188.187	
175	1	0.708502	0.550465	306.5	187.619	
176	1	0.712551	0.56217	306.5	187.047	
177	1	0.716599	0.573953	306.5	186.472	
178	1	0.720648	0.585815	306.5	185.893	
179	1	0.724696	0.597761	306.5	185.309	
180	1	0.728745	0.609791	306.5	184.722	
181	1	0.732794	0.621911	306.5	184.13	
182	1	0.736842	0.634124	306.5	183.534	
183	1	0.740891	0.646431	306.5	182.933	
184	1	0.744939	0.658838	306.5	182.327	
185	1	0.748988	0.671346	306.5	181.716	
186	1	0.753036	0.687131	306.5	180.945	
187	1	0.757085	0.699883	306.5	180.322	
188	1	0.761134	0.712751	306.5	179.694	
189	1	0.765182	0.725736	306.5	179.06	
190	1	0.769231	0.738846	306.5	178.42	
191	1	0.773279	0.752084	306.5	177.773	
192	1	0.777328	0.765456	306.5	177.12	
193	1	0.781377	0.778966	306.5	176.46	
194	1	0.785425	0.792618	306.5	175.794	
195	1	0.789474	0.806422	306.5	175.12	
196	1	0.793522	0.820379	306.5	174.438	
197	1	0.797571	0.834498	306.5	173.749	
198	1	0.801619	0.848786	306.5	173.051	
199	1	0.805668	0.863249	306.5	172.345	
200	1	0.809717	0.877897	306.5	171.629	
201	1	0.813765	0.892733	306.5	170.905	
202	1	0.817814	0.907769	306.5	170.171	
203	1	0.821862	0.923014	306.5	169.426	
204	1	0.825911	0.938476	306.5	168.671	
205	1	0.82996	0.954165	306.5	167.905	
206	1	0.834008	0.974114	306.5	166.931	
207	1	0.838057	0.990356	306.5	166.138	
208	1	0.842105	1.00687	306.5	165.331	
209	1	0.846154	1.02365	306.5	164.512	
210	1	0.850202	1.04073	306.5	163.678	
211	1	0.854251	1.05812	306.5	162.828	
212	1	0.8583	1.07584	306.5	161.963	
213	1	0.862348	1.0939	306.5	161.081	
214	1	0.866397	1.11232	306.5	160.182	
215	1	0.870445	1.13113	306.5	159.263	
216	1	0.874494	1.15035	306.5	158.325	
217	1	0.878543	1.17	306.5	157.365	
218	1	0.882591	1.19012	306.5	156.383	
219	1	0.88664	1.21073	306.5	155.376	
220	1	0.890688	1.23187	306.5	154.344	
221	1	0.894737	1.25357	306.5	153.284	
222	1	0.898785	1.27588	306.5	152.195	
223	1	0.902834	1.29884	306.5	151.074	
224	1	0.906883	1.32251	306.5	149.918	
225	1	0.910931	1.34694	306.5	148.724	
226	1	0.91498	1.3722	306.5	147.491	
227	1	0.919028	1.40507	306.5	145.886	
228	1	0.923077	1.4325	306.5	144.546	
229	1	0.927126	1.46106	306.5	143.152	
230	1	0.931174	1.49085	306.5	141.697	
231	1	0.935223	1.52203	306.5	140.174	
232	1	0.939271	1.55477	306.5	138.575	
233	1	0.94332	1.58927	306.5	136.891	
234	1	0.947368	1.62576	306.5	135.109	

235	1	0.951417	1.66456	306.5	133.214
236	1	0.955466	1.70604	306.5	131.188
237	1	0.959514	1.75069	306.5	129.008
238	1	0.963563	1.79912	306.5	126.643
239	1	0.967611	1.85218	306.5	124.052
240	1	0.97166	1.91103	306.5	121.178
241	1	0.975709	1.97737	306.5	117.938
242	1	0.979757	2.05375	306.5	114.209
243	1	0.983806	2.14441	306.5	109.781
244	1	0.987854	2.25713	306.5	104.277
245	1	0.991903	2.40892	306.5	96.8642
246	1.39	0.995951	2.65209	410.825	84.9898

Shapiro-Francia Test of Normality

Parameter: 1,2-Dichloroethane

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.99573	-2.65209	7.03356	7.94494
2	-2.99573	-2.40892	12.8365	15.1614
3	-2.99573	-2.25713	17.9311	21.9232
4	-2.99573	-2.14441	22.5296	28.3473
5	-2.99573	-2.05375	26.7475	34.4997
6	-2.99573	-1.97737	30.6575	40.4234
7	-2.99573	-1.91103	34.3095	46.1483
8	-2.99573	-1.85218	37.7401	51.697
9	-2.99573	-1.79912	40.9769	57.0866
10	-2.99573	-1.75069	44.0418	62.3312
11	-2.99573	-1.70604	46.9524	67.4421
12	-2.99573	-1.66456	49.7231	72.4287
13	-2.99573	-1.62576	52.3662	77.299
14	-2.99573	-1.58927	54.892	82.06
15	-2.99573	-1.55477	57.3093	86.7177
16	-2.99573	-1.52203	59.6259	91.2773
17	-2.99573	-1.49085	61.8486	95.7435
18	-2.99573	-1.46106	63.9833	100.12
19	-2.99573	-1.4325	66.0353	104.412
20	-2.99573	-1.40507	68.0096	108.621
21	-2.99573	-1.3722	69.8925	112.732
22	-2.99573	-1.34694	71.7067	116.767
23	-2.99573	-1.32251	73.4558	120.729
24	-2.99573	-1.29884	75.1427	124.62
25	-2.99573	-1.27588	76.7706	128.442
26	-2.99573	-1.25357	78.342	132.197
27	-2.99573	-1.23187	79.8595	135.888
28	-2.99573	-1.21073	81.3254	139.515
29	-2.99573	-1.19012	82.7418	143.08
30	-2.99573	-1.17	84.1107	146.585
31	-2.99573	-1.15035	85.434	150.031
32	-2.99573	-1.13113	86.7134	153.42
33	-2.99573	-1.11232	87.9507	156.752
34	-2.99573	-1.0939	89.1473	160.029
35	-2.99573	-1.07584	90.3047	163.252
36	-2.99573	-1.05812	91.4243	166.422
37	-2.99573	-1.04073	92.5075	169.539
38	-2.99573	-1.02365	93.5553	172.606
39	-2.99573	-1.00687	94.5691	175.622
40	-2.99573	-0.990356	95.5499	178.589
41	-2.99573	-0.974114	96.4988	181.507
42	-2.99573	-0.954165	97.4092	184.366
43	-2.99573	-0.938476	98.29	187.177
44	-2.99573	-0.923014	99.1419	189.942
45	-2.99573	-0.907769	99.966	192.662
46	-2.99573	-0.892733	100.763	195.336
47	-2.99573	-0.877897	101.534	197.966
48	-2.99573	-0.863249	102.279	200.552
49	-2.99573	-0.848786	102.999	203.095
50	-2.99573	-0.834498	103.696	205.595
51	-2.99573	-0.820379	104.369	208.052

52	-2.99573	-0.806422	105.019	210.468	
53	-2.99573	-0.792618	105.647	212.843	
54	-2.99573	-0.778966	106.254	215.176	
55	-1.60944	-0.765456	106.84	216.408	
56	-1.04982	-0.752084	107.406	217.198	
57	-0.891598	-0.738846	107.951	217.857	
58	-0.891598	-0.725736	108.478	218.504	
59	-0.867501	-0.712751	108.986	219.122	
60	-0.798508	-0.699883	109.476	219.681	
61	-0.634878	-0.687131	109.948	220.117	
62	-0.544727	-0.671346	110.399	220.483	
63	-0.400478	-0.658838	110.833	220.747	
64	0	-0.646431	111.251	220.747	
65	0	-0.634124	111.653	220.747	
66	0	-0.621911	112.04	220.747	
67	0	-0.609791	112.412	220.747	
68	0	-0.597761	112.769	220.747	
69	0	-0.585815	113.112	220.747	
70	0	-0.573953	113.441	220.747	
71	0	-0.56217	113.758	220.747	
72	0	-0.550465	114.061	220.747	
73	0	-0.538836	114.351	220.747	
74	0	-0.52728	114.629	220.747	
75	0	-0.515791	114.895	220.747	
76	0	-0.504372	115.149	220.747	
77	0	-0.493018	115.392	220.747	
78	0	-0.481728	115.624	220.747	
79	0	-0.470498	115.846	220.747	
80	0	-0.459327	116.057	220.747	
81	0	-0.448213	116.258	220.747	
82	0	-0.437153	116.449	220.747	
83	0	-0.423405	116.628	220.747	
84	0	-0.412463	116.798	220.747	
85	0	-0.401571	116.959	220.747	
86	0	-0.390726	117.112	220.747	
87	0	-0.379927	117.256	220.747	
88	0	-0.369171	117.393	220.747	
89	0	-0.358459	117.521	220.747	
90	0	-0.347787	117.642	220.747	
91	0	-0.337155	117.756	220.747	
92	0	-0.326561	117.863	220.747	
93	0	-0.316004	117.962	220.747	
94	0	-0.305481	118.056	220.747	
95	0	-0.294992	118.143	220.747	
96	0	-0.284535	118.224	220.747	
97	0	-0.27411	118.299	220.747	
98	0	-0.263715	118.368	220.747	
99	0	-0.253347	118.433	220.747	
100	0	-0.243007	118.492	220.747	
101	0	-0.232693	118.546	220.747	
102	0	-0.222403	118.595	220.747	
103	0	-0.209575	118.639	220.747	
104	0	-0.199336	118.679	220.747	
105	0	-0.189118	118.715	220.747	
106	0	-0.17892	118.747	220.747	
107	0	-0.168741	118.775	220.747	
108	0	-0.158579	118.8	220.747	
109	0	-0.148434	118.822	220.747	
110	0	-0.138305	118.841	220.747	
111	0	-0.128189	118.858	220.747	
112	0	-0.118085	118.872	220.747	
113	0	-0.107995	118.883	220.747	

114	0	-0.0979139	118.893	220.747
115	0	-0.0878447	118.901	220.747
116	0	-0.0777834	118.907	220.747
117	0	-0.0677301	118.911	220.747
118	0	-0.0576847	118.915	220.747
119	0	-0.0476439	118.917	220.747
120	0	-0.0376076	118.918	220.747
121	0	-0.0275759	118.919	220.747
122	0	-0.0175476	118.919	220.747
123	0	-0.00751925	118.92	220.747
124	0	0.00751925	118.92	220.747
125	0	0.0175476	118.92	220.747
126	0	0.0275759	118.921	220.747
127	0	0.0376076	118.922	220.747
128	0	0.0476439	118.924	220.747
129	0	0.0576847	118.928	220.747
130	0	0.0677301	118.932	220.747
131	0	0.0777834	118.938	220.747
132	0	0.0878447	118.946	220.747
133	0	0.0979139	118.956	220.747
134	0	0.107995	118.967	220.747
135	0	0.118085	118.981	220.747
136	0	0.128189	118.998	220.747
137	0	0.138305	119.017	220.747
138	0	0.148434	119.039	220.747
139	0	0.158579	119.064	220.747
140	0	0.168741	119.092	220.747
141	0	0.17892	119.124	220.747
142	0	0.189118	119.16	220.747
143	0	0.199336	119.2	220.747
144	0	0.209575	119.244	220.747
145	0	0.222403	119.293	220.747
146	0	0.232693	119.347	220.747
147	0	0.243007	119.407	220.747
148	0	0.253347	119.471	220.747
149	0	0.263715	119.54	220.747
150	0	0.27411	119.615	220.747
151	0	0.284535	119.696	220.747
152	0	0.294992	119.783	220.747
153	0	0.305481	119.877	220.747
154	0	0.316004	119.977	220.747
155	0	0.326561	120.083	220.747
156	0	0.337155	120.197	220.747
157	0	0.347787	120.318	220.747
158	0	0.358459	120.446	220.747
159	0	0.369171	120.583	220.747
160	0	0.379927	120.727	220.747
161	0	0.390726	120.88	220.747
162	0	0.401571	121.041	220.747
163	0	0.412463	121.211	220.747
164	0	0.423405	121.39	220.747
165	0	0.437153	121.581	220.747
166	0	0.448213	121.782	220.747
167	0	0.459327	121.993	220.747
168	0	0.470498	122.215	220.747
169	0	0.481728	122.447	220.747
170	0	0.493018	122.69	220.747
171	0	0.504372	122.944	220.747
172	0	0.515791	123.21	220.747
173	0	0.52728	123.488	220.747
174	0	0.538836	123.779	220.747
175	0	0.550465	124.082	220.747

176	0	0.56217	124.398	220.747	
177	0	0.573953		124.727	220.747
178	0	0.585815		125.07	220.747
179	0	0.597761		125.428	220.747
180	0	0.609791		125.799	220.747
181	0	0.621911		126.186	220.747
182	0	0.634124		126.588	220.747
183	0	0.646431		127.006	220.747
184	0	0.658838		127.44	220.747
185	0	0.671346		127.891	220.747
186	0	0.687131		128.363	220.747
187	0	0.699883		128.853	220.747
188	0	0.712751		129.361	220.747
189	0	0.725736		129.888	220.747
190	0	0.738846		130.433	220.747
191	0	0.752084		130.999	220.747
192	0	0.765456		131.585	220.747
193	0	0.778966		132.192	220.747
194	0	0.792618		132.82	220.747
195	0	0.806422		133.47	220.747
196	0	0.820379		134.143	220.747
197	0	0.834498		134.84	220.747
198	0	0.848786		135.56	220.747
199	0	0.863249		136.305	220.747
200	0	0.877897		137.076	220.747
201	0	0.892733		137.873	220.747
202	0	0.907769		138.697	220.747
203	0	0.923014		139.549	220.747
204	0	0.938476		140.43	220.747
205	0	0.954165		141.34	220.747
206	0	0.974114		142.289	220.747
207	0	0.990356		143.27	220.747
208	0	1.00687	144.284	220.747	
209	0	1.02365	145.332	220.747	
210	0	1.04073	146.415	220.747	
211	0	1.05812	147.534	220.747	
212	0	1.07584	148.692	220.747	
213	0	1.0939	149.888	220.747	
214	0	1.11232	151.126	220.747	
215	0	1.13113	152.405	220.747	
216	0	1.15035	153.728	220.747	
217	0	1.17	155.097	220.747	
218	0	1.19012	156.514	220.747	
219	0	1.21073	157.98	220.747	
220	0	1.23187	159.497	220.747	
221	0	1.25357	161.068	220.747	
222	0	1.27588	162.696	220.747	
223	0	1.29884	164.383	220.747	
224	0	1.32251	166.132	220.747	
225	0	1.34694	167.947	220.747	
226	0	1.3722	169.83	220.747	
227	0	1.40507	171.804	220.747	
228	0	1.4325	173.856	220.747	
229	0	1.46106	175.991	220.747	
230	0	1.49085	178.213	220.747	
231	0	1.52203	180.53	220.747	
232	0	1.55477	182.947	220.747	
233	0	1.58927	185.473	220.747	
234	0	1.62576	188.116	220.747	
235	0	1.66456	190.887	220.747	
236	0	1.70604	193.797	220.747	
237	0	1.75069	196.862	220.747	

238	0	1.79912	200.099	220.747	
239	0	1.85218	203.53	220.747	
240	0	1.91103	207.182	220.747	
241	0	1.97737	211.092	220.747	
242	0	2.05375	215.309	220.747	
243	0	2.14441	219.908	220.747	
244	0	2.25713	225.003	220.747	
245	0	2.40892	230.806	220.747	
246	0.329304		2.65209	237.839	221.62

Data Set Standard Deviation = 1.2388
Numerator = 49115.4
Denominator = 89422.9
W Statistic = 0.549248 = 49115.4 / 89422.9

5% Critical value of 0.976 exceeds 0.549248
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.549248
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.738932
0.738932 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.99573	0.00404858	-2.65209	39.5708	344.01
2	-2.99573	0.00809717	-2.40892	39.5708	332.136
3	-2.99573	0.0121457	-2.25713	39.5708	324.723
4	-2.99573	0.0161943	-2.14441	39.5708	319.219
5	-2.99573	0.0202429	-2.05375	39.5708	314.791
6	-2.99573	0.0242915	-1.97737	39.5708	311.062
7	-2.99573	0.0283401	-1.91103	39.5708	307.822
8	-2.99573	0.0323887	-1.85218	39.5708	304.948
9	-2.99573	0.0364372	-1.79912	39.5708	302.357
10	-2.99573	0.0404858	-1.75069	39.5708	299.992
11	-2.99573	0.0445344	-1.70604	39.5708	297.812
12	-2.99573	0.048583	-1.66456	39.5708	295.786
13	-2.99573	0.0526316	-1.62576	39.5708	293.891
14	-2.99573	0.0566802	-1.58927	39.5708	292.109
15	-2.99573	0.0607287	-1.55477	39.5708	290.425
16	-2.99573	0.0647773	-1.52203	39.5708	288.826
17	-2.99573	0.0688259	-1.49085	39.5708	287.303
18	-2.99573	0.0728745	-1.46106	39.5708	285.848
19	-2.99573	0.0769231	-1.4325	39.5708	284.454
20	-2.99573	0.0809717	-1.40507	39.5708	283.114
21	-2.99573	0.0850202	-1.3722	39.5708	281.509
22	-2.99573	0.0890688	-1.34694	39.5708	280.276
23	-2.99573	0.0931174	-1.32251	39.5708	279.082
24	-2.99573	0.097166	-1.29884	39.5708	277.926
25	-2.99573	0.101215	-1.27588	39.5708	276.805
26	-2.99573	0.105263	-1.25357	39.5708	275.716
27	-2.99573	0.109312	-1.23187	39.5708	274.656
28	-2.99573	0.11336	-1.21073	39.5708	273.624
29	-2.99573	0.117409	-1.19012	39.5708	272.617
30	-2.99573	0.121457	-1.17	39.5708	271.635
31	-2.99573	0.125506	-1.15035	39.5708	270.675
32	-2.99573	0.129555	-1.13113	39.5708	269.737
33	-2.99573	0.133603	-1.11232	39.5708	268.818
34	-2.99573	0.137652	-1.0939	39.5708	267.919
35	-2.99573	0.1417	-1.07584	39.5708	267.037
36	-2.99573	0.145749	-1.05812	39.5708	266.172
37	-2.99573	0.149798	-1.04073	39.5708	265.322
38	-2.99573	0.153846	-1.02365	39.5708	264.488
39	-2.99573	0.157895	-1.00687	39.5708	263.669
40	-2.99573	0.161943	-0.990356	39.5708	262.862
41	-2.99573	0.165992	-0.974114	39.5708	262.069
42	-2.99573	0.17004	-0.954165	39.5708	261.095
43	-2.99573	0.174089	-0.938476	39.5708	260.329
44	-2.99573	0.178138	-0.923014	39.5708	259.574
45	-2.99573	0.182186	-0.907769	39.5708	258.829
46	-2.99573	0.186235	-0.892733	39.5708	258.095
47	-2.99573	0.190283	-0.877897	39.5708	257.371
48	-2.99573	0.194332	-0.863249	39.5708	256.655

49	-2.99573	0.198381	-0.848786	39.5708	255.949	
50	-2.99573	0.202429	-0.834498	39.5708	255.251	
51	-2.99573	0.206478	-0.820379	39.5708	254.562	
52	-2.99573	0.210526	-0.806422	39.5708	253.88	
53	-2.99573	0.214575	-0.792618	39.5708	253.206	
54	-2.99573	0.218623	-0.778966	39.5708	252.54	
55	-1.60944	0.222672	-0.765456	224.988	251.88	
56	-1.04982	0.226721	-0.752084	299.836	251.227	
57	-0.891598	0.230769	-0.738846	320.999	250.58	
58	-0.891598	0.234818	-0.725736	320.999	249.94	
59	-0.867501	0.238866	-0.712751	324.222	249.306	
60	-0.798508	0.242915	-0.699883	333.45	248.678	
61	-0.634878	0.246964	-0.687131	355.335	248.055	
62	-0.544727	0.251012	-0.671346	367.393	247.284	
63	-0.400478	0.255061	-0.658838	386.686	246.673	
64	0	0.259109	-0.646431	440.25	246.067	
65	0	0.263158	-0.634124	440.25	245.466	
66	0	0.267206	-0.621911	440.25	244.87	
67	0	0.271255	-0.609791	440.25	244.278	
68	0	0.275304	-0.597761	440.25	243.691	
69	0	0.279352	-0.585815	440.25	243.107	
70	0	0.283401	-0.573953	440.25	242.528	
71	0	0.287449	-0.56217	440.25	241.953	
72	0	0.291498	-0.550465	440.25	241.381	
73	0	0.295547	-0.538836	440.25	240.813	
74	0	0.299595	-0.52728	440.25	240.249	
75	0	0.303644	-0.515791	440.25	239.688	
76	0	0.307692	-0.504372	440.25	239.13	
77	0	0.311741	-0.493018	440.25	238.576	
78	0	0.315789	-0.481728	440.25	238.024	
79	0	0.319838	-0.470498	440.25	237.476	
80	0	0.323887	-0.459327	440.25	236.93	
81	0	0.327935	-0.448213	440.25	236.388	
82	0	0.331984	-0.437153	440.25	235.848	
83	0	0.336032	-0.423405	440.25	235.176	
84	0	0.340081	-0.412463	440.25	234.642	
85	0	0.34413	-0.401571	440.25	234.11	
86	0	0.348178	-0.390726	440.25	233.58	
87	0	0.352227	-0.379927	440.25	233.053	
88	0	0.356275	-0.369171	440.25	232.528	
89	0	0.360324	-0.358459	440.25	232.005	
90	0	0.364372	-0.347787	440.25	231.484	
91	0	0.368421	-0.337155	440.25	230.964	
92	0	0.37247	-0.326561	440.25	230.447	
93	0	0.376518	-0.316004	440.25	229.932	
94	0	0.380567	-0.305481	440.25	229.418	
95	0	0.384615	-0.294992	440.25	228.905	
96	0	0.388664	-0.284535	440.25	228.395	
97	0	0.392713	-0.27411	440.25	227.886	
98	0	0.396761	-0.263715	440.25	227.378	
99	0	0.40081	-0.253347	440.25	226.872	
100	0	0.404858	-0.243007	440.25	226.367	
101	0	0.408907	-0.232693	440.25	225.863	
102	0	0.412955	-0.222403	440.25	225.361	
103	0	0.417004	-0.209575	440.25	224.734	
104	0	0.421053	-0.199336	440.25	224.234	
105	0	0.425101	-0.189118	440.25	223.735	
106	0	0.42915	-0.17892	440.25	223.237	
107	0	0.433198	-0.168741	440.25	222.74	
108	0	0.437247	-0.158579	440.25	222.244	
109	0	0.441296	-0.148434	440.25	221.749	
110	0	0.445344	-0.138305	440.25	221.254	

111	0	0.449393	-0.128189	440.25	220.76
112	0	0.453441	-0.118085	440.25	220.267
113	0	0.45749	-0.107995	440.25	219.774
114	0	0.461538	-0.0979139	440.25	219.281
115	0	0.465587	-0.0878447	440.25	218.79
116	0	0.469636	-0.0777834	440.25	218.298
117	0	0.473684	-0.0677301	440.25	217.807
118	0	0.477733	-0.0576847	440.25	217.317
119	0	0.481781	-0.0476439	440.25	216.827
120	0	0.48583	-0.0376076	440.25	216.337
121	0	0.489879	-0.0275759	440.25	215.847
122	0	0.493927	-0.0175476	440.25	215.357
123	0	0.497976	-0.00751925	440.25	214.867
124	0	0.502024	0.00751925	440.25	214.133
125	0	0.506073	0.0175476	440.25	213.643
126	0	0.510121	0.0275759	440.25	213.153
127	0	0.51417	0.0376076	440.25	212.663
128	0	0.518219	0.0476439	440.25	212.173
129	0	0.522267	0.0576847	440.25	211.683
130	0	0.526316	0.0677301	440.25	211.193
131	0	0.530364	0.0777834	440.25	210.702
132	0	0.534413	0.0878447	440.25	210.21
133	0	0.538462	0.0979139	440.25	209.719
134	0	0.54251	0.107995	440.25	209.226
135	0	0.546559	0.118085	440.25	208.733
136	0	0.550607	0.128189	440.25	208.24
137	0	0.554656	0.138305	440.25	207.746
138	0	0.558704	0.148434	440.25	207.251
139	0	0.562753	0.158579	440.25	206.756
140	0	0.566802	0.168741	440.25	206.26
141	0	0.57085	0.17892	440.25	205.763
142	0	0.574899	0.189118	440.25	205.265
143	0	0.578947	0.199336	440.25	204.766
144	0	0.582996	0.209575	440.25	204.266
145	0	0.587045	0.222403	440.25	203.639
146	0	0.591093	0.232693	440.25	203.137
147	0	0.595142	0.243007	440.25	202.633
148	0	0.59919	0.253347	440.25	202.128
149	0	0.603239	0.263715	440.25	201.622
150	0	0.607287	0.27411	440.25	201.114
151	0	0.611336	0.284535	440.25	200.605
152	0	0.615385	0.294992	440.25	200.095
153	0	0.619433	0.305481	440.25	199.582
154	0	0.623482	0.316004	440.25	199.068
155	0	0.62753	0.326561	440.25	198.553
156	0	0.631579	0.337155	440.25	198.036
157	0	0.635628	0.347787	440.25	197.516
158	0	0.639676	0.358459	440.25	196.995
159	0	0.643725	0.369171	440.25	196.472
160	0	0.647773	0.379927	440.25	195.947
161	0	0.651822	0.390726	440.25	195.42
162	0	0.65587	0.401571	440.25	194.89
163	0	0.659919	0.412463	440.25	194.358
164	0	0.663968	0.423405	440.25	193.824
165	0	0.668016	0.437153	440.25	193.152
166	0	0.672065	0.448213	440.25	192.612
167	0	0.676113	0.459327	440.25	192.07
168	0	0.680162	0.470498	440.25	191.524
169	0	0.684211	0.481728	440.25	190.976
170	0	0.688259	0.493018	440.25	190.424
171	0	0.692308	0.504372	440.25	189.87
172	0	0.696356	0.515791	440.25	189.312

173	0	0.700405	0.52728	440.25	188.751	
174	0	0.704453	0.538836		440.25	188.187
175	0	0.708502	0.550465		440.25	187.619
176	0	0.712551	0.56217	440.25	187.047	
177	0	0.716599	0.573953		440.25	186.472
178	0	0.720648	0.585815		440.25	185.893
179	0	0.724696	0.597761		440.25	185.309
180	0	0.728745	0.609791		440.25	184.722
181	0	0.732794	0.621911		440.25	184.13
182	0	0.736842	0.634124		440.25	183.534
183	0	0.740891	0.646431		440.25	182.933
184	0	0.744939	0.658838		440.25	182.327
185	0	0.748988	0.671346		440.25	181.716
186	0	0.753036	0.687131		440.25	180.945
187	0	0.757085	0.699883		440.25	180.322
188	0	0.761134	0.712751		440.25	179.694
189	0	0.765182	0.725736		440.25	179.06
190	0	0.769231	0.738846		440.25	178.42
191	0	0.773279	0.752084		440.25	177.773
192	0	0.777328	0.765456		440.25	177.12
193	0	0.781377	0.778966		440.25	176.46
194	0	0.785425	0.792618		440.25	175.794
195	0	0.789474	0.806422		440.25	175.12
196	0	0.793522	0.820379		440.25	174.438
197	0	0.797571	0.834498		440.25	173.749
198	0	0.801619	0.848786		440.25	173.051
199	0	0.805668	0.863249		440.25	172.345
200	0	0.809717	0.877897		440.25	171.629
201	0	0.813765	0.892733		440.25	170.905
202	0	0.817814	0.907769		440.25	170.171
203	0	0.821862	0.923014		440.25	169.426
204	0	0.825911	0.938476		440.25	168.671
205	0	0.82996	0.954165	440.25	167.905	
206	0	0.834008	0.974114		440.25	166.931
207	0	0.838057	0.990356		440.25	166.138
208	0	0.842105	1.00687	440.25	165.331	
209	0	0.846154	1.02365	440.25	164.512	
210	0	0.850202	1.04073	440.25	163.678	
211	0	0.854251	1.05812	440.25	162.828	
212	0	0.8583	1.07584	440.25	161.963	
213	0	0.862348	1.0939	440.25	161.081	
214	0	0.866397	1.11232	440.25	160.182	
215	0	0.870445	1.13113	440.25	159.263	
216	0	0.874494	1.15035	440.25	158.325	
217	0	0.878543	1.17	440.25	157.365	
218	0	0.882591	1.19012	440.25	156.383	
219	0	0.88664	1.21073	440.25	155.376	
220	0	0.890688	1.23187	440.25	154.344	
221	0	0.894737	1.25357	440.25	153.284	
222	0	0.898785	1.27588	440.25	152.195	
223	0	0.902834	1.29884	440.25	151.074	
224	0	0.906883	1.32251	440.25	149.918	
225	0	0.910931	1.34694	440.25	148.724	
226	0	0.91498	1.3722	440.25	147.491	
227	0	0.919028	1.40507	440.25	145.886	
228	0	0.923077	1.4325	440.25	144.546	
229	0	0.927126	1.46106	440.25	143.152	
230	0	0.931174	1.49085	440.25	141.697	
231	0	0.935223	1.52203	440.25	140.174	
232	0	0.939271	1.55477	440.25	138.575	
233	0	0.94332	1.58927	440.25	136.891	
234	0	0.947368	1.62576	440.25	135.109	

235	0	0.951417	1.66456	440.25	133.214	
236	0	0.955466	1.70604	440.25	131.188	
237	0	0.959514	1.75069	440.25	129.008	
238	0	0.963563	1.79912	440.25	126.643	
239	0	0.967611	1.85218	440.25	124.052	
240	0	0.97166	1.91103	440.25	121.178	
241	0	0.975709	1.97737	440.25	117.938	
242	0	0.979757	2.05375	440.25	114.209	
243	0	0.983806	2.14441	440.25	109.781	
244	0	0.987854	2.25713	440.25	104.277	
245	0	0.991903	2.40892	440.25	96.8642	
246	0.329304	0.995951	2.65209	484.294	84.9898	

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: 1,2-Dichloroethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 95.935%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 0
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-12BR	11/22/2011	2	-2.99573	FALSE
MW-6	11/22/2011	2	-2.99573	FALSE
MW-8	11/22/2011	2	-2.99573	FALSE
MW-7	11/22/2011	2	-2.99573	FALSE
MW-11R	11/22/2011	2	-2.99573	FALSE
MW-9	11/22/2011	2	-2.99573	FALSE
MW-12AR	11/22/2011	2	-2.99573	FALSE
MW-10	11/22/2011	2	-0.891598	FALSE

Concentrations (ppb)

Parameter: 1,2-Dichloropropane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 255
Total Non-Detect: 220
Percent Non-Detects: 86.2745%
Total Background Measurements: 20
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	20	20 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.13	ND<0.13
			11/16/2009	ND<0.13	ND<0.13
			6/30/2010	ND<0.13	ND<0.13
			11/12/2010	ND<0.13 U	ND<0.13 U
			11/12/2010	ND<0.13 U	ND<0.13 U
			7/5/2011	ND<0.13 U	ND<0.13 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	32	10 (31.25%)	7/20/1995	0.42 J	0.42 J
			8/24/1995	3.1	3.1
			9/28/1995	5	5
			10/26/1995	3	3
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	6	6
			9/24/1997	7.7	7.7
			4/7/1998	ND<2	ND<2
			9/23/1998	5.6	5.6
			3/16/1999	9.1	9.1
			9/23/1999	5.6	5.6
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	2.12	2.12
			10/25/2005	3.32	3.32
			4/29/2006	3.97	3.97
			11/18/2006	2.93	2.93
			5/23/2007	ND<2	ND<2
			11/28/2007	3.78	3.78
			6/5/2008	3.51	3.51

			11/20/2008	ND<2	ND<2	
			6/11/2009	2.2	2.2	
			11/16/2009	2.8	2.8	
			6/30/2010	1.7	1.7	
			11/12/2010	3	3	
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011 3.7	3.7		
			11/22/2011	3.3	3.3	
			11/22/2011	3.3	3.3	
MW-12A R	22	22 (100%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 ND<2	ND<2		
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008 ND<2	ND<2		
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011 ND<0.13 U		ND<0.13 U	
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
MW-9	32	27 (84.375%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 ND<2	ND<2		
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.23 J	0.23 J	
			6/5/2008 ND<2	ND<2		
			11/20/2008	0.24 J	0.24 J	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	0.33 J	0.33 J	
			6/30/2010	0.37 J	0.37 J	
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	0.25 J	0.25 J	

			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
MW-11R	32	24 (75%)	7/20/1995	1.2 J	1.2 J	
			8/24/1995	4.3	4.3	
			9/28/1995	3	3	
			10/26/1995	4	4	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.3 J	1.3 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	0.5 J	0.5 J	
			11/18/2006	0.6 J	0.6 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.95 J	0.95 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13	ND<0.13	
			11/16/2009	ND<0.13	ND<0.13	
			6/30/2010	ND<0.13	ND<0.13	
			11/12/2010	ND<0.13 U	ND<0.13 U	
			11/12/2010	ND<0.13 U	ND<0.13 U	
			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
MW-6	32	32 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13	ND<0.13	

			11/16/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
MW-12BR		22	22 (100%)	3/16/1999		ND<2 ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
MW-8	31	31 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U

MW-7	32	32 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: 1,2-Dichloropropane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 255

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.065	-2.74777	7.5502	-0.178605
2	0.065	-2.45727	13.5884	-0.338327
3	0.065	-2.29036	18.8342	-0.487201
4	0.065	-2.17009	23.5435	-0.628257
5	0.065	-2.07485	27.8485	-0.763122
6	0.065	-1.99539	31.8301	-0.892823
7	0.065	-1.92684	35.5428	-1.01807
8	0.065	-1.86629	39.0258	-1.13938
9	0.065	-1.81191	42.3088	-1.25715
10	0.065	-1.76241	45.4149	-1.37171
11	0.065	-1.72793	48.4007	-1.48402
12	0.065	-1.68494	51.2397	-1.59354
13	0.065	-1.64485	53.9452	-1.70046
14	0.065	-1.60725	56.5285	-1.80493
15	0.065	-1.57179	58.999	-1.9071
16	0.065	-1.5382	61.3651	-2.00708
17	0.065	-1.50626	63.6339	-2.10499
18	0.065	-1.47579	65.8118	-2.20091
19	0.065	-1.44663	67.9046	-2.29494
20	0.065	-1.41865	69.9172	-2.38716
21	0.065	-1.39175	71.8541	-2.47762
22	0.065	-1.3722	73.7371	-2.56681
23	0.065	-1.34694	75.5513	-2.65436
24	0.065	-1.32251	77.3003	-2.74033
25	0.065	-1.29884	78.9873	-2.82475
26	0.065	-1.27588	80.6152	-2.90768
27	0.065	-1.25357	82.1866	-2.98917
28	0.065	-1.23187	83.7041	-3.06924
29	0.065	-1.21073	85.1699	-3.14793
30	0.065	-1.19012	86.5863	-3.22529
31	0.065	-1.17	87.9552	-3.30134
32	0.065	-1.15035	89.2785	-3.37611
33	0.065	-1.1359	90.5688	-3.44995
34	0.065	-1.11699	91.8165	-3.52255
35	0.065	-1.09847	93.0231	-3.59395
36	0.065	-1.08032	94.1902	-3.66417
37	0.065	-1.06252	95.3191	-3.73324
38	0.065	-1.04505	96.4113	-3.80117
39	0.065	-1.02789	97.4678	-3.86798
40	0.065	-1.01104	98.49	-3.9337
41	0.065	-0.994457	99.479	-3.99834
42	0.065	-0.97815	100.436	-4.06191
43	0.065	-0.966088	101.369	-4.12471
44	0.065	-0.950222	102.272	-4.18648
45	0.065	-0.93459	103.145	-4.24722
46	0.065	-0.919183	103.99	-4.30697
47	0.065	-0.903992	104.808	-4.36573
48	0.065	-0.889006	105.598	-4.42352
49	0.065	-0.874218	106.362	-4.48034
50	0.065	-0.859618	107.101	-4.53621
51	0.065	-0.845198	107.815	-4.59115

52	0.065	-0.830953	108.506	-4.64516
53	0.065	-0.816874	109.173	-4.69826
54	0.065	-0.806422	109.824	-4.75068
55	0.065	-0.792618	110.452	-4.8022
56	0.065	-0.778966	111.059	-4.85283
57	0.065	-0.765456	111.644	-4.90259
58	0.065	-0.752084	112.21	-4.95147
59	0.065	-0.738846	112.756	-4.9995
60	0.23	-0.725736	113.283	-5.16642
61	0.24	-0.712751	113.791	-5.33748
62	0.25	-0.699883	114.281	-5.51245
63	0.33	-0.687131	114.753	-5.7392
64	0.37	-0.67449	115.208	-5.98876
65	0.42	-0.665079	115.65	-6.26809
66	0.5	-0.652622	116.076	-6.59441
67	0.6	-0.640266	116.486	-6.97857
68	0.95	-0.628006	116.88	-7.57517
69	1	-0.615839	117.259	-8.19101
70	1	-0.603765	117.624	-8.79478
71	1	-0.591776	117.974	-9.38655
72	1	-0.579873	118.31	-9.96642
73	1	-0.568052	118.633	-10.5345
74	1	-0.556308	118.943	-11.0908
75	1	-0.547551	119.242	-11.6383
76	1	-0.53594	119.53	-12.1743
77	1	-0.524401	119.805	-12.6987
78	1	-0.51293	120.068	-13.2116
79	1	-0.501527	120.319	-13.7131
80	1	-0.490189	120.56	-14.2033
81	1	-0.478914	120.789	-14.6822
82	1	-0.467699	121.008	-15.1499
83	1	-0.456542	121.216	-15.6065
84	1	-0.445443	121.415	-16.0519
85	1	-0.434397	121.603	-16.4863
86	1	-0.426148	121.785	-16.9125
87	1	-0.415193	121.957	-17.3277
88	1	-0.40429	122.121	-17.732
89	1	-0.393433	122.275	-18.1254
90	1	-0.382622	122.422	-18.508
91	1	-0.371856	122.56	-18.8799
92	1	-0.361133	122.691	-19.241
93	1	-0.350451	122.813	-19.5914
94	1	-0.33981	122.929	-19.9313
95	1	-0.329206	123.037	-20.2605
96	1	-0.318639	123.139	-20.5791
97	1	-0.310738	123.235	-20.8898
98	1	-0.300232	123.325	-21.1901
99	1	-0.28976	123.409	-21.4798
100	1	-0.279319	123.487	-21.7592
101	1	-0.268908	123.56	-22.0281
102	1	-0.258527	123.627	-22.2866
103	1	-0.248174	123.688	-22.5348
104	1	-0.237847	123.745	-22.7726
105	1	-0.227545	123.796	-23.0002
106	1	-0.217267	123.844	-23.2174
107	1	-0.209575	123.888	-23.427
108	1	-0.199336	123.927	-23.6263
109	1	-0.189118	123.963	-23.8154
110	1	-0.17892	123.995	-23.9944
111	1	-0.168741	124.024	-24.1631
112	1	-0.158579	124.049	-24.3217
113	1	-0.148434	124.071	-24.4701

114	1	-0.138305	124.09	-24.6084
115	1	-0.128189	124.106	-24.7366
116	1	-0.118085	124.12	-24.8547
117	1	-0.107995	124.132	-24.9627
118	1	-0.100433	124.142	-25.0631
119	1	-0.0903606	124.15	-25.1535
120	1	-0.0802981	124.157	-25.2338
121	1	-0.0702426	124.162	-25.304
122	1	-0.0601949	124.165	-25.3642
123	1	-0.0501541	124.168	-25.4144
124	1	-0.0401167	124.169	-25.4545
125	1	-0.0300838	124.17	-25.4846
126	1	-0.0200544	124.171	-25.5046
127	1	-0.0100272	124.171	-25.5147
128	1	0	124.171	-25.5147
129	1	0.0100272	124.171	-25.5046
130	1	0.0200544	124.171	-25.4846
131	1	0.0300838	124.172	-25.4545
132	1	0.0401167	124.174	-25.4144
133	1	0.0501541	124.176	-25.3642
134	1	0.0601949	124.18	-25.304
135	1	0.0702426	124.185	-25.2338
136	1	0.0802981	124.191	-25.1535
137	1	0.0903606	124.199	-25.0631
138	1	0.100433	124.21	-24.9627
139	1	0.107995	124.221	-24.8547
140	1	0.118085	124.235	-24.7366
141	1	0.128189	124.252	-24.6084
142	1	0.138305	124.271	-24.4701
143	1	0.148434	124.293	-24.3217
144	1	0.158579	124.318	-24.1631
145	1	0.168741	124.346	-23.9944
146	1	0.17892	124.378	-23.8154
147	1	0.189118	124.414	-23.6263
148	1	0.199336	124.454	-23.427
149	1	0.209575	124.498	-23.2174
150	1	0.217267	124.545	-23.0002
151	1	0.227545	124.597	-22.7726
152	1	0.237847	124.653	-22.5348
153	1	0.248174	124.715	-22.2866
154	1	0.258527	124.782	-22.0281
155	1	0.268908	124.854	-21.7592
156	1	0.279319	124.932	-21.4798
157	1	0.28976	125.016	-21.1901
158	1	0.300232	125.106	-20.8898
159	1	0.310738	125.203	-20.5791
160	1	0.318639	125.304	-20.2605
161	1	0.329206	125.413	-19.9313
162	1	0.33981	125.528	-19.5914
163	1	0.350451	125.651	-19.241
164	1	0.361133	125.781	-18.8799
165	1	0.371856	125.92	-18.508
166	1	0.382622	126.066	-18.1254
167	1	0.393433	126.221	-17.732
168	1	0.40429	126.384	-17.3277
169	1	0.415193	126.557	-16.9125
170	1	0.426148	126.738	-16.4863
171	1	0.434397	126.927	-16.0519
172	1	0.445443	127.125	-15.6065
173	1	0.456542	127.334	-15.1499
174	1	0.467699	127.553	-14.6822
175	1	0.478914	127.782	-14.2033

176	1	0.490189		128.022	-13.7131
177	1	0.501527		128.274	-13.2116
178	1	0.51293	128.537	-12.6987	
179	1	0.524401		128.812	-12.1743
180	1	0.53594	129.099	-11.6383	
181	1	0.547551		129.399	-11.0908
182	1	0.556308		129.708	-10.5345
183	1	0.568052		130.031	-9.96642
184	1	0.579873		130.367	-9.38655
185	1	0.591776		130.717	-8.79478
186	1	0.603765		131.082	-8.19101
187	1	0.615839		131.461	-7.57517
188	1	0.628006		131.856	-6.94717
189	1	0.640266		132.266	-6.3069
190	1	0.652622		132.692	-5.65428
191	1	0.665079		133.134	-4.9892
192	1	0.67449	133.589	-4.31471	
193	1	0.687131		134.061	-3.62758
194	1	0.699883		134.551	-2.92769
195	1	0.712751		135.059	-2.21494
196	1	0.725736		135.585	-1.48921
197	1	0.738846		136.131	-0.75036
198	1	0.752084		136.697	0.00172349
199	1	0.765456		137.283	0.767179
200	1	0.778966		137.89	1.54615
201	1	0.792618		138.518	2.33876
202	1	0.806422		139.168	3.14519
203	1	0.816874		139.836	3.96206
204	1	0.830953		140.526	4.79301
205	1	0.845198		141.24	5.63821
206	1	0.859618		141.979	6.49783
207	1	0.874218		142.744	7.37205
208	1	0.889006		143.534	8.26105
209	1	0.903992		144.351	9.16504
210	1	0.919183		145.196	10.0842
211	1	0.93459	146.069	11.0188	
212	1	0.950222		146.972	11.969
213	1	0.966088		147.906	12.9351
214	1	0.97815	148.863	13.9133	
215	1	0.994457		149.851	14.9077
216	1	1.01104	150.874	15.9188	
217	1	1.02789	151.93	16.9467	
218	1	1.04505	153.022	17.9917	
219	1	1.06252	154.151	19.0542	
220	1	1.08032	155.318	20.1346	
221	1	1.09847	156.525	21.233	
222	1	1.11699	157.773	22.35	
223	1	1.1359	159.063	23.4859	
224	1	1.15035	160.386	24.6363	
225	1	1.17	161.755	25.8063	
226	1	1.19012	163.172	26.9964	
227	1	1.21073	164.637	28.2071	
228	1	1.23187	166.155	29.439	
229	1	1.25357	167.726	30.6925	
230	1.2	1.27588	169.354	32.2236	
231	1.3	1.29884	171.041	33.9121	
232	1.7	1.32251	172.79	36.1603	
233	2.12	1.34694	174.604	39.0158	
234	2.2	1.3722	176.487	42.0347	
235	2.8	1.39175	178.424	45.9316	
236	2.93	1.41865	180.437	50.0882	
237	3	1.44663	182.53	54.4281	

238	3	1.47579	184.708	58.8555
239	3	1.50626	186.976	63.3743
240	3.1	1.5382	189.342	68.1427
241	3.3	1.57179	191.813	73.3296
242	3.3	1.60725	194.396	78.6335
243	3.32	1.64485	197.102	84.0944
244	3.51	1.68494	199.941	90.0086
245	3.7	1.72793	202.927	96.4019
246	3.78	1.76241	206.033	103.064
247	3.97	1.81191	209.316	110.257
248	4	1.86629	212.799	117.722
249	4.3	1.92684	216.511	126.008
250	5	1.99539	220.493	135.985
251	5.6	2.07485	224.798	147.604
252	5.6	2.17009	229.507	159.756
253	6	2.29036	234.753	173.499
254	7.7	2.45727	240.791	192.42
255	9.1	2.74777	248.341	217.424

Data Set Standard Deviation = 1.15836
Numerator = 47273.3
Denominator = 84639.5
W Statistic = 0.558525 = 47273.3 / 84639.5

5% Critical value of 0.976 exceeds 0.558525
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.558525
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-Dichloropropane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.750168
0.750168 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.065	0.00390625		-2.74777	42.4775	348.683
2	0.065	0.0078125		-2.45727	42.4775	334.497
3	0.065	0.0117188		-2.29036	42.4775	326.346
4	0.065	0.015625		-2.17009	42.4775	320.473
5	0.065	0.0195313		-2.07485	42.4775	315.822
6	0.065	0.0234375		-1.99539	42.4775	311.942
7	0.065	0.0273438		-1.92684	42.4775	308.594
8	0.065	0.03125	-1.86629	42.4775	305.637	
9	0.065	0.0351563		-1.81191	42.4775	302.982
10	0.065	0.0390625		-1.76241	42.4775	300.564
11	0.065	0.0429688		-1.72793	42.4775	298.881
12	0.065	0.046875		-1.68494	42.4775	296.781
13	0.065	0.0507813		-1.64485	42.4775	294.824
14	0.065	0.0546875		-1.60725	42.4775	292.987
15	0.065	0.0585938		-1.57179	42.4775	291.256
16	0.065	0.0625	-1.5382	42.4775	289.615	
17	0.065	0.0664063		-1.50626	42.4775	288.056
18	0.065	0.0703125		-1.47579	42.4775	286.568
19	0.065	0.0742188		-1.44663	42.4775	285.144
20	0.065	0.078125		-1.41865	42.4775	283.778
21	0.065	0.0820313		-1.39175	42.4775	282.464
22	0.065	0.0859375		-1.3722	42.4775	281.509
23	0.065	0.0898438		-1.34694	42.4775	280.276
24	0.065	0.09375	-1.32251	42.4775	279.082	
25	0.065	0.0976563		-1.29884	42.4775	277.926
26	0.065	0.101563		-1.27588	42.4775	276.805
27	0.065	0.105469		-1.25357	42.4775	275.716
28	0.065	0.109375		-1.23187	42.4775	274.656
29	0.065	0.113281		-1.21073	42.4775	273.624
30	0.065	0.117188		-1.19012	42.4775	272.617
31	0.065	0.121094		-1.17	42.4775	271.635
32	0.065	0.125	-1.15035	42.4775	270.675	
33	0.065	0.128906		-1.1359	42.4775	269.97
34	0.065	0.132813		-1.11699	42.4775	269.046
35	0.065	0.136719		-1.09847	42.4775	268.142
36	0.065	0.140625		-1.08032	42.4775	267.256
37	0.065	0.144531		-1.06252	42.4775	266.386
38	0.065	0.148438		-1.04505	42.4775	265.533
39	0.065	0.152344		-1.02789	42.4775	264.695
40	0.065	0.15625	-1.01104	42.4775	263.872	
41	0.065	0.160156		-0.994457	42.4775	263.063
42	0.065	0.164063		-0.97815	42.4775	262.266
43	0.065	0.167969		-0.966088	42.4775	261.677
44	0.065	0.171875		-0.950222	42.4775	260.903
45	0.065	0.175781		-0.93459	42.4775	260.139
46	0.065	0.179688		-0.919183	42.4775	259.387
47	0.065	0.183594		-0.903992	42.4775	258.645
48	0.065	0.1875	-0.889006	42.4775	257.913	

49	0.065	0.191406	-0.874218	42.4775	257.191
50	0.065	0.195313	-0.859618	42.4775	256.478
51	0.065	0.199219	-0.845198	42.4775	255.774
52	0.065	0.203125	-0.830953	42.4775	255.078
53	0.065	0.207031	-0.816874	42.4775	254.391
54	0.065	0.210938	-0.806422	42.4775	253.88
55	0.065	0.214844	-0.792618	42.4775	253.206
56	0.065	0.21875	-0.778966	42.4775	252.54
57	0.065	0.222656	-0.765456	42.4775	251.88
58	0.065	0.226563	-0.752084	42.4775	251.227
59	0.065	0.230469	-0.738846	42.4775	250.58
60	0.23	0.234375	-0.725736	51.305	249.94
61	0.24	0.238281	-0.712751	51.84	249.306
62	0.25	0.242188	-0.699883	52.375	248.678
63	0.33	0.246094	-0.687131	56.655	248.055
64	0.37	0.25	-0.67449	58.795	247.438
65	0.42	0.253906	-0.665079	61.47	246.978
66	0.5	0.257813	-0.652622	65.75	246.37
67	0.6	0.261719	-0.640266	71.1	245.766
68	0.95	0.265625	-0.628006	89.825	245.168
69	1	0.269531	-0.615839	92.5	244.573
70	1	0.273438	-0.603765	92.5	243.984
71	1	0.277344	-0.591776	92.5	243.398
72	1	0.28125	-0.579873	92.5	242.817
73	1	0.285156	-0.568052	92.5	242.24
74	1	0.289063	-0.556308	92.5	241.666
75	1	0.292969	-0.547551	92.5	241.239
76	1	0.296875	-0.53594	92.5	240.672
77	1	0.300781	-0.524401	92.5	240.108
78	1	0.304688	-0.51293	92.5	239.548
79	1	0.308594	-0.501527	92.5	238.991
80	1	0.3125	-0.490189	92.5	238.438
81	1	0.316406	-0.478914	92.5	237.887
82	1	0.320313	-0.467699	92.5	237.339
83	1	0.324219	-0.456542	92.5	236.794
84	1	0.328125	-0.445443	92.5	236.252
85	1	0.332031	-0.434397	92.5	235.713
86	1	0.335938	-0.426148	92.5	235.31
87	1	0.339844	-0.415193	92.5	234.775
88	1	0.34375	-0.40429	92.5	234.243
89	1	0.347656	-0.393433	92.5	233.713
90	1	0.351563	-0.382622	92.5	233.185
91	1	0.355469	-0.371856	92.5	232.659
92	1	0.359375	-0.361133	92.5	232.135
93	1	0.363281	-0.350451	92.5	231.614
94	1	0.367188	-0.33981	92.5	231.094
95	1	0.371094	-0.329206	92.5	230.576
96	1	0.375	-0.318639	92.5	230.06
97	1	0.378906	-0.310738	92.5	229.674
98	1	0.382813	-0.300232	92.5	229.161
99	1	0.386719	-0.28976	92.5	228.65
100	1	0.390625	-0.279319	92.5	228.14
101	1	0.394531	-0.268908	92.5	227.632
102	1	0.398438	-0.258527	92.5	227.125
103	1	0.402344	-0.248174	92.5	226.619
104	1	0.40625	-0.237847	92.5	226.115
105	1	0.410156	-0.227545	92.5	225.612
106	1	0.414063	-0.217267	92.5	225.11
107	1	0.417969	-0.209575	92.5	224.734
108	1	0.421875	-0.199336	92.5	224.234
109	1	0.425781	-0.189118	92.5	223.735
110	1	0.429688	-0.17892	92.5	223.237

111	1	0.433594	-0.168741	92.5	222.74
112	1	0.4375	-0.158579	92.5	222.244
113	1	0.441406	-0.148434	92.5	221.749
114	1	0.445313	-0.138305	92.5	221.254
115	1	0.449219	-0.128189	92.5	220.76
116	1	0.453125	-0.118085	92.5	220.267
117	1	0.457031	-0.107995	92.5	219.774
118	1	0.460938	-0.100433	92.5	219.404
119	1	0.464844	-0.0903606	92.5	218.913
120	1	0.46875	-0.0802981	92.5	218.421
121	1	0.472656	-0.0702426	92.5	217.93
122	1	0.476563	-0.0601949	92.5	217.44
123	1	0.480469	-0.0501541	92.5	216.949
124	1	0.484375	-0.0401167	92.5	216.459
125	1	0.488281	-0.0300838	92.5	215.969
126	1	0.492188	-0.0200544	92.5	215.479
127	1	0.496094	-0.0100272	92.5	214.99
128	1	0.5	0	92.5	214.5
129	1	0.503906	0.0100272	92.5	214.01
130	1	0.507813	0.0200544	92.5	213.521
131	1	0.511719	0.0300838	92.5	213.031
132	1	0.515625	0.0401167	92.5	212.541
133	1	0.519531	0.0501541	92.5	212.051
134	1	0.523438	0.0601949	92.5	211.56
135	1	0.527344	0.0702426	92.5	211.07
136	1	0.53125	0.0802981	92.5	210.579
137	1	0.535156	0.0903606	92.5	210.087
138	1	0.539063	0.100433	92.5	209.596
139	1	0.542969	0.107995	92.5	209.226
140	1	0.546875	0.118085	92.5	208.733
141	1	0.550781	0.128189	92.5	208.24
142	1	0.554688	0.138305	92.5	207.746
143	1	0.558594	0.148434	92.5	207.251
144	1	0.5625	0.158579	92.5	206.756
145	1	0.566406	0.168741	92.5	206.26
146	1	0.570313	0.17892	92.5	205.763
147	1	0.574219	0.189118	92.5	205.265
148	1	0.578125	0.199336	92.5	204.766
149	1	0.582031	0.209575	92.5	204.266
150	1	0.585938	0.217267	92.5	203.89
151	1	0.589844	0.227545	92.5	203.388
152	1	0.59375	0.237847	92.5	202.885
153	1	0.597656	0.248174	92.5	202.381
154	1	0.601563	0.258527	92.5	201.875
155	1	0.605469	0.268908	92.5	201.368
156	1	0.609375	0.279319	92.5	200.86
157	1	0.613281	0.28976	92.5	200.35
158	1	0.617188	0.300232	92.5	199.839
159	1	0.621094	0.310738	92.5	199.326
160	1	0.625	0.318639	92.5	198.94
161	1	0.628906	0.329206	92.5	198.424
162	1	0.632813	0.33981	92.5	197.906
163	1	0.636719	0.350451	92.5	197.386
164	1	0.640625	0.361133	92.5	196.865
165	1	0.644531	0.371856	92.5	196.341
166	1	0.648438	0.382622	92.5	195.815
167	1	0.652344	0.393433	92.5	195.287
168	1	0.65625	0.40429	92.5	194.757
169	1	0.660156	0.415193	92.5	194.225
170	1	0.664063	0.426148	92.5	193.69
171	1	0.667969	0.434397	92.5	193.287
172	1	0.671875	0.445443	92.5	192.748

173	1	0.675781	0.456542	92.5	192.206
174	1	0.679688	0.467699	92.5	191.661
175	1	0.683594	0.478914	92.5	191.113
176	1	0.6875	0.490189	92.5	190.562
177	1	0.691406	0.501527	92.5	190.009
178	1	0.695313	0.51293	92.5	189.452
179	1	0.699219	0.524401	92.5	188.892
180	1	0.703125	0.53594	92.5	188.328
181	1	0.707031	0.547551	92.5	187.761
182	1	0.710938	0.556308	92.5	187.334
183	1	0.714844	0.568052	92.5	186.76
184	1	0.71875	0.579873	92.5	186.183
185	1	0.722656	0.591776	92.5	185.602
186	1	0.726563	0.603765	92.5	185.016
187	1	0.730469	0.615839	92.5	184.427
188	1	0.734375	0.628006	92.5	183.832
189	1	0.738281	0.640266	92.5	183.234
190	1	0.742188	0.652622	92.5	182.63
191	1	0.746094	0.665079	92.5	182.022
192	1	0.75	0.67449	92.5	181.562
193	1	0.753906	0.687131	92.5	180.945
194	1	0.757813	0.699883	92.5	180.322
195	1	0.761719	0.712751	92.5	179.694
196	1	0.765625	0.725736	92.5	179.06
197	1	0.769531	0.738846	92.5	178.42
198	1	0.773438	0.752084	92.5	177.773
199	1	0.777344	0.765456	92.5	177.12
200	1	0.78125	0.778966	92.5	176.46
201	1	0.785156	0.792618	92.5	175.794
202	1	0.789063	0.806422	92.5	175.12
203	1	0.792969	0.816874	92.5	174.609
204	1	0.796875	0.830953	92.5	173.922
205	1	0.800781	0.845198	92.5	173.226
206	1	0.804688	0.859618	92.5	172.522
207	1	0.808594	0.874218	92.5	171.809
208	1	0.8125	0.889006	92.5	171.087
209	1	0.816406	0.903992	92.5	170.355
210	1	0.820313	0.919183	92.5	169.613
211	1	0.824219	0.93459	92.5	168.861
212	1	0.828125	0.950222	92.5	168.097
213	1	0.832031	0.966088	92.5	167.323
214	1	0.835938	0.97815	92.5	166.734
215	1	0.839844	0.994457	92.5	165.937
216	1	0.84375	1.01104	92.5	165.128
217	1	0.847656	1.02789	92.5	164.305
218	1	0.851563	1.04505	92.5	163.467
219	1	0.855469	1.06252	92.5	162.614
220	1	0.859375	1.08032	92.5	161.744
221	1	0.863281	1.09847	92.5	160.858
222	1	0.867188	1.11699	92.5	159.954
223	1	0.871094	1.1359	92.5	159.03
224	1	0.875	1.15035	92.5	158.325
225	1	0.878906	1.17	92.5	157.365
226	1	0.882813	1.19012	92.5	156.383
227	1	0.886719	1.21073	92.5	155.376
228	1	0.890625	1.23187	92.5	154.344
229	1	0.894531	1.25357	92.5	153.284
230	1.2	0.898438	1.27588	103.2	152.195
231	1.3	0.902344	1.29884	108.55	151.074
232	1.7	0.90625	1.32251	129.95	149.918
233	2.12	0.910156	1.34694	152.42	148.724
234	2.2	0.914063	1.3722	156.7	147.491

235	2.8	0.917969		1.39175	188.8	146.536
236	2.93	0.921875		1.41865	195.755	145.222
237	3	0.925781		1.44663	199.5	143.856
238	3	0.929688		1.47579	199.5	142.432
239	3	0.933594		1.50626	199.5	140.944
240	3.1	0.9375	1.5382	204.85	139.385	
241	3.3	0.941406		1.57179	215.55	137.744
242	3.3	0.945313		1.60725	215.55	136.013
243	3.32	0.949219		1.64485	216.62	134.176
244	3.51	0.953125		1.68494	226.785	132.219
245	3.7	0.957031		1.72793	236.95	130.119
246	3.78	0.960938		1.76241	241.23	128.436
247	3.97	0.964844		1.81191	251.395	126.018
248	4	0.96875	1.86629	253	123.363	
249	4.3	0.972656		1.92684	269.05	120.406
250	5	0.976563		1.99539	306.5	117.058
251	5.6	0.980469		2.07485	338.6	113.178
252	5.6	0.984375		2.17009	338.6	108.527
253	6	0.988281		2.29036	360	102.654
254	7.7	0.992188		2.45727	450.95	94.5032
255	9.1	0.996094		2.74777	525.85	80.3175

Shapiro-Francia Test of Normality

Parameter: 1,2-Dichloropropane

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 255

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.73337	-2.74777	7.55021	7.51065
2	-2.73337	-2.45727	13.5884	14.2273
3	-2.73337	-2.29036	18.8342	20.4877
4	-2.73337	-2.17009	23.5435	26.4193
5	-2.73337	-2.07485	27.8485	32.0907
6	-2.73337	-1.99539	31.8301	37.5448
7	-2.73337	-1.92684	35.5428	42.8116
8	-2.73337	-1.86629	39.0258	47.9128
9	-2.73337	-1.81191	42.3088	52.8655
10	-2.73337	-1.76241	45.4149	57.6828
11	-2.73337	-1.72793	48.4007	62.4058
12	-2.73337	-1.68494	51.2397	67.0114
13	-2.73337	-1.64485	53.9452	71.5074
14	-2.73337	-1.60725	56.5285	75.9006
15	-2.73337	-1.57179	58.999	80.1969
16	-2.73337	-1.5382	61.3651	84.4013
17	-2.73337	-1.50626	63.6339	88.5185
18	-2.73337	-1.47579	65.8118	92.5524
19	-2.73337	-1.44663	67.9046	96.5066
20	-2.73337	-1.41865	69.9172	100.384
21	-2.73337	-1.39175	71.8541	104.188
22	-2.73337	-1.3722	73.7371	107.939
23	-2.73337	-1.34694	75.5513	111.621
24	-2.73337	-1.32251	77.3003	115.236
25	-2.73337	-1.29884	78.9873	118.786
26	-2.73337	-1.27588	80.6152	122.273
27	-2.73337	-1.25357	82.1866	125.7
28	-2.73337	-1.23187	83.7041	129.067
29	-2.73337	-1.21073	85.1699	132.376
30	-2.73337	-1.19012	86.5863	135.629
31	-2.73337	-1.17	87.9552	138.827
32	-2.73337	-1.15035	89.2785	141.972
33	-2.73337	-1.1359	90.5688	145.077
34	-2.73337	-1.11699	91.8165	148.13
35	-2.73337	-1.09847	93.0231	151.132
36	-2.73337	-1.08032	94.1902	154.085
37	-2.73337	-1.06252	95.3191	156.989
38	-2.73337	-1.04505	96.4113	159.846
39	-2.73337	-1.02789	97.4678	162.656
40	-2.73337	-1.01104	98.49	165.419
41	-2.73337	-0.994457	99.479	168.137
42	-2.73337	-0.97815	100.436	170.811
43	-2.73337	-0.966088	101.369	173.452
44	-2.73337	-0.950222	102.272	176.049
45	-2.73337	-0.93459	103.145	178.603
46	-2.73337	-0.919183	103.99	181.116
47	-2.73337	-0.903992	104.808	183.587
48	-2.73337	-0.889006	105.598	186.017
49	-2.73337	-0.874218	106.362	188.406
50	-2.73337	-0.859618	107.101	190.756
51	-2.73337	-0.845198	107.815	193.066

52	-2.73337	-0.830953	108.506	195.338	
53	-2.73337	-0.816874	109.173	197.57	
54	-2.73337	-0.806422	109.824	199.775	
55	-2.73337	-0.792618	110.452	201.941	
56	-2.73337	-0.778966	111.059	204.07	
57	-2.73337	-0.765456	111.644	206.163	
58	-2.73337	-0.752084	112.21	208.218	
59	-2.73337	-0.738846	112.756	210.238	
60	-1.46968	-0.725736	113.283	211.305	
61	-1.42712	-0.712751	113.791	212.322	
62	-1.38629	-0.699883	114.281	213.292	
63	-1.10866	-0.687131	114.753	214.054	
64	-0.994252	-0.67449	115.208	214.724	
65	-0.867501	-0.665079	115.65	215.301	
66	-0.693147	-0.652622	116.076	215.754	
67	-0.510826	-0.640266	116.486	216.081	
68	-0.051293	3 -0.628006	116.88	216.113	
69	0	-0.615839	117.259	216.113	
70	0	-0.603765	117.624	216.113	
71	0	-0.591776	117.974	216.113	
72	0	-0.579873	118.31	216.113	
73	0	-0.568052	118.633	216.113	
74	0	-0.556308	118.943	216.113	
75	0	-0.547551	119.242	216.113	
76	0	-0.53594	119.53	216.113	
77	0	-0.524401	119.805	216.113	
78	0	-0.51293	120.068	216.113	
79	0	-0.501527	120.319	216.113	
80	0	-0.490189	120.56	216.113	
81	0	-0.478914	120.789	216.113	
82	0	-0.467699	121.008	216.113	
83	0	-0.456542	121.216	216.113	
84	0	-0.445443	121.415	216.113	
85	0	-0.434397	121.603	216.113	
86	0	-0.426148	121.785	216.113	
87	0	-0.415193	121.957	216.113	
88	0	-0.40429	122.121	216.113	
89	0	-0.393433	122.275	216.113	
90	0	-0.382622	122.422	216.113	
91	0	-0.371856	122.56	216.113	
92	0	-0.361133	122.691	216.113	
93	0	-0.350451	122.813	216.113	
94	0	-0.33981	122.929	216.113	
95	0	-0.329206	123.037	216.113	
96	0	-0.318639	123.139	216.113	
97	0	-0.310738	123.235	216.113	
98	0	-0.300232	123.325	216.113	
99	0	-0.28976	123.409	216.113	
100	0	-0.279319	123.487	216.113	
101	0	-0.268908	123.56	216.113	
102	0	-0.258527	123.627	216.113	
103	0	-0.248174	123.688	216.113	
104	0	-0.237847	123.745	216.113	
105	0	-0.227545	123.796	216.113	
106	0	-0.217267	123.844	216.113	
107	0	-0.209575	123.888	216.113	
108	0	-0.199336	123.927	216.113	
109	0	-0.189118	123.963	216.113	
110	0	-0.17892	123.995	216.113	
111	0	-0.168741	124.024	216.113	
112	0	-0.158579	124.049	216.113	
113	0	-0.148434	124.071	216.113	

114	0	-0.138305	124.09	216.113
115	0	-0.128189	124.106	216.113
116	0	-0.118085	124.12	216.113
117	0	-0.107995	124.132	216.113
118	0	-0.100433	124.142	216.113
119	0	-0.0903606	124.15	216.113
120	0	-0.0802981	124.157	216.113
121	0	-0.0702426	124.162	216.113
122	0	-0.0601949	124.165	216.113
123	0	-0.0501541	124.168	216.113
124	0	-0.0401167	124.169	216.113
125	0	-0.0300838	124.17	216.113
126	0	-0.0200544	124.171	216.113
127	0	-0.0100272	124.171	216.113
128	0	0	124.171	216.113
129	0	0.0100272	124.171	216.113
130	0	0.0200544	124.171	216.113
131	0	0.0300838	124.172	216.113
132	0	0.0401167	124.174	216.113
133	0	0.0501541	124.176	216.113
134	0	0.0601949	124.18	216.113
135	0	0.0702426	124.185	216.113
136	0	0.0802981	124.191	216.113
137	0	0.0903606	124.199	216.113
138	0	0.100433	124.21	216.113
139	0	0.107995	124.221	216.113
140	0	0.118085	124.235	216.113
141	0	0.128189	124.252	216.113
142	0	0.138305	124.271	216.113
143	0	0.148434	124.293	216.113
144	0	0.158579	124.318	216.113
145	0	0.168741	124.346	216.113
146	0	0.17892	124.378	216.113
147	0	0.189118	124.414	216.113
148	0	0.199336	124.454	216.113
149	0	0.209575	124.498	216.113
150	0	0.217267	124.545	216.113
151	0	0.227545	124.597	216.113
152	0	0.237847	124.653	216.113
153	0	0.248174	124.715	216.113
154	0	0.258527	124.782	216.113
155	0	0.268908	124.854	216.113
156	0	0.279319	124.932	216.113
157	0	0.28976	125.016	216.113
158	0	0.300232	125.106	216.113
159	0	0.310738	125.203	216.113
160	0	0.318639	125.304	216.113
161	0	0.329206	125.413	216.113
162	0	0.33981	125.528	216.113
163	0	0.350451	125.651	216.113
164	0	0.361133	125.781	216.113
165	0	0.371856	125.92	216.113
166	0	0.382622	126.066	216.113
167	0	0.393433	126.221	216.113
168	0	0.40429	126.384	216.113
169	0	0.415193	126.557	216.113
170	0	0.426148	126.738	216.113
171	0	0.434397	126.927	216.113
172	0	0.445443	127.125	216.113
173	0	0.456542	127.334	216.113
174	0	0.467699	127.553	216.113
175	0	0.478914	127.782	216.113

176	0	0.490189		128.022	216.113
177	0	0.501527		128.274	216.113
178	0	0.51293	128.537	216.113	
179	0	0.524401		128.812	216.113
180	0	0.53594	129.099	216.113	
181	0	0.547551		129.399	216.113
182	0	0.556308		129.708	216.113
183	0	0.568052		130.031	216.113
184	0	0.579873		130.367	216.113
185	0	0.591776		130.717	216.113
186	0	0.603765		131.082	216.113
187	0	0.615839		131.461	216.113
188	0	0.628006		131.856	216.113
189	0	0.640266		132.266	216.113
190	0	0.652622		132.692	216.113
191	0	0.665079		133.134	216.113
192	0	0.67449	133.589	216.113	
193	0	0.687131		134.061	216.113
194	0	0.699883		134.551	216.113
195	0	0.712751		135.059	216.113
196	0	0.725736		135.585	216.113
197	0	0.738846		136.131	216.113
198	0	0.752084		136.697	216.113
199	0	0.765456		137.283	216.113
200	0	0.778966		137.89	216.113
201	0	0.792618		138.518	216.113
202	0	0.806422		139.168	216.113
203	0	0.816874		139.836	216.113
204	0	0.830953		140.526	216.113
205	0	0.845198		141.24	216.113
206	0	0.859618		141.979	216.113
207	0	0.874218		142.744	216.113
208	0	0.889006		143.534	216.113
209	0	0.903992		144.351	216.113
210	0	0.919183		145.196	216.113
211	0	0.93459	146.069	216.113	
212	0	0.950222		146.972	216.113
213	0	0.966088		147.906	216.113
214	0	0.97815	148.863	216.113	
215	0	0.994457		149.851	216.113
216	0	1.01104	150.874	216.113	
217	0	1.02789	151.93	216.113	
218	0	1.04505	153.022	216.113	
219	0	1.06252	154.151	216.113	
220	0	1.08032	155.318	216.113	
221	0	1.09847	156.525	216.113	
222	0	1.11699	157.773	216.113	
223	0	1.1359	159.063	216.113	
224	0	1.15035	160.386	216.113	
225	0	1.17	161.755	216.113	
226	0	1.19012	163.172	216.113	
227	0	1.21073	164.637	216.113	
228	0	1.23187	166.155	216.113	
229	0	1.25357	167.726	216.113	
230	0.182322		1.27588	169.354	216.346
231	0.262364		1.29884	171.041	216.686
232	0.530628		1.32251	172.79	217.388
233	0.751416		1.34694	174.604	218.4
234	0.788457		1.3722	176.487	219.482
235	1.02962	1.39175	178.424	220.915	
236	1.075	1.41865	180.437	222.44	
237	1.09861	1.44663	182.53	224.029	

238	1.09861	1.47579	184.708	225.651
239	1.09861	1.50626	186.976	227.306
240	1.1314	1.5382	189.342	229.046
241	1.19392	1.57179	191.813	230.922
242	1.19392	1.60725	194.396	232.841
243	1.19996	1.64485	197.102	234.815
244	1.25562	1.68494	199.941	236.931
245	1.30833	1.72793	202.927	239.192
246	1.32972	1.76241	206.033	241.535
247	1.37877	1.81191	209.316	244.033
248	1.38629	1.86629	212.799	246.62
249	1.45862	1.92684	216.511	249.431
250	1.60944	1.99539	220.493	252.642
251	1.72277	2.07485	224.798	256.217
252	1.72277	2.17009	229.507	259.955
253	1.79176	2.29036	234.753	264.059
254	2.04122	2.45727	240.791	269.075
255	2.20827	2.74777	248.341	275.143

Data Set Standard Deviation = 1.28712
Numerator = 75703.6
Denominator = 104502
W Statistic = 0.724426 = 75703.6 / 104502

5% Critical value of 0.976 exceeds 0.724426
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.724426
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-Dichloropropane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.850597
0.850597 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.73337	0.00390625	-2.74777	62.7747	348.683
2	-2.73337	0.0078125	-2.45727	62.7747	334.497
3	-2.73337	0.0117188	-2.29036	62.7747	326.346
4	-2.73337	0.015625	-2.17009	62.7747	320.473
5	-2.73337	0.0195313	-2.07485	62.7747	315.822
6	-2.73337	0.0234375	-1.99539	62.7747	311.942
7	-2.73337	0.0273438	-1.92684	62.7747	308.594
8	-2.73337	0.03125	-1.86629	62.7747	305.637
9	-2.73337	0.0351563	-1.81191	62.7747	302.982
10	-2.73337	0.0390625	-1.76241	62.7747	300.564
11	-2.73337	0.0429688	-1.72793	62.7747	298.881
12	-2.73337	0.046875	-1.68494	62.7747	296.781
13	-2.73337	0.0507813	-1.64485	62.7747	294.824
14	-2.73337	0.0546875	-1.60725	62.7747	292.987
15	-2.73337	0.0585938	-1.57179	62.7747	291.256
16	-2.73337	0.0625	-1.5382	62.7747	289.615
17	-2.73337	0.0664063	-1.50626	62.7747	288.056
18	-2.73337	0.0703125	-1.47579	62.7747	286.568
19	-2.73337	0.0742188	-1.44663	62.7747	285.144
20	-2.73337	0.078125	-1.41865	62.7747	283.778
21	-2.73337	0.0820313	-1.39175	62.7747	282.464
22	-2.73337	0.0859375	-1.3722	62.7747	281.509
23	-2.73337	0.0898438	-1.34694	62.7747	280.276
24	-2.73337	0.09375	-1.32251	62.7747	279.082
25	-2.73337	0.0976563	-1.29884	62.7747	277.926
26	-2.73337	0.101563	-1.27588	62.7747	276.805
27	-2.73337	0.105469	-1.25357	62.7747	275.716
28	-2.73337	0.109375	-1.23187	62.7747	274.656
29	-2.73337	0.113281	-1.21073	62.7747	273.624
30	-2.73337	0.117188	-1.19012	62.7747	272.617
31	-2.73337	0.121094	-1.17	62.7747	271.635
32	-2.73337	0.125	-1.15035	62.7747	270.675
33	-2.73337	0.128906	-1.1359	62.7747	269.97
34	-2.73337	0.132813	-1.11699	62.7747	269.046
35	-2.73337	0.136719	-1.09847	62.7747	268.142
36	-2.73337	0.140625	-1.08032	62.7747	267.256
37	-2.73337	0.144531	-1.06252	62.7747	266.386
38	-2.73337	0.148438	-1.04505	62.7747	265.533
39	-2.73337	0.152344	-1.02789	62.7747	264.695
40	-2.73337	0.15625	-1.01104	62.7747	263.872
41	-2.73337	0.160156	-0.994457	62.7747	263.063
42	-2.73337	0.164063	-0.97815	62.7747	262.266
43	-2.73337	0.167969	-0.966088	62.7747	261.677
44	-2.73337	0.171875	-0.950222	62.7747	260.903
45	-2.73337	0.175781	-0.93459	62.7747	260.139
46	-2.73337	0.179688	-0.919183	62.7747	259.387
47	-2.73337	0.183594	-0.903992	62.7747	258.645
48	-2.73337	0.1875	-0.889006	62.7747	257.913

49	-2.73337	0.191406	-0.874218	62.7747	257.191	
50	-2.73337	0.195313	-0.859618	62.7747	256.478	
51	-2.73337	0.199219	-0.845198	62.7747	255.774	
52	-2.73337	0.203125	-0.830953	62.7747	255.078	
53	-2.73337	0.207031	-0.816874	62.7747	254.391	
54	-2.73337	0.210938	-0.806422	62.7747	253.88	
55	-2.73337	0.214844	-0.792618	62.7747	253.206	
56	-2.73337	0.21875	-0.778966	62.7747	252.54	
57	-2.73337	0.222656	-0.765456	62.7747	251.88	
58	-2.73337	0.226563	-0.752084	62.7747	251.227	
59	-2.73337	0.230469	-0.738846	62.7747	250.58	
60	-1.46968	0.234375	-0.725736	175.454	249.94	
61	-1.42712	0.238281	-0.712751	179.249	249.306	
62	-1.38629	0.242188	-0.699883	182.889	248.678	
63	-1.10866	0.246094	-0.687131	207.644	248.055	
64	-0.994252	0.25	-0.67449	217.846	247.438	
65	-0.867501	0.253906	-0.665079	229.148	246.978	
66	-0.693147	0.257813	-0.652622	244.694	246.37	
67	-0.510826	0.261719	-0.640266	260.951	245.766	
68	-0.051293	3 0.265625	-0.628006	301.926	245.168	
69	0	0.269531	-0.615839	306.5	244.573	
70	0	0.273438	-0.603765	306.5	243.984	
71	0	0.277344	-0.591776	306.5	243.398	
72	0	0.28125	-0.579873	306.5	242.817	
73	0	0.285156	-0.568052	306.5	242.24	
74	0	0.289063	-0.556308	306.5	241.666	
75	0	0.292969	-0.547551	306.5	241.239	
76	0	0.296875	-0.53594	306.5	240.672	
77	0	0.300781	-0.524401	306.5	240.108	
78	0	0.304688	-0.51293	306.5	239.548	
79	0	0.308594	-0.501527	306.5	238.991	
80	0	0.3125	-0.490189	306.5	238.438	
81	0	0.316406	-0.478914	306.5	237.887	
82	0	0.320313	-0.467699	306.5	237.339	
83	0	0.324219	-0.456542	306.5	236.794	
84	0	0.328125	-0.445443	306.5	236.252	
85	0	0.332031	-0.434397	306.5	235.713	
86	0	0.335938	-0.426148	306.5	235.31	
87	0	0.339844	-0.415193	306.5	234.775	
88	0	0.34375	-0.40429	306.5	234.243	
89	0	0.347656	-0.393433	306.5	233.713	
90	0	0.351563	-0.382622	306.5	233.185	
91	0	0.355469	-0.371856	306.5	232.659	
92	0	0.359375	-0.361133	306.5	232.135	
93	0	0.363281	-0.350451	306.5	231.614	
94	0	0.367188	-0.33981	306.5	231.094	
95	0	0.371094	-0.329206	306.5	230.576	
96	0	0.375	-0.318639	306.5	230.06	
97	0	0.378906	-0.310738	306.5	229.674	
98	0	0.382813	-0.300232	306.5	229.161	
99	0	0.386719	-0.28976	306.5	228.65	
100	0	0.390625	-0.279319	306.5	228.14	
101	0	0.394531	-0.268908	306.5	227.632	
102	0	0.398438	-0.258527	306.5	227.125	
103	0	0.402344	-0.248174	306.5	226.619	
104	0	0.40625	-0.237847	306.5	226.115	
105	0	0.410156	-0.227545	306.5	225.612	
106	0	0.414063	-0.217267	306.5	225.11	
107	0	0.417969	-0.209575	306.5	224.734	
108	0	0.421875	-0.199336	306.5	224.234	
109	0	0.425781	-0.189118	306.5	223.735	
110	0	0.429688	-0.17892	306.5	223.237	

111	0	0.433594	-0.168741	306.5	222.74
112	0	0.4375	-0.158579	306.5	222.244
113	0	0.441406	-0.148434	306.5	221.749
114	0	0.445313	-0.138305	306.5	221.254
115	0	0.449219	-0.128189	306.5	220.76
116	0	0.453125	-0.118085	306.5	220.267
117	0	0.457031	-0.107995	306.5	219.774
118	0	0.460938	-0.100433	306.5	219.404
119	0	0.464844	-0.0903606	306.5	218.913
120	0	0.46875	-0.0802981	306.5	218.421
121	0	0.472656	-0.0702426	306.5	217.93
122	0	0.476563	-0.0601949	306.5	217.44
123	0	0.480469	-0.0501541	306.5	216.949
124	0	0.484375	-0.0401167	306.5	216.459
125	0	0.488281	-0.0300838	306.5	215.969
126	0	0.492188	-0.0200544	306.5	215.479
127	0	0.496094	-0.0100272	306.5	214.99
128	0	0.5	0	306.5	214.5
129	0	0.503906	0.0100272	306.5	214.01
130	0	0.507813	0.0200544	306.5	213.521
131	0	0.511719	0.0300838	306.5	213.031
132	0	0.515625	0.0401167	306.5	212.541
133	0	0.519531	0.0501541	306.5	212.051
134	0	0.523438	0.0601949	306.5	211.56
135	0	0.527344	0.0702426	306.5	211.07
136	0	0.53125	0.0802981	306.5	210.579
137	0	0.535156	0.0903606	306.5	210.087
138	0	0.539063	0.100433	306.5	209.596
139	0	0.542969	0.107995	306.5	209.226
140	0	0.546875	0.118085	306.5	208.733
141	0	0.550781	0.128189	306.5	208.24
142	0	0.554688	0.138305	306.5	207.746
143	0	0.558594	0.148434	306.5	207.251
144	0	0.5625	0.158579	306.5	206.756
145	0	0.566406	0.168741	306.5	206.26
146	0	0.570313	0.17892	306.5	205.763
147	0	0.574219	0.189118	306.5	205.265
148	0	0.578125	0.199336	306.5	204.766
149	0	0.582031	0.209575	306.5	204.266
150	0	0.585938	0.217267	306.5	203.89
151	0	0.589844	0.227545	306.5	203.388
152	0	0.59375	0.237847	306.5	202.885
153	0	0.597656	0.248174	306.5	202.381
154	0	0.601563	0.258527	306.5	201.875
155	0	0.605469	0.268908	306.5	201.368
156	0	0.609375	0.279319	306.5	200.86
157	0	0.613281	0.28976	306.5	200.35
158	0	0.617188	0.300232	306.5	199.839
159	0	0.621094	0.310738	306.5	199.326
160	0	0.625	0.318639	306.5	198.94
161	0	0.628906	0.329206	306.5	198.424
162	0	0.632813	0.33981	306.5	197.906
163	0	0.636719	0.350451	306.5	197.386
164	0	0.640625	0.361133	306.5	196.865
165	0	0.644531	0.371856	306.5	196.341
166	0	0.648438	0.382622	306.5	195.815
167	0	0.652344	0.393433	306.5	195.287
168	0	0.65625	0.40429	306.5	194.757
169	0	0.660156	0.415193	306.5	194.225
170	0	0.664063	0.426148	306.5	193.69
171	0	0.667969	0.434397	306.5	193.287
172	0	0.671875	0.445443	306.5	192.748

173	0	0.675781	0.456542	306.5	192.206	
174	0	0.679688	0.467699	306.5	191.661	
175	0	0.683594	0.478914	306.5	191.113	
176	0	0.6875	0.490189	306.5	190.562	
177	0	0.691406	0.501527	306.5	190.009	
178	0	0.695313	0.51293	306.5	189.452	
179	0	0.699219	0.524401	306.5	188.892	
180	0	0.703125	0.53594	306.5	188.328	
181	0	0.707031	0.547551	306.5	187.761	
182	0	0.710938	0.556308	306.5	187.334	
183	0	0.714844	0.568052	306.5	186.76	
184	0	0.71875	0.579873	306.5	186.183	
185	0	0.722656	0.591776	306.5	185.602	
186	0	0.726563	0.603765	306.5	185.016	
187	0	0.730469	0.615839	306.5	184.427	
188	0	0.734375	0.628006	306.5	183.832	
189	0	0.738281	0.640266	306.5	183.234	
190	0	0.742188	0.652622	306.5	182.63	
191	0	0.746094	0.665079	306.5	182.022	
192	0	0.75	0.67449	306.5	181.562	
193	0	0.753906	0.687131	306.5	180.945	
194	0	0.757813	0.699883	306.5	180.322	
195	0	0.761719	0.712751	306.5	179.694	
196	0	0.765625	0.725736	306.5	179.06	
197	0	0.769531	0.738846	306.5	178.42	
198	0	0.773438	0.752084	306.5	177.773	
199	0	0.777344	0.765456	306.5	177.12	
200	0	0.78125	0.778966	306.5	176.46	
201	0	0.785156	0.792618	306.5	175.794	
202	0	0.789063	0.806422	306.5	175.12	
203	0	0.792969	0.816874	306.5	174.609	
204	0	0.796875	0.830953	306.5	173.922	
205	0	0.800781	0.845198	306.5	173.226	
206	0	0.804688	0.859618	306.5	172.522	
207	0	0.808594	0.874218	306.5	171.809	
208	0	0.8125	0.889006	306.5	171.087	
209	0	0.816406	0.903992	306.5	170.355	
210	0	0.820313	0.919183	306.5	169.613	
211	0	0.824219	0.93459	306.5	168.861	
212	0	0.828125	0.950222	306.5	168.097	
213	0	0.832031	0.966088	306.5	167.323	
214	0	0.835938	0.97815	306.5	166.734	
215	0	0.839844	0.994457	306.5	165.937	
216	0	0.84375	1.01104	306.5	165.128	
217	0	0.847656	1.02789	306.5	164.305	
218	0	0.851563	1.04505	306.5	163.467	
219	0	0.855469	1.06252	306.5	162.614	
220	0	0.859375	1.08032	306.5	161.744	
221	0	0.863281	1.09847	306.5	160.858	
222	0	0.867188	1.11699	306.5	159.954	
223	0	0.871094	1.1359	306.5	159.03	
224	0	0.875	1.15035	306.5	158.325	
225	0	0.878906	1.17	306.5	157.365	
226	0	0.882813	1.19012	306.5	156.383	
227	0	0.886719	1.21073	306.5	155.376	
228	0	0.890625	1.23187	306.5	154.344	
229	0	0.894531	1.25357	306.5	153.284	
230	0.182322	0.898438	1.27588	322.757	152.195	
231	0.262364	0.902344	1.29884	329.894	151.074	
232	0.530628	0.90625	1.32251	353.814	149.918	
233	0.751416	0.910156	1.34694	373.501	148.724	
234	0.788457	0.914063	1.3722	376.804	147.491	

235	1.02962	0.917969		1.39175	398.308	146.536
236	1.075	0.921875		1.41865	402.354	145.222
237	1.09861	0.925781		1.44663	404.46	143.856
238	1.09861	0.929688		1.47579	404.46	142.432
239	1.09861	0.933594		1.50626	404.46	140.944
240	1.1314	0.9375	1.5382	407.383	139.385	
241	1.19392	0.941406		1.57179	412.958	137.744
242	1.19392	0.945313		1.60725	412.958	136.013
243	1.19996	0.949219		1.64485	413.497	134.176
244	1.25562	0.953125		1.68494	418.459	132.219
245	1.30833	0.957031		1.72793	423.16	130.119
246	1.32972	0.960938		1.76241	425.067	128.436
247	1.37877	0.964844		1.81191	429.44	126.018
248	1.38629	0.96875	1.86629	430.111	123.363	
249	1.45862	0.972656		1.92684	436.56	120.406
250	1.60944	0.976563		1.99539	450.008	117.058
251	1.72277	0.980469		2.07485	460.113	113.178
252	1.72277	0.984375		2.17009	460.113	108.527
253	1.79176	0.988281		2.29036	466.265	102.654
254	2.04122	0.992188		2.45727	488.509	94.5032
255	2.20827	0.996094		2.74777	503.404	80.3175

Kruskal-Wallis Non-Parametric Test

Parameter: 1,2-Dichloropropane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	110.5
	9/23/1999	ND<0	110.5
	3/15/2000	ND<0	110.5
	9/24/2003	ND<0	110.5
	3/11/2004	ND<0	110.5
	10/12/2004	ND<0	110.5
	4/1/2005	ND<0	110.5
	10/25/2005	ND<0	110.5
	4/29/2006	ND<0	110.5
	11/18/2006	ND<0	110.5
	5/23/2007	ND<0	110.5
	11/28/2007	ND<0	110.5
	6/5/2008	ND<0	110.5
	11/20/2008	ND<0	110.5
	6/11/2009	ND<-2.73337	110.5
	11/16/2009	ND<-2.73337	110.5
	6/30/2010	ND<-2.73337	110.5
	11/12/2010	ND<-2.73337 U	110.5
	11/12/2010	ND<-2.73337 U	110.5
	7/5/2011	ND<-2.73337 U	110.5

Rank Sum = 2210
Rank Mean = 110.5

Background Rank Sum = 2210
Background Rank Mean = 110.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	-0.867501 J	226
	8/24/1995	1.1314	240
	9/28/1995	1.60944	250
	10/26/1995	1.09861	237
	11/19/1996	ND<0	110.5
	12/19/1996	ND<0	110.5
	3/24/1997	1.79176	253
	9/24/1997	2.04122	254
	4/7/1998	ND<0	110.5
	9/23/1998	1.72277	251
	3/16/1999	2.20827	255
	9/23/1999	1.72277	252
	3/15/2000	ND<0	110.5
	9/24/2003	ND<0	110.5
	3/11/2004	ND<0	110.5
	10/12/2004	ND<0	110.5
	4/1/2005	0.751416	233
	10/25/2005	1.19996	243
	4/29/2006	1.37877	247
	11/18/2006	1.075	236

	5/23/2007	ND<0	110.5	
	11/28/2007	1.32972		246
	6/5/2008	1.25562	244	
	11/20/2008	ND<0	110.5	
	6/11/2009	0.788457		234
	11/16/2009	1.02962		235
	6/30/2010	0.530628		232
	11/12/2010	1.09861		238
	11/12/2010	ND<-2.73337 U		110.5
	7/5/2011	1.30833	245	
	11/22/2011	1.19392		241
	11/22/2011	1.19392		242

Rank Sum = 6439
Rank Mean = 201.219

MW-12A	R	3/16/1999	ND<0	110.5
	9/23/1999	ND<0	110.5	
	3/15/2000	ND<0	110.5	
	9/24/2003	ND<0	110.5	
	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	ND<0	110.5	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337 U		110.5
	11/12/2010	ND<-2.73337 U		110.5
	7/5/2011	ND<-2.73337 U	110.5	
	11/22/2011	ND<-2.73337 U		110.5
	11/22/2011	ND<-2.73337 U		110.5

Rank Sum = 2431
Rank Mean = 110.5

MW-9	7/20/1995	ND<0	110.5	
	8/24/1995	ND<0	110.5	
	9/28/1995	ND<0	110.5	
	10/26/1995	ND<0	110.5	
	11/19/1996	ND<0	110.5	
	12/19/1996	ND<0	110.5	
	3/24/1997	ND<0	110.5	
	9/24/1997	ND<0	110.5	
	4/7/1998	ND<0	110.5	
	9/23/1998	ND<0	110.5	
	3/16/1999	ND<0	110.5	
	9/23/1999	ND<0	110.5	
	3/15/2000	ND<0	110.5	
	9/24/2003	ND<0	110.5	
	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	-1.46968 J		221

	6/5/2008	ND<0	110.5	
	11/20/2008	-1.42712	J	222
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	-1.10866	J	224
	6/30/2010	-0.994252	J	225
	11/12/2010	ND<-2.73337	U	110.5
	11/12/2010	-1.38629	J	223
	7/5/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5

Rank Sum = 4098.5
Rank Mean = 128.078

MW-11R	7/20/1995	0.182322	J	230
	8/24/1995	1.45862		249
	9/28/1995	1.09861		239
	10/26/1995	1.38629		248
	11/19/1996	ND<0	110.5	
	12/19/1996	ND<0	110.5	
	3/24/1997	ND<0	110.5	
	9/24/1997	ND<0	110.5	
	4/7/1998	ND<0	110.5	
	9/23/1998	ND<0	110.5	
	3/16/1999	ND<0	110.5	
	9/23/1999	ND<0	110.5	
	3/15/2000	ND<0	110.5	
	9/24/2003	ND<0	110.5	
	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	0.262364	J	231
	10/25/2005	ND<0	110.5	
	4/29/2006	-0.693147	J	227
	11/18/2006	-0.510826	J	228
	5/23/2007	ND<0	110.5	
	11/28/2007	-0.051293	3 J	229
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337	U	110.5
	11/12/2010	ND<-2.73337	U	110.5
	7/5/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5

Rank Sum = 4533
Rank Mean = 141.656

MW-6	7/20/1995	ND<0	110.5
	8/24/1995	ND<0	110.5
	9/28/1995	ND<0	110.5
	10/26/1995	ND<0	110.5
	11/19/1996	ND<0	110.5
	12/19/1996	ND<0	110.5
	3/24/1997	ND<0	110.5
	9/24/1997	ND<0	110.5
	4/7/1998	ND<0	110.5
	9/23/1998	ND<0	110.5
	3/16/1999	ND<0	110.5
	9/23/1999	ND<0	110.5
	3/15/2000	ND<0	110.5
	9/24/2003	ND<0	110.5

	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	ND<0	110.5	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337 U		110.5
	11/12/2010	ND<-2.73337 U		110.5
	7/5/2011	ND<-2.73337 U	110.5	
	11/22/2011	ND<-2.73337 U		110.5
	11/22/2011	ND<-2.73337 U		110.5

Rank Sum = 3536
Rank Mean = 110.5

MW-12BR	3/16/1999	ND<0	110.5	
	9/23/1999	ND<0	110.5	
	3/15/2000	ND<0	110.5	
	9/24/2003	ND<0	110.5	
	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	ND<0	110.5	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337 U		110.5
	11/12/2010	ND<-2.73337 U		110.5
	7/5/2011	ND<-2.73337 U	110.5	
	11/22/2011	ND<-2.73337 U		110.5
	11/22/2011	ND<-2.73337 U		110.5

Rank Sum = 2431
Rank Mean = 110.5

MW-8	7/20/1995	ND<0	110.5
	8/24/1995	ND<0	110.5
	9/28/1995	ND<0	110.5
	10/26/1995	ND<0	110.5
	11/19/1996	ND<0	110.5
	12/19/1996	ND<0	110.5
	3/24/1997	ND<0	110.5
	9/24/1997	ND<0	110.5
	4/7/1998	ND<0	110.5
	9/23/1998	ND<0	110.5
	3/16/1999	ND<0	110.5
	9/23/1999	ND<0	110.5
	3/15/2000	ND<0	110.5
	9/24/2003	ND<0	110.5
	3/11/2004	ND<0	110.5
	10/12/2004	ND<0	110.5

	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	ND<0	110.5	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337	U	110.5
	11/12/2010	ND<-2.73337	U	110.5
	7/5/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5

Rank Sum = 3425.5
Rank Mean = 110.5

MW-7	7/20/1995	ND<0	110.5	
	8/24/1995	ND<0	110.5	
	9/28/1995	ND<0	110.5	
	10/26/1995	ND<0	110.5	
	11/19/1996	ND<0	110.5	
	12/19/1996	ND<0	110.5	
	3/24/1997	ND<0	110.5	
	9/24/1997	ND<0	110.5	
	4/7/1998	ND<0	110.5	
	9/23/1998	ND<0	110.5	
	3/16/1999	ND<0	110.5	
	9/23/1999	ND<0	110.5	
	3/15/2000	ND<0	110.5	
	9/24/2003	ND<0	110.5	
	3/11/2004	ND<0	110.5	
	10/12/2004	ND<0	110.5	
	4/1/2005	ND<0	110.5	
	10/25/2005	ND<0	110.5	
	4/29/2006	ND<0	110.5	
	11/18/2006	ND<0	110.5	
	5/23/2007	ND<0	110.5	
	11/28/2007	ND<0	110.5	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	ND<-2.73337		110.5
	11/16/2009	ND<-2.73337		110.5
	6/30/2010	ND<-2.73337		110.5
	11/12/2010	ND<-2.73337	U	110.5
	11/12/2010	ND<-2.73337	U	110.5
	7/5/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5
	11/22/2011	ND<-2.73337	U	110.5

Rank Sum = 3536
Rank Mean = 110.5

Calculation Results:

Kruskal-Wallis H Statistic = 41.5833
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 116.207
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
41.5833 > 15.5073 indicating a significant group difference at 5% significance level
116.207 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634

Mean background rank is 110.5

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-10	201.219	90.7188	48.9085	
MW-12AR		110.5	0	53.0116
MW-9	128.078	17.5781	48.9085	
MW-11R	141.656	31.1563	48.9085	
MW-6	110.5	0	48.9085	
MW-12BR		110.5	0	53.0116
MW-8	110.5	0	49.211	
MW-7	110.5	0	48.9085	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 110.5

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-10	201.219	90.7188	52.8146	
MW-12AR		110.5	0	57.2454
MW-9	128.078	17.5781	52.8146	
MW-11R	141.656	31.1563	52.8146	
MW-6	110.5	0	52.8146	
MW-12BR		110.5	0	57.2454
MW-8	110.5	0	53.1412	
MW-7	110.5	0	52.8146	

Shewhart-CUSUM Control Chart

Parameter: 1,2-Dichloropropane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.495325
Baseline Std Dev = 0.933572
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	1.79176	0.388681		1.38868
3/24/1997	1.79176	0.388681		1.38868
9/24/1997	2.04122	1.04457	1.65589	
9/24/1997	2.04122	1.04457	1.65589	
4/7/1998	0	0	-0.53057	
4/7/1998	0	0	-0.53057	
9/23/1998	1.72277	0.314779		1.31478
9/23/1998	1.72277	0.314779		1.31478
3/16/1999	2.20827	1.14961	1.83483	
3/16/1999	2.20827	1.14961	1.83483	
9/23/1999	1.72277	1.46439	1.31478	
9/23/1999	1.72277	1.46439	1.31478	
3/15/2000	0	0	-0.53057	
3/15/2000	0	0	-0.53057	
9/24/2003	0	0	-0.53057	
9/24/2003	0	0	-0.53057	
3/11/2004	0	0	-0.53057	
3/11/2004	0	0	-0.53057	
10/12/2004	0	0	-0.53057	
10/12/2004	0	0	-0.53057	
4/1/2005	0.751416	0	0.274313	
4/1/2005	0.751416	0	0.274313	
10/25/2005	1.19996	0	0.754778	
10/25/2005	1.19996	0	0.754778	
4/29/2006	1.37877	0	0.946302	
4/29/2006	1.37877	0	0.946302	
11/18/2006	1.075	0	0.620924	
11/18/2006	1.075	0	0.620924	
5/23/2007	0	0	-0.53057	
5/23/2007	0	0	-0.53057	
11/28/2007	1.32972	0	0.89377	
11/28/2007	1.32972	0	0.89377	
6/5/2008	1.25562	0	0.814389	
6/5/2008	1.25562	0	0.814389	
11/20/2008	0	0	-0.53057	
11/20/2008	0	0	-0.53057	
6/11/2009	0.788457	0		0.31399
6/11/2009	0.788457	0		0.31399
11/16/2009	1.02962	0	0.572312	
11/16/2009	1.02962	0	0.572312	
6/30/2010	0.530628	0		0.0378149
6/30/2010	0.530628	0		0.0378149
11/12/2010	-0.817378	0		-1.98854
11/12/2010	-0.817378	0		-1.98854
7/5/2011	1.30833	0	0.870857	

7/5/2011	1.30833	0	0.870857	
11/22/2011		1.19392	0.0582638	1.05826
11/22/2011		1.19392	0.0582638	1.05826

Sen's Slope Analysis
Parameter: 1,2-Dichloropropane
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
1.1314	(8/24/1995)	-0.867501 J (7/20/1995)	(1.1314 - -0.867501)/(2 - 1)	
1.9989				
1.60944	(9/28/1995)	-0.867501 J (7/20/1995)	(1.60944 - -0.867501)/(3 - 1)	
1.23847				
1.09861	(10/26/1995)	-0.867501 J (7/20/1995)	(1.09861 - -0.867501)/(4 - 1)	
0.655371				
ND<0	(11/19/1996)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(5 - 1)	
0.216875				
ND<0	(12/19/1996)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(6 - 1)	0.1735
1.79176	(3/24/1997)	-0.867501 J (7/20/1995)	(1.79176 - -0.867501)/(7 - 1)	
0.44321				
2.04122	(9/24/1997)	-0.867501 J (7/20/1995)	(2.04122 - -0.867501)/(8 - 1)	
0.415532				
ND<0	(4/7/1998)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(9 - 1)	
0.108438				
1.72277	(9/23/1998)	-0.867501 J (7/20/1995)	(1.72277 - -0.867501)/(10 - 1)	
0.287807				
2.20827	(3/16/1999)	-0.867501 J (7/20/1995)	(2.20827 - -0.867501)/(11 - 1)	
0.307577				
1.72277	(9/23/1999)	-0.867501 J (7/20/1995)	(1.72277 - -0.867501)/(12 - 1)	
0.235479				
ND<0	(3/15/2000)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(13 - 1)	
0.0722917				
ND<0	(9/24/2003)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(14 - 1)	
0.0667308				
ND<0	(3/11/2004)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(15 - 1)	
0.0619643				
ND<0	(10/12/2004)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(16 - 1)	
0.0578334				
0.751416	(4/1/2005)	-0.867501 J (7/20/1995)	(0.751416 - -0.867501)/(17 - 1)	
0.101182				
1.19996	(10/25/2005)	-0.867501 J (7/20/1995)	(1.19996 - -0.867501)/(18 - 1)	
0.121616				
1.37877	(4/29/2006)	-0.867501 J (7/20/1995)	(1.37877 - -0.867501)/(19 - 1)	
0.124793				
1.075	(11/18/2006)	-0.867501 J (7/20/1995)	(1.075 - -0.867501)/(20 - 1)	
0.102237				
ND<0	(5/23/2007)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(21 - 1)	
0.043375				
1.32972	(11/28/2007)	-0.867501 J (7/20/1995)	(1.32972 - -0.867501)/(22 - 1)	
0.10463				
1.25562	(6/5/2008)	-0.867501 J (7/20/1995)	(1.25562 - -0.867501)/(23 - 1)	
0.0965053				
ND<0	(11/20/2008)	-0.867501 J (7/20/1995)	(0 - -0.867501)/(24 - 1)	
0.0377174				
0.788457	(6/11/2009)	-0.867501 J (7/20/1995)	(0.788457 - -0.867501)/(25 - 1)	
0.0689982				
1.02962	(11/16/2009)	-0.867501 J (7/20/1995)	(1.02962 - -0.867501)/(26 - 1)	
0.0758848				
0.530628	(6/30/2010)	-0.867501 J (7/20/1995)	(0.530628 - -0.867501)/(27 - 1)	
0.0537742				

1.09861 (11/12/2010) -0.867501 J (7/20/1995) (1.09861 - -0.867501)/(28 - 1)
0.072819
ND<-2.73337 U (11/12/2010) -0.867501 J (7/20/1995) (-2.73337 - -0.867501)/(28 - 1)
-0.0691062
1.30833 (7/5/2011) -0.867501 J (7/20/1995) (1.30833 - -0.867501)/(29 - 1)
0.0777083
1.19392 (11/22/2011) -0.867501 J (7/20/1995) (1.19392 - -0.867501)/(30 - 1)
0.0710836
1.19392 (11/22/2011) -0.867501 J (7/20/1995) (1.19392 - -0.867501)/(30 - 1)
0.0710836

1.60944 (9/28/1995) 1.1314 (8/24/1995) (1.60944 - 1.1314)/(3 - 2)
0.478036
1.09861 (10/26/1995) 1.1314 (8/24/1995) (1.09861 - 1.1314)/(4 - 2)
-0.0163949
ND<0 (11/19/1996) 1.1314 (8/24/1995) (0 - 1.1314)/(5 - 2)
-0.377134
ND<0 (12/19/1996) 1.1314 (8/24/1995) (0 - 1.1314)/(6 - 2)
-0.282851
1.79176 (3/24/1997) 1.1314 (8/24/1995) (1.79176 - 1.1314)/(7 - 2)
0.132071
2.04122 (9/24/1997) 1.1314 (8/24/1995) (2.04122 - 1.1314)/(8 - 2)
0.151636
ND<0 (4/7/1998) 1.1314 (8/24/1995) (0 - 1.1314)/(9 - 2)
-0.161629
1.72277 (9/23/1998) 1.1314 (8/24/1995) (1.72277 - 1.1314)/(10 - 2)
0.0739206
2.20827 (3/16/1999) 1.1314 (8/24/1995) (2.20827 - 1.1314)/(11 - 2)
0.119652
1.72277 (9/23/1999) 1.1314 (8/24/1995) (1.72277 - 1.1314)/(12 - 2)
0.0591364
ND<0 (3/15/2000) 1.1314 (8/24/1995) (0 - 1.1314)/(13 - 2)
-0.102855
ND<0 (9/24/2003) 1.1314 (8/24/1995) (0 - 1.1314)/(14 - 2)
-0.0942835
ND<0 (3/11/2004) 1.1314 (8/24/1995) (0 - 1.1314)/(15 - 2)
-0.0870309
ND<0 (10/12/2004) 1.1314 (8/24/1995) (0 - 1.1314)/(16 - 2)
-0.0808144
0.751416 (4/1/2005) 1.1314 (8/24/1995) (0.751416 - 1.1314)/(17 - 2)
-0.0253324
1.19996 (10/25/2005) 1.1314 (8/24/1995) (1.19996 - 1.1314)/(18 - 2)
0.00428517
1.37877 (4/29/2006) 1.1314 (8/24/1995) (1.37877 - 1.1314)/(19 - 2)
0.0145508
1.075 (11/18/2006) 1.1314 (8/24/1995) (1.075 - 1.1314)/(20 - 2)
-0.00313332
ND<0 (5/23/2007) 1.1314 (8/24/1995) (0 - 1.1314)/(21 - 2)
-0.0595475
1.32972 (11/28/2007) 1.1314 (8/24/1995) (1.32972 - 1.1314)/(22 - 2)
0.00991609
1.25562 (6/5/2008) 1.1314 (8/24/1995) (1.25562 - 1.1314)/(23 - 2)
0.00591495
ND<0 (11/20/2008) 1.1314 (8/24/1995) (0 - 1.1314)/(24 - 2)
-0.0514274
0.788457 (6/11/2009) 1.1314 (8/24/1995) (0.788457 - 1.1314)/(25 - 2)
-0.0149106
1.02962 (11/16/2009) 1.1314 (8/24/1995) (1.02962 - 1.1314)/(26 - 2)
-0.00424095
0.530628 (6/30/2010) 1.1314 (8/24/1995) (0.530628 - 1.1314)/(27 - 2)
-0.024031

1.09861 (11/12/2010) 1.1314 (8/24/1995) (1.09861 - 1.1314)/(28 - 2)
-0.00126115
ND<-2.73337 U (11/12/2010) 1.1314 (8/24/1995) (-2.73337 - 1.1314)/(28 - 2)
-0.148645
1.30833 (7/5/2011) 1.1314 (8/24/1995) (1.30833 - 1.1314)/(29 - 2)
0.00655299
1.19392 (11/22/2011) 1.1314 (8/24/1995) (1.19392 - 1.1314)/(30 - 2)
0.00223287
1.19392 (11/22/2011) 1.1314 (8/24/1995) (1.19392 - 1.1314)/(30 - 2)
0.00223287

1.09861 (10/26/1995) 1.60944 (9/28/1995) (1.09861 - 1.60944)/(4 - 3)
-0.510826
ND<0 (11/19/1996) 1.60944 (9/28/1995) (0 - 1.60944)/(5 - 3)
-0.804719
ND<0 (12/19/1996) 1.60944 (9/28/1995) (0 - 1.60944)/(6 - 3)
-0.536479
1.79176 (3/24/1997) 1.60944 (9/28/1995) (1.79176 - 1.60944)/(7 - 3)
0.0455804
2.04122 (9/24/1997) 1.60944 (9/28/1995) (2.04122 - 1.60944)/(8 - 3)
0.0863565
ND<0 (4/7/1998) 1.60944 (9/28/1995) (0 - 1.60944)/(9 - 3) -0.26824
1.72277 (9/23/1998) 1.60944 (9/28/1995) (1.72277 - 1.60944)/(10 - 3)
0.0161898
2.20827 (3/16/1999) 1.60944 (9/28/1995) (2.20827 - 1.60944)/(11 - 3)
0.0748546
1.72277 (9/23/1999) 1.60944 (9/28/1995) (1.72277 - 1.60944)/(12 - 3)
0.0125921
ND<0 (3/15/2000) 1.60944 (9/28/1995) (0 - 1.60944)/(13 - 3)
-0.160944
ND<0 (9/24/2003) 1.60944 (9/28/1995) (0 - 1.60944)/(14 - 3)
-0.146313
ND<0 (3/11/2004) 1.60944 (9/28/1995) (0 - 1.60944)/(15 - 3) -0.13412
ND<0 (10/12/2004) 1.60944 (9/28/1995) (0 - 1.60944)/(16 - 3)
-0.123803
0.751416 (4/1/2005) 1.60944 (9/28/1995) (0.751416 - 1.60944)/(17 - 3)
-0.0612873
1.19996 (10/25/2005) 1.60944 (9/28/1995) (1.19996 - 1.60944)/(18 - 3)
-0.0272982
1.37877 (4/29/2006) 1.60944 (9/28/1995) (1.37877 - 1.60944)/(19 - 3)
-0.014417
1.075 (11/18/2006) 1.60944 (9/28/1995) (1.075 - 1.60944)/(20 - 3)
-0.0314374
ND<0 (5/23/2007) 1.60944 (9/28/1995) (0 - 1.60944)/(21 - 3)
-0.0894132
1.32972 (11/28/2007) 1.60944 (9/28/1995) (1.32972 - 1.60944)/(22 - 3)
-0.0147218
1.25562 (6/5/2008) 1.60944 (9/28/1995) (1.25562 - 1.60944)/(23 - 3)
-0.0176911
ND<0 (11/20/2008) 1.60944 (9/28/1995) (0 - 1.60944)/(24 - 3)
-0.0766399
0.788457 (6/11/2009) 1.60944 (9/28/1995) (0.788457 - 1.60944)/(25 - 3)
-0.0373173
1.02962 (11/16/2009) 1.60944 (9/28/1995) (1.02962 - 1.60944)/(26 - 3)
-0.0252095
0.530628 (6/30/2010) 1.60944 (9/28/1995) (0.530628 - 1.60944)/(27 - 3)
-0.0449504
1.09861 (11/12/2010) 1.60944 (9/28/1995) (1.09861 - 1.60944)/(28 - 3)
-0.020433
ND<-2.73337 U (11/12/2010) 1.60944 (9/28/1995) (-2.73337 - 1.60944)/(28 - 3)
-0.173712

1.30833 (7/5/2011)	1.60944 (9/28/1995)	(1.30833 - 1.60944)/(29 - 3)		
-0.011581				
1.19392 (11/22/2011)	1.60944 (9/28/1995)	(1.19392 - 1.60944)/(30 - 3)		
-0.0153895				
1.19392 (11/22/2011)	1.60944 (9/28/1995)	(1.19392 - 1.60944)/(30 - 3)		
-0.0153895				
ND<0 (11/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(5 - 4)	-1.09861	
ND<0 (12/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(6 - 4)		
-0.549306				
1.79176 (3/24/1997)	1.09861 (10/26/1995)	(1.79176 - 1.09861)/(7 - 4)		
0.231049				
2.04122 (9/24/1997)	1.09861 (10/26/1995)	(2.04122 - 1.09861)/(8 - 4)		
0.235652				
ND<0 (4/7/1998)	1.09861 (10/26/1995)	(0 - 1.09861)/(9 - 4)		
-0.219722				
1.72277 (9/23/1998)	1.09861 (10/26/1995)	(1.72277 - 1.09861)/(10 - 4)		
0.104026				
2.20827 (3/16/1999)	1.09861 (10/26/1995)	(2.20827 - 1.09861)/(11 - 4)		
0.158523				
1.72277 (9/23/1999)	1.09861 (10/26/1995)	(1.72277 - 1.09861)/(12 - 4)		
0.0780193				
ND<0 (3/15/2000)	1.09861 (10/26/1995)	(0 - 1.09861)/(13 - 4)		
-0.122068				
ND<0 (9/24/2003)	1.09861 (10/26/1995)	(0 - 1.09861)/(14 - 4)		
-0.109861				
ND<0 (3/11/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(15 - 4)		
-0.0998738				
ND<0 (10/12/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(16 - 4)		
-0.091551				
0.751416 (4/1/2005)	1.09861 (10/26/1995)	(0.751416 - 1.09861)/(17 - 4)		
-0.0267074				
1.19996 (10/25/2005)	1.09861 (10/26/1995)	(1.19996 - 1.09861)/(18 - 4)		
0.00723946				
1.37877 (4/29/2006)	1.09861 (10/26/1995)	(1.37877 - 1.09861)/(19 - 4)		
0.0186769				
1.075 (11/18/2006)	1.09861 (10/26/1995)	(1.075 - 1.09861)/(20 - 4)		
-0.00147562				
ND<0 (5/23/2007)	1.09861 (10/26/1995)	(0 - 1.09861)/(21 - 4)		
-0.0646243				
1.32972 (11/28/2007)	1.09861 (10/26/1995)	(1.32972 - 1.09861)/(22 - 4)		
0.0128395				
1.25562 (6/5/2008)	1.09861 (10/26/1995)	(1.25562 - 1.09861)/(23 - 4)		
0.00826336				
ND<0 (11/20/2008)	1.09861 (10/26/1995)	(0 - 1.09861)/(24 - 4)		
-0.0549306				
0.788457 (6/11/2009)	1.09861 (10/26/1995)	(0.788457 - 1.09861)/(25 - 4)		
-0.0147693				
1.02962 (11/16/2009)	1.09861 (10/26/1995)	(1.02962 - 1.09861)/(26 - 4)		
-0.00313604				
0.530628 (6/30/2010)	1.09861 (10/26/1995)	(0.530628 - 1.09861)/(27 - 4)		
-0.024695				
1.09861 (11/12/2010)	1.09861 (10/26/1995)	(1.09861 - 1.09861)/(28 - 4)		
0				
ND<-2.73337 U (11/12/2010)	1.09861 (10/26/1995)	(-2.73337 - 1.09861)/(28 - 4)		
-0.159666				
1.30833 (7/5/2011)	1.09861 (10/26/1995)	(1.30833 - 1.09861)/(29 - 4)		
0.00838882				
1.19392 (11/22/2011)	1.09861 (10/26/1995)	(1.19392 - 1.09861)/(30 - 4)		
0.00366578				
1.19392 (11/22/2011)	1.09861 (10/26/1995)	(1.19392 - 1.09861)/(30 - 4)		
0.00366578				

ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
1.79176 (3/24/1997)	ND<0 (11/19/1996)	(1.79176 - 0)/(7 - 5)		0.89588
2.04122 (9/24/1997)	ND<0 (11/19/1996)	(2.04122 - 0)/(8 - 5)		
0.680407				
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
1.72277 (9/23/1998)	ND<0 (11/19/1996)	(1.72277 - 0)/(10 - 5)		
0.344553				
2.20827 (3/16/1999)	ND<0 (11/19/1996)	(2.20827 - 0)/(11 - 5)		
0.368046				
1.72277 (9/23/1999)	ND<0 (11/19/1996)	(1.72277 - 0)/(12 - 5)		0.24611
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
0.751416 (4/1/2005)	ND<0 (11/19/1996)	(0.751416 - 0)/(17 - 5)		
0.062618				
1.19996 (10/25/2005)	ND<0 (11/19/1996)	(1.19996 - 0)/(18 - 5)		
0.092305				
1.37877 (4/29/2006)	ND<0 (11/19/1996)	(1.37877 - 0)/(19 - 5)		
0.0984833				
1.075 (11/18/2006)	ND<0 (11/19/1996)	(1.075 - 0)/(20 - 5)		
0.0716668				
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
1.32972 (11/28/2007)	ND<0 (11/19/1996)	(1.32972 - 0)/(22 - 5)		
0.0782191				
1.25562 (6/5/2008)	ND<0 (11/19/1996)	(1.25562 - 0)/(23 - 5)		
0.0697564				
ND<0 (11/20/2008)	ND<0 (11/19/1996)	(0 - 0)/(24 - 5)	0	
0.788457 (6/11/2009)	ND<0 (11/19/1996)	(0.788457 - 0)/(25 - 5)		
0.0394229				
1.02962 (11/16/2009)	ND<0 (11/19/1996)	(1.02962 - 0)/(26 - 5)		
0.0490295				
0.530628 (6/30/2010)	ND<0 (11/19/1996)	(0.530628 - 0)/(27 - 5)		
0.0241195				
1.09861 (11/12/2010)	ND<0 (11/19/1996)	(1.09861 - 0)/(28 - 5)		
0.0477658				
ND<-2.73337 U (11/12/2010)	ND<0 (11/19/1996)	(-2.73337 - 0)/(28 - 5)		
-0.118842				
1.30833 (7/5/2011)	ND<0 (11/19/1996)	(1.30833 - 0)/(29 - 5)		
0.0545139				
1.19392 (11/22/2011)	ND<0 (11/19/1996)	(1.19392 - 0)/(30 - 5)		
0.0477569				
1.19392 (11/22/2011)	ND<0 (11/19/1996)	(1.19392 - 0)/(30 - 5)		
0.0477569				
1.79176 (3/24/1997)	ND<0 (12/19/1996)	(1.79176 - 0)/(7 - 6)		1.79176
2.04122 (9/24/1997)	ND<0 (12/19/1996)	(2.04122 - 0)/(8 - 6)		1.02061
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
1.72277 (9/23/1998)	ND<0 (12/19/1996)	(1.72277 - 0)/(10 - 6)		
0.430692				
2.20827 (3/16/1999)	ND<0 (12/19/1996)	(2.20827 - 0)/(11 - 6)		
0.441655				
1.72277 (9/23/1999)	ND<0 (12/19/1996)	(1.72277 - 0)/(12 - 6)		
0.287128				
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
0.751416 (4/1/2005)	ND<0 (12/19/1996)	(0.751416 - 0)/(17 - 6)		
0.0683106				

1.19996	(10/25/2005)	ND<0	(12/19/1996)	(1.19996 - 0)/(18 - 6)	
0.0999971					
1.37877	(4/29/2006)	ND<0	(12/19/1996)	(1.37877 - 0)/(19 - 6)	
0.106059					
1.075	(11/18/2006)	ND<0	(12/19/1996)	(1.075 - 0)/(20 - 6)	
0.0767859					
ND<0	(5/23/2007)	ND<0	(12/19/1996)	(0 - 0)/(21 - 6)	0
1.32972	(11/28/2007)	ND<0	(12/19/1996)	(1.32972 - 0)/(22 - 6)	
0.0831078					
1.25562	(6/5/2008)	ND<0	(12/19/1996)	(1.25562 - 0)/(23 - 6)	
0.0738598					
ND<0	(11/20/2008)	ND<0	(12/19/1996)	(0 - 0)/(24 - 6)	0
0.788457	(6/11/2009)	ND<0	(12/19/1996)	(0.788457 - 0)/(25 - 6)	
0.0414978					
1.02962	(11/16/2009)	ND<0	(12/19/1996)	(1.02962 - 0)/(26 - 6)	
0.051481					
0.530628	(6/30/2010)	ND<0	(12/19/1996)	(0.530628 - 0)/(27 - 6)	
0.025268					
1.09861	(11/12/2010)	ND<0	(12/19/1996)	(1.09861 - 0)/(28 - 6)	
0.0499369					
ND<-2.73337 U	(11/12/2010)	ND<0	(12/19/1996)	(-2.73337 - 0)/(28 - 6)	
-0.124244					
1.30833	(7/5/2011)	ND<0	(12/19/1996)	(1.30833 - 0)/(29 - 6)	
0.056884					
1.19392	(11/22/2011)	ND<0	(12/19/1996)	(1.19392 - 0)/(30 - 6)	
0.0497468					
1.19392	(11/22/2011)	ND<0	(12/19/1996)	(1.19392 - 0)/(30 - 6)	
0.0497468					

2.04122	(9/24/1997)	1.79176	(3/24/1997)	(2.04122 - 1.79176)/(8 - 7)	
0.249461					
ND<0	(4/7/1998)	1.79176	(3/24/1997)	(0 - 1.79176)/(9 - 7)	-0.89588
1.72277	(9/23/1998)	1.79176	(3/24/1997)	(1.72277 - 1.79176)/(10 - 7)	
-0.0229976					
2.20827	(3/16/1999)	1.79176	(3/24/1997)	(2.20827 - 1.79176)/(11 - 7)	
0.104129					
1.72277	(9/23/1999)	1.79176	(3/24/1997)	(1.72277 - 1.79176)/(12 - 7)	
-0.0137986					
ND<0	(3/15/2000)	1.79176	(3/24/1997)	(0 - 1.79176)/(13 - 7)	
-0.298627					
ND<0	(9/24/2003)	1.79176	(3/24/1997)	(0 - 1.79176)/(14 - 7)	
-0.255966					
ND<0	(3/11/2004)	1.79176	(3/24/1997)	(0 - 1.79176)/(15 - 7)	-0.22397
ND<0	(10/12/2004)	1.79176	(3/24/1997)	(0 - 1.79176)/(16 - 7)	
-0.199084					
0.751416	(4/1/2005)	1.79176	(3/24/1997)	(0.751416 - 1.79176)/(17 - 7)	
-0.104034					
1.19996	(10/25/2005)	1.79176	(3/24/1997)	(1.19996 - 1.79176)/(18 - 7)	
-0.0537995					
1.37877	(4/29/2006)	1.79176	(3/24/1997)	(1.37877 - 1.79176)/(19 - 7)	
-0.0344161					
1.075	(11/18/2006)	1.79176	(3/24/1997)	(1.075 - 1.79176)/(20 - 7)	
-0.0551352					
ND<0	(5/23/2007)	1.79176	(3/24/1997)	(0 - 1.79176)/(21 - 7)	
-0.127983					
1.32972	(11/28/2007)	1.79176	(3/24/1997)	(1.32972 - 1.79176)/(22 - 7)	
-0.0308024					
1.25562	(6/5/2008)	1.79176	(3/24/1997)	(1.25562 - 1.79176)/(23 - 7)	
-0.033509					
ND<0	(11/20/2008)	1.79176	(3/24/1997)	(0 - 1.79176)/(24 - 7)	
-0.105398					

0.788457 (6/11/2009)	1.79176 (3/24/1997)	(0.788457 - 1.79176)/(25 - 7)	
-0.055739			
1.02962 (11/16/2009)	1.79176 (3/24/1997)	(1.02962 - 1.79176)/(26 - 7)	
-0.0401126			
0.530628 (6/30/2010)	1.79176 (3/24/1997)	(0.530628 - 1.79176)/(27 - 7)	
-0.0630566			
1.09861 (11/12/2010)	1.79176 (3/24/1997)	(1.09861 - 1.79176)/(28 - 7)	
-0.033007			
ND<-2.73337 U (11/12/2010)	1.79176 (3/24/1997)	(-2.73337 - 1.79176)/(28 - 7)	
-0.215482			
1.30833 (7/5/2011)	1.79176 (3/24/1997)	(1.30833 - 1.79176)/(29 - 7)	
-0.0219739			
1.19392 (11/22/2011)	1.79176 (3/24/1997)	(1.19392 - 1.79176)/(30 - 7)	
-0.0259929			
1.19392 (11/22/2011)	1.79176 (3/24/1997)	(1.19392 - 1.79176)/(30 - 7)	
-0.0259929			
ND<0 (4/7/1998)	2.04122 (9/24/1997)	(0 - 2.04122)/(9 - 8)	-2.04122
1.72277 (9/23/1998)	2.04122 (9/24/1997)	(1.72277 - 2.04122)/(10 - 8)	
-0.159227			
2.20827 (3/16/1999)	2.04122 (9/24/1997)	(2.20827 - 2.04122)/(11 - 8)	
0.0556847			
1.72277 (9/23/1999)	2.04122 (9/24/1997)	(1.72277 - 2.04122)/(12 - 8)	
-0.0796134			
ND<0 (3/15/2000)	2.04122 (9/24/1997)	(0 - 2.04122)/(13 - 8)	
-0.408244			
ND<0 (9/24/2003)	2.04122 (9/24/1997)	(0 - 2.04122)/(14 - 8)	
-0.340203			
ND<0 (3/11/2004)	2.04122 (9/24/1997)	(0 - 2.04122)/(15 - 8)	
-0.291603			
ND<0 (10/12/2004)	2.04122 (9/24/1997)	(0 - 2.04122)/(16 - 8)	
-0.255153			
0.751416 (4/1/2005)	2.04122 (9/24/1997)	(0.751416 - 2.04122)/(17 - 8)	
-0.143312			
1.19996 (10/25/2005)	2.04122 (9/24/1997)	(1.19996 - 2.04122)/(18 - 8)	
-0.0841256			
1.37877 (4/29/2006)	2.04122 (9/24/1997)	(1.37877 - 2.04122)/(19 - 8)	
-0.0602231			
1.075 (11/18/2006)	2.04122 (9/24/1997)	(1.075 - 2.04122)/(20 - 8)	
-0.0805182			
ND<0 (5/23/2007)	2.04122 (9/24/1997)	(0 - 2.04122)/(21 - 8)	
-0.157017			
1.32972 (11/28/2007)	2.04122 (9/24/1997)	(1.32972 - 2.04122)/(22 - 8)	
-0.0508212			
1.25562 (6/5/2008)	2.04122 (9/24/1997)	(1.25562 - 2.04122)/(23 - 8)	
-0.0523736			
ND<0 (11/20/2008)	2.04122 (9/24/1997)	(0 - 2.04122)/(24 - 8)	
-0.127576			
0.788457 (6/11/2009)	2.04122 (9/24/1997)	(0.788457 - 2.04122)/(25 - 8)	
-0.0736919			
1.02962 (11/16/2009)	2.04122 (9/24/1997)	(1.02962 - 2.04122)/(26 - 8)	
-0.0562001			
0.530628 (6/30/2010)	2.04122 (9/24/1997)	(0.530628 - 2.04122)/(27 - 8)	
-0.0795048			
1.09861 (11/12/2010)	2.04122 (9/24/1997)	(1.09861 - 2.04122)/(28 - 8)	
-0.0471304			
ND<-2.73337 U (11/12/2010)	2.04122 (9/24/1997)	(-2.73337 - 2.04122)/(28 - 8)	
-0.238729			
1.30833 (7/5/2011)	2.04122 (9/24/1997)	(1.30833 - 2.04122)/(29 - 8)	
-0.0348994			
1.19392 (11/22/2011)	2.04122 (9/24/1997)	(1.19392 - 2.04122)/(30 - 8)	
-0.0385135			

1.19392 (11/22/2011)	2.04122 (9/24/1997)	(1.19392 - 2.04122)/(30 - 8)		
-0.0385135				
1.72277 (9/23/1998)	ND<0 (4/7/1998)	(1.72277 - 0)/(10 - 9)		1.72277
2.20827 (3/16/1999)	ND<0 (4/7/1998)	(2.20827 - 0)/(11 - 9)		1.10414
1.72277 (9/23/1999)	ND<0 (4/7/1998)	(1.72277 - 0)/(12 - 9)		
0.574256				
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0	
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
0.751416 (4/1/2005)	ND<0 (4/7/1998)	(0.751416 - 0)/(17 - 9)		
0.093927				
1.19996 (10/25/2005)	ND<0 (4/7/1998)	(1.19996 - 0)/(18 - 9)		
0.133329				
1.37877 (4/29/2006)	ND<0 (4/7/1998)	(1.37877 - 0)/(19 - 9)		
0.137877				
1.075 (11/18/2006)	ND<0 (4/7/1998)	(1.075 - 0)/(20 - 9)		
0.0977275				
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0	
1.32972 (11/28/2007)	ND<0 (4/7/1998)	(1.32972 - 0)/(22 - 9)		
0.102286				
1.25562 (6/5/2008)	ND<0 (4/7/1998)	(1.25562 - 0)/(23 - 9)		
0.0896869				
ND<0 (11/20/2008)	ND<0 (4/7/1998)	(0 - 0)/(24 - 9)	0	
0.788457 (6/11/2009)	ND<0 (4/7/1998)	(0.788457 - 0)/(25 - 9)		
0.0492786				
1.02962 (11/16/2009)	ND<0 (4/7/1998)	(1.02962 - 0)/(26 - 9)		
0.0605658				
0.530628 (6/30/2010)	ND<0 (4/7/1998)	(0.530628 - 0)/(27 - 9)		
0.0294793				
1.09861 (11/12/2010)	ND<0 (4/7/1998)	(1.09861 - 0)/(28 - 9)		
0.0578217				
ND<-2.73337 U (11/12/2010)	ND<0 (4/7/1998)	(-2.73337 - 0)/(28 - 9)		
-0.143861				
1.30833 (7/5/2011)	ND<0 (4/7/1998)	(1.30833 - 0)/(29 - 9)		
0.0654166				
1.19392 (11/22/2011)	ND<0 (4/7/1998)	(1.19392 - 0)/(30 - 9)		
0.0568535				
1.19392 (11/22/2011)	ND<0 (4/7/1998)	(1.19392 - 0)/(30 - 9)		
0.0568535				
2.20827 (3/16/1999)	1.72277 (9/23/1998)	(2.20827 - 1.72277)/(11 - 10)		
0.485508				
1.72277 (9/23/1999)	1.72277 (9/23/1998)	(1.72277 - 1.72277)/(12 - 10)		
0				
ND<0 (3/15/2000)	1.72277 (9/23/1998)	(0 - 1.72277)/(13 - 10)		
-0.574256				
ND<0 (9/24/2003)	1.72277 (9/23/1998)	(0 - 1.72277)/(14 - 10)		
-0.430692				
ND<0 (3/11/2004)	1.72277 (9/23/1998)	(0 - 1.72277)/(15 - 10)		
-0.344553				
ND<0 (10/12/2004)	1.72277 (9/23/1998)	(0 - 1.72277)/(16 - 10)		
-0.287128				
0.751416 (4/1/2005)	1.72277 (9/23/1998)	(0.751416 - 1.72277)/(17 - 10)		
-0.138764				
1.19996 (10/25/2005)	1.72277 (9/23/1998)	(1.19996 - 1.72277)/(18 - 10)		
-0.0653502				
1.37877 (4/29/2006)	1.72277 (9/23/1998)	(1.37877 - 1.72277)/(19 - 10)		
-0.0382223				
1.075 (11/18/2006)	1.72277 (9/23/1998)	(1.075 - 1.72277)/(20 - 10)		
-0.0647764				

ND<0 (5/23/2007) 1.72277 (9/23/1998) (0 - 1.72277)/(21 - 10)
-0.156615
1.32972 (11/28/2007) 1.72277 (9/23/1998) (1.32972 - 1.72277)/(22 - 10)
-0.0327535
1.25562 (6/5/2008) 1.72277 (9/23/1998) (1.25562 - 1.72277)/(23 - 10)
-0.0359347
ND<0 (11/20/2008) 1.72277 (9/23/1998) (0 - 1.72277)/(24 - 10)
-0.123055
0.788457 (6/11/2009) 1.72277 (9/23/1998) (0.788457 - 1.72277)/(25 - 10)
-0.0622873
1.02962 (11/16/2009) 1.72277 (9/23/1998) (1.02962 - 1.72277)/(26 - 10)
-0.0433217
0.530628 (6/30/2010) 1.72277 (9/23/1998) (0.530628 - 1.72277)/(27 - 10)
-0.0701258
1.09861 (11/12/2010) 1.72277 (9/23/1998) (1.09861 - 1.72277)/(28 - 10)
-0.0346752
ND<-2.73337 U (11/12/2010) 1.72277 (9/23/1998) (-2.73337 - 1.72277)/(28 - 10)
-0.247563
1.30833 (7/5/2011) 1.72277 (9/23/1998) (1.30833 - 1.72277)/(29 - 10)
-0.0218123
1.19392 (11/22/2011) 1.72277 (9/23/1998) (1.19392 - 1.72277)/(30 - 10)
-0.0264422
1.19392 (11/22/2011) 1.72277 (9/23/1998) (1.19392 - 1.72277)/(30 - 10)
-0.0264422

1.72277 (9/23/1999) 2.20827 (3/16/1999) (1.72277 - 2.20827)/(12 - 11)
-0.485508
ND<0 (3/15/2000) 2.20827 (3/16/1999) (0 - 2.20827)/(13 - 11) -1.10414
ND<0 (9/24/2003) 2.20827 (3/16/1999) (0 - 2.20827)/(14 - 11)
-0.736091
ND<0 (3/11/2004) 2.20827 (3/16/1999) (0 - 2.20827)/(15 - 11)
-0.552069
ND<0 (10/12/2004) 2.20827 (3/16/1999) (0 - 2.20827)/(16 - 11)
-0.441655
0.751416 (4/1/2005) 2.20827 (3/16/1999) (0.751416 - 2.20827)/(17 - 11)
-0.24281
1.19996 (10/25/2005) 2.20827 (3/16/1999) (1.19996 - 2.20827)/(18 - 11)
-0.144044
1.37877 (4/29/2006) 2.20827 (3/16/1999) (1.37877 - 2.20827)/(19 - 11)
-0.103689
1.075 (11/18/2006) 2.20827 (3/16/1999) (1.075 - 2.20827)/(20 - 11)
-0.125919
ND<0 (5/23/2007) 2.20827 (3/16/1999) (0 - 2.20827)/(21 - 11)
-0.220827
1.32972 (11/28/2007) 2.20827 (3/16/1999) (1.32972 - 2.20827)/(22 - 11)
-0.0798682
1.25562 (6/5/2008) 2.20827 (3/16/1999) (1.25562 - 2.20827)/(23 - 11)
-0.0793882
ND<0 (11/20/2008) 2.20827 (3/16/1999) (0 - 2.20827)/(24 - 11)
-0.169867
0.788457 (6/11/2009) 2.20827 (3/16/1999) (0.788457 - 2.20827)/(25 - 11)
-0.101416
1.02962 (11/16/2009) 2.20827 (3/16/1999) (1.02962 - 2.20827)/(26 - 11)
-0.078577
0.530628 (6/30/2010) 2.20827 (3/16/1999) (0.530628 - 2.20827)/(27 - 11)
-0.104853
1.09861 (11/12/2010) 2.20827 (3/16/1999) (1.09861 - 2.20827)/(28 - 11)
-0.0652742
ND<-2.73337 U (11/12/2010) 2.20827 (3/16/1999) (-2.73337 - 2.20827)/(28 - 11)
-0.290685
1.30833 (7/5/2011) 2.20827 (3/16/1999) (1.30833 - 2.20827)/(29 - 11)
-0.0499968

1.19392 (11/22/2011)	2.20827 (3/16/1999)	(1.19392 - 2.20827)/(30 - 11)		
-0.0533869				
1.19392 (11/22/2011)	2.20827 (3/16/1999)	(1.19392 - 2.20827)/(30 - 11)		
-0.0533869				
ND<0 (3/15/2000)	1.72277 (9/23/1999)	(0 - 1.72277)/(13 - 12)		-1.72277
ND<0 (9/24/2003)	1.72277 (9/23/1999)	(0 - 1.72277)/(14 - 12)		
-0.861383				
ND<0 (3/11/2004)	1.72277 (9/23/1999)	(0 - 1.72277)/(15 - 12)		
-0.574256				
ND<0 (10/12/2004)	1.72277 (9/23/1999)	(0 - 1.72277)/(16 - 12)		
-0.430692				
0.751416 (4/1/2005)	1.72277 (9/23/1999)	(0.751416 - 1.72277)/(17 - 12)		
-0.19427				
1.19996 (10/25/2005)	1.72277 (9/23/1999)	(1.19996 - 1.72277)/(18 - 12)		
-0.0871336				
1.37877 (4/29/2006)	1.72277 (9/23/1999)	(1.37877 - 1.72277)/(19 - 12)		
-0.0491429				
1.075 (11/18/2006)	1.72277 (9/23/1999)	(1.075 - 1.72277)/(20 - 12)		
-0.0809705				
ND<0 (5/23/2007)	1.72277 (9/23/1999)	(0 - 1.72277)/(21 - 12)		
-0.191419				
1.32972 (11/28/2007)	1.72277 (9/23/1999)	(1.32972 - 1.72277)/(22 - 12)		
-0.0393043				
1.25562 (6/5/2008)	1.72277 (9/23/1999)	(1.25562 - 1.72277)/(23 - 12)		
-0.0424682				
ND<0 (11/20/2008)	1.72277 (9/23/1999)	(0 - 1.72277)/(24 - 12)		
-0.143564				
0.788457 (6/11/2009)	1.72277 (9/23/1999)	(0.788457 - 1.72277)/(25 - 12)		
-0.0718699				
1.02962 (11/16/2009)	1.72277 (9/23/1999)	(1.02962 - 1.72277)/(26 - 12)		
-0.0495105				
0.530628 (6/30/2010)	1.72277 (9/23/1999)	(0.530628 - 1.72277)/(27 - 12)		
-0.0794759				
1.09861 (11/12/2010)	1.72277 (9/23/1999)	(1.09861 - 1.72277)/(28 - 12)		
-0.0390096				
ND<-2.73337 U (11/12/2010)	1.72277 (9/23/1999)	(-2.73337 - 1.72277)/(28 - 12)		
-0.278508				
1.30833 (7/5/2011)	1.72277 (9/23/1999)	(1.30833 - 1.72277)/(29 - 12)		
-0.0243785				
1.19392 (11/22/2011)	1.72277 (9/23/1999)	(1.19392 - 1.72277)/(30 - 12)		
-0.0293802				
1.19392 (11/22/2011)	1.72277 (9/23/1999)	(1.19392 - 1.72277)/(30 - 12)		
-0.0293802				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
0.751416 (4/1/2005)	ND<0 (3/15/2000)	(0.751416 - 0)/(17 - 13)		
0.187854				
1.19996 (10/25/2005)	ND<0 (3/15/2000)	(1.19996 - 0)/(18 - 13)		
0.239993				
1.37877 (4/29/2006)	ND<0 (3/15/2000)	(1.37877 - 0)/(19 - 13)		
0.229794				
1.075 (11/18/2006)	ND<0 (3/15/2000)	(1.075 - 0)/(20 - 13)		
0.153572				
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
1.32972 (11/28/2007)	ND<0 (3/15/2000)	(1.32972 - 0)/(22 - 13)		
0.147747				
1.25562 (6/5/2008)	ND<0 (3/15/2000)	(1.25562 - 0)/(23 - 13)		
0.125562				
ND<0 (11/20/2008)	ND<0 (3/15/2000)	(0 - 0)/(24 - 13)	0	

0.788457	(6/11/2009)	ND<0	(3/15/2000)	(0.788457 - 0)/(25 - 13)	
0.0657048					
1.02962	(11/16/2009)	ND<0	(3/15/2000)	(1.02962 - 0)/(26 - 13)	
0.0792015					
0.530628	(6/30/2010)	ND<0	(3/15/2000)	(0.530628 - 0)/(27 - 13)	
0.037902					
1.09861	(11/12/2010)	ND<0	(3/15/2000)	(1.09861 - 0)/(28 - 13)	
0.0732408					
ND<-2.73337 U	(11/12/2010)	ND<0	(3/15/2000)	(-2.73337 - 0)/(28 - 13)	
-0.182225					
1.30833	(7/5/2011)	ND<0	(3/15/2000)	(1.30833 - 0)/(29 - 13)	
0.0817708					
1.19392	(11/22/2011)	ND<0	(3/15/2000)	(1.19392 - 0)/(30 - 13)	
0.0702307					
1.19392	(11/22/2011)	ND<0	(3/15/2000)	(1.19392 - 0)/(30 - 13)	
0.0702307					
ND<0	(3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0	(10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0
0.751416	(4/1/2005)	ND<0	(9/24/2003)	(0.751416 - 0)/(17 - 14)	
0.250472					
1.19996	(10/25/2005)	ND<0	(9/24/2003)	(1.19996 - 0)/(18 - 14)	
0.299991					
1.37877	(4/29/2006)	ND<0	(9/24/2003)	(1.37877 - 0)/(19 - 14)	
0.275753					
1.075	(11/18/2006)	ND<0	(9/24/2003)	(1.075 - 0)/(20 - 14)	
0.179167					
ND<0	(5/23/2007)	ND<0	(9/24/2003)	(0 - 0)/(21 - 14)	0
1.32972	(11/28/2007)	ND<0	(9/24/2003)	(1.32972 - 0)/(22 - 14)	
0.166216					
1.25562	(6/5/2008)	ND<0	(9/24/2003)	(1.25562 - 0)/(23 - 14)	
0.139513					
ND<0	(11/20/2008)	ND<0	(9/24/2003)	(0 - 0)/(24 - 14)	0
0.788457	(6/11/2009)	ND<0	(9/24/2003)	(0.788457 - 0)/(25 - 14)	
0.0716779					
1.02962	(11/16/2009)	ND<0	(9/24/2003)	(1.02962 - 0)/(26 - 14)	
0.0858016					
0.530628	(6/30/2010)	ND<0	(9/24/2003)	(0.530628 - 0)/(27 - 14)	
0.0408176					
1.09861	(11/12/2010)	ND<0	(9/24/2003)	(1.09861 - 0)/(28 - 14)	
0.0784723					
ND<-2.73337 U	(11/12/2010)	ND<0	(9/24/2003)	(-2.73337 - 0)/(28 - 14)	
-0.195241					
1.30833	(7/5/2011)	ND<0	(9/24/2003)	(1.30833 - 0)/(29 - 14)	
0.0872222					
1.19392	(11/22/2011)	ND<0	(9/24/2003)	(1.19392 - 0)/(30 - 14)	
0.0746202					
1.19392	(11/22/2011)	ND<0	(9/24/2003)	(1.19392 - 0)/(30 - 14)	
0.0746202					
ND<0	(10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(16 - 15)	0
0.751416	(4/1/2005)	ND<0	(3/11/2004)	(0.751416 - 0)/(17 - 15)	
0.375708					
1.19996	(10/25/2005)	ND<0	(3/11/2004)	(1.19996 - 0)/(18 - 15)	
0.399988					
1.37877	(4/29/2006)	ND<0	(3/11/2004)	(1.37877 - 0)/(19 - 15)	
0.344692					
1.075	(11/18/2006)	ND<0	(3/11/2004)	(1.075 - 0)/(20 - 15)	0.215
ND<0	(5/23/2007)	ND<0	(3/11/2004)	(0 - 0)/(21 - 15)	0
1.32972	(11/28/2007)	ND<0	(3/11/2004)	(1.32972 - 0)/(22 - 15)	
0.189961					

1.25562 (6/5/2008) ND<0 (3/11/2004) (1.25562 - 0)/(23 - 15)
0.156952
ND<0 (11/20/2008) ND<0 (3/11/2004) (0 - 0)/(24 - 15) 0
0.788457 (6/11/2009) ND<0 (3/11/2004) (0.788457 - 0)/(25 - 15)
0.0788457
1.02962 (11/16/2009) ND<0 (3/11/2004) (1.02962 - 0)/(26 - 15)
0.0936018
0.530628 (6/30/2010) ND<0 (3/11/2004) (0.530628 - 0)/(27 - 15)
0.044219
1.09861 (11/12/2010) ND<0 (3/11/2004) (1.09861 - 0)/(28 - 15)
0.0845086
ND<-2.73337 U (11/12/2010) ND<0 (3/11/2004) (-2.73337 - 0)/(28 - 15)
-0.210259
1.30833 (7/5/2011) ND<0 (3/11/2004) (1.30833 - 0)/(29 - 15)
0.0934523
1.19392 (11/22/2011) ND<0 (3/11/2004) (1.19392 - 0)/(30 - 15)
0.0795948
1.19392 (11/22/2011) ND<0 (3/11/2004) (1.19392 - 0)/(30 - 15)
0.0795948

0.751416 (4/1/2005) ND<0 (10/12/2004) (0.751416 - 0)/(17 - 16)
0.751416
1.19996 (10/25/2005) ND<0 (10/12/2004) (1.19996 - 0)/(18 - 16)
0.599982
1.37877 (4/29/2006) ND<0 (10/12/2004) (1.37877 - 0)/(19 - 16)
0.459589
1.075 (11/18/2006) ND<0 (10/12/2004) (1.075 - 0)/(20 - 16)
0.268751
ND<0 (5/23/2007) ND<0 (10/12/2004) (0 - 0)/(21 - 16) 0
1.32972 (11/28/2007) ND<0 (10/12/2004) (1.32972 - 0)/(22 - 16)
0.221621
1.25562 (6/5/2008) ND<0 (10/12/2004) (1.25562 - 0)/(23 - 16)
0.179374
ND<0 (11/20/2008) ND<0 (10/12/2004) (0 - 0)/(24 - 16) 0
0.788457 (6/11/2009) ND<0 (10/12/2004) (0.788457 - 0)/(25 - 16)
0.0876064
1.02962 (11/16/2009) ND<0 (10/12/2004) (1.02962 - 0)/(26 - 16)
0.102962
0.530628 (6/30/2010) ND<0 (10/12/2004) (0.530628 - 0)/(27 - 16)
0.0482389
1.09861 (11/12/2010) ND<0 (10/12/2004) (1.09861 - 0)/(28 - 16)
0.091551
ND<-2.73337 U (11/12/2010) ND<0 (10/12/2004) (-2.73337 - 0)/(28 - 16)
-0.227781
1.30833 (7/5/2011) ND<0 (10/12/2004) (1.30833 - 0)/(29 - 16)
0.100641
1.19392 (11/22/2011) ND<0 (10/12/2004) (1.19392 - 0)/(30 - 16)
0.0852802
1.19392 (11/22/2011) ND<0 (10/12/2004) (1.19392 - 0)/(30 - 16)
0.0852802

1.19996 (10/25/2005) 0.751416 (4/1/2005) (1.19996 - 0.751416)/(18 - 17)
0.448549
1.37877 (4/29/2006) 0.751416 (4/1/2005) (1.37877 - 0.751416)/(19 - 17)
0.313675
1.075 (11/18/2006) 0.751416 (4/1/2005) (1.075 - 0.751416)/(20 - 17)
0.107862
ND<0 (5/23/2007) 0.751416 (4/1/2005) (0 - 0.751416)/(21 - 17)
-0.187854
1.32972 (11/28/2007) 0.751416 (4/1/2005) (1.32972 - 0.751416)/(22 - 17)
0.115662

1.25562 (6/5/2008) 0.751416 (4/1/2005) (1.25562 - 0.751416)/(23 - 17)
0.0840333
ND<0 (11/20/2008) 0.751416 (4/1/2005) (0 - 0.751416)/(24 - 17)
-0.107345
0.788457 (6/11/2009) 0.751416 (4/1/2005) (0.788457 - 0.751416)/(25 - 17)
0.00463016
1.02962 (11/16/2009) 0.751416 (4/1/2005) (1.02962 - 0.751416)/(26 - 17)
0.0309115
0.530628 (6/30/2010) 0.751416 (4/1/2005) (0.530628 - 0.751416)/(27 - 17)
-0.0220788
1.09861 (11/12/2010) 0.751416 (4/1/2005) (1.09861 - 0.751416)/(28 - 17)
0.0315633
ND<-2.73337 U (11/12/2010) 0.751416 (4/1/2005) (-2.73337 - 0.751416)/(28 - 17)
-0.316799
1.30833 (7/5/2011) 0.751416 (4/1/2005) (1.30833 - 0.751416)/(29 - 17)
0.0464097
1.19392 (11/22/2011) 0.751416 (4/1/2005) (1.19392 - 0.751416)/(30 - 17)
0.034039
1.19392 (11/22/2011) 0.751416 (4/1/2005) (1.19392 - 0.751416)/(30 - 17)
0.034039

1.37877 (4/29/2006) 1.19996 (10/25/2005) (1.37877 - 1.19996)/(19 - 18)
0.178801
1.075 (11/18/2006) 1.19996 (10/25/2005) (1.075 - 1.19996)/(20 - 18)
-0.0624812
ND<0 (5/23/2007) 1.19996 (10/25/2005) (0 - 1.19996)/(21 - 18)
-0.399988
1.32972 (11/28/2007) 1.19996 (10/25/2005) (1.32972 - 1.19996)/(22 - 18)
0.0324398
1.25562 (6/5/2008) 1.19996 (10/25/2005) (1.25562 - 1.19996)/(23 - 18)
0.0111303
ND<0 (11/20/2008) 1.19996 (10/25/2005) (0 - 1.19996)/(24 - 18)
-0.199994
0.788457 (6/11/2009) 1.19996 (10/25/2005) (0.788457 - 1.19996)/(25 - 18)
-0.0587868
1.02962 (11/16/2009) 1.19996 (10/25/2005) (1.02962 - 1.19996)/(26 - 18)
-0.0212932
0.530628 (6/30/2010) 1.19996 (10/25/2005) (0.530628 - 1.19996)/(27 - 18)
-0.0743707
1.09861 (11/12/2010) 1.19996 (10/25/2005) (1.09861 - 1.19996)/(28 - 18)
-0.0101352
ND<-2.73337 U (11/12/2010) 1.19996 (10/25/2005) (-2.73337 - 1.19996)/(28 - 18)
-0.393333
1.30833 (7/5/2011) 1.19996 (10/25/2005) (1.30833 - 1.19996)/(29 - 18)
0.00985164
1.19392 (11/22/2011) 1.19996 (10/25/2005) (1.19392 - 1.19996)/(30 - 18)
-0.000503526
1.19392 (11/22/2011) 1.19996 (10/25/2005) (1.19392 - 1.19996)/(30 - 18)
-0.000503526

1.075 (11/18/2006) 1.37877 (4/29/2006) (1.075 - 1.37877)/(20 - 19)
-0.303764
ND<0 (5/23/2007) 1.37877 (4/29/2006) (0 - 1.37877)/(21 - 19)
-0.689383
1.32972 (11/28/2007) 1.37877 (4/29/2006) (1.32972 - 1.37877)/(22 - 19)
-0.0163474
1.25562 (6/5/2008) 1.37877 (4/29/2006) (1.25562 - 1.37877)/(23 - 19)
-0.0307875
ND<0 (11/20/2008) 1.37877 (4/29/2006) (0 - 1.37877)/(24 - 19)
-0.275753
0.788457 (6/11/2009) 1.37877 (4/29/2006) (0.788457 - 1.37877)/(25 - 19)
-0.0983848

1.02962 (11/16/2009) 1.37877 (4/29/2006) (1.02962 - 1.37877)/(26 - 19)
-0.0498781
0.530628 (6/30/2010) 1.37877 (4/29/2006) (0.530628 - 1.37877)/(27 - 19)
-0.106017
1.09861 (11/12/2010) 1.37877 (4/29/2006) (1.09861 - 1.37877)/(28 - 19)
-0.0311282
ND<-2.73337 U (11/12/2010) 1.37877 (4/29/2006) (-2.73337 - 1.37877)/(28 - 19)
-0.456904
1.30833 (7/5/2011) 1.37877 (4/29/2006) (1.30833 - 1.37877)/(29 - 19)
-0.00704333
1.19392 (11/22/2011) 1.37877 (4/29/2006) (1.19392 - 1.37877)/(30 - 19)
-0.016804
1.19392 (11/22/2011) 1.37877 (4/29/2006) (1.19392 - 1.37877)/(30 - 19)
-0.016804

ND<0 (5/23/2007) 1.075 (11/18/2006) (0 - 1.075)/(21 - 20) -1.075
1.32972 (11/28/2007) 1.075 (11/18/2006) (1.32972 - 1.075)/(22 - 20)
0.127361
1.25562 (6/5/2008) 1.075 (11/18/2006) (1.25562 - 1.075)/(23 - 20)
0.0602045
ND<0 (11/20/2008) 1.075 (11/18/2006) (0 - 1.075)/(24 - 20)
-0.268751
0.788457 (6/11/2009) 1.075 (11/18/2006) (0.788457 - 1.075)/(25 - 20)
-0.057309
1.02962 (11/16/2009) 1.075 (11/18/2006) (1.02962 - 1.075)/(26 - 20)
-0.00756383
0.530628 (6/30/2010) 1.075 (11/18/2006) (0.530628 - 1.075)/(27 - 20)
-0.0777677
1.09861 (11/12/2010) 1.075 (11/18/2006) (1.09861 - 1.075)/(28 - 20)
0.00295123
ND<-2.73337 U (11/12/2010) 1.075 (11/18/2006) (-2.73337 - 1.075)/(28 - 20)
-0.476046
1.30833 (7/5/2011) 1.075 (11/18/2006) (1.30833 - 1.075)/(29 - 20)
0.0259256
1.19392 (11/22/2011) 1.075 (11/18/2006) (1.19392 - 1.075)/(30 - 20)
0.011892
1.19392 (11/22/2011) 1.075 (11/18/2006) (1.19392 - 1.075)/(30 - 20)
0.011892

1.32972 (11/28/2007) ND<0 (5/23/2007) (1.32972 - 0)/(22 - 21) 1.32972
1.25562 (6/5/2008) ND<0 (5/23/2007) (1.25562 - 0)/(23 - 21)
0.627808
ND<0 (11/20/2008) ND<0 (5/23/2007) (0 - 0)/(24 - 21) 0
0.788457 (6/11/2009) ND<0 (5/23/2007) (0.788457 - 0)/(25 - 21)
0.197114
1.02962 (11/16/2009) ND<0 (5/23/2007) (1.02962 - 0)/(26 - 21)
0.205924
0.530628 (6/30/2010) ND<0 (5/23/2007) (0.530628 - 0)/(27 - 21)
0.088438
1.09861 (11/12/2010) ND<0 (5/23/2007) (1.09861 - 0)/(28 - 21)
0.156945
ND<-2.73337 U (11/12/2010) ND<0 (5/23/2007) (-2.73337 - 0)/(28 - 21)
-0.390481
1.30833 (7/5/2011) ND<0 (5/23/2007) (1.30833 - 0)/(29 - 21)
0.163542
1.19392 (11/22/2011) ND<0 (5/23/2007) (1.19392 - 0)/(30 - 21)
0.132658
1.19392 (11/22/2011) ND<0 (5/23/2007) (1.19392 - 0)/(30 - 21)
0.132658

1.25562 (6/5/2008) 1.32972 (11/28/2007) (1.25562 - 1.32972)/(23 - 22)
-0.074108

ND<0 (11/20/2008) 1.32972 (11/28/2007) (0 - 1.32972)/(24 - 22)
-0.664862
0.788457 (6/11/2009) 1.32972 (11/28/2007) (0.788457 - 1.32972)/(25 - 22)
-0.180422
1.02962 (11/16/2009) 1.32972 (11/28/2007) (1.02962 - 1.32972)/(26 - 22)
-0.0750261
0.530628 (6/30/2010) 1.32972 (11/28/2007) (0.530628 - 1.32972)/(27 - 22)
-0.159819
1.09861 (11/12/2010) 1.32972 (11/28/2007) (1.09861 - 1.32972)/(28 - 22)
-0.0385186
ND<-2.73337 U (11/12/2010) 1.32972 (11/28/2007) (-2.73337 - 1.32972)/(28 - 22)
-0.677182
1.30833 (7/5/2011) 1.32972 (11/28/2007) (1.30833 - 1.32972)/(29 - 22)
-0.00305588
1.19392 (11/22/2011) 1.32972 (11/28/2007) (1.19392 - 1.32972)/(30 - 22)
-0.0169752
1.19392 (11/22/2011) 1.32972 (11/28/2007) (1.19392 - 1.32972)/(30 - 22)
-0.0169752

ND<0 (11/20/2008) 1.25562 (6/5/2008) (0 - 1.25562)/(24 - 23) -1.25562
0.788457 (6/11/2009) 1.25562 (6/5/2008) (0.788457 - 1.25562)/(25 - 23)
-0.233579
1.02962 (11/16/2009) 1.25562 (6/5/2008) (1.02962 - 1.25562)/(26 - 23)
-0.0753322
0.530628 (6/30/2010) 1.25562 (6/5/2008) (0.530628 - 1.25562)/(27 - 23)
-0.181247
1.09861 (11/12/2010) 1.25562 (6/5/2008) (1.09861 - 1.25562)/(28 - 23)
-0.0314007
ND<-2.73337 U (11/12/2010) 1.25562 (6/5/2008) (-2.73337 - 1.25562)/(28 - 23)
-0.797797
1.30833 (7/5/2011) 1.25562 (6/5/2008) (1.30833 - 1.25562)/(29 - 23)
0.00878613
1.19392 (11/22/2011) 1.25562 (6/5/2008) (1.19392 - 1.25562)/(30 - 23)
-0.00881337
1.19392 (11/22/2011) 1.25562 (6/5/2008) (1.19392 - 1.25562)/(30 - 23)
-0.00881337

0.788457 (6/11/2009) ND<0 (11/20/2008) (0.788457 - 0)/(25 - 24)
0.788457
1.02962 (11/16/2009) ND<0 (11/20/2008) (1.02962 - 0)/(26 - 24) 0.51481
0.530628 (6/30/2010) ND<0 (11/20/2008) (0.530628 - 0)/(27 - 24)
0.176876
1.09861 (11/12/2010) ND<0 (11/20/2008) (1.09861 - 0)/(28 - 24)
0.274653
ND<-2.73337 U (11/12/2010) ND<0 (11/20/2008) (-2.73337 - 0)/(28 - 24)
-0.683342
1.30833 (7/5/2011) ND<0 (11/20/2008) (1.30833 - 0)/(29 - 24)
0.261667
1.19392 (11/22/2011) ND<0 (11/20/2008) (1.19392 - 0)/(30 - 24)
0.198987
1.19392 (11/22/2011) ND<0 (11/20/2008) (1.19392 - 0)/(30 - 24)
0.198987

1.02962 (11/16/2009) 0.788457 (6/11/2009) (1.02962 - 0.788457)/(26 - 25)
0.241162
0.530628 (6/30/2010) 0.788457 (6/11/2009) (0.530628 - 0.788457)/(27 - 25)
-0.128915
1.09861 (11/12/2010) 0.788457 (6/11/2009) (1.09861 - 0.788457)/(28 - 25)
0.103385
ND<-2.73337 U (11/12/2010) 0.788457 (6/11/2009) (-2.73337 - 0.788457)/(28 - 25)
-1.17394

1.30833 (7/5/2011) 0.788457 (6/11/2009) (1.30833 - 0.788457)/(29 - 25)
0.129969
1.19392 (11/22/2011) 0.788457 (6/11/2009) (1.19392 - 0.788457)/(30 - 25)
0.081093
1.19392 (11/22/2011) 0.788457 (6/11/2009) (1.19392 - 0.788457)/(30 - 25)
0.081093

0.530628 (6/30/2010) 1.02962 (11/16/2009) (0.530628 - 1.02962)/(27 - 26)
-0.498991
1.09861 (11/12/2010) 1.02962 (11/16/2009) (1.09861 - 1.02962)/(28 - 26)
0.0344964
ND<-2.73337 U (11/12/2010) 1.02962 (11/16/2009) (-2.73337 - 1.02962)/(28 - 26)
-1.88149
1.30833 (7/5/2011) 1.02962 (11/16/2009) (1.30833 - 1.02962)/(29 - 26)
0.0929045
1.19392 (11/22/2011) 1.02962 (11/16/2009) (1.19392 - 1.02962)/(30 - 26)
0.0410758
1.19392 (11/22/2011) 1.02962 (11/16/2009) (1.19392 - 1.02962)/(30 - 26)
0.0410758

1.09861 (11/12/2010) 0.530628 (6/30/2010) (1.09861 - 0.530628)/(28 - 27)
0.567984
ND<-2.73337 U (11/12/2010) 0.530628 (6/30/2010) (-2.73337 - 0.530628)/(28 - 27)
-3.264
1.30833 (7/5/2011) 0.530628 (6/30/2010) (1.30833 - 0.530628)/(29 - 27)
0.388852
1.19392 (11/22/2011) 0.530628 (6/30/2010) (1.19392 - 0.530628)/(30 - 27)
0.221098
1.19392 (11/22/2011) 0.530628 (6/30/2010) (1.19392 - 0.530628)/(30 - 27)
0.221098

ND<-2.73337 U (11/12/2010) 1.09861 (11/12/2010) (-2.73337 - 1.09861)/(28 - 28)
Same Date
1.30833 (7/5/2011) 1.09861 (11/12/2010) (1.30833 - 1.09861)/(29 - 28)
0.209721
1.19392 (11/22/2011) 1.09861 (11/12/2010) (1.19392 - 1.09861)/(30 - 28)
0.0476551
1.19392 (11/22/2011) 1.09861 (11/12/2010) (1.19392 - 1.09861)/(30 - 28)
0.0476551

1.30833 (7/5/2011) ND<-2.73337 U (11/12/2010) (1.30833 - -2.73337)/(29 - 28)
4.0417
1.19392 (11/22/2011) ND<-2.73337 U (11/12/2010) (1.19392 - -2.73337)/(30 - 28)
1.96365
1.19392 (11/22/2011) ND<-2.73337 U (11/12/2010) (1.19392 - -2.73337)/(30 - 28)
1.96365

1.19392 (11/22/2011) 1.30833 (7/5/2011) (1.19392 - 1.30833)/(30 - 29)
-0.11441
1.19392 (11/22/2011) 1.30833 (7/5/2011) (1.19392 - 1.30833)/(30 - 29)
-0.11441

1.19392 (11/22/2011) 1.19392 (11/22/2011) (1.19392 - 1.19392)/(30 - 30)
Same Date

Number of Q values = 494

Ordered Q Values

n	Q
1	-3.264

2	-2.04122
3	-1.88149
4	-1.72277
5	-1.25562
6	-1.17394
7	-1.10414
8	-1.09861
9	-1.075
10	-0.89588
11	-0.861383
12	-0.804719
13	-0.797797
14	-0.736091
15	-0.689383
16	-0.683342
17	-0.677182
18	-0.664862
19	-0.574256
20	-0.574256
21	-0.552069
22	-0.549306
23	-0.536479
24	-0.510826
25	-0.498991
26	-0.485508
27	-0.476046
28	-0.456904
29	-0.441655
30	-0.430692
31	-0.430692
32	-0.408244
33	-0.399988
34	-0.393333
35	-0.390481
36	-0.377134
37	-0.344553
38	-0.340203
39	-0.316799
40	-0.303764
41	-0.298627
42	-0.291603
43	-0.290685
44	-0.287128
45	-0.282851
46	-0.278508
47	-0.275753
48	-0.268751
49	-0.26824
50	-0.255966
51	-0.255153
52	-0.247563
53	-0.24281
54	-0.238729
55	-0.233579
56	-0.227781
57	-0.22397
58	-0.220827
59	-0.219722
60	-0.215482
61	-0.210259
62	-0.199994
63	-0.199084

64	-0.195241
65	-0.19427
66	-0.191419
67	-0.187854
68	-0.182225
69	-0.181247
70	-0.180422
71	-0.173712
72	-0.169867
73	-0.161629
74	-0.160944
75	-0.159819
76	-0.159666
77	-0.159227
78	-0.157017
79	-0.156615
80	-0.148645
81	-0.146313
82	-0.144044
83	-0.143861
84	-0.143564
85	-0.143312
86	-0.138764
87	-0.13412
88	-0.128915
89	-0.127983
90	-0.127576
91	-0.125919
92	-0.124244
93	-0.123803
94	-0.123055
95	-0.122068
96	-0.118842
97	-0.11441
98	-0.11441
99	-0.109861
100	-0.107345
101	-0.106017
102	-0.105398
103	-0.104853
104	-0.104034
105	-0.103689
106	-0.102855
107	-0.101416
108	-0.0998738
109	-0.0983848
110	-0.0942835
111	-0.091551
112	-0.0894132
113	-0.0871336
114	-0.0870309
115	-0.0841256
116	-0.0809705
117	-0.0808144
118	-0.0805182
119	-0.0798682
120	-0.0796134
121	-0.0795048
122	-0.0794759
123	-0.0793882
124	-0.078577
125	-0.0777677

126	-0.0766399
127	-0.0753322
128	-0.0750261
129	-0.0743707
130	-0.074108
131	-0.0736919
132	-0.0718699
133	-0.0701258
134	-0.0691062
135	-0.0653502
136	-0.0652742
137	-0.0647764
138	-0.0646243
139	-0.0630566
140	-0.0624812
141	-0.0622873
142	-0.0612873
143	-0.0602231
144	-0.0595475
145	-0.0587868
146	-0.057309
147	-0.0562001
148	-0.055739
149	-0.0551352
150	-0.0549306
151	-0.0537995
152	-0.0533869
153	-0.0533869
154	-0.0523736
155	-0.0514274
156	-0.0508212
157	-0.0499968
158	-0.0498781
159	-0.0495105
160	-0.0491429
161	-0.0471304
162	-0.0449504
163	-0.0433217
164	-0.0424682
165	-0.0401126
166	-0.0393043
167	-0.0390096
168	-0.0385186
169	-0.0385135
170	-0.0385135
171	-0.0382223
172	-0.0373173
173	-0.0359347
174	-0.0348994
175	-0.0346752
176	-0.0344161
177	-0.033509
178	-0.033007
179	-0.0327535
180	-0.0314374
181	-0.0314007
182	-0.0311282
183	-0.0308024
184	-0.0307875
185	-0.0293802
186	-0.0293802
187	-0.0272982

188	-0.0267074
189	-0.0264422
190	-0.0264422
191	-0.0259929
192	-0.0259929
193	-0.0253324
194	-0.0252095
195	-0.024695
196	-0.0243785
197	-0.024031
198	-0.0229976
199	-0.0220788
200	-0.0219739
201	-0.0218123
202	-0.0212932
203	-0.020433
204	-0.0176911
205	-0.0169752
206	-0.0169752
207	-0.016804
208	-0.016804
209	-0.0163949
210	-0.0163474
211	-0.0153895
212	-0.0153895
213	-0.0149106
214	-0.0147693
215	-0.0147218
216	-0.014417
217	-0.0137986
218	-0.011581
219	-0.0101352
220	-0.00881337
221	-0.00881337
222	-0.00756383
223	-0.00704333
224	-0.00424095
225	-0.00313604
226	-0.00313332
227	-0.00305588
228	-0.00147562
229	-0.00126115
230	-0.000503526
231	-0.000503526
232	0
233	0
234	0
235	0
236	0
237	0
238	0
239	0
240	0
241	0
242	0
243	0
244	0
245	0
246	0
247	0
248	0
249	0

250	0
251	0
252	0
253	0
254	0
255	0
256	0
257	0
258	0
259	0
260	0
261	0
262	0
263	0
264	0
265	0
266	0
267	0
268	0
269	0
270	0.00223287
271	0.00223287
272	0.00295123
273	0.00366578
274	0.00366578
275	0.00428517
276	0.00463016
277	0.00591495
278	0.00655299
279	0.00723946
280	0.00826336
281	0.00838882
282	0.00878613
283	0.00985164
284	0.00991609
285	0.0111303
286	0.011892
287	0.011892
288	0.0125921
289	0.0128395
290	0.0145508
291	0.0161898
292	0.0186769
293	0.0241195
294	0.025268
295	0.0259256
296	0.0294793
297	0.0309115
298	0.0315633
299	0.0324398
300	0.034039
301	0.034039
302	0.0344964
303	0.0377174
304	0.037902
305	0.0394229
306	0.0408176
307	0.0410758
308	0.0410758
309	0.0414978
310	0.043375
311	0.044219

312	0.0455804
313	0.0464097
314	0.0476551
315	0.0476551
316	0.0477569
317	0.0477569
318	0.0477658
319	0.0482389
320	0.0490295
321	0.0492786
322	0.0497468
323	0.0497468
324	0.0499369
325	0.051481
326	0.0537742
327	0.0545139
328	0.0556847
329	0.0568535
330	0.0568535
331	0.056884
332	0.0578217
333	0.0578334
334	0.0591364
335	0.0602045
336	0.0605658
337	0.0619643
338	0.062618
339	0.0654166
340	0.0657048
341	0.0667308
342	0.0683106
343	0.0689982
344	0.0697564
345	0.0702307
346	0.0702307
347	0.0710836
348	0.0710836
349	0.0716668
350	0.0716779
351	0.0722917
352	0.072819
353	0.0732408
354	0.0738598
355	0.0739206
356	0.0746202
357	0.0746202
358	0.0748546
359	0.0758848
360	0.0767859
361	0.0777083
362	0.0780193
363	0.0782191
364	0.0784723
365	0.0788457
366	0.0792015
367	0.0795948
368	0.0795948
369	0.081093
370	0.081093
371	0.0817708
372	0.0831078
373	0.0840333

374	0.0845086
375	0.0852802
376	0.0852802
377	0.0858016
378	0.0863565
379	0.0872222
380	0.0876064
381	0.088438
382	0.0896869
383	0.091551
384	0.092305
385	0.0929045
386	0.0934523
387	0.0936018
388	0.093927
389	0.0965053
390	0.0977275
391	0.0984833
392	0.0999971
393	0.100641
394	0.101182
395	0.102237
396	0.102286
397	0.102962
398	0.103385
399	0.104026
400	0.104129
401	0.10463
402	0.106059
403	0.107862
404	0.108438
405	0.115662
406	0.119652
407	0.121616
408	0.124793
409	0.125562
410	0.127361
411	0.129969
412	0.132071
413	0.132658
414	0.132658
415	0.133329
416	0.137877
417	0.139513
418	0.147747
419	0.151636
420	0.153572
421	0.156945
422	0.156952
423	0.158523
424	0.163542
425	0.166216
426	0.1735
427	0.176876
428	0.178801
429	0.179167
430	0.179374
431	0.187854
432	0.189961
433	0.197114
434	0.198987
435	0.198987

436	0.205924
437	0.209721
438	0.215
439	0.216875
440	0.221098
441	0.221098
442	0.221621
443	0.229794
444	0.231049
445	0.235479
446	0.235652
447	0.239993
448	0.241162
449	0.24611
450	0.249461
451	0.250472
452	0.261667
453	0.268751
454	0.274653
455	0.275753
456	0.287128
457	0.287807
458	0.299991
459	0.307577
460	0.313675
461	0.344553
462	0.344692
463	0.368046
464	0.375708
465	0.388852
466	0.399988
467	0.415532
468	0.430692
469	0.441655
470	0.44321
471	0.448549
472	0.459589
473	0.478036
474	0.485508
475	0.51481
476	0.567984
477	0.574256
478	0.599982
479	0.627808
480	0.655371
481	0.680407
482	0.751416
483	0.788457
484	0.89588
485	1.02061
486	1.10414
487	1.23847
488	1.32972
489	1.72277
490	1.79176
491	1.96365
492	1.96365
493	1.9989
494	4.0417

Sen's Estimator (Median Q) is 0

Tied Group Value Members

1	1.09861	2
2	0	9
3	1.72277	2
4	1.19392	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		2
7/5/2011	1	
11/22/2011		2

There are 2 time periods with multiple data

A = 1710
B = 36
C = 504
D = 0
E = 78
F = 4
a = 68448
b = 267840
c = 1984
Group Variance = 3705.82
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 100.131
M1 = (494 - 100.131)/2.0 = 196.934
M2 = (494 + 100.131)/2.0 + 1 = 298.066
Lower limit is -0.024031 = Q(197)
Upper limit is 0.0315633 = Q(298)
-0.024031 < 0 < 0.0315633 indicating no trend in data.

Concentrations (ppb)

Parameter: 1,3-Dichlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 244
Percent Non-Detects: 99.187%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.56	ND<0.56
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<0.25	ND<0.25	
			11/16/2009	ND<0.56	ND<0.56	
			6/30/2010	ND<0.25	ND<0.25	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-12BR	21	21 (100%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25	ND<0.25	
			11/16/2009	ND<0.47	ND<0.47	
			6/30/2010	ND<0.25	ND<0.25	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-12AR	21	21 (100%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25	ND<0.25	
			11/16/2009	ND<0.47	ND<0.47	
			6/30/2010	ND<0.25	ND<0.25	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-9	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	

			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.56		ND<0.56
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-11R	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.47		ND<0.47
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-7	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	

			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.47		ND<0.47
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-8	30	30 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-10	31	29 (93.5484%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	

9/24/1997	ND<2	ND<2	
4/7/1998	ND<2	ND<2	
9/23/1998	ND<2	ND<2	
3/16/1999	ND<2	ND<2	
9/23/1999	ND<2	ND<2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	ND<2	ND<2	
10/12/2004	ND<2	ND<2	
4/1/2005	ND<2	ND<2	
10/25/2005	ND<2	ND<2	
4/29/2006	ND<2	ND<2	
11/18/2006	ND<2	ND<2	
5/23/2007	ND<2	ND<2	
11/28/2007	ND<2	ND<2	
6/5/2008	ND<2	ND<2	
11/20/2008	ND<2	ND<2	
6/11/2009	ND<0.25		ND<0.25
11/16/2009	ND<0.47		ND<0.47
6/30/2010	ND<0.25		ND<0.25
11/12/2010	ND<0.25 U		ND<0.25 U
7/5/2011	ND<0.25 U	ND<0.25 U	
11/22/2011	6.8	6.8	
11/22/2011	6.8	6.8	

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: 1,3-Dichlorobenzene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.65209	7.03356	-0.331511
2	0.125	-2.40892	12.8365	-0.632626
3	0.125	-2.25713	17.9311	-0.914767
4	0.125	-2.14441	22.5296	-1.18282
5	0.125	-2.05375	26.7475	-1.43954
6	0.125	-1.97737	30.6575	-1.68671
7	0.125	-1.91103	34.3095	-1.92559
8	0.125	-1.85218	37.7401	-2.15711
9	0.125	-1.79912	40.9769	-2.382
10	0.125	-1.75069	44.0418	-2.60083
11	0.125	-1.70604	46.9524	-2.81409
12	0.125	-1.66456	49.7231	-3.02216
13	0.125	-1.62576	52.3662	-3.22538
14	0.125	-1.58927	54.892	-3.42404
15	0.125	-1.55477	57.3093	-3.61839
16	0.125	-1.52203	59.6259	-3.80864
17	0.125	-1.49085	61.8486	-3.995
18	0.125	-1.46106	63.9833	-4.17763
19	0.125	-1.4325	66.0353	-4.35669
20	0.125	-1.40507	68.0096	-4.53233
21	0.125	-1.3722	69.8925	-4.70385
22	0.125	-1.34694	71.7067	-4.87222
23	0.125	-1.32251	73.4558	-5.03753
24	0.125	-1.29884	75.1427	-5.19989
25	0.125	-1.27588	76.7706	-5.35937
26	0.125	-1.25357	78.342	-5.51607
27	0.125	-1.23187	79.8595	-5.67005
28	0.125	-1.21073	81.3254	-5.82139
29	0.125	-1.19012	82.7418	-5.97016
30	0.125	-1.17	84.1107	-6.11641
31	0.125	-1.15035	85.434	-6.2602
32	0.125	-1.13113	86.7134	-6.40159
33	0.125	-1.11232	87.9507	-6.54063
34	0.125	-1.0939	89.1473	-6.67737
35	0.125	-1.07584	90.3047	-6.81185
36	0.125	-1.05812	91.4243	-6.94411
37	0.125	-1.04073	92.5075	-7.0742
38	0.125	-1.02365	93.5553	-7.20216
39	0.125	-1.00687	94.5691	-7.32802
40	0.125	-0.990356	95.5499	-7.45181
41	0.125	-0.974114	96.4988	-7.57358
42	0.125	-0.954165	97.4092	-7.69285
43	0.125	-0.938476	98.29	-7.81016
44	0.125	-0.923014	99.1419	-7.92553
45	0.125	-0.907769	99.966	-8.03901
46	0.125	-0.892733	100.763	-8.1506
47	0.125	-0.877897	101.534	-8.26033
48	0.125	-0.863249	102.279	-8.36824
49	0.125	-0.848786	102.999	-8.47434
50	0.125	-0.834498	103.696	-8.57865
51	0.235	-0.820379	104.369	-8.77144

52	0.235	-0.806422	105.019	-8.96095
53	0.235	-0.792618	105.647	-9.14721
54	0.235	-0.778966	106.254	-9.33027
55	0.235	-0.765456	106.84	-9.51015
56	0.28	-0.752084	107.406	-9.72074
57	0.28	-0.738846	107.951	-9.92761
58	0.28	-0.725736	108.478	-10.1308
59	1	-0.712751	108.986	-10.8436
60	1	-0.699883	109.476	-11.5435
61	1	-0.687131	109.948	-12.2306
62	1	-0.671346	110.399	-12.9019
63	1	-0.658838	110.833	-13.5608
64	1	-0.646431	111.251	-14.2072
65	1	-0.634124	111.653	-14.8413
66	1	-0.621911	112.04	-15.4632
67	1	-0.609791	112.412	-16.073
68	1	-0.597761	112.769	-16.6708
69	1	-0.585815	113.112	-17.2566
70	1	-0.573953	113.441	-17.8306
71	1	-0.56217	113.758	-18.3927
72	1	-0.550465	114.061	-18.9432
73	1	-0.538836	114.351	-19.482
74	1	-0.52728	114.629	-20.0093
75	1	-0.515791	114.895	-20.5251
76	1	-0.504372	115.149	-21.0295
77	1	-0.493018	115.392	-21.5225
78	1	-0.481728	115.624	-22.0042
79	1	-0.470498	115.846	-22.4747
80	1	-0.459327	116.057	-22.934
81	1	-0.448213	116.258	-23.3823
82	1	-0.437153	116.449	-23.8194
83	1	-0.423405	116.628	-24.2428
84	1	-0.412463	116.798	-24.6553
85	1	-0.401571	116.959	-25.0568
86	1	-0.390726	117.112	-25.4476
87	1	-0.379927	117.256	-25.8275
88	1	-0.369171	117.393	-26.1967
89	1	-0.358459	117.521	-26.5551
90	1	-0.347787	117.642	-26.9029
91	1	-0.337155	117.756	-27.2401
92	1	-0.326561	117.863	-27.5666
93	1	-0.316004	117.962	-27.8826
94	1	-0.305481	118.056	-28.1881
95	1	-0.294992	118.143	-28.4831
96	1	-0.284535	118.224	-28.7676
97	1	-0.27411	118.299	-29.0418
98	1	-0.263715	118.368	-29.3055
99	1	-0.253347	118.433	-29.5588
100	1	-0.243007	118.492	-29.8018
101	1	-0.232693	118.546	-30.0345
102	1	-0.222403	118.595	-30.2569
103	1	-0.209575	118.639	-30.4665
104	1	-0.199336	118.679	-30.6658
105	1	-0.189118	118.715	-30.8549
106	1	-0.17892	118.747	-31.0339
107	1	-0.168741	118.775	-31.2026
108	1	-0.158579	118.8	-31.3612
109	1	-0.148434	118.822	-31.5096
110	1	-0.138305	118.841	-31.6479
111	1	-0.128189	118.858	-31.7761
112	1	-0.118085	118.872	-31.8942
113	1	-0.107995	118.883	-32.0022

114	1	-0.0979139	118.893	-32.1001
115	1	-0.0878447	118.901	-32.188
116	1	-0.0777834	118.907	-32.2657
117	1	-0.0677301	118.911	-32.3335
118	1	-0.0576847	118.915	-32.3911
119	1	-0.0476439	118.917	-32.4388
120	1	-0.0376076	118.918	-32.4764
121	1	-0.0275759	118.919	-32.504
122	1	-0.0175476	118.919	-32.5215
123	1	-0.00751925	118.92	-32.529
124	1	0.00751925	118.92	-32.5215
125	1	0.0175476	118.92	-32.504
126	1	0.0275759	118.921	-32.4764
127	1	0.0376076	118.922	-32.4388
128	1	0.0476439	118.924	-32.3911
129	1	0.0576847	118.928	-32.3335
130	1	0.0677301	118.932	-32.2657
131	1	0.0777834	118.938	-32.188
132	1	0.0878447	118.946	-32.1001
133	1	0.0979139	118.956	-32.0022
134	1	0.107995	118.967	-31.8942
135	1	0.118085	118.981	-31.7761
136	1	0.128189	118.998	-31.6479
137	1	0.138305	119.017	-31.5096
138	1	0.148434	119.039	-31.3612
139	1	0.158579	119.064	-31.2026
140	1	0.168741	119.092	-31.0339
141	1	0.17892	119.124	-30.8549
142	1	0.189118	119.16	-30.6658
143	1	0.199336	119.2	-30.4665
144	1	0.209575	119.244	-30.2569
145	1	0.222403	119.293	-30.0345
146	1	0.232693	119.347	-29.8018
147	1	0.243007	119.407	-29.5588
148	1	0.253347	119.471	-29.3055
149	1	0.263715	119.54	-29.0418
150	1	0.27411	119.615	-28.7676
151	1	0.284535	119.696	-28.4831
152	1	0.294992	119.783	-28.1881
153	1	0.305481	119.877	-27.8826
154	1	0.316004	119.977	-27.5666
155	1	0.326561	120.083	-27.2401
156	1	0.337155	120.197	-26.9029
157	1	0.347787	120.318	-26.5551
158	1	0.358459	120.446	-26.1967
159	1	0.369171	120.583	-25.8275
160	1	0.379927	120.727	-25.4476
161	1	0.390726	120.88	-25.0568
162	1	0.401571	121.041	-24.6553
163	1	0.412463	121.211	-24.2428
164	1	0.423405	121.39	-23.8194
165	1	0.437153	121.581	-23.3823
166	1	0.448213	121.782	-22.934
167	1	0.459327	121.993	-22.4747
168	1	0.470498	122.215	-22.0042
169	1	0.481728	122.447	-21.5225
170	1	0.493018	122.69	-21.0295
171	1	0.504372	122.944	-20.5251
172	1	0.515791	123.21	-20.0093
173	1	0.52728	123.488	-19.482
174	1	0.538836	123.779	-18.9432
175	1	0.550465	124.082	-18.3927

176	1	0.56217	124.398	-17.8306	
177	1	0.573953		124.727	-17.2566
178	1	0.585815		125.07	-16.6708
179	1	0.597761		125.428	-16.073
180	1	0.609791		125.799	-15.4632
181	1	0.621911		126.186	-14.8413
182	1	0.634124		126.588	-14.2072
183	1	0.646431		127.006	-13.5608
184	1	0.658838		127.44	-12.9019
185	1	0.671346		127.891	-12.2306
186	1	0.687131		128.363	-11.5435
187	1	0.699883		128.853	-10.8436
188	1	0.712751		129.361	-10.1308
189	1	0.725736		129.888	-9.40508
190	1	0.738846		130.433	-8.66624
191	1	0.752084		130.999	-7.91415
192	1	0.765456		131.585	-7.1487
193	1	0.778966		132.192	-6.36973
194	1	0.792618		132.82	-5.57711
195	1	0.806422		133.47	-4.77069
196	1	0.820379		134.143	-3.95031
197	1	0.834498		134.84	-3.11582
198	1	0.848786		135.56	-2.26703
199	1	0.863249		136.305	-1.40378
200	1	0.877897		137.076	-0.525884
201	1	0.892733		137.873	0.366848
202	1	0.907769		138.697	1.27462
203	1	0.923014		139.549	2.19763
204	1	0.938476		140.43	3.13611
205	1	0.954165		141.34	4.09027
206	1	0.974114		142.289	5.06439
207	1	0.990356		143.27	6.05474
208	1	1.00687	144.284	7.06161	
209	1	1.02365	145.332	8.08526	
210	1	1.04073	146.415	9.12599	
211	1	1.05812	147.534	10.1841	
212	1	1.07584	148.692	11.26	
213	1	1.0939	149.888	12.3538	
214	1	1.11232	151.126	13.4662	
215	1	1.13113	152.405	14.5973	
216	1	1.15035	153.728	15.7476	
217	1	1.17	155.097	16.9177	
218	1	1.19012	156.514	18.1078	
219	1	1.21073	157.98	19.3185	
220	1	1.23187	159.497	20.5504	
221	1	1.25357	161.068	21.8039	
222	1	1.27588	162.696	23.0798	
223	1	1.29884	164.383	24.3786	
224	1	1.32251	166.132	25.7011	
225	1	1.34694	167.947	27.0481	
226	1	1.3722	169.83	28.4203	
227	1	1.40507	171.804	29.8254	
228	1	1.4325	173.856	31.2579	
229	1	1.46106	175.991	32.7189	
230	1	1.49085	178.213	34.2098	
231	1	1.52203	180.53	35.7318	
232	1	1.55477	182.947	37.2866	
233	1	1.58927	185.473	38.8759	
234	1	1.62576	188.116	40.5016	
235	1	1.66456	190.887	42.1662	
236	1	1.70604	193.797	43.8722	
237	1	1.75069	196.862	45.6229	

238	1	1.79912	200.099	47.422
239	1	1.85218	203.53	49.2742
240	1	1.91103	207.182	51.1852
241	1	1.97737	211.092	53.1626
242	1	2.05375	215.309	55.2164
243	1	2.14441	219.908	57.3608
244	1	2.25713	225.003	59.6179
245	6.8	2.40892	230.806	75.9986
246	6.8	2.65209	237.839	94.0328

Data Set Standard Deviation = 0.651939
Numerator = 8842.16
Denominator = 24766.4
W Statistic = 0.357023 = 8842.16 / 24766.4

5% Critical value of 0.976 exceeds 0.357023
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.357023
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,3-Dichlorobenzene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.605584
0.605584 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00404858	-2.65209	48.5536	344.01	
2	0.125	0.00809717	-2.40892	48.5536	332.136	
3	0.125	0.0121457	-2.25713	48.5536	324.723	
4	0.125	0.0161943	-2.14441	48.5536	319.219	
5	0.125	0.0202429	-2.05375	48.5536	314.791	
6	0.125	0.0242915	-1.97737	48.5536	311.062	
7	0.125	0.0283401	-1.91103	48.5536	307.822	
8	0.125	0.0323887	-1.85218	48.5536	304.948	
9	0.125	0.0364372	-1.79912	48.5536	302.357	
10	0.125	0.0404858	-1.75069	48.5536	299.992	
11	0.125	0.0445344	-1.70604	48.5536	297.812	
12	0.125	0.048583	-1.66456	48.5536	295.786	
13	0.125	0.0526316	-1.62576	48.5536	293.891	
14	0.125	0.0566802	-1.58927	48.5536	292.109	
15	0.125	0.0607287	-1.55477	48.5536	290.425	
16	0.125	0.0647773	-1.52203	48.5536	288.826	
17	0.125	0.0688259	-1.49085	48.5536	287.303	
18	0.125	0.0728745	-1.46106	48.5536	285.848	
19	0.125	0.0769231	-1.4325	48.5536	284.454	
20	0.125	0.0809717	-1.40507	48.5536	283.114	
21	0.125	0.0850202	-1.3722	48.5536	281.509	
22	0.125	0.0890688	-1.34694	48.5536	280.276	
23	0.125	0.0931174	-1.32251	48.5536	279.082	
24	0.125	0.097166	-1.29884	48.5536	277.926	
25	0.125	0.101215	-1.27588	48.5536	276.805	
26	0.125	0.105263	-1.25357	48.5536	275.716	
27	0.125	0.109312	-1.23187	48.5536	274.656	
28	0.125	0.11336	-1.21073	48.5536	273.624	
29	0.125	0.117409	-1.19012	48.5536	272.617	
30	0.125	0.121457	-1.17	48.5536	271.635	
31	0.125	0.125506	-1.15035	48.5536	270.675	
32	0.125	0.129555	-1.13113	48.5536	269.737	
33	0.125	0.133603	-1.11232	48.5536	268.818	
34	0.125	0.137652	-1.0939	48.5536	267.919	
35	0.125	0.1417	-1.07584	48.5536	267.037	
36	0.125	0.145749	-1.05812	48.5536	266.172	
37	0.125	0.149798	-1.04073	48.5536	265.322	
38	0.125	0.153846	-1.02365	48.5536	264.488	
39	0.125	0.157895	-1.00687	48.5536	263.669	
40	0.125	0.161943	-0.990356	48.5536	262.862	
41	0.125	0.165992	-0.974114	48.5536	262.069	
42	0.125	0.17004	-0.954165	48.5536	261.095	
43	0.125	0.174089	-0.938476	48.5536	260.329	
44	0.125	0.178138	-0.923014	48.5536	259.574	
45	0.125	0.182186	-0.907769	48.5536	258.829	
46	0.125	0.186235	-0.892733	48.5536	258.095	
47	0.125	0.190283	-0.877897	48.5536	257.371	
48	0.125	0.194332	-0.863249	48.5536	256.655	

49	0.125	0.198381	-0.848786	48.5536	255.949
50	0.125	0.202429	-0.834498	48.5536	255.251
51	0.235	0.206478	-0.820379	56.9607	254.562
52	0.235	0.210526	-0.806422	56.9607	253.88
53	0.235	0.214575	-0.792618	56.9607	253.206
54	0.235	0.218623	-0.778966	56.9607	252.54
55	0.235	0.222672	-0.765456	56.9607	251.88
56	0.28	0.226721	-0.752084	60.4	251.227
57	0.28	0.230769	-0.738846	60.4	250.58
58	0.28	0.234818	-0.725736	60.4	249.94
59	1	0.238866	-0.712751	115.429	249.306
60	1	0.242915	-0.699883	115.429	248.678
61	1	0.246964	-0.687131	115.429	248.055
62	1	0.251012	-0.671346	115.429	247.284
63	1	0.255061	-0.658838	115.429	246.673
64	1	0.259109	-0.646431	115.429	246.067
65	1	0.263158	-0.634124	115.429	245.466
66	1	0.267206	-0.621911	115.429	244.87
67	1	0.271255	-0.609791	115.429	244.278
68	1	0.275304	-0.597761	115.429	243.691
69	1	0.279352	-0.585815	115.429	243.107
70	1	0.283401	-0.573953	115.429	242.528
71	1	0.287449	-0.56217	115.429	241.953
72	1	0.291498	-0.550465	115.429	241.381
73	1	0.295547	-0.538836	115.429	240.813
74	1	0.299595	-0.52728	115.429	240.249
75	1	0.303644	-0.515791	115.429	239.688
76	1	0.307692	-0.504372	115.429	239.13
77	1	0.311741	-0.493018	115.429	238.576
78	1	0.315789	-0.481728	115.429	238.024
79	1	0.319838	-0.470498	115.429	237.476
80	1	0.323887	-0.459327	115.429	236.93
81	1	0.327935	-0.448213	115.429	236.388
82	1	0.331984	-0.437153	115.429	235.848
83	1	0.336032	-0.423405	115.429	235.176
84	1	0.340081	-0.412463	115.429	234.642
85	1	0.34413	-0.401571	115.429	234.11
86	1	0.348178	-0.390726	115.429	233.58
87	1	0.352227	-0.379927	115.429	233.053
88	1	0.356275	-0.369171	115.429	232.528
89	1	0.360324	-0.358459	115.429	232.005
90	1	0.364372	-0.347787	115.429	231.484
91	1	0.368421	-0.337155	115.429	230.964
92	1	0.37247	-0.326561	115.429	230.447
93	1	0.376518	-0.316004	115.429	229.932
94	1	0.380567	-0.305481	115.429	229.418
95	1	0.384615	-0.294992	115.429	228.905
96	1	0.388664	-0.284535	115.429	228.395
97	1	0.392713	-0.27411	115.429	227.886
98	1	0.396761	-0.263715	115.429	227.378
99	1	0.40081	-0.253347	115.429	226.872
100	1	0.404858	-0.243007	115.429	226.367
101	1	0.408907	-0.232693	115.429	225.863
102	1	0.412955	-0.222403	115.429	225.361
103	1	0.417004	-0.209575	115.429	224.734
104	1	0.421053	-0.199336	115.429	224.234
105	1	0.425101	-0.189118	115.429	223.735
106	1	0.42915	-0.17892	115.429	223.237
107	1	0.433198	-0.168741	115.429	222.74
108	1	0.437247	-0.158579	115.429	222.244
109	1	0.441296	-0.148434	115.429	221.749
110	1	0.445344	-0.138305	115.429	221.254

111	1	0.449393	-0.128189	115.429	220.76
112	1	0.453441	-0.118085	115.429	220.267
113	1	0.45749	-0.107995	115.429	219.774
114	1	0.461538	-0.0979139	115.429	219.281
115	1	0.465587	-0.0878447	115.429	218.79
116	1	0.469636	-0.0777834	115.429	218.298
117	1	0.473684	-0.0677301	115.429	217.807
118	1	0.477733	-0.0576847	115.429	217.317
119	1	0.481781	-0.0476439	115.429	216.827
120	1	0.48583	-0.0376076	115.429	216.337
121	1	0.489879	-0.0275759	115.429	215.847
122	1	0.493927	-0.0175476	115.429	215.357
123	1	0.497976	-0.00751925	115.429	214.867
124	1	0.502024	0.00751925	115.429	214.133
125	1	0.506073	0.0175476	115.429	213.643
126	1	0.510121	0.0275759	115.429	213.153
127	1	0.51417	0.0376076	115.429	212.663
128	1	0.518219	0.0476439	115.429	212.173
129	1	0.522267	0.0576847	115.429	211.683
130	1	0.526316	0.0677301	115.429	211.193
131	1	0.530364	0.0777834	115.429	210.702
132	1	0.534413	0.0878447	115.429	210.21
133	1	0.538462	0.0979139	115.429	209.719
134	1	0.54251	0.107995	115.429	209.226
135	1	0.546559	0.118085	115.429	208.733
136	1	0.550607	0.128189	115.429	208.24
137	1	0.554656	0.138305	115.429	207.746
138	1	0.558704	0.148434	115.429	207.251
139	1	0.562753	0.158579	115.429	206.756
140	1	0.566802	0.168741	115.429	206.26
141	1	0.57085	0.17892	115.429	205.763
142	1	0.574899	0.189118	115.429	205.265
143	1	0.578947	0.199336	115.429	204.766
144	1	0.582996	0.209575	115.429	204.266
145	1	0.587045	0.222403	115.429	203.639
146	1	0.591093	0.232693	115.429	203.137
147	1	0.595142	0.243007	115.429	202.633
148	1	0.59919	0.253347	115.429	202.128
149	1	0.603239	0.263715	115.429	201.622
150	1	0.607287	0.27411	115.429	201.114
151	1	0.611336	0.284535	115.429	200.605
152	1	0.615385	0.294992	115.429	200.095
153	1	0.619433	0.305481	115.429	199.582
154	1	0.623482	0.316004	115.429	199.068
155	1	0.62753	0.326561	115.429	198.553
156	1	0.631579	0.337155	115.429	198.036
157	1	0.635628	0.347787	115.429	197.516
158	1	0.639676	0.358459	115.429	196.995
159	1	0.643725	0.369171	115.429	196.472
160	1	0.647773	0.379927	115.429	195.947
161	1	0.651822	0.390726	115.429	195.42
162	1	0.65587	0.401571	115.429	194.89
163	1	0.659919	0.412463	115.429	194.358
164	1	0.663968	0.423405	115.429	193.824
165	1	0.668016	0.437153	115.429	193.152
166	1	0.672065	0.448213	115.429	192.612
167	1	0.676113	0.459327	115.429	192.07
168	1	0.680162	0.470498	115.429	191.524
169	1	0.684211	0.481728	115.429	190.976
170	1	0.688259	0.493018	115.429	190.424
171	1	0.692308	0.504372	115.429	189.87
172	1	0.696356	0.515791	115.429	189.312

173	1	0.700405	0.52728	115.429	188.751	
174	1	0.704453	0.538836		115.429	188.187
175	1	0.708502	0.550465		115.429	187.619
176	1	0.712551	0.56217	115.429	187.047	
177	1	0.716599	0.573953		115.429	186.472
178	1	0.720648	0.585815		115.429	185.893
179	1	0.724696	0.597761		115.429	185.309
180	1	0.728745	0.609791		115.429	184.722
181	1	0.732794	0.621911		115.429	184.13
182	1	0.736842	0.634124		115.429	183.534
183	1	0.740891	0.646431		115.429	182.933
184	1	0.744939	0.658838		115.429	182.327
185	1	0.748988	0.671346		115.429	181.716
186	1	0.753036	0.687131		115.429	180.945
187	1	0.757085	0.699883		115.429	180.322
188	1	0.761134	0.712751		115.429	179.694
189	1	0.765182	0.725736		115.429	179.06
190	1	0.769231	0.738846		115.429	178.42
191	1	0.773279	0.752084		115.429	177.773
192	1	0.777328	0.765456		115.429	177.12
193	1	0.781377	0.778966		115.429	176.46
194	1	0.785425	0.792618		115.429	175.794
195	1	0.789474	0.806422		115.429	175.12
196	1	0.793522	0.820379		115.429	174.438
197	1	0.797571	0.834498		115.429	173.749
198	1	0.801619	0.848786		115.429	173.051
199	1	0.805668	0.863249		115.429	172.345
200	1	0.809717	0.877897		115.429	171.629
201	1	0.813765	0.892733		115.429	170.905
202	1	0.817814	0.907769		115.429	170.171
203	1	0.821862	0.923014		115.429	169.426
204	1	0.825911	0.938476		115.429	168.671
205	1	0.82996	0.954165	115.429	167.905	
206	1	0.834008	0.974114		115.429	166.931
207	1	0.838057	0.990356		115.429	166.138
208	1	0.842105	1.00687	115.429	165.331	
209	1	0.846154	1.02365	115.429	164.512	
210	1	0.850202	1.04073	115.429	163.678	
211	1	0.854251	1.05812	115.429	162.828	
212	1	0.8583	1.07584	115.429	161.963	
213	1	0.862348	1.0939	115.429	161.081	
214	1	0.866397	1.11232	115.429	160.182	
215	1	0.870445	1.13113	115.429	159.263	
216	1	0.874494	1.15035	115.429	158.325	
217	1	0.878543	1.17	115.429	157.365	
218	1	0.882591	1.19012	115.429	156.383	
219	1	0.88664	1.21073	115.429	155.376	
220	1	0.890688	1.23187	115.429	154.344	
221	1	0.894737	1.25357	115.429	153.284	
222	1	0.898785	1.27588	115.429	152.195	
223	1	0.902834	1.29884	115.429	151.074	
224	1	0.906883	1.32251	115.429	149.918	
225	1	0.910931	1.34694	115.429	148.724	
226	1	0.91498	1.3722	115.429	147.491	
227	1	0.919028	1.40507	115.429	145.886	
228	1	0.923077	1.4325	115.429	144.546	
229	1	0.927126	1.46106	115.429	143.152	
230	1	0.931174	1.49085	115.429	141.697	
231	1	0.935223	1.52203	115.429	140.174	
232	1	0.939271	1.55477	115.429	138.575	
233	1	0.94332	1.58927	115.429	136.891	
234	1	0.947368	1.62576	115.429	135.109	

235	1	0.951417	1.66456	115.429	133.214
236	1	0.955466	1.70604	115.429	131.188
237	1	0.959514	1.75069	115.429	129.008
238	1	0.963563	1.79912	115.429	126.643
239	1	0.967611	1.85218	115.429	124.052
240	1	0.97166	1.91103	115.429	121.178
241	1	0.975709	1.97737	115.429	117.938
242	1	0.979757	2.05375	115.429	114.209
243	1	0.983806	2.14441	115.429	109.781
244	1	0.987854	2.25713	115.429	104.277
245	6.8	0.991903	2.40892	558.714	96.8642
246	6.8	0.995951	2.65209	558.714	84.9898

Shapiro-Francia Test of Normality

Parameter: 1,3-Dichlorobenzene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.07944	-2.65209	7.03356	5.51486
2	-2.07944	-2.40892	12.8365	10.5241
3	-2.07944	-2.25713	17.9311	15.2176
4	-2.07944	-2.14441	22.5296	19.6768
5	-2.07944	-2.05375	26.7475	23.9475
6	-2.07944	-1.97737	30.6575	28.0593
7	-2.07944	-1.91103	34.3095	32.0332
8	-2.07944	-1.85218	37.7401	35.8847
9	-2.07944	-1.79912	40.9769	39.6258
10	-2.07944	-1.75069	44.0418	43.2663
11	-2.07944	-1.70604	46.9524	46.8139
12	-2.07944	-1.66456	49.7231	50.2752
13	-2.07944	-1.62576	52.3662	53.6559
14	-2.07944	-1.58927	54.892	56.9607
15	-2.07944	-1.55477	57.3093	60.1938
16	-2.07944	-1.52203	59.6259	63.3588
17	-2.07944	-1.49085	61.8486	66.4589
18	-2.07944	-1.46106	63.9833	69.4971
19	-2.07944	-1.4325	66.0353	72.4759
20	-2.07944	-1.40507	68.0096	75.3977
21	-2.07944	-1.3722	69.8925	78.2511
22	-2.07944	-1.34694	71.7067	81.052
23	-2.07944	-1.32251	73.4558	83.802
24	-2.07944	-1.29884	75.1427	86.5029
25	-2.07944	-1.27588	76.7706	89.156
26	-2.07944	-1.25357	78.342	91.7627
27	-2.07944	-1.23187	79.8595	94.3243
28	-2.07944	-1.21073	81.3254	96.8419
29	-2.07944	-1.19012	82.7418	99.3167
30	-2.07944	-1.17	84.1107	101.75
31	-2.07944	-1.15035	85.434	104.142
32	-2.07944	-1.13113	86.7134	106.494
33	-2.07944	-1.11232	87.9507	108.807
34	-2.07944	-1.0939	89.1473	111.082
35	-2.07944	-1.07584	90.3047	113.319
36	-2.07944	-1.05812	91.4243	115.519
37	-2.07944	-1.04073	92.5075	117.683
38	-2.07944	-1.02365	93.5553	119.812
39	-2.07944	-1.00687	94.5691	121.906
40	-2.07944	-0.990356	95.5499	123.965
41	-2.07944	-0.974114	96.4988	125.991
42	-2.07944	-0.954165	97.4092	127.975
43	-2.07944	-0.938476	98.29	129.926
44	-2.07944	-0.923014	99.1419	131.845
45	-2.07944	-0.907769	99.966	133.733
46	-2.07944	-0.892733	100.763	135.59
47	-2.07944	-0.877897	101.534	137.415
48	-2.07944	-0.863249	102.279	139.21
49	-2.07944	-0.848786	102.999	140.975
50	-2.07944	-0.834498	103.696	142.71
51	-1.44817	-0.820379	104.369	143.898

52	-1.44817	-0.806422	105.019	145.066
53	-1.44817	-0.792618	105.647	146.214
54	-1.44817	-0.778966	106.254	147.342
55	-1.44817	-0.765456	106.84	148.451
56	-1.27297	-0.752084	107.406	149.408
57	-1.27297	-0.738846	107.951	150.349
58	-1.27297	-0.725736	108.478	151.272
59	0	-0.712751	108.986	151.272
60	0	-0.699883	109.476	151.272
61	0	-0.687131	109.948	151.272
62	0	-0.671346	110.399	151.272
63	0	-0.658838	110.833	151.272
64	0	-0.646431	111.251	151.272
65	0	-0.634124	111.653	151.272
66	0	-0.621911	112.04	151.272
67	0	-0.609791	112.412	151.272
68	0	-0.597761	112.769	151.272
69	0	-0.585815	113.112	151.272
70	0	-0.573953	113.441	151.272
71	0	-0.56217	113.758	151.272
72	0	-0.550465	114.061	151.272
73	0	-0.538836	114.351	151.272
74	0	-0.52728	114.629	151.272
75	0	-0.515791	114.895	151.272
76	0	-0.504372	115.149	151.272
77	0	-0.493018	115.392	151.272
78	0	-0.481728	115.624	151.272
79	0	-0.470498	115.846	151.272
80	0	-0.459327	116.057	151.272
81	0	-0.448213	116.258	151.272
82	0	-0.437153	116.449	151.272
83	0	-0.423405	116.628	151.272
84	0	-0.412463	116.798	151.272
85	0	-0.401571	116.959	151.272
86	0	-0.390726	117.112	151.272
87	0	-0.379927	117.256	151.272
88	0	-0.369171	117.393	151.272
89	0	-0.358459	117.521	151.272
90	0	-0.347787	117.642	151.272
91	0	-0.337155	117.756	151.272
92	0	-0.326561	117.863	151.272
93	0	-0.316004	117.962	151.272
94	0	-0.305481	118.056	151.272
95	0	-0.294992	118.143	151.272
96	0	-0.284535	118.224	151.272
97	0	-0.27411	118.299	151.272
98	0	-0.263715	118.368	151.272
99	0	-0.253347	118.433	151.272
100	0	-0.243007	118.492	151.272
101	0	-0.232693	118.546	151.272
102	0	-0.222403	118.595	151.272
103	0	-0.209575	118.639	151.272
104	0	-0.199336	118.679	151.272
105	0	-0.189118	118.715	151.272
106	0	-0.17892	118.747	151.272
107	0	-0.168741	118.775	151.272
108	0	-0.158579	118.8	151.272
109	0	-0.148434	118.822	151.272
110	0	-0.138305	118.841	151.272
111	0	-0.128189	118.858	151.272
112	0	-0.118085	118.872	151.272
113	0	-0.107995	118.883	151.272

114	0	-0.0979139	118.893	151.272
115	0	-0.0878447	118.901	151.272
116	0	-0.0777834	118.907	151.272
117	0	-0.0677301	118.911	151.272
118	0	-0.0576847	118.915	151.272
119	0	-0.0476439	118.917	151.272
120	0	-0.0376076	118.918	151.272
121	0	-0.0275759	118.919	151.272
122	0	-0.0175476	118.919	151.272
123	0	-0.00751925	118.92	151.272
124	0	0.00751925	118.92	151.272
125	0	0.0175476	118.92	151.272
126	0	0.0275759	118.921	151.272
127	0	0.0376076	118.922	151.272
128	0	0.0476439	118.924	151.272
129	0	0.0576847	118.928	151.272
130	0	0.0677301	118.932	151.272
131	0	0.0777834	118.938	151.272
132	0	0.0878447	118.946	151.272
133	0	0.0979139	118.956	151.272
134	0	0.107995	118.967	151.272
135	0	0.118085	118.981	151.272
136	0	0.128189	118.998	151.272
137	0	0.138305	119.017	151.272
138	0	0.148434	119.039	151.272
139	0	0.158579	119.064	151.272
140	0	0.168741	119.092	151.272
141	0	0.17892	119.124	151.272
142	0	0.189118	119.16	151.272
143	0	0.199336	119.2	151.272
144	0	0.209575	119.244	151.272
145	0	0.222403	119.293	151.272
146	0	0.232693	119.347	151.272
147	0	0.243007	119.407	151.272
148	0	0.253347	119.471	151.272
149	0	0.263715	119.54	151.272
150	0	0.27411	119.615	151.272
151	0	0.284535	119.696	151.272
152	0	0.294992	119.783	151.272
153	0	0.305481	119.877	151.272
154	0	0.316004	119.977	151.272
155	0	0.326561	120.083	151.272
156	0	0.337155	120.197	151.272
157	0	0.347787	120.318	151.272
158	0	0.358459	120.446	151.272
159	0	0.369171	120.583	151.272
160	0	0.379927	120.727	151.272
161	0	0.390726	120.88	151.272
162	0	0.401571	121.041	151.272
163	0	0.412463	121.211	151.272
164	0	0.423405	121.39	151.272
165	0	0.437153	121.581	151.272
166	0	0.448213	121.782	151.272
167	0	0.459327	121.993	151.272
168	0	0.470498	122.215	151.272
169	0	0.481728	122.447	151.272
170	0	0.493018	122.69	151.272
171	0	0.504372	122.944	151.272
172	0	0.515791	123.21	151.272
173	0	0.52728	123.488	151.272
174	0	0.538836	123.779	151.272
175	0	0.550465	124.082	151.272

176	0	0.56217	124.398	151.272	
177	0	0.573953		124.727	151.272
178	0	0.585815		125.07	151.272
179	0	0.597761		125.428	151.272
180	0	0.609791		125.799	151.272
181	0	0.621911		126.186	151.272
182	0	0.634124		126.588	151.272
183	0	0.646431		127.006	151.272
184	0	0.658838		127.44	151.272
185	0	0.671346		127.891	151.272
186	0	0.687131		128.363	151.272
187	0	0.699883		128.853	151.272
188	0	0.712751		129.361	151.272
189	0	0.725736		129.888	151.272
190	0	0.738846		130.433	151.272
191	0	0.752084		130.999	151.272
192	0	0.765456		131.585	151.272
193	0	0.778966		132.192	151.272
194	0	0.792618		132.82	151.272
195	0	0.806422		133.47	151.272
196	0	0.820379		134.143	151.272
197	0	0.834498		134.84	151.272
198	0	0.848786		135.56	151.272
199	0	0.863249		136.305	151.272
200	0	0.877897		137.076	151.272
201	0	0.892733		137.873	151.272
202	0	0.907769		138.697	151.272
203	0	0.923014		139.549	151.272
204	0	0.938476		140.43	151.272
205	0	0.954165		141.34	151.272
206	0	0.974114		142.289	151.272
207	0	0.990356		143.27	151.272
208	0	1.00687	144.284	151.272	
209	0	1.02365	145.332	151.272	
210	0	1.04073	146.415	151.272	
211	0	1.05812	147.534	151.272	
212	0	1.07584	148.692	151.272	
213	0	1.0939	149.888	151.272	
214	0	1.11232	151.126	151.272	
215	0	1.13113	152.405	151.272	
216	0	1.15035	153.728	151.272	
217	0	1.17	155.097	151.272	
218	0	1.19012	156.514	151.272	
219	0	1.21073	157.98	151.272	
220	0	1.23187	159.497	151.272	
221	0	1.25357	161.068	151.272	
222	0	1.27588	162.696	151.272	
223	0	1.29884	164.383	151.272	
224	0	1.32251	166.132	151.272	
225	0	1.34694	167.947	151.272	
226	0	1.3722	169.83	151.272	
227	0	1.40507	171.804	151.272	
228	0	1.4325	173.856	151.272	
229	0	1.46106	175.991	151.272	
230	0	1.49085	178.213	151.272	
231	0	1.52203	180.53	151.272	
232	0	1.55477	182.947	151.272	
233	0	1.58927	185.473	151.272	
234	0	1.62576	188.116	151.272	
235	0	1.66456	190.887	151.272	
236	0	1.70604	193.797	151.272	
237	0	1.75069	196.862	151.272	

238	0	1.79912	200.099	151.272
239	0	1.85218	203.53	151.272
240	0	1.91103	207.182	151.272
241	0	1.97737	211.092	151.272
242	0	2.05375	215.309	151.272
243	0	2.14441	219.908	151.272
244	0	2.25713	225.003	151.272
245	1.91692	2.40892	230.806	155.89
246	1.91692	2.65209	237.839	160.974

Data Set Standard Deviation = 0.877464
Numerator = 25912.6
Denominator = 44865
W Statistic = 0.577569 = 25912.6 / 44865

5% Critical value of 0.976 exceeds 0.577569
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.577569
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,3-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.760035
0.760035 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00404858	-2.65209	137.5	344.01
2	-2.07944	0.00809717	-2.40892	137.5	332.136
3	-2.07944	0.0121457	-2.25713	137.5	324.723
4	-2.07944	0.0161943	-2.14441	137.5	319.219
5	-2.07944	0.0202429	-2.05375	137.5	314.791
6	-2.07944	0.0242915	-1.97737	137.5	311.062
7	-2.07944	0.0283401	-1.91103	137.5	307.822
8	-2.07944	0.0323887	-1.85218	137.5	304.948
9	-2.07944	0.0364372	-1.79912	137.5	302.357
10	-2.07944	0.0404858	-1.75069	137.5	299.992
11	-2.07944	0.0445344	-1.70604	137.5	297.812
12	-2.07944	0.048583	-1.66456	137.5	295.786
13	-2.07944	0.0526316	-1.62576	137.5	293.891
14	-2.07944	0.0566802	-1.58927	137.5	292.109
15	-2.07944	0.0607287	-1.55477	137.5	290.425
16	-2.07944	0.0647773	-1.52203	137.5	288.826
17	-2.07944	0.0688259	-1.49085	137.5	287.303
18	-2.07944	0.0728745	-1.46106	137.5	285.848
19	-2.07944	0.0769231	-1.4325	137.5	284.454
20	-2.07944	0.0809717	-1.40507	137.5	283.114
21	-2.07944	0.0850202	-1.3722	137.5	281.509
22	-2.07944	0.0890688	-1.34694	137.5	280.276
23	-2.07944	0.0931174	-1.32251	137.5	279.082
24	-2.07944	0.097166	-1.29884	137.5	277.926
25	-2.07944	0.101215	-1.27588	137.5	276.805
26	-2.07944	0.105263	-1.25357	137.5	275.716
27	-2.07944	0.109312	-1.23187	137.5	274.656
28	-2.07944	0.11336	-1.21073	137.5	273.624
29	-2.07944	0.117409	-1.19012	137.5	272.617
30	-2.07944	0.121457	-1.17	137.5	271.635
31	-2.07944	0.125506	-1.15035	137.5	270.675
32	-2.07944	0.129555	-1.13113	137.5	269.737
33	-2.07944	0.133603	-1.11232	137.5	268.818
34	-2.07944	0.137652	-1.0939	137.5	267.919
35	-2.07944	0.1417	-1.07584	137.5	267.037
36	-2.07944	0.145749	-1.05812	137.5	266.172
37	-2.07944	0.149798	-1.04073	137.5	265.322
38	-2.07944	0.153846	-1.02365	137.5	264.488
39	-2.07944	0.157895	-1.00687	137.5	263.669
40	-2.07944	0.161943	-0.990356	137.5	262.862
41	-2.07944	0.165992	-0.974114	137.5	262.069
42	-2.07944	0.17004	-0.954165	137.5	261.095
43	-2.07944	0.174089	-0.938476	137.5	260.329
44	-2.07944	0.178138	-0.923014	137.5	259.574
45	-2.07944	0.182186	-0.907769	137.5	258.829
46	-2.07944	0.186235	-0.892733	137.5	258.095
47	-2.07944	0.190283	-0.877897	137.5	257.371
48	-2.07944	0.194332	-0.863249	137.5	256.655

49	-2.07944	0.198381	-0.848786	137.5	255.949
50	-2.07944	0.202429	-0.834498	137.5	255.251
51	-1.44817	0.206478	-0.820379	205.046	254.562
52	-1.44817	0.210526	-0.806422	205.046	253.88
53	-1.44817	0.214575	-0.792618	205.046	253.206
54	-1.44817	0.218623	-0.778966	205.046	252.54
55	-1.44817	0.222672	-0.765456	205.046	251.88
56	-1.27297	0.226721	-0.752084	223.793	251.227
57	-1.27297	0.230769	-0.738846	223.793	250.58
58	-1.27297	0.234818	-0.725736	223.793	249.94
59	0	0.238866	-0.712751	360	249.306
60	0	0.242915	-0.699883	360	248.678
61	0	0.246964	-0.687131	360	248.055
62	0	0.251012	-0.671346	360	247.284
63	0	0.255061	-0.658838	360	246.673
64	0	0.259109	-0.646431	360	246.067
65	0	0.263158	-0.634124	360	245.466
66	0	0.267206	-0.621911	360	244.87
67	0	0.271255	-0.609791	360	244.278
68	0	0.275304	-0.597761	360	243.691
69	0	0.279352	-0.585815	360	243.107
70	0	0.283401	-0.573953	360	242.528
71	0	0.287449	-0.56217	360	241.953
72	0	0.291498	-0.550465	360	241.381
73	0	0.295547	-0.538836	360	240.813
74	0	0.299595	-0.52728	360	240.249
75	0	0.303644	-0.515791	360	239.688
76	0	0.307692	-0.504372	360	239.13
77	0	0.311741	-0.493018	360	238.576
78	0	0.315789	-0.481728	360	238.024
79	0	0.319838	-0.470498	360	237.476
80	0	0.323887	-0.459327	360	236.93
81	0	0.327935	-0.448213	360	236.388
82	0	0.331984	-0.437153	360	235.848
83	0	0.336032	-0.423405	360	235.176
84	0	0.340081	-0.412463	360	234.642
85	0	0.34413	-0.401571	360	234.11
86	0	0.348178	-0.390726	360	233.58
87	0	0.352227	-0.379927	360	233.053
88	0	0.356275	-0.369171	360	232.528
89	0	0.360324	-0.358459	360	232.005
90	0	0.364372	-0.347787	360	231.484
91	0	0.368421	-0.337155	360	230.964
92	0	0.37247	-0.326561	360	230.447
93	0	0.376518	-0.316004	360	229.932
94	0	0.380567	-0.305481	360	229.418
95	0	0.384615	-0.294992	360	228.905
96	0	0.388664	-0.284535	360	228.395
97	0	0.392713	-0.27411	360	227.886
98	0	0.396761	-0.263715	360	227.378
99	0	0.40081	-0.253347	360	226.872
100	0	0.404858	-0.243007	360	226.367
101	0	0.408907	-0.232693	360	225.863
102	0	0.412955	-0.222403	360	225.361
103	0	0.417004	-0.209575	360	224.734
104	0	0.421053	-0.199336	360	224.234
105	0	0.425101	-0.189118	360	223.735
106	0	0.42915	-0.17892	360	223.237
107	0	0.433198	-0.168741	360	222.74
108	0	0.437247	-0.158579	360	222.244
109	0	0.441296	-0.148434	360	221.749
110	0	0.445344	-0.138305	360	221.254

111	0	0.449393	-0.128189	360	220.76
112	0	0.453441	-0.118085	360	220.267
113	0	0.45749	-0.107995	360	219.774
114	0	0.461538	-0.0979139	360	219.281
115	0	0.465587	-0.0878447	360	218.79
116	0	0.469636	-0.0777834	360	218.298
117	0	0.473684	-0.0677301	360	217.807
118	0	0.477733	-0.0576847	360	217.317
119	0	0.481781	-0.0476439	360	216.827
120	0	0.48583	-0.0376076	360	216.337
121	0	0.489879	-0.0275759	360	215.847
122	0	0.493927	-0.0175476	360	215.357
123	0	0.497976	-0.00751925	360	214.867
124	0	0.502024	0.00751925	360	214.133
125	0	0.506073	0.0175476	360	213.643
126	0	0.510121	0.0275759	360	213.153
127	0	0.51417	0.0376076	360	212.663
128	0	0.518219	0.0476439	360	212.173
129	0	0.522267	0.0576847	360	211.683
130	0	0.526316	0.0677301	360	211.193
131	0	0.530364	0.0777834	360	210.702
132	0	0.534413	0.0878447	360	210.21
133	0	0.538462	0.0979139	360	209.719
134	0	0.54251	0.107995	360	209.226
135	0	0.546559	0.118085	360	208.733
136	0	0.550607	0.128189	360	208.24
137	0	0.554656	0.138305	360	207.746
138	0	0.558704	0.148434	360	207.251
139	0	0.562753	0.158579	360	206.756
140	0	0.566802	0.168741	360	206.26
141	0	0.57085	0.17892	360	205.763
142	0	0.574899	0.189118	360	205.265
143	0	0.578947	0.199336	360	204.766
144	0	0.582996	0.209575	360	204.266
145	0	0.587045	0.222403	360	203.639
146	0	0.591093	0.232693	360	203.137
147	0	0.595142	0.243007	360	202.633
148	0	0.59919	0.253347	360	202.128
149	0	0.603239	0.263715	360	201.622
150	0	0.607287	0.27411	360	201.114
151	0	0.611336	0.284535	360	200.605
152	0	0.615385	0.294992	360	200.095
153	0	0.619433	0.305481	360	199.582
154	0	0.623482	0.316004	360	199.068
155	0	0.62753	0.326561	360	198.553
156	0	0.631579	0.337155	360	198.036
157	0	0.635628	0.347787	360	197.516
158	0	0.639676	0.358459	360	196.995
159	0	0.643725	0.369171	360	196.472
160	0	0.647773	0.379927	360	195.947
161	0	0.651822	0.390726	360	195.42
162	0	0.65587	0.401571	360	194.89
163	0	0.659919	0.412463	360	194.358
164	0	0.663968	0.423405	360	193.824
165	0	0.668016	0.437153	360	193.152
166	0	0.672065	0.448213	360	192.612
167	0	0.676113	0.459327	360	192.07
168	0	0.680162	0.470498	360	191.524
169	0	0.684211	0.481728	360	190.976
170	0	0.688259	0.493018	360	190.424
171	0	0.692308	0.504372	360	189.87
172	0	0.696356	0.515791	360	189.312

173	0	0.700405	0.52728	360	188.751	
174	0	0.704453	0.538836	360	188.187	
175	0	0.708502	0.550465	360	187.619	
176	0	0.712551	0.56217	360	187.047	
177	0	0.716599	0.573953	360	186.472	
178	0	0.720648	0.585815	360	185.893	
179	0	0.724696	0.597761	360	185.309	
180	0	0.728745	0.609791	360	184.722	
181	0	0.732794	0.621911	360	184.13	
182	0	0.736842	0.634124	360	183.534	
183	0	0.740891	0.646431	360	182.933	
184	0	0.744939	0.658838	360	182.327	
185	0	0.748988	0.671346	360	181.716	
186	0	0.753036	0.687131	360	180.945	
187	0	0.757085	0.699883	360	180.322	
188	0	0.761134	0.712751	360	179.694	
189	0	0.765182	0.725736	360	179.06	
190	0	0.769231	0.738846	360	178.42	
191	0	0.773279	0.752084	360	177.773	
192	0	0.777328	0.765456	360	177.12	
193	0	0.781377	0.778966	360	176.46	
194	0	0.785425	0.792618	360	175.794	
195	0	0.789474	0.806422	360	175.12	
196	0	0.793522	0.820379	360	174.438	
197	0	0.797571	0.834498	360	173.749	
198	0	0.801619	0.848786	360	173.051	
199	0	0.805668	0.863249	360	172.345	
200	0	0.809717	0.877897	360	171.629	
201	0	0.813765	0.892733	360	170.905	
202	0	0.817814	0.907769	360	170.171	
203	0	0.821862	0.923014	360	169.426	
204	0	0.825911	0.938476	360	168.671	
205	0	0.82996	0.954165	360	167.905	
206	0	0.834008	0.974114	360	166.931	
207	0	0.838057	0.990356	360	166.138	
208	0	0.842105	1.00687	360	165.331	
209	0	0.846154	1.02365	360	164.512	
210	0	0.850202	1.04073	360	163.678	
211	0	0.854251	1.05812	360	162.828	
212	0	0.8583	1.07584	360	161.963	
213	0	0.862348	1.0939	360	161.081	
214	0	0.866397	1.11232	360	160.182	
215	0	0.870445	1.13113	360	159.263	
216	0	0.874494	1.15035	360	158.325	
217	0	0.878543	1.17	360	157.365	
218	0	0.882591	1.19012	360	156.383	
219	0	0.88664	1.21073	360	155.376	
220	0	0.890688	1.23187	360	154.344	
221	0	0.894737	1.25357	360	153.284	
222	0	0.898785	1.27588	360	152.195	
223	0	0.902834	1.29884	360	151.074	
224	0	0.906883	1.32251	360	149.918	
225	0	0.910931	1.34694	360	148.724	
226	0	0.91498	1.3722	360	147.491	
227	0	0.919028	1.40507	360	145.886	
228	0	0.923077	1.4325	360	144.546	
229	0	0.927126	1.46106	360	143.152	
230	0	0.931174	1.49085	360	141.697	
231	0	0.935223	1.52203	360	140.174	
232	0	0.939271	1.55477	360	138.575	
233	0	0.94332	1.58927	360	136.891	
234	0	0.947368	1.62576	360	135.109	

235	0	0.951417	1.66456	360	133.214
236	0	0.955466	1.70604	360	131.188
237	0	0.959514	1.75069	360	129.008
238	0	0.963563	1.79912	360	126.643
239	0	0.967611	1.85218	360	124.052
240	0	0.97166	1.91103	360	121.178
241	0	0.975709	1.97737	360	117.938
242	0	0.979757	2.05375	360	114.209
243	0	0.983806	2.14441	360	109.781
244	0	0.987854	2.25713	360	104.277
245	1.91692	0.991903	2.40892	565.111	96.8642
246	1.91692	0.995951	2.65209	565.111	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: 1,3-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 99.187%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 0
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-6	11/22/2011	2	-2.07944	FALSE
MW-12BR	11/22/2011	2	-2.07944	FALSE
MW-12AR	11/22/2011	2	-2.07944	FALSE
MW-9	11/22/2011	2	-2.07944	FALSE
MW-11R	11/22/2011	2	-2.07944	FALSE
MW-7	11/22/2011	2	-2.07944	FALSE
MW-8	11/22/2011	2	-2.07944	FALSE
MW-10	11/22/2011	2	1.91692	TRUE

Sen's Slope Analysis
Parameter: 1,3-Dichlorobenzene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0 (8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
ND<0 (9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1)	0
ND<0 (10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1)	0
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0 (3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
ND<0 (4/1/2005)	ND<0 (7/20/1995)	(0 - 0)/(17 - 1)	0
ND<0 (10/25/2005)	ND<0 (7/20/1995)	(0 - 0)/(18 - 1)	0
ND<0 (4/29/2006)	ND<0 (7/20/1995)	(0 - 0)/(19 - 1)	0
ND<0 (11/18/2006)	ND<0 (7/20/1995)	(0 - 0)/(20 - 1)	0
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
ND<0 (11/28/2007)	ND<0 (7/20/1995)	(0 - 0)/(22 - 1)	0
ND<0 (6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1)	0
ND<0 (11/20/2008)	ND<0 (7/20/1995)	(0 - 0)/(24 - 1)	0
ND<-2.07944 (6/11/2009)	ND<0 (7/20/1995)	(-2.07944 - 0)/(25 - 1)	-0.0866434
ND<-1.44817 (11/16/2009)	ND<0 (7/20/1995)	(-1.44817 - 0)/(26 - 1)	-0.0579268
ND<-2.07944 (6/30/2010)	ND<0 (7/20/1995)	(-2.07944 - 0)/(27 - 1)	-0.0799785
ND<-2.07944 U (11/12/2010)	ND<0 (7/20/1995)	(-2.07944 - 0)/(28 - 1)	-0.0770164
ND<-2.07944 U (7/5/2011)	ND<0 (7/20/1995)	(-2.07944 - 0)/(29 - 1)	-0.0742658
1.91692 (11/22/2011)	ND<0 (7/20/1995)	(1.91692 - 0)/(30 - 1)	0.0661008
1.91692 (11/22/2011)	ND<0 (7/20/1995)	(1.91692 - 0)/(30 - 1)	0.0661008
ND<0 (9/28/1995)	ND<0 (8/24/1995)	(0 - 0)/(3 - 2)	0
ND<0 (10/26/1995)	ND<0 (8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0 (11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0
ND<0 (12/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(6 - 2)	0
ND<0 (3/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(7 - 2)	0
ND<0 (9/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(8 - 2)	0
ND<0 (4/7/1998)	ND<0 (8/24/1995)	(0 - 0)/(9 - 2)	0
ND<0 (9/23/1998)	ND<0 (8/24/1995)	(0 - 0)/(10 - 2)	0
ND<0 (3/16/1999)	ND<0 (8/24/1995)	(0 - 0)/(11 - 2)	0
ND<0 (9/23/1999)	ND<0 (8/24/1995)	(0 - 0)/(12 - 2)	0
ND<0 (3/15/2000)	ND<0 (8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0 (9/24/2003)	ND<0 (8/24/1995)	(0 - 0)/(14 - 2)	0
ND<0 (3/11/2004)	ND<0 (8/24/1995)	(0 - 0)/(15 - 2)	0

ND<0 (10/12/2004)	ND<0 (8/24/1995)	(0 - 0)/(16 - 2)	0
ND<0 (4/1/2005)	ND<0 (8/24/1995)	(0 - 0)/(17 - 2)	0
ND<0 (10/25/2005)	ND<0 (8/24/1995)	(0 - 0)/(18 - 2)	0
ND<0 (4/29/2006)	ND<0 (8/24/1995)	(0 - 0)/(19 - 2)	0
ND<0 (11/18/2006)	ND<0 (8/24/1995)	(0 - 0)/(20 - 2)	0
ND<0 (5/23/2007)	ND<0 (8/24/1995)	(0 - 0)/(21 - 2)	0
ND<0 (11/28/2007)	ND<0 (8/24/1995)	(0 - 0)/(22 - 2)	0
ND<0 (6/5/2008)	ND<0 (8/24/1995)	(0 - 0)/(23 - 2)	0
ND<0 (11/20/2008)	ND<0 (8/24/1995)	(0 - 0)/(24 - 2)	0
ND<-2.07944 (6/11/2009)	ND<0 (8/24/1995)	(-2.07944 - 0)/(25 - 2)	
-0.0904105			
ND<-1.44817 (11/16/2009)	ND<0 (8/24/1995)	(-1.44817 - 0)/(26 - 2)	
-0.0603404			
ND<-2.07944 (6/30/2010)	ND<0 (8/24/1995)	(-2.07944 - 0)/(27 - 2)	
-0.0831777			
ND<-2.07944 U (11/12/2010)	ND<0 (8/24/1995)	(-2.07944 - 0)/(28 - 2)	
-0.0799785			
ND<-2.07944 U (7/5/2011)	ND<0 (8/24/1995)	(-2.07944 - 0)/(29 - 2)	
-0.0770164			
1.91692 (11/22/2011)	ND<0 (8/24/1995)	(1.91692 - 0)/(30 - 2)	
0.0684615			
1.91692 (11/22/2011)	ND<0 (8/24/1995)	(1.91692 - 0)/(30 - 2)	
0.0684615			
ND<0 (10/26/1995)	ND<0 (9/28/1995)	(0 - 0)/(4 - 3)	0
ND<0 (11/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(5 - 3)	0
ND<0 (12/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(6 - 3)	0
ND<0 (3/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(7 - 3)	0
ND<0 (9/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(8 - 3)	0
ND<0 (4/7/1998)	ND<0 (9/28/1995)	(0 - 0)/(9 - 3)	0
ND<0 (9/23/1998)	ND<0 (9/28/1995)	(0 - 0)/(10 - 3)	0
ND<0 (3/16/1999)	ND<0 (9/28/1995)	(0 - 0)/(11 - 3)	0
ND<0 (9/23/1999)	ND<0 (9/28/1995)	(0 - 0)/(12 - 3)	0
ND<0 (3/15/2000)	ND<0 (9/28/1995)	(0 - 0)/(13 - 3)	0
ND<0 (9/24/2003)	ND<0 (9/28/1995)	(0 - 0)/(14 - 3)	0
ND<0 (3/11/2004)	ND<0 (9/28/1995)	(0 - 0)/(15 - 3)	0
ND<0 (10/12/2004)	ND<0 (9/28/1995)	(0 - 0)/(16 - 3)	0
ND<0 (4/1/2005)	ND<0 (9/28/1995)	(0 - 0)/(17 - 3)	0
ND<0 (10/25/2005)	ND<0 (9/28/1995)	(0 - 0)/(18 - 3)	0
ND<0 (4/29/2006)	ND<0 (9/28/1995)	(0 - 0)/(19 - 3)	0
ND<0 (11/18/2006)	ND<0 (9/28/1995)	(0 - 0)/(20 - 3)	0
ND<0 (5/23/2007)	ND<0 (9/28/1995)	(0 - 0)/(21 - 3)	0
ND<0 (11/28/2007)	ND<0 (9/28/1995)	(0 - 0)/(22 - 3)	0
ND<0 (6/5/2008)	ND<0 (9/28/1995)	(0 - 0)/(23 - 3)	0
ND<0 (11/20/2008)	ND<0 (9/28/1995)	(0 - 0)/(24 - 3)	0
ND<-2.07944 (6/11/2009)	ND<0 (9/28/1995)	(-2.07944 - 0)/(25 - 3)	
-0.0945201			
ND<-1.44817 (11/16/2009)	ND<0 (9/28/1995)	(-1.44817 - 0)/(26 - 3)	
-0.0629639			
ND<-2.07944 (6/30/2010)	ND<0 (9/28/1995)	(-2.07944 - 0)/(27 - 3)	
-0.0866434			
ND<-2.07944 U (11/12/2010)	ND<0 (9/28/1995)	(-2.07944 - 0)/(28 - 3)	
-0.0831777			
ND<-2.07944 U (7/5/2011)	ND<0 (9/28/1995)	(-2.07944 - 0)/(29 - 3)	
-0.0799785			
1.91692 (11/22/2011)	ND<0 (9/28/1995)	(1.91692 - 0)/(30 - 3)	
0.0709971			
1.91692 (11/22/2011)	ND<0 (9/28/1995)	(1.91692 - 0)/(30 - 3)	
0.0709971			
ND<0 (11/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(5 - 4)	0
ND<0 (12/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(6 - 4)	0

ND<0 (3/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(7 - 4)	0
ND<0 (9/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(8 - 4)	0
ND<0 (4/7/1998)	ND<0 (10/26/1995)	(0 - 0)/(9 - 4)	0
ND<0 (9/23/1998)	ND<0 (10/26/1995)	(0 - 0)/(10 - 4)	0
ND<0 (3/16/1999)	ND<0 (10/26/1995)	(0 - 0)/(11 - 4)	0
ND<0 (9/23/1999)	ND<0 (10/26/1995)	(0 - 0)/(12 - 4)	0
ND<0 (3/15/2000)	ND<0 (10/26/1995)	(0 - 0)/(13 - 4)	0
ND<0 (9/24/2003)	ND<0 (10/26/1995)	(0 - 0)/(14 - 4)	0
ND<0 (3/11/2004)	ND<0 (10/26/1995)	(0 - 0)/(15 - 4)	0
ND<0 (10/12/2004)	ND<0 (10/26/1995)	(0 - 0)/(16 - 4)	0
ND<0 (4/1/2005)	ND<0 (10/26/1995)	(0 - 0)/(17 - 4)	0
ND<0 (10/25/2005)	ND<0 (10/26/1995)	(0 - 0)/(18 - 4)	0
ND<0 (4/29/2006)	ND<0 (10/26/1995)	(0 - 0)/(19 - 4)	0
ND<0 (11/18/2006)	ND<0 (10/26/1995)	(0 - 0)/(20 - 4)	0
ND<0 (5/23/2007)	ND<0 (10/26/1995)	(0 - 0)/(21 - 4)	0
ND<0 (11/28/2007)	ND<0 (10/26/1995)	(0 - 0)/(22 - 4)	0
ND<0 (6/5/2008)	ND<0 (10/26/1995)	(0 - 0)/(23 - 4)	0
ND<0 (11/20/2008)	ND<0 (10/26/1995)	(0 - 0)/(24 - 4)	0
ND<-2.07944 (6/11/2009)	ND<0 (10/26/1995)	(-2.07944 - 0)/(25 - 4)	
-0.099021			
ND<-1.44817 (11/16/2009)	ND<0 (10/26/1995)	(-1.44817 - 0)/(26 - 4)	
-0.0658259			
ND<-2.07944 (6/30/2010)	ND<0 (10/26/1995)	(-2.07944 - 0)/(27 - 4)	
-0.0904105			
ND<-2.07944 U (11/12/2010)	ND<0 (10/26/1995)	(-2.07944 - 0)/(28 - 4)	
-0.0866434			
ND<-2.07944 U (7/5/2011)	ND<0 (10/26/1995)	(-2.07944 - 0)/(29 - 4)	
-0.0831777			
1.91692 (11/22/2011)	ND<0 (10/26/1995)	(1.91692 - 0)/(30 - 4)	
0.0737278			
1.91692 (11/22/2011)	ND<0 (10/26/1995)	(1.91692 - 0)/(30 - 4)	
0.0737278			

ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
ND<0 (4/1/2005)	ND<0 (11/19/1996)	(0 - 0)/(17 - 5)	0
ND<0 (10/25/2005)	ND<0 (11/19/1996)	(0 - 0)/(18 - 5)	0
ND<0 (4/29/2006)	ND<0 (11/19/1996)	(0 - 0)/(19 - 5)	0
ND<0 (11/18/2006)	ND<0 (11/19/1996)	(0 - 0)/(20 - 5)	0
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
ND<0 (11/28/2007)	ND<0 (11/19/1996)	(0 - 0)/(22 - 5)	0
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
ND<0 (11/20/2008)	ND<0 (11/19/1996)	(0 - 0)/(24 - 5)	0
ND<-2.07944 (6/11/2009)	ND<0 (11/19/1996)	(-2.07944 - 0)/(25 - 5)	
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ND<-1.44817 (11/16/2009)	ND<0 (11/19/1996)	(-1.44817 - 0)/(26 - 5)	
-0.0689605			
ND<-2.07944 (6/30/2010)	ND<0 (11/19/1996)	(-2.07944 - 0)/(27 - 5)	
-0.0945201			
ND<-2.07944 U (11/12/2010)	ND<0 (11/19/1996)	(-2.07944 - 0)/(28 - 5)	
-0.0904105			
ND<-2.07944 U (7/5/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(29 - 5)	
-0.0866434			

1.91692 (11/22/2011) ND<0 (11/19/1996) (1.91692 - 0)/(30 - 5)
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0.0766769

ND<0 (3/24/1997) ND<0 (12/19/1996) (0 - 0)/(7 - 6) 0
ND<0 (9/24/1997) ND<0 (12/19/1996) (0 - 0)/(8 - 6) 0
ND<0 (4/7/1998) ND<0 (12/19/1996) (0 - 0)/(9 - 6) 0
ND<0 (9/23/1998) ND<0 (12/19/1996) (0 - 0)/(10 - 6) 0
ND<0 (3/16/1999) ND<0 (12/19/1996) (0 - 0)/(11 - 6) 0
ND<0 (9/23/1999) ND<0 (12/19/1996) (0 - 0)/(12 - 6) 0
ND<0 (3/15/2000) ND<0 (12/19/1996) (0 - 0)/(13 - 6) 0
ND<0 (9/24/2003) ND<0 (12/19/1996) (0 - 0)/(14 - 6) 0
ND<0 (3/11/2004) ND<0 (12/19/1996) (0 - 0)/(15 - 6) 0
ND<0 (10/12/2004) ND<0 (12/19/1996) (0 - 0)/(16 - 6) 0
ND<0 (4/1/2005) ND<0 (12/19/1996) (0 - 0)/(17 - 6) 0
ND<0 (10/25/2005) ND<0 (12/19/1996) (0 - 0)/(18 - 6) 0
ND<0 (4/29/2006) ND<0 (12/19/1996) (0 - 0)/(19 - 6) 0
ND<0 (11/18/2006) ND<0 (12/19/1996) (0 - 0)/(20 - 6) 0
ND<0 (5/23/2007) ND<0 (12/19/1996) (0 - 0)/(21 - 6) 0
ND<0 (11/28/2007) ND<0 (12/19/1996) (0 - 0)/(22 - 6) 0
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ND<0 (11/20/2008) ND<0 (12/19/1996) (0 - 0)/(24 - 6) 0
ND<-2.07944 (6/11/2009) ND<0 (12/19/1996) (-2.07944 - 0)/(25 - 6)
-0.109444
ND<-1.44817 (11/16/2009) ND<0 (12/19/1996) (-1.44817 - 0)/(26 - 6)
-0.0724085
ND<-2.07944 (6/30/2010) ND<0 (12/19/1996) (-2.07944 - 0)/(27 - 6)
-0.099021
ND<-2.07944 U (11/12/2010) ND<0 (12/19/1996) (-2.07944 - 0)/(28 - 6)
-0.0945201
ND<-2.07944 U (7/5/2011) ND<0 (12/19/1996) (-2.07944 - 0)/(29 - 6)
-0.0904105
1.91692 (11/22/2011) ND<0 (12/19/1996) (1.91692 - 0)/(30 - 6)
0.0798718
1.91692 (11/22/2011) ND<0 (12/19/1996) (1.91692 - 0)/(30 - 6)
0.0798718

ND<0 (9/24/1997) ND<0 (3/24/1997) (0 - 0)/(8 - 7) 0
ND<0 (4/7/1998) ND<0 (3/24/1997) (0 - 0)/(9 - 7) 0
ND<0 (9/23/1998) ND<0 (3/24/1997) (0 - 0)/(10 - 7) 0
ND<0 (3/16/1999) ND<0 (3/24/1997) (0 - 0)/(11 - 7) 0
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ND<0 (3/15/2000) ND<0 (3/24/1997) (0 - 0)/(13 - 7) 0
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ND<0 (3/11/2004) ND<0 (3/24/1997) (0 - 0)/(15 - 7) 0
ND<0 (10/12/2004) ND<0 (3/24/1997) (0 - 0)/(16 - 7) 0
ND<0 (4/1/2005) ND<0 (3/24/1997) (0 - 0)/(17 - 7) 0
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ND<-1.44817 (11/16/2009) ND<0 (3/24/1997) (-1.44817 - 0)/(26 - 7)
-0.0762195
ND<-2.07944 (6/30/2010) ND<0 (3/24/1997) (-2.07944 - 0)/(27 - 7)
-0.103972

ND<-2.07944 U (11/12/2010) ND<0 (3/24/1997) (-2.07944 - 0)/(28 - 7)
-0.099021
ND<-2.07944 U (7/5/2011) ND<0 (3/24/1997) (-2.07944 - 0)/(29 - 7)
-0.0945201
1.91692 (11/22/2011) ND<0 (3/24/1997) (1.91692 - 0)/(30 - 7)
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1.91692 (11/22/2011) ND<0 (3/24/1997) (1.91692 - 0)/(30 - 7)
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ND<0 (4/7/1998) ND<0 (9/24/1997) (0 - 0)/(9 - 8) 0
ND<0 (9/23/1998) ND<0 (9/24/1997) (0 - 0)/(10 - 8) 0
ND<0 (3/16/1999) ND<0 (9/24/1997) (0 - 0)/(11 - 8) 0
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ND<0 (3/15/2000) ND<0 (9/24/1997) (0 - 0)/(13 - 8) 0
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ND<0 (10/12/2004) ND<0 (9/24/1997) (0 - 0)/(16 - 8) 0
ND<0 (4/1/2005) ND<0 (9/24/1997) (0 - 0)/(17 - 8) 0
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ND<0 (11/28/2007) ND<0 (9/24/1997) (0 - 0)/(22 - 8) 0
ND<0 (6/5/2008) ND<0 (9/24/1997) (0 - 0)/(23 - 8) 0
ND<0 (11/20/2008) ND<0 (9/24/1997) (0 - 0)/(24 - 8) 0
ND<-2.07944 (6/11/2009) ND<0 (9/24/1997) (-2.07944 - 0)/(25 - 8) -0.12232
ND<-1.44817 (11/16/2009) ND<0 (9/24/1997) (-1.44817 - 0)/(26 - 8)
-0.0804539
ND<-2.07944 (6/30/2010) ND<0 (9/24/1997) (-2.07944 - 0)/(27 - 8)
-0.109444
ND<-2.07944 U (11/12/2010) ND<0 (9/24/1997) (-2.07944 - 0)/(28 - 8)
-0.103972
ND<-2.07944 U (7/5/2011) ND<0 (9/24/1997) (-2.07944 - 0)/(29 - 8)
-0.099021
1.91692 (11/22/2011) ND<0 (9/24/1997) (1.91692 - 0)/(30 - 8)
0.0871328
1.91692 (11/22/2011) ND<0 (9/24/1997) (1.91692 - 0)/(30 - 8)
0.0871328

ND<0 (9/23/1998) ND<0 (4/7/1998) (0 - 0)/(10 - 9) 0
ND<0 (3/16/1999) ND<0 (4/7/1998) (0 - 0)/(11 - 9) 0
ND<0 (9/23/1999) ND<0 (4/7/1998) (0 - 0)/(12 - 9) 0
ND<0 (3/15/2000) ND<0 (4/7/1998) (0 - 0)/(13 - 9) 0
ND<0 (9/24/2003) ND<0 (4/7/1998) (0 - 0)/(14 - 9) 0
ND<0 (3/11/2004) ND<0 (4/7/1998) (0 - 0)/(15 - 9) 0
ND<0 (10/12/2004) ND<0 (4/7/1998) (0 - 0)/(16 - 9) 0
ND<0 (4/1/2005) ND<0 (4/7/1998) (0 - 0)/(17 - 9) 0
ND<0 (10/25/2005) ND<0 (4/7/1998) (0 - 0)/(18 - 9) 0
ND<0 (4/29/2006) ND<0 (4/7/1998) (0 - 0)/(19 - 9) 0
ND<0 (11/18/2006) ND<0 (4/7/1998) (0 - 0)/(20 - 9) 0
ND<0 (5/23/2007) ND<0 (4/7/1998) (0 - 0)/(21 - 9) 0
ND<0 (11/28/2007) ND<0 (4/7/1998) (0 - 0)/(22 - 9) 0
ND<0 (6/5/2008) ND<0 (4/7/1998) (0 - 0)/(23 - 9) 0
ND<0 (11/20/2008) ND<0 (4/7/1998) (0 - 0)/(24 - 9) 0
ND<-2.07944 (6/11/2009) ND<0 (4/7/1998) (-2.07944 - 0)/(25 - 9)
-0.129965
ND<-1.44817 (11/16/2009) ND<0 (4/7/1998) (-1.44817 - 0)/(26 - 9)
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ND<-2.07944 (6/30/2010) ND<0 (4/7/1998) (-2.07944 - 0)/(27 - 9)
-0.115525
ND<-2.07944 U (11/12/2010) ND<0 (4/7/1998) (-2.07944 - 0)/(28 - 9)
-0.109444

ND<-2.07944 U (7/5/2011) ND<0 (4/7/1998) (-2.07944 - 0)/(29 - 9)
-0.103972
1.91692 (11/22/2011) ND<0 (4/7/1998) (1.91692 - 0)/(30 - 9)
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0.091282

ND<0 (3/16/1999) ND<0 (9/23/1998) (0 - 0)/(11 - 10) 0
ND<0 (9/23/1999) ND<0 (9/23/1998) (0 - 0)/(12 - 10) 0
ND<0 (3/15/2000) ND<0 (9/23/1998) (0 - 0)/(13 - 10) 0
ND<0 (9/24/2003) ND<0 (9/23/1998) (0 - 0)/(14 - 10) 0
ND<0 (3/11/2004) ND<0 (9/23/1998) (0 - 0)/(15 - 10) 0
ND<0 (10/12/2004) ND<0 (9/23/1998) (0 - 0)/(16 - 10) 0
ND<0 (4/1/2005) ND<0 (9/23/1998) (0 - 0)/(17 - 10) 0
ND<0 (10/25/2005) ND<0 (9/23/1998) (0 - 0)/(18 - 10) 0
ND<0 (4/29/2006) ND<0 (9/23/1998) (0 - 0)/(19 - 10) 0
ND<0 (11/18/2006) ND<0 (9/23/1998) (0 - 0)/(20 - 10) 0
ND<0 (5/23/2007) ND<0 (9/23/1998) (0 - 0)/(21 - 10) 0
ND<0 (11/28/2007) ND<0 (9/23/1998) (0 - 0)/(22 - 10) 0
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ND<0 (11/20/2008) ND<0 (9/23/1998) (0 - 0)/(24 - 10) 0
ND<-2.07944 (6/11/2009) ND<0 (9/23/1998) (-2.07944 - 0)/(25 - 10)
-0.138629
ND<-1.44817 (11/16/2009) ND<0 (9/23/1998) (-1.44817 - 0)/(26 - 10)
-0.0905106
ND<-2.07944 (6/30/2010) ND<0 (9/23/1998) (-2.07944 - 0)/(27 - 10) -0.12232
ND<-2.07944 U (11/12/2010) ND<0 (9/23/1998) (-2.07944 - 0)/(28 - 10)
-0.115525
ND<-2.07944 U (7/5/2011) ND<0 (9/23/1998) (-2.07944 - 0)/(29 - 10)
-0.109444
1.91692 (11/22/2011) ND<0 (9/23/1998) (1.91692 - 0)/(30 - 10)
0.0958461
1.91692 (11/22/2011) ND<0 (9/23/1998) (1.91692 - 0)/(30 - 10)
0.0958461

ND<0 (9/23/1999) ND<0 (3/16/1999) (0 - 0)/(12 - 11) 0
ND<0 (3/15/2000) ND<0 (3/16/1999) (0 - 0)/(13 - 11) 0
ND<0 (9/24/2003) ND<0 (3/16/1999) (0 - 0)/(14 - 11) 0
ND<0 (3/11/2004) ND<0 (3/16/1999) (0 - 0)/(15 - 11) 0
ND<0 (10/12/2004) ND<0 (3/16/1999) (0 - 0)/(16 - 11) 0
ND<0 (4/1/2005) ND<0 (3/16/1999) (0 - 0)/(17 - 11) 0
ND<0 (10/25/2005) ND<0 (3/16/1999) (0 - 0)/(18 - 11) 0
ND<0 (4/29/2006) ND<0 (3/16/1999) (0 - 0)/(19 - 11) 0
ND<0 (11/18/2006) ND<0 (3/16/1999) (0 - 0)/(20 - 11) 0
ND<0 (5/23/2007) ND<0 (3/16/1999) (0 - 0)/(21 - 11) 0
ND<0 (11/28/2007) ND<0 (3/16/1999) (0 - 0)/(22 - 11) 0
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ND<0 (11/20/2008) ND<0 (3/16/1999) (0 - 0)/(24 - 11) 0
ND<-2.07944 (6/11/2009) ND<0 (3/16/1999) (-2.07944 - 0)/(25 - 11)
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ND<-1.44817 (11/16/2009) ND<0 (3/16/1999) (-1.44817 - 0)/(26 - 11)
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ND<-2.07944 (6/30/2010) ND<0 (3/16/1999) (-2.07944 - 0)/(27 - 11)
-0.129965
ND<-2.07944 U (11/12/2010) ND<0 (3/16/1999) (-2.07944 - 0)/(28 - 11)
-0.12232
ND<-2.07944 U (7/5/2011) ND<0 (3/16/1999) (-2.07944 - 0)/(29 - 11)
-0.115525
1.91692 (11/22/2011) ND<0 (3/16/1999) (1.91692 - 0)/(30 - 11)
0.100891
1.91692 (11/22/2011) ND<0 (3/16/1999) (1.91692 - 0)/(30 - 11)
0.100891

ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
ND<0 (4/1/2005)	ND<0 (9/23/1999)	(0 - 0)/(17 - 12)	0	
ND<0 (10/25/2005)	ND<0 (9/23/1999)	(0 - 0)/(18 - 12)	0	
ND<0 (4/29/2006)	ND<0 (9/23/1999)	(0 - 0)/(19 - 12)	0	
ND<0 (11/18/2006)	ND<0 (9/23/1999)	(0 - 0)/(20 - 12)	0	
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0	
ND<0 (11/28/2007)	ND<0 (9/23/1999)	(0 - 0)/(22 - 12)	0	
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0	
ND<0 (11/20/2008)	ND<0 (9/23/1999)	(0 - 0)/(24 - 12)	0	
ND<-2.07944 (6/11/2009)	ND<0 (9/23/1999)	(-2.07944 - 0)/(25 - 12)		
-0.159957				
ND<-1.44817 (11/16/2009)	ND<0 (9/23/1999)	(-1.44817 - 0)/(26 - 12)		
-0.103441				
ND<-2.07944 (6/30/2010)	ND<0 (9/23/1999)	(-2.07944 - 0)/(27 - 12)		
-0.138629				
ND<-2.07944 U (11/12/2010)	ND<0 (9/23/1999)	(-2.07944 - 0)/(28 - 12)		
-0.129965				
ND<-2.07944 U (7/5/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(29 - 12)		-0.12232
1.91692 (11/22/2011)	ND<0 (9/23/1999)	(1.91692 - 0)/(30 - 12)		
0.106496				
1.91692 (11/22/2011)	ND<0 (9/23/1999)	(1.91692 - 0)/(30 - 12)		
0.106496				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
ND<0 (4/1/2005)	ND<0 (3/15/2000)	(0 - 0)/(17 - 13)	0	
ND<0 (10/25/2005)	ND<0 (3/15/2000)	(0 - 0)/(18 - 13)	0	
ND<0 (4/29/2006)	ND<0 (3/15/2000)	(0 - 0)/(19 - 13)	0	
ND<0 (11/18/2006)	ND<0 (3/15/2000)	(0 - 0)/(20 - 13)	0	
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
ND<0 (11/28/2007)	ND<0 (3/15/2000)	(0 - 0)/(22 - 13)	0	
ND<0 (6/5/2008)	ND<0 (3/15/2000)	(0 - 0)/(23 - 13)	0	
ND<0 (11/20/2008)	ND<0 (3/15/2000)	(0 - 0)/(24 - 13)	0	
ND<-2.07944 (6/11/2009)	ND<0 (3/15/2000)	(-2.07944 - 0)/(25 - 13)		
-0.173287				
ND<-1.44817 (11/16/2009)	ND<0 (3/15/2000)	(-1.44817 - 0)/(26 - 13)		
-0.111398				
ND<-2.07944 (6/30/2010)	ND<0 (3/15/2000)	(-2.07944 - 0)/(27 - 13)		
-0.148532				
ND<-2.07944 U (11/12/2010)	ND<0 (3/15/2000)	(-2.07944 - 0)/(28 - 13)		
-0.138629				
ND<-2.07944 U (7/5/2011)	ND<0 (3/15/2000)	(-2.07944 - 0)/(29 - 13)		
-0.129965				
1.91692 (11/22/2011)	ND<0 (3/15/2000)	(1.91692 - 0)/(30 - 13)		0.11276
1.91692 (11/22/2011)	ND<0 (3/15/2000)	(1.91692 - 0)/(30 - 13)		0.11276
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
ND<0 (4/1/2005)	ND<0 (9/24/2003)	(0 - 0)/(17 - 14)	0	
ND<0 (10/25/2005)	ND<0 (9/24/2003)	(0 - 0)/(18 - 14)	0	
ND<0 (4/29/2006)	ND<0 (9/24/2003)	(0 - 0)/(19 - 14)	0	
ND<0 (11/18/2006)	ND<0 (9/24/2003)	(0 - 0)/(20 - 14)	0	
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0	
ND<0 (11/28/2007)	ND<0 (9/24/2003)	(0 - 0)/(22 - 14)	0	
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0	
ND<0 (11/20/2008)	ND<0 (9/24/2003)	(0 - 0)/(24 - 14)	0	
ND<-2.07944 (6/11/2009)	ND<0 (9/24/2003)	(-2.07944 - 0)/(25 - 14)		-0.18904

ND<-1.44817 (11/16/2009)	ND<0 (9/24/2003)	(-1.44817 - 0)/(26 - 14)	-0.120681	
ND<-2.07944 (6/30/2010)	ND<0 (9/24/2003)	(-2.07944 - 0)/(27 - 14)	-0.159957	
ND<-2.07944 U (11/12/2010)	ND<0 (9/24/2003)	(-2.07944 - 0)/(28 - 14)	-0.148532	
ND<-2.07944 U (7/5/2011)	ND<0 (9/24/2003)	(-2.07944 - 0)/(29 - 14)	-0.138629	
1.91692 (11/22/2011)	ND<0 (9/24/2003)	(1.91692 - 0)/(30 - 14)	0.119808	
1.91692 (11/22/2011)	ND<0 (9/24/2003)	(1.91692 - 0)/(30 - 14)	0.119808	
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0	
ND<0 (4/1/2005)	ND<0 (3/11/2004)	(0 - 0)/(17 - 15)	0	
ND<0 (10/25/2005)	ND<0 (3/11/2004)	(0 - 0)/(18 - 15)	0	
ND<0 (4/29/2006)	ND<0 (3/11/2004)	(0 - 0)/(19 - 15)	0	
ND<0 (11/18/2006)	ND<0 (3/11/2004)	(0 - 0)/(20 - 15)	0	
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0	
ND<0 (11/28/2007)	ND<0 (3/11/2004)	(0 - 0)/(22 - 15)	0	
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0	
ND<0 (11/20/2008)	ND<0 (3/11/2004)	(0 - 0)/(24 - 15)	0	
ND<-2.07944 (6/11/2009)	ND<0 (3/11/2004)	(-2.07944 - 0)/(25 - 15)	-0.207944	
ND<-1.44817 (11/16/2009)	ND<0 (3/11/2004)	(-1.44817 - 0)/(26 - 15)	-0.131652	
ND<-2.07944 (6/30/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(27 - 15)	-0.173287	
ND<-2.07944 U (11/12/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(28 - 15)	-0.159957	
ND<-2.07944 U (7/5/2011)	ND<0 (3/11/2004)	(-2.07944 - 0)/(29 - 15)	-0.148532	
1.91692 (11/22/2011)	ND<0 (3/11/2004)	(1.91692 - 0)/(30 - 15)	0.127795	
1.91692 (11/22/2011)	ND<0 (3/11/2004)	(1.91692 - 0)/(30 - 15)	0.127795	
ND<0 (4/1/2005)	ND<0 (10/12/2004)	(0 - 0)/(17 - 16)	0	
ND<0 (10/25/2005)	ND<0 (10/12/2004)	(0 - 0)/(18 - 16)	0	
ND<0 (4/29/2006)	ND<0 (10/12/2004)	(0 - 0)/(19 - 16)	0	
ND<0 (11/18/2006)	ND<0 (10/12/2004)	(0 - 0)/(20 - 16)	0	
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
ND<0 (11/28/2007)	ND<0 (10/12/2004)	(0 - 0)/(22 - 16)	0	
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0	
ND<0 (11/20/2008)	ND<0 (10/12/2004)	(0 - 0)/(24 - 16)	0	
ND<-2.07944 (6/11/2009)	ND<0 (10/12/2004)	(-2.07944 - 0)/(25 - 16)	-0.231049	
ND<-1.44817 (11/16/2009)	ND<0 (10/12/2004)	(-1.44817 - 0)/(26 - 16)	-0.144817	
ND<-2.07944 (6/30/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(27 - 16)	-0.18904	
ND<-2.07944 U (11/12/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(28 - 16)	-0.173287	
ND<-2.07944 U (7/5/2011)	ND<0 (10/12/2004)	(-2.07944 - 0)/(29 - 16)	-0.159957	
1.91692 (11/22/2011)	ND<0 (10/12/2004)	(1.91692 - 0)/(30 - 16)	0.136923	
1.91692 (11/22/2011)	ND<0 (10/12/2004)	(1.91692 - 0)/(30 - 16)	0.136923	
ND<0 (10/25/2005)	ND<0 (4/1/2005)	(0 - 0)/(18 - 17)	0	
ND<0 (4/29/2006)	ND<0 (4/1/2005)	(0 - 0)/(19 - 17)	0	
ND<0 (11/18/2006)	ND<0 (4/1/2005)	(0 - 0)/(20 - 17)	0	

ND<0 (5/23/2007)	ND<0 (4/1/2005)	(0 - 0)/(21 - 17)	0	
ND<0 (11/28/2007)	ND<0 (4/1/2005)	(0 - 0)/(22 - 17)	0	
ND<0 (6/5/2008)	ND<0 (4/1/2005)	(0 - 0)/(23 - 17)	0	
ND<0 (11/20/2008)	ND<0 (4/1/2005)	(0 - 0)/(24 - 17)	0	
ND<-2.07944 (6/11/2009)	ND<0 (4/1/2005)	(-2.07944 - 0)/(25 - 17)		-0.25993
ND<-1.44817 (11/16/2009)	ND<0 (4/1/2005)	(-1.44817 - 0)/(26 - 17)		-0.160908
ND<-2.07944 (6/30/2010)	ND<0 (4/1/2005)	(-2.07944 - 0)/(27 - 17)		-0.207944
ND<-2.07944 U (11/12/2010)	ND<0 (4/1/2005)	(-2.07944 - 0)/(28 - 17)		-0.18904
ND<-2.07944 U (7/5/2011)	ND<0 (4/1/2005)	(-2.07944 - 0)/(29 - 17)		-0.173287
1.91692 (11/22/2011)	ND<0 (4/1/2005)	(1.91692 - 0)/(30 - 17)		0.147456
1.91692 (11/22/2011)	ND<0 (4/1/2005)	(1.91692 - 0)/(30 - 17)		0.147456

ND<0 (4/29/2006)	ND<0 (10/25/2005)	(0 - 0)/(19 - 18)	0	
ND<0 (11/18/2006)	ND<0 (10/25/2005)	(0 - 0)/(20 - 18)	0	
ND<0 (5/23/2007)	ND<0 (10/25/2005)	(0 - 0)/(21 - 18)	0	
ND<0 (11/28/2007)	ND<0 (10/25/2005)	(0 - 0)/(22 - 18)	0	
ND<0 (6/5/2008)	ND<0 (10/25/2005)	(0 - 0)/(23 - 18)	0	
ND<0 (11/20/2008)	ND<0 (10/25/2005)	(0 - 0)/(24 - 18)	0	
ND<-2.07944 (6/11/2009)	ND<0 (10/25/2005)	(-2.07944 - 0)/(25 - 18)		-0.297063
ND<-1.44817 (11/16/2009)	ND<0 (10/25/2005)	(-1.44817 - 0)/(26 - 18)		-0.181021
ND<-2.07944 (6/30/2010)	ND<0 (10/25/2005)	(-2.07944 - 0)/(27 - 18)		-0.231049
ND<-2.07944 U (11/12/2010)	ND<0 (10/25/2005)	(-2.07944 - 0)/(28 - 18)		-0.207944
ND<-2.07944 U (7/5/2011)	ND<0 (10/25/2005)	(-2.07944 - 0)/(29 - 18)		-0.18904
1.91692 (11/22/2011)	ND<0 (10/25/2005)	(1.91692 - 0)/(30 - 18)		0.159744
1.91692 (11/22/2011)	ND<0 (10/25/2005)	(1.91692 - 0)/(30 - 18)		0.159744

ND<0 (11/18/2006)	ND<0 (4/29/2006)	(0 - 0)/(20 - 19)	0	
ND<0 (5/23/2007)	ND<0 (4/29/2006)	(0 - 0)/(21 - 19)	0	
ND<0 (11/28/2007)	ND<0 (4/29/2006)	(0 - 0)/(22 - 19)	0	
ND<0 (6/5/2008)	ND<0 (4/29/2006)	(0 - 0)/(23 - 19)	0	
ND<0 (11/20/2008)	ND<0 (4/29/2006)	(0 - 0)/(24 - 19)	0	
ND<-2.07944 (6/11/2009)	ND<0 (4/29/2006)	(-2.07944 - 0)/(25 - 19)		-0.346574
ND<-1.44817 (11/16/2009)	ND<0 (4/29/2006)	(-1.44817 - 0)/(26 - 19)		-0.206881
ND<-2.07944 (6/30/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(27 - 19)		-0.25993
ND<-2.07944 U (11/12/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(28 - 19)		-0.231049
ND<-2.07944 U (7/5/2011)	ND<0 (4/29/2006)	(-2.07944 - 0)/(29 - 19)		-0.207944
1.91692 (11/22/2011)	ND<0 (4/29/2006)	(1.91692 - 0)/(30 - 19)		0.174266
1.91692 (11/22/2011)	ND<0 (4/29/2006)	(1.91692 - 0)/(30 - 19)		0.174266

ND<0 (5/23/2007)	ND<0 (11/18/2006)	(0 - 0)/(21 - 20)	0	
ND<0 (11/28/2007)	ND<0 (11/18/2006)	(0 - 0)/(22 - 20)	0	
ND<0 (6/5/2008)	ND<0 (11/18/2006)	(0 - 0)/(23 - 20)	0	
ND<0 (11/20/2008)	ND<0 (11/18/2006)	(0 - 0)/(24 - 20)	0	

ND<-2.07944 (6/11/2009) ND<0 (11/18/2006) (-2.07944 - 0)/(25 - 20)
-0.415888
ND<-1.44817 (11/16/2009) ND<0 (11/18/2006) (-1.44817 - 0)/(26 - 20)
-0.241362
ND<-2.07944 (6/30/2010) ND<0 (11/18/2006) (-2.07944 - 0)/(27 - 20)
-0.297063
ND<-2.07944 U (11/12/2010) ND<0 (11/18/2006) (-2.07944 - 0)/(28 - 20)
-0.25993
ND<-2.07944 U (7/5/2011) ND<0 (11/18/2006) (-2.07944 - 0)/(29 - 20)
-0.231049
1.91692 (11/22/2011) ND<0 (11/18/2006) (1.91692 - 0)/(30 - 20)
0.191692
1.91692 (11/22/2011) ND<0 (11/18/2006) (1.91692 - 0)/(30 - 20)
0.191692

ND<0 (11/28/2007) ND<0 (5/23/2007) (0 - 0)/(22 - 21) 0
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
ND<0 (11/20/2008) ND<0 (5/23/2007) (0 - 0)/(24 - 21) 0
ND<-2.07944 (6/11/2009) ND<0 (5/23/2007) (-2.07944 - 0)/(25 - 21) -0.51986
ND<-1.44817 (11/16/2009) ND<0 (5/23/2007) (-1.44817 - 0)/(26 - 21)
-0.289634
ND<-2.07944 (6/30/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(27 - 21)
-0.346574
ND<-2.07944 U (11/12/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(28 - 21)
-0.297063
ND<-2.07944 U (7/5/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(29 - 21) -0.25993
1.91692 (11/22/2011) ND<0 (5/23/2007) (1.91692 - 0)/(30 - 21)
0.212991
1.91692 (11/22/2011) ND<0 (5/23/2007) (1.91692 - 0)/(30 - 21)
0.212991

ND<0 (6/5/2008) ND<0 (11/28/2007) (0 - 0)/(23 - 22) 0
ND<0 (11/20/2008) ND<0 (11/28/2007) (0 - 0)/(24 - 22) 0
ND<-2.07944 (6/11/2009) ND<0 (11/28/2007) (-2.07944 - 0)/(25 - 22)
-0.693147
ND<-1.44817 (11/16/2009) ND<0 (11/28/2007) (-1.44817 - 0)/(26 - 22)
-0.362042
ND<-2.07944 (6/30/2010) ND<0 (11/28/2007) (-2.07944 - 0)/(27 - 22)
-0.415888
ND<-2.07944 U (11/12/2010) ND<0 (11/28/2007) (-2.07944 - 0)/(28 - 22)
-0.346574
ND<-2.07944 U (7/5/2011) ND<0 (11/28/2007) (-2.07944 - 0)/(29 - 22)
-0.297063
1.91692 (11/22/2011) ND<0 (11/28/2007) (1.91692 - 0)/(30 - 22)
0.239615
1.91692 (11/22/2011) ND<0 (11/28/2007) (1.91692 - 0)/(30 - 22)
0.239615

ND<0 (11/20/2008) ND<0 (6/5/2008) (0 - 0)/(24 - 23) 0
ND<-2.07944 (6/11/2009) ND<0 (6/5/2008) (-2.07944 - 0)/(25 - 23) -1.03972
ND<-1.44817 (11/16/2009) ND<0 (6/5/2008) (-1.44817 - 0)/(26 - 23)
-0.482723
ND<-2.07944 (6/30/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(27 - 23) -0.51986
ND<-2.07944 U (11/12/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(28 - 23)
-0.415888
ND<-2.07944 U (7/5/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(29 - 23)
-0.346574
1.91692 (11/22/2011) ND<0 (6/5/2008) (1.91692 - 0)/(30 - 23)
0.273846
1.91692 (11/22/2011) ND<0 (6/5/2008) (1.91692 - 0)/(30 - 23)
0.273846

ND<-2.07944 (6/11/2009) ND<0 (11/20/2008) (-2.07944 - 0)/(25 - 24) -2.07944
ND<-1.44817 (11/16/2009) ND<0 (11/20/2008) (-1.44817 - 0)/(26 - 24)
-0.724085
ND<-2.07944 (6/30/2010) ND<0 (11/20/2008) (-2.07944 - 0)/(27 - 24)
-0.693147
ND<-2.07944 U (11/12/2010) ND<0 (11/20/2008) (-2.07944 - 0)/(28 - 24)
-0.51986
ND<-2.07944 U (7/5/2011) ND<0 (11/20/2008) (-2.07944 - 0)/(29 - 24)
-0.415888
1.91692 (11/22/2011) ND<0 (11/20/2008) (1.91692 - 0)/(30 - 24)
0.319487
1.91692 (11/22/2011) ND<0 (11/20/2008) (1.91692 - 0)/(30 - 24)
0.319487

ND<-1.44817 (11/16/2009) ND<-2.07944 (6/11/2009) (-1.44817 - -2.07944)/(26 - 25)
0.631272
ND<-2.07944 (6/30/2010) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(27 - 25)
0
ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(28 - 25)
0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(29 - 25)
0
1.91692 (11/22/2011) ND<-2.07944 (6/11/2009) (1.91692 - -2.07944)/(30 - 25)
0.799273
1.91692 (11/22/2011) ND<-2.07944 (6/11/2009) (1.91692 - -2.07944)/(30 - 25)
0.799273

ND<-2.07944 (6/30/2010) ND<-1.44817 (11/16/2009) (-2.07944 - -1.44817)/(27 - 26)
-0.631272
ND<-2.07944 U (11/12/2010) ND<-1.44817 (11/16/2009) (-2.07944 - -1.44817)/(28 -
26) -0.315636
ND<-2.07944 U (7/5/2011) ND<-1.44817 (11/16/2009) (-2.07944 - -1.44817)/(29 - 26)
-0.210424
1.91692 (11/22/2011) ND<-1.44817 (11/16/2009) (1.91692 - -1.44817)/(30 - 26)
0.841273
1.91692 (11/22/2011) ND<-1.44817 (11/16/2009) (1.91692 - -1.44817)/(30 - 26)
0.841273

ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(28 - 27)
0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(29 - 27)
0
1.91692 (11/22/2011) ND<-2.07944 (6/30/2010) (1.91692 - -2.07944)/(30 - 27)
1.33212
1.91692 (11/22/2011) ND<-2.07944 (6/30/2010) (1.91692 - -2.07944)/(30 - 27)
1.33212

ND<-2.07944 U (7/5/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(29 - 28)
0
1.91692 (11/22/2011) ND<-2.07944 U (11/12/2010) (1.91692 - -2.07944)/(30 - 28)
1.99818
1.91692 (11/22/2011) ND<-2.07944 U (11/12/2010) (1.91692 - -2.07944)/(30 - 28)
1.99818

1.91692 (11/22/2011) ND<-2.07944 U (7/5/2011) (1.91692 - -2.07944)/(30 - 29)
3.99636
1.91692 (11/22/2011) ND<-2.07944 U (7/5/2011) (1.91692 - -2.07944)/(30 - 29)
3.99636

1.91692 (11/22/2011) 1.91692 (11/22/2011) (1.91692 - 1.91692)/(30 - 30)
Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-2.07944
2	-1.03972
3	-0.724085
4	-0.693147
5	-0.693147
6	-0.631272
7	-0.51986
8	-0.51986
9	-0.51986
10	-0.482723
11	-0.415888
12	-0.415888
13	-0.415888
14	-0.415888
15	-0.362042
16	-0.346574
17	-0.346574
18	-0.346574
19	-0.346574
20	-0.315636
21	-0.297063
22	-0.297063
23	-0.297063
24	-0.297063
25	-0.289634
26	-0.25993
27	-0.25993
28	-0.25993
29	-0.25993
30	-0.241362
31	-0.231049
32	-0.231049
33	-0.231049
34	-0.231049
35	-0.210424
36	-0.207944
37	-0.207944
38	-0.207944
39	-0.207944
40	-0.206881
41	-0.18904
42	-0.18904
43	-0.18904
44	-0.18904
45	-0.181021
46	-0.173287
47	-0.173287
48	-0.173287
49	-0.173287
50	-0.160908
51	-0.159957
52	-0.159957
53	-0.159957
54	-0.159957
55	-0.148532

56	-0.148532
57	-0.148532
58	-0.148532
59	-0.144817
60	-0.138629
61	-0.138629
62	-0.138629
63	-0.138629
64	-0.131652
65	-0.129965
66	-0.129965
67	-0.129965
68	-0.129965
69	-0.12232
70	-0.12232
71	-0.12232
72	-0.12232
73	-0.120681
74	-0.115525
75	-0.115525
76	-0.115525
77	-0.115525
78	-0.111398
79	-0.109444
80	-0.109444
81	-0.109444
82	-0.109444
83	-0.103972
84	-0.103972
85	-0.103972
86	-0.103972
87	-0.103441
88	-0.099021
89	-0.099021
90	-0.099021
91	-0.099021
92	-0.0965447
93	-0.0945201
94	-0.0945201
95	-0.0945201
96	-0.0945201
97	-0.0905106
98	-0.0904105
99	-0.0904105
100	-0.0904105
101	-0.0904105
102	-0.0866434
103	-0.0866434
104	-0.0866434
105	-0.0866434
106	-0.0851865
107	-0.0831777
108	-0.0831777
109	-0.0831777
110	-0.0804539
111	-0.0799785
112	-0.0799785
113	-0.0799785
114	-0.0770164
115	-0.0770164
116	-0.0762195
117	-0.0742658

118	-0.0724085
119	-0.0689605
120	-0.0658259
121	-0.0629639
122	-0.0603404
123	-0.0579268
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196	0
197	0
198	0
199	0
200	0
201	0
202	0
203	0
204	0
205	0
206	0
207	0
208	0
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211	0
212	0
213	0
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215	0
216	0
217	0
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227	0
228	0
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230	0
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234	0
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239	0
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272	0
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290	0
291	0
292	0
293	0
294	0
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298	0
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300	0
301	0
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312	0
313	0
314	0
315	0
316	0
317	0
318	0
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320	0
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322	0
323	0
324	0
325	0
326	0
327	0
328	0
329	0
330	0
331	0
332	0
333	0
334	0
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0
348	0
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351	0
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353	0
354	0
355	0
356	0
357	0
358	0
359	0
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362	0
363	0
364	0
365	0

366	0
367	0
368	0
369	0
370	0
371	0
372	0
373	0
374	0
375	0
376	0
377	0
378	0
379	0
380	0
381	0
382	0
383	0
384	0
385	0
386	0
387	0
388	0
389	0
390	0
391	0
392	0
393	0
394	0
395	0
396	0
397	0
398	0
399	0
400	0
401	0
402	0
403	0
404	0
405	0
406	0.0661008
407	0.0661008
408	0.0684615
409	0.0684615
410	0.0709971
411	0.0709971
412	0.0737278
413	0.0737278
414	0.0766769
415	0.0766769
416	0.0798718
417	0.0798718
418	0.0833445
419	0.0833445
420	0.0871328
421	0.0871328
422	0.091282
423	0.091282
424	0.0958461
425	0.0958461
426	0.100891
427	0.100891

428	0.106496
429	0.106496
430	0.11276
431	0.11276
432	0.119808
433	0.119808
434	0.127795
435	0.127795
436	0.136923
437	0.136923
438	0.147456
439	0.147456
440	0.159744
441	0.159744
442	0.174266
443	0.174266
444	0.191692
445	0.191692
446	0.212991
447	0.212991
448	0.239615
449	0.239615
450	0.273846
451	0.273846
452	0.319487
453	0.319487
454	0.631272
455	0.799273
456	0.799273
457	0.841273
458	0.841273
459	1.33212
460	1.33212
461	1.99818
462	1.99818
463	3.99636
464	3.99636

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	24
2	-2.07944	4
3	1.91692	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1

4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 29430
B = 18
C = 12168
D = 0
E = 566
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 1826.28
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 70.2927
M1 = (464 - 70.2927)/2.0 = 196.854
M2 = (464 + 70.2927)/2.0 + 1 = 268.146
Lower limit is 0 = Q(197)
Upper limit is 0 = Q(268)
0 < 0 < 0 indicating no trend in data.

Shewhart-CUSUM Control Chart

Parameter: 1,3-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	0
3/24/1997	0	0	0
9/24/1997	0	0	0
9/24/1997	0	0	0
4/7/1998	0	0	0
4/7/1998	0	0	0
9/23/1998	0	0	0
9/23/1998	0	0	0
3/16/1999	0	0	0
3/16/1999	0	0	0
9/23/1999	0	0	0
9/23/1999	0	0	0
3/15/2000	0	0	0
3/15/2000	0	0	0
9/24/2003	0	0	0
9/24/2003	0	0	0
3/11/2004	0	0	0
3/11/2004	0	0	0
10/12/2004	0	0	0
10/12/2004	0	0	0
4/1/2005	0	0	0
4/1/2005	0	0	0
10/25/2005	0	0	0
10/25/2005	0	0	0
4/29/2006	0	0	0
4/29/2006	0	0	0
11/18/2006	0	0	0
11/18/2006	0	0	0
5/23/2007	0	0	0
5/23/2007	0	0	0
11/28/2007	0	0	0
11/28/2007	0	0	0
6/5/2008	0	0	0
6/5/2008	0	0	0
11/20/2008	0	0	0
11/20/2008	0	0	0
6/11/2009	-2.07944	0	0
6/11/2009	-2.07944	0	0
11/16/2009	-1.44817	0	0
11/16/2009	-1.44817	0	0
6/30/2010	-2.07944	0	0
6/30/2010	-2.07944	0	0
11/12/2010	-2.07944	0	0
11/12/2010	-2.07944	0	0
7/5/2011	-2.07944	0	0

7/5/2011	-2.07944	0	0
11/22/2011	1.91692	0	0
11/22/2011	1.91692	0	0

Concentrations (ppb)

Parameter: 1,4-Dichlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 263
Total Non-Detect: 208
Percent Non-Detects: 79.0875%
Total Background Measurements: 21
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.28	ND<0.28
			11/16/2009	ND<0.51	ND<0.51
			6/30/2010	ND<0.28	ND<0.28
			6/30/2010	ND<0.74	ND<0.74
			11/12/2010	ND<0.74 U	ND<0.74 U
			11/12/2010	ND<0.28 U	ND<0.28 U
			7/5/2011	ND<0.28 U	ND<0.28 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	33	21 (63.6364%)	7/20/1995	ND<2	ND<2
			8/24/1995	0.51 J	0.51 J
			9/28/1995	0.6 J	0.6 J
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	0.91 J	0.91 J
			10/25/2005	0.54 J	0.54 J
			4/29/2006	0.43 J	0.43 J
			11/18/2006	0.4 J	0.4 J
			5/23/2007	ND<2	ND<2
			11/28/2007	0.66 J	0.66 J

			6/5/2008	0.47 J	0.47 J	
			11/20/2008	0.54 J	0.54 J	
			6/11/2009	0.44 J	0.44 J	
			11/16/2009	ND<0.51		ND<0.51
			6/30/2010	ND<0.76		ND<0.76
			6/30/2010	0.97 J	0.97 J	
			11/12/2010	ND<0.74 U		ND<0.74 U
			11/12/2010	ND<0.28 U		ND<0.28 U
			7/5/2011	0.31 J	0.31 J	
			11/22/2011	ND<0.28 U		ND<0.28 U
			11/22/2011	ND<0.28 U		ND<0.28 U
MW-6	33	33 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.28		ND<0.28
			11/16/2009	ND<0.51		ND<0.51
			6/30/2010	ND<0.28		ND<0.28
			6/30/2010	ND<0.74		ND<0.74
			11/12/2010	ND<0.74 U		ND<0.74 U
			11/12/2010	ND<0.28 U		ND<0.28 U
			7/5/2011	ND<0.28 U	ND<0.28 U	
			11/22/2011	ND<0.28 U		ND<0.28 U
			11/22/2011	ND<0.28 U		ND<0.28 U
MW-8	30	20 (66.6667%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	

		4/1/2005	ND<2	ND<2		
		10/25/2005	0.28 J	0.28 J		
		4/29/2006	0.36 J	0.36 J		
		11/18/2006	0.43 J	0.43 J		
		5/23/2007	ND<2	ND<2		
		11/28/2007	0.28 J	0.28 J		
		6/5/2008	0.32 J	0.32 J		
		11/20/2008	ND<2	ND<2		
		6/11/2009	0.62 J	0.62 J		
		6/30/2010	ND<0.28		ND<0.28	
		11/12/2010	0.76 J	0.76 J		
		7/5/2011	0.52 J	0.52 J		
		11/22/2011	0.49 J	0.49 J		
		11/22/2011	0.49 J	0.49 J		
MW-12BR	24	22 (91.6667%)	3/16/1999		ND<2	ND<2
		9/23/1999	ND<2	ND<2		
		3/15/2000	ND<2	ND<2		
		9/24/2003	ND<2	ND<2		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005	1.11 J	1.11 J		
		10/25/2005	ND<2	ND<2		
		4/29/2006	1.98 J	1.98 J		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	ND<2	ND<2		
		6/5/2008	ND<2	ND<2		
		11/20/2008	ND<2	ND<2		
		6/11/2009	ND<0.28		ND<0.28	
		11/16/2009	ND<0.47		ND<0.47	
		6/30/2010	ND<0.28		ND<0.28	
		6/30/2010	ND<0.74		ND<0.74	
		11/12/2010	ND<0.28 U		ND<0.28 U	
		11/12/2010	ND<0.78 U		ND<0.78 U	
		11/12/2010	ND<0.78 U		ND<0.78 U	
		7/5/2011	ND<0.28 U	ND<0.28 U		
		11/22/2011	ND<0.28 U		ND<0.28 U	
		11/22/2011	ND<0.28 U		ND<0.28 U	
MW-11R	33	27 (81.8182%)	7/20/1995	ND<2	ND<2	
		8/24/1995	2.2	2.2		
		9/28/1995	2	2		
		10/26/1995	ND<2	ND<2		
		11/19/1996	ND<2	ND<2		
		12/19/1996	ND<2	ND<2		
		3/24/1997	ND<2	ND<2		
		9/24/1997	ND<2	ND<2		
		4/7/1998	ND<2	ND<2		
		9/23/1998	ND<2	ND<2		
		3/16/1999	ND<2	ND<2		
		9/23/1999	ND<2	ND<2		
		3/15/2000	ND<2	ND<2		
		9/24/2003	5.4	5.4		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005	ND<2	ND<2		
		10/25/2005	ND<2	ND<2		
		4/29/2006	ND<2	ND<2		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	0.3 J	0.3 J		

			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	0.48 J	0.48 J	
			11/16/2009	ND<0.47		ND<0.47
			6/30/2010	0.37 J	0.37 J	
			6/30/2010	ND<0.74		ND<0.74
			11/12/2010	ND<0.74 U		ND<0.74 U
			11/12/2010	ND<0.28 U		ND<0.28 U
			7/5/2011	ND<0.28 U	ND<0.28 U	
			11/22/2011	ND<0.28 U		ND<0.28 U
			11/22/2011	ND<0.28 U		ND<0.28 U
MW-10	33	15 (45.4545%)	7/20/1995		ND<2	ND<2
			8/24/1995	1.5 J	1.5 J	
			9/28/1995	4	4	
			10/26/1995	2	2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	8.8	8.8	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	2.75	2.75	
			10/25/2005	3.99	3.99	
			4/29/2006	5.6	5.6	
			11/18/2006	3.9	3.9	
			5/23/2007	4.1	4.1	
			11/28/2007	5.99	5.99	
			6/5/2008	6.45	6.45	
			11/20/2008	ND<2	ND<2	
			6/11/2009	3.4	3.4	
			11/16/2009	6.9 J	6.9 J	
			6/30/2010	ND<0.74		ND<0.74
			6/30/2010	5.2	5.2	
			11/12/2010	8.6	8.6	
			11/12/2010	ND<0.74 U		ND<0.74 U
			7/5/2011	10	10	
			11/22/2011	7.9	7.9	
			11/22/2011	7.9	7.9	
MW-7	33	33 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	

		4/1/2005	ND<2	ND<2		
		10/25/2005	ND<2	ND<2		
		4/29/2006	ND<2	ND<2		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	ND<2	ND<2		
		6/5/2008	ND<2	ND<2		
		11/20/2008	ND<2	ND<2		
		6/11/2009	ND<0.28		ND<0.28	
		11/16/2009	ND<0.47		ND<0.47	
		6/30/2010	ND<0.28		ND<0.28	
		6/30/2010	ND<0.76		ND<0.76	
		11/12/2010	ND<0.74 U		ND<0.74 U	
		11/12/2010	ND<0.28 U		ND<0.28 U	
		7/5/2011	ND<0.28 U	ND<0.28 U		
		11/22/2011	ND<0.28 U		ND<0.28 U	
		11/22/2011	ND<0.28 U		ND<0.28 U	
MW-12A R	23	16 (69.5652%)	3/16/1999		ND<2	ND<2
		9/23/1999	ND<2	ND<2		
		3/15/2000	ND<2	ND<2		
		9/24/2003	ND<2	ND<2		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005	ND<2	ND<2		
		10/25/2005	1.05 J	1.05 J		
		4/29/2006	1.14 J	1.14 J		
		11/18/2006	0.84 J	0.84 J		
		5/23/2007	ND<2	ND<2		
		11/28/2007	0.78 J	0.78 J		
		6/5/2008	0.97 J	0.97 J		
		11/20/2008	0.49 J	0.49 J		
		6/11/2009	ND<0.28		ND<0.28	
		11/16/2009	ND<0.47		ND<0.47	
		6/30/2010	ND<0.74		ND<0.74	
		6/30/2010	ND<0.28		ND<0.28	
		11/12/2010	ND<0.74 U		ND<0.74 U	
		11/12/2010	0.61 J	0.61 J		
		7/5/2011	ND<0.28 U	ND<0.28 U		
		11/22/2011	ND<0.28 U		ND<0.28 U	
		11/22/2011	ND<0.28 U		ND<0.28 U	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: 1,4-Dichlorobenzene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 263

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.14	-2.74777	7.5021	-0.384687
2	0.14	-2.45727	13.5884	-0.728705
3	0.14	-2.29036	18.8342	-1.04936
4	0.14	-2.17009	23.5435	-1.35317
5	0.14	-2.09693	27.9406	-1.64674
6	0.14	-2.01409	31.9972	-1.92871
7	0.14	-1.94314	35.7729	-2.20075
8	0.14	-1.88079	39.3103	-2.46406
9	0.14	-1.82501	42.6409	-2.71956
10	0.14	-1.78661	45.8329	-2.96969
11	0.14	-1.7392	48.8577	-3.21318
12	0.14	-1.6954	51.7321	-3.45053
13	0.14	-1.65463	54.4699	-3.68218
14	0.14	-1.61644	57.0828	-3.90848
15	0.14	-1.58927	59.6085	-4.13098
16	0.14	-1.55477	62.0259	-4.34865
17	0.14	-1.52203	64.3424	-4.56173
18	0.14	-1.49085	66.5651	-4.77045
19	0.14	-1.46838	68.7212	-4.97602
20	0.14	-1.43953	70.7935	-5.17756
21	0.14	-1.41183	72.7868	-5.37521
22	0.14	-1.38517	74.7055	-5.56914
23	0.14	-1.35946	76.5536	-5.75946
24	0.14	-1.34075	78.3512	-5.94717
25	0.14	-1.31652	80.0844	-6.13148
26	0.14	-1.29303	81.7564	-6.31251
27	0.14	-1.27024	83.3699	-6.49034
28	0.14	-1.24809	84.9276	-6.66507
29	0.14	-1.23187	86.4451	-6.83753
30	0.14	-1.21073	87.911	-7.00704
31	0.14	-1.19012	89.3273	-7.17365
32	0.14	-1.17	90.6962	-7.33745
33	0.14	-1.15035	92.0195	-7.4985
34	0.14	-1.1359	93.3098	-7.65753
35	0.14	-1.11699	94.5575	-7.8139
36	0.235	-1.09847	95.7641	-8.07204
37	0.235	-1.08032	96.9312	-8.32592
38	0.235	-1.06694	98.0695	-8.57665
39	0.235	-1.04939	99.1708	-8.82326
40	0.255	-1.03215	100.236	-9.08646
41	0.255	-1.01522	101.267	-9.34534
42	0.255	-0.998575	102.264	-9.59997
43	0.28	-0.986272	103.237	-9.87613
44	0.28	-0.970094	104.178	-10.1478
45	0.3	-0.954165	105.088	-10.434
46	0.31	-0.938476	105.969	-10.7249
47	0.32	-0.923014	106.821	-11.0203
48	0.36	-0.911562	107.652	-11.3485
49	0.37	-0.896473	108.455	-11.6802
50	0.37	-0.881587	109.233	-12.0063
51	0.37	-0.866894	109.984	-12.3271

52	0.37	-0.855996	110.717	-12.6438
53	0.37	-0.841621	111.425	-12.9552
54	0.37	-0.827417	112.11	-13.2614
55	0.37	-0.813379	112.771	-13.5623
56	0.37	-0.7995	113.411	-13.8581
57	0.37	-0.789191	114.033	-14.1501
58	0.37	-0.775574	114.635	-14.4371
59	0.37	-0.7621	115.216	-14.7191
60	0.37	-0.748762	115.776	-14.9961
61	0.37	-0.735557	116.317	-15.2683
62	0.37	-0.725736	116.844	-15.5368
63	0.38	-0.712751	117.352	-15.8076
64	0.38	-0.699883	117.842	-16.0736
65	0.39	-0.687131	118.314	-16.3416
66	0.39	-0.67449	118.769	-16.6046
67	0.4	-0.665079	119.211	-16.8706
68	0.43	-0.652622	119.637	-17.1513
69	0.43	-0.640266	120.047	-17.4266
70	0.44	-0.628006	120.442	-17.7029
71	0.47	-0.618872	120.825	-17.9938
72	0.48	-0.606775	121.193	-18.285
73	0.49	-0.594766	121.547	-18.5765
74	0.49	-0.582841	121.886	-18.8621
75	0.49	-0.570999	122.212	-19.1418
76	0.51	-0.56217	122.528	-19.4286
77	0.52	-0.550465	122.831	-19.7148
78	0.54	-0.538836	123.122	-20.0058
79	0.54	-0.52728	123.4	-20.2905
80	0.6	-0.515791	123.666	-20.6
81	0.61	-0.507221	123.923	-20.9094
82	0.62	-0.49585	124.169	-21.2168
83	0.66	-0.484544	124.404	-21.5366
84	0.76	-0.473299	124.628	-21.8963
85	0.78	-0.464904	124.844	-22.2589
86	0.84	-0.453763	125.05	-22.6401
87	0.91	-0.442676	125.246	-23.0429
88	0.97	-0.431644	125.432	-23.4616
89	0.97	-0.420664	125.609	-23.8697
90	1	-0.412463	125.779	-24.2821
91	1	-0.401571	125.94	-24.6837
92	1	-0.390726	126.093	-25.0744
93	1	-0.379927	126.237	-25.4544
94	1	-0.369171	126.374	-25.8235
95	1	-0.361133	126.504	-26.1847
96	1	-0.350451	126.627	-26.5351
97	1	-0.33981	126.742	-26.8749
98	1	-0.329206	126.851	-27.2041
99	1	-0.318639	126.952	-27.5228
100	1	-0.310738	127.049	-27.8335
101	1	-0.300232	127.139	-28.1337
102	1	-0.28976	127.223	-28.4235
103	1	-0.279319	127.301	-28.7028
104	1	-0.271509	127.375	-28.9743
105	1	-0.26112	127.443	-29.2354
106	1	-0.250759	127.506	-29.4862
107	1	-0.240426	127.564	-29.7266
108	1	-0.230118	127.617	-29.9568
109	1	-0.222403	127.666	-30.1792
110	1	-0.212137	127.711	-30.3913
111	1	-0.201894	127.752	-30.5932
112	1	-0.191671	127.788	-30.7849
113	1	-0.181468	127.821	-30.9663

114	1	-0.173829	127.852	-31.1402
115	1	-0.163659	127.878	-31.3038
116	1	-0.153505	127.902	-31.4573
117	1	-0.143367	127.923	-31.6007
118	1	-0.135774	127.941	-31.7365
119	1	-0.125661	127.957	-31.8621
120	1	-0.115562	127.97	-31.9777
121	1	-0.105474	127.981	-32.0832
122	1	-0.0953969	127.99	-32.1786
123	1	-0.0878447	127.998	-32.2664
124	1	-0.0777834	128.004	-32.3442
125	1	-0.0677301	128.009	-32.4119
126	1	-0.0576847	128.012	-32.4696
127	1	-0.0476439	128.014	-32.5172
128	1	-0.0401167	128.016	-32.5574
129	1	-0.0300838	128.017	-32.5874
130	1	-0.0200544	128.017	-32.6075
131	1	-0.0100272	128.017	-32.6175
132	1	0	128.017	-32.6175
133	1	0.0100272	128.017	-32.6075
134	1	0.0200544	128.018	-32.5874
135	1	0.0300838	128.019	-32.5574
136	1	0.0401167	128.02	-32.5172
137	1	0.0476439	128.023	-32.4696
138	1	0.0576847	128.026	-32.4119
139	1	0.0677301	128.03	-32.3442
140	1	0.0777834	128.037	-32.2664
141	1	0.0878447	128.044	-32.1786
142	1	0.0953969	128.053	-32.0832
143	1	0.105474	128.064	-31.9777
144	1	0.115562	128.078	-31.8621
145	1	0.125661	128.094	-31.7365
146	1	0.135774	128.112	-31.6007
147	1	0.143367	128.133	-31.4573
148	1	0.153505	128.156	-31.3038
149	1	0.163659	128.183	-31.1402
150	1	0.173829	128.213	-30.9663
151	1	0.181468	128.246	-30.7849
152	1	0.191671	128.283	-30.5932
153	1	0.201894	128.324	-30.3913
154	1	0.212137	128.369	-30.1792
155	1	0.222403	128.418	-29.9568
156	1	0.230118	128.471	-29.7266
157	1	0.240426	128.529	-29.4862
158	1	0.250759	128.592	-29.2354
159	1	0.26112	128.66	-28.9743
160	1	0.271509	128.734	-28.7028
161	1	0.279319	128.812	-28.4235
162	1	0.28976	128.896	-28.1337
163	1	0.300232	128.986	-27.8335
164	1	0.310738	129.082	-27.5228
165	1	0.318639	129.184	-27.2041
166	1	0.329206	129.292	-26.8749
167	1	0.33981	129.408	-26.5351
168	1	0.350451	129.53	-26.1847
169	1	0.361133	129.661	-25.8235
170	1	0.369171	129.797	-25.4544
171	1	0.379927	129.942	-25.0744
172	1	0.390726	130.094	-24.6837
173	1	0.401571	130.255	-24.2821
174	1	0.412463	130.426	-23.8697
175	1	0.420664	130.603	-23.449

176	1	0.431644		130.789	-23.0174
177	1	0.442676		130.985	-22.5747
178	1	0.453763		131.191	-22.1209
179	1	0.464904		131.407	-21.656
180	1	0.473299		131.631	-21.1827
181	1	0.484544		131.866	-20.6982
182	1	0.49585	132.112	-20.2023	
183	1	0.507221		132.369	-19.6951
184	1	0.515791		132.635	-19.1793
185	1	0.52728	132.913	-18.652	
186	1	0.538836		133.203	-18.1132
187	1	0.550465		133.506	-17.5627
188	1	0.56217	133.822	-17.0006	
189	1	0.570999		134.148	-16.4296
190	1	0.582841		134.488	-15.8467
191	1	0.594766		134.842	-15.252
192	1	0.606775		135.21	-14.6452
193	1	0.618872		135.593	-14.0263
194	1	0.628006		135.987	-13.3983
195	1	0.640266		136.397	-12.758
196	1	0.652622		136.823	-12.1054
197	1	0.665079		137.266	-11.4403
198	1	0.67449	137.72	-10.7659	
199	1	0.687131		138.193	-10.0787
200	1	0.699883		138.682	-9.37884
201	1	0.712751		139.19	-8.66608
202	1	0.725736		139.717	-7.94035
203	1	0.735557		140.258	-7.20479
204	1	0.748762		140.819	-6.45603
205	1	0.7621	141.4	-5.69393	
206	1	0.775574		142.001	-4.91836
207	1	0.789191		142.624	-4.12916
208	1	0.7995	143.263	-3.32966	
209	1	0.813379		143.925	-2.51629
210	1	0.827417		144.609	-1.68887
211	1	0.841621		145.318	-0.847246
212	1	0.855996		146.05	0.00874952
213	1	0.866894		146.802	0.875643
214	1	0.881587		147.579	1.75723
215	1	0.896473		148.383	2.6537
216	1	0.911562		149.214	3.56526
217	1	0.923014		150.066	4.48828
218	1	0.938476		150.946	5.42675
219	1	0.954165		151.857	6.38092
220	1	0.970094		152.798	7.35101
221	1	0.986272		153.771	8.33729
222	1	0.998575		154.768	9.33586
223	1	1.01522	155.798	10.3511	
224	1	1.03215	156.864	11.3832	
225	1	1.04939	157.965	12.4326	
226	1	1.06694	159.103	13.4996	
227	1	1.08032	160.27	14.5799	
228	1	1.09847	161.477	15.6783	
229	1	1.11699	162.725	16.7953	
230	1	1.1359	164.015	17.9312	
231	1	1.15035	165.338	19.0816	
232	1	1.17	166.707	20.2516	
233	1	1.19012	168.124	21.4417	
234	1	1.21073	169.589	22.6524	
235	1	1.23187	171.107	23.8843	
236	1	1.24809	172.665	25.1324	
237	1	1.27024	174.278	26.4026	

238	1	1.29303	175.95	27.6957
239	1.05	1.31652	177.683	29.078
240	1.11	1.34075	179.481	30.5662
241	1.14	1.35946	181.329	32.116
242	1.5	1.38517	183.248	34.1938
243	1.98	1.41183	185.241	36.9892
244	2	1.43953	187.313	39.8683
245	2	1.46838	189.469	42.805
246	2.2	1.49085	191.692	46.0849
247	2.75	1.52203	194.009	50.2705
248	3.4	1.55477	196.426	55.5567
249	3.9	1.58927	198.952	61.7549
250	3.99	1.61644	201.565	68.2045
251	4	1.65463	204.302	74.823
252	4.1	1.6954	207.177	81.7741
253	5.2	1.7392	210.202	90.8179
254	5.4	1.78661	213.394	100.466
255	5.6	1.82501	216.724	110.686
256	5.99	1.88079	220.262	121.952
257	6.45	1.94314	224.037	134.485
258	6.9	2.01409	228.094	148.382
259	7.9	2.09693	232.491	164.948
260	7.9	2.17009	237.2	182.092
261	8.6	2.29036	242.446	201.789
262	8.8	2.45727	248.484	223.413
263	10	2.74777	256.035	250.89

Data Set Standard Deviation = 1.42599
Numerator = 62945.9
Denominator = 136406
W Statistic = 0.46146 = 62945.9 / 136406

5% Critical value of 0.976 exceeds 0.46146
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.46146
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,4-Dichlorobenzene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.682481
0.682481 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.14	0.00378788	-2.74777	46.49	348.683	
2	0.14	0.00757576	-2.45727	46.49	334.497	
3	0.14	0.0113636	-2.29036	46.49	326.346	
4	0.14	0.0151515	-2.17009	46.49	320.473	
5	0.14	0.0189394	-2.09693	46.49	316.9	
6	0.14	0.0227273	-2.01409	46.49	312.855	
7	0.14	0.0265152	-1.94314	46.49	309.39	
8	0.14	0.030303	-1.88079	46.49	306.345	
9	0.14	0.0340909	-1.82501	46.49	303.621	
10	0.14	0.0378788	-1.78661	46.49	301.746	
11	0.14	0.0416667	-1.7392	46.49	299.431	
12	0.14	0.0454545	-1.6954	46.49	297.292	
13	0.14	0.0492424	-1.65463	46.49	295.301	
14	0.14	0.0530303	-1.61644	46.49	293.436	
15	0.14	0.0568182	-1.58927	46.49	292.109	
16	0.14	0.0606061	-1.55477	46.49	290.425	
17	0.14	0.0643939	-1.52203	46.49	288.826	
18	0.14	0.0681818	-1.49085	46.49	287.303	
19	0.14	0.0719697	-1.46838	46.49	286.206	
20	0.14	0.0757576	-1.43953	46.49	284.797	
21	0.14	0.0795455	-1.41183	46.49	283.444	
22	0.14	0.0833333	-1.38517	46.49	282.143	
23	0.14	0.0871212	-1.35946	46.49	280.887	
24	0.14	0.0909091	-1.34075	46.49	279.974	
25	0.14	0.094697	-1.31652	46.49	278.79	
26	0.14	0.0984848	-1.29303	46.49	277.643	
27	0.14	0.102273	-1.27024	46.49	276.53	
28	0.14	0.106061	-1.24809	46.49	275.448	
29	0.14	0.109848	-1.23187	46.49	274.656	
30	0.14	0.113636	-1.21073	46.49	273.624	
31	0.14	0.117424	-1.19012	46.49	272.617	
32	0.14	0.121212	-1.17	46.49	271.635	
33	0.14	0.125	-1.15035	46.49	270.675	
34	0.14	0.128788	-1.1359	46.49	269.97	
35	0.14	0.132576	-1.11699	46.49	269.046	
36	0.235	0.136364	-1.09847	51.5725	268.142	
37	0.235	0.140152	-1.08032	51.5725	267.256	
38	0.235	0.143939	-1.06694	51.5725	266.602	
39	0.235	0.147727	-1.04939	51.5725	265.745	
40	0.255	0.151515	-1.03215	52.6425	264.904	
41	0.255	0.155303	-1.01522	52.6425	264.077	
42	0.255	0.159091	-0.998575	52.6425	263.264	
43	0.28	0.162879	-0.986272	53.98	262.663	
44	0.28	0.166667	-0.970094	53.98	261.873	
45	0.3	0.170455	-0.954165	55.05	261.095	
46	0.31	0.174242	-0.938476	55.585	260.329	
47	0.32	0.17803	-0.923014	56.12	259.574	
48	0.36	0.181818	-0.911562	58.26	259.015	

49	0.37	0.185606	-0.896473	58.795	258.278
50	0.37	0.189394	-0.881587	58.795	257.551
51	0.37	0.193182	-0.866894	58.795	256.833
52	0.37	0.19697	-0.855996	58.795	256.301
53	0.37	0.200758	-0.841621	58.795	255.599
54	0.37	0.204545	-0.827417	58.795	254.906
55	0.37	0.208333	-0.813379	58.795	254.22
56	0.37	0.212121	-0.7995	58.795	253.542
57	0.37	0.215909	-0.789191	58.795	253.039
58	0.37	0.219697	-0.775574	58.795	252.374
59	0.37	0.223485	-0.7621	58.795	251.716
60	0.37	0.227273	-0.748762	58.795	251.065
61	0.37	0.231061	-0.735557	58.795	250.42
62	0.37	0.234848	-0.725736	58.795	249.94
63	0.38	0.238636	-0.712751	59.33	249.306
64	0.38	0.242424	-0.699883	59.33	248.678
65	0.39	0.246212	-0.687131	59.865	248.055
66	0.39	0.25	-0.67449	59.865	247.438
67	0.4	0.253788	-0.665079	60.4	246.978
68	0.43	0.257576	-0.652622	62.005	246.37
69	0.43	0.261364	-0.640266	62.005	245.766
70	0.44	0.265152	-0.628006	62.54	245.168
71	0.47	0.268939	-0.618872	64.145	244.722
72	0.48	0.272727	-0.606775	64.68	244.131
73	0.49	0.276515	-0.594766	65.215	243.544
74	0.49	0.280303	-0.582841	65.215	242.962
75	0.49	0.284091	-0.570999	65.215	242.384
76	0.51	0.287879	-0.56217	66.285	241.953
77	0.52	0.291667	-0.550465	66.82	241.381
78	0.54	0.295455	-0.538836	67.89	240.813
79	0.54	0.299242	-0.52728	67.89	240.249
80	0.6	0.30303	-0.515791	71.1	239.688
81	0.61	0.306818	-0.507221	71.635	239.269
82	0.62	0.310606	-0.49585	72.17	238.714
83	0.66	0.314394	-0.484544	74.31	238.162
84	0.76	0.318182	-0.473299	79.66	237.613
85	0.78	0.32197	-0.464904	80.73	237.203
86	0.84	0.325758	-0.453763	83.94	236.659
87	0.91	0.329545	-0.442676	87.685	236.117
88	0.97	0.333333	-0.431644	90.895	235.579
89	0.97	0.337121	-0.420664	90.895	235.042
90	1	0.340909	-0.412463	92.5	234.642
91	1	0.344697	-0.401571	92.5	234.11
92	1	0.348485	-0.390726	92.5	233.58
93	1	0.352273	-0.379927	92.5	233.053
94	1	0.356061	-0.369171	92.5	232.528
95	1	0.359848	-0.361133	92.5	232.135
96	1	0.363636	-0.350451	92.5	231.614
97	1	0.367424	-0.33981	92.5	231.094
98	1	0.371212	-0.329206	92.5	230.576
99	1	0.375	-0.318639	92.5	230.06
100	1	0.378788	-0.310738	92.5	229.674
101	1	0.382576	-0.300232	92.5	229.161
102	1	0.386364	-0.28976	92.5	228.65
103	1	0.390152	-0.279319	92.5	228.14
104	1	0.393939	-0.271509	92.5	227.759
105	1	0.397727	-0.26112	92.5	227.251
106	1	0.401515	-0.250759	92.5	226.745
107	1	0.405303	-0.240426	92.5	226.241
108	1	0.409091	-0.230118	92.5	225.737
109	1	0.412879	-0.222403	92.5	225.361
110	1	0.416667	-0.212137	92.5	224.859

111	1	0.420455	-0.201894	92.5	224.359
112	1	0.424242	-0.191671	92.5	223.86
113	1	0.42803	-0.181468	92.5	223.362
114	1	0.431818	-0.173829	92.5	222.989
115	1	0.435606	-0.163659	92.5	222.492
116	1	0.439394	-0.153505	92.5	221.996
117	1	0.443182	-0.143367	92.5	221.501
118	1	0.44697	-0.135774	92.5	221.13
119	1	0.450758	-0.125661	92.5	220.636
120	1	0.454545	-0.115562	92.5	220.143
121	1	0.458333	-0.105474	92.5	219.651
122	1	0.462121	-0.0953969	92.5	219.159
123	1	0.465909	-0.0878447	92.5	218.79
124	1	0.469697	-0.0777834	92.5	218.298
125	1	0.473485	-0.0677301	92.5	217.807
126	1	0.477273	-0.0576847	92.5	217.317
127	1	0.481061	-0.0476439	92.5	216.827
128	1	0.484848	-0.0401167	92.5	216.459
129	1	0.488636	-0.0300838	92.5	215.969
130	1	0.492424	-0.0200544	92.5	215.479
131	1	0.496212	-0.0100272	92.5	214.99
132	1	0.5	0	92.5	214.5
133	1	0.503788	0.0100272	92.5	214.01
134	1	0.507576	0.0200544	92.5	213.521
135	1	0.511364	0.0300838	92.5	213.031
136	1	0.515152	0.0401167	92.5	212.541
137	1	0.518939	0.0476439	92.5	212.173
138	1	0.522727	0.0576847	92.5	211.683
139	1	0.526515	0.0677301	92.5	211.193
140	1	0.530303	0.0777834	92.5	210.702
141	1	0.534091	0.0878447	92.5	210.21
142	1	0.537879	0.0953969	92.5	209.841
143	1	0.541667	0.105474	92.5	209.349
144	1	0.545455	0.115562	92.5	208.857
145	1	0.549242	0.125661	92.5	208.364
146	1	0.55303	0.135774	92.5	207.87
147	1	0.556818	0.143367	92.5	207.499
148	1	0.560606	0.153505	92.5	207.004
149	1	0.564394	0.163659	92.5	206.508
150	1	0.568182	0.173829	92.5	206.011
151	1	0.57197	0.181468	92.5	205.638
152	1	0.575758	0.191671	92.5	205.14
153	1	0.579545	0.201894	92.5	204.641
154	1	0.583333	0.212137	92.5	204.141
155	1	0.587121	0.222403	92.5	203.639
156	1	0.590909	0.230118	92.5	203.263
157	1	0.594697	0.240426	92.5	202.759
158	1	0.598485	0.250759	92.5	202.255
159	1	0.602273	0.26112	92.5	201.749
160	1	0.606061	0.271509	92.5	201.241
161	1	0.609848	0.279319	92.5	200.86
162	1	0.613636	0.28976	92.5	200.35
163	1	0.617424	0.300232	92.5	199.839
164	1	0.621212	0.310738	92.5	199.326
165	1	0.625	0.318639	92.5	198.94
166	1	0.628788	0.329206	92.5	198.424
167	1	0.632576	0.33981	92.5	197.906
168	1	0.636364	0.350451	92.5	197.386
169	1	0.640152	0.361133	92.5	196.865
170	1	0.643939	0.369171	92.5	196.472
171	1	0.647727	0.379927	92.5	195.947
172	1	0.651515	0.390726	92.5	195.42

173	1	0.655303	0.401571	92.5	194.89
174	1	0.659091	0.412463	92.5	194.358
175	1	0.662879	0.420664	92.5	193.958
176	1	0.666667	0.431644	92.5	193.421
177	1	0.670455	0.442676	92.5	192.883
178	1	0.674242	0.453763	92.5	192.341
179	1	0.67803	0.464904	92.5	191.797
180	1	0.681818	0.473299	92.5	191.387
181	1	0.685606	0.484544	92.5	190.838
182	1	0.689394	0.49585	92.5	190.286
183	1	0.693182	0.507221	92.5	189.731
184	1	0.69697	0.515791	92.5	189.312
185	1	0.700758	0.52728	92.5	188.751
186	1	0.704545	0.538836	92.5	188.187
187	1	0.708333	0.550465	92.5	187.619
188	1	0.712121	0.56217	92.5	187.047
189	1	0.715909	0.570999	92.5	186.616
190	1	0.719697	0.582841	92.5	186.038
191	1	0.723485	0.594766	92.5	185.456
192	1	0.727273	0.606775	92.5	184.869
193	1	0.731061	0.618872	92.5	184.278
194	1	0.734848	0.628006	92.5	183.832
195	1	0.738636	0.640266	92.5	183.234
196	1	0.742424	0.652622	92.5	182.63
197	1	0.746212	0.665079	92.5	182.022
198	1	0.75	0.67449	92.5	181.562
199	1	0.753788	0.687131	92.5	180.945
200	1	0.757576	0.699883	92.5	180.322
201	1	0.761364	0.712751	92.5	179.694
202	1	0.765152	0.725736	92.5	179.06
203	1	0.768939	0.735557	92.5	178.58
204	1	0.772727	0.748762	92.5	177.935
205	1	0.776515	0.7621	92.5	177.284
206	1	0.780303	0.775574	92.5	176.626
207	1	0.784091	0.789191	92.5	175.961
208	1	0.787879	0.7995	92.5	175.458
209	1	0.791667	0.813379	92.5	174.78
210	1	0.795455	0.827417	92.5	174.094
211	1	0.799242	0.841621	92.5	173.401
212	1	0.80303	0.855996	92.5	172.699
213	1	0.806818	0.866894	92.5	172.167
214	1	0.810606	0.881587	92.5	171.449
215	1	0.814394	0.896473	92.5	170.722
216	1	0.818182	0.911562	92.5	169.985
217	1	0.82197	0.923014	92.5	169.426
218	1	0.825758	0.938476	92.5	168.671
219	1	0.829545	0.954165	92.5	167.905
220	1	0.833333	0.970094	92.5	167.127
221	1	0.837121	0.986272	92.5	166.337
222	1	0.840909	0.998575	92.5	165.736
223	1	0.844697	1.01522	92.5	164.923
224	1	0.848485	1.03215	92.5	164.096
225	1	0.852273	1.04939	92.5	163.255
226	1	0.856061	1.06694	92.5	162.398
227	1	0.859848	1.08032	92.5	161.744
228	1	0.863636	1.09847	92.5	160.858
229	1	0.867424	1.11699	92.5	159.954
230	1	0.871212	1.1359	92.5	159.03
231	1	0.875	1.15035	92.5	158.325
232	1	0.878788	1.17	92.5	157.365
233	1	0.882576	1.19012	92.5	156.383
234	1	0.886364	1.21073	92.5	155.376

235	1	0.890152	1.23187	92.5	154.344
236	1	0.893939	1.24809	92.5	153.552
237	1	0.897727	1.27024	92.5	152.47
238	1	0.901515	1.29303	92.5	151.357
239	1.05	0.905303	1.31652	95.175	150.21
240	1.11	0.909091	1.34075	98.385	149.026
241	1.14	0.912879	1.35946	99.99	148.113
242	1.5	0.916667	1.38517	119.25	146.857
243	1.98	0.920455	1.41183	144.93	145.556
244	2	0.924242	1.43953	146	144.203
245	2	0.92803	1.46838	146	142.794
246	2.2	0.931818	1.49085	156.7	141.697
247	2.75	0.935606	1.52203	186.125	140.174
248	3.4	0.939394	1.55477	220.9	138.575
249	3.9	0.943182	1.58927	247.65	136.891
250	3.99	0.94697	1.61644	252.465	135.564
251	4	0.950758	1.65463	253	133.699
252	4.1	0.954545	1.6954	258.35	131.708
253	5.2	0.958333	1.7392	317.2	129.569
254	5.4	0.962121	1.78661	327.9	127.254
255	5.6	0.965909	1.82501	338.6	125.379
256	5.99	0.969697	1.88079	359.465	122.655
257	6.45	0.973485	1.94314	384.075	119.61
258	6.9	0.977273	2.01409	408.15	116.145
259	7.9	0.981061	2.09693	461.65	112.1
260	7.9	0.984848	2.17009	461.65	108.527
261	8.6	0.988636	2.29036	499.1	102.654
262	8.8	0.992424	2.45727	509.8	94.5032
263	10	0.996212	2.74777	574	80.3175

Shapiro-Francia Test of Normality

Parameter: 1,4-Dichlorobenzene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 263

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.96611	-2.74777	7.55021	5.40242
2	-1.96611	-2.45727	13.5884	10.2337
3	-1.96611	-2.29036	18.8342	14.7368
4	-1.96611	-2.17009	23.5435	19.0034
5	-1.96611	-2.09693	27.9406	23.1262
6	-1.96611	-2.01409	31.9972	27.0862
7	-1.96611	-1.94314	35.7729	30.9066
8	-1.96611	-1.88079	39.3103	34.6045
9	-1.96611	-1.82501	42.6409	38.1926
10	-1.96611	-1.78661	45.8329	41.7053
11	-1.96611	-1.7392	48.8577	45.1248
12	-1.96611	-1.6954	51.7321	48.4581
13	-1.96611	-1.65463	54.4699	51.7113
14	-1.96611	-1.61644	57.0828	54.8894
15	-1.96611	-1.58927	59.6085	58.0141
16	-1.96611	-1.55477	62.0259	61.0709
17	-1.96611	-1.52203	64.3424	64.0634
18	-1.96611	-1.49085	66.5651	66.9946
19	-1.96611	-1.46838	68.7212	69.8816
20	-1.96611	-1.43953	70.7935	72.7119
21	-1.96611	-1.41183	72.7868	75.4877
22	-1.96611	-1.38517	74.7055	78.2111
23	-1.96611	-1.35946	76.5536	80.884
24	-1.96611	-1.34075	78.3512	83.52
25	-1.96611	-1.31652	80.0844	86.1085
26	-1.96611	-1.29303	81.7564	88.6507
27	-1.96611	-1.27024	83.3699	91.1481
28	-1.96611	-1.24809	84.9276	93.602
29	-1.96611	-1.23187	86.4451	96.024
30	-1.96611	-1.21073	87.911	98.4044
31	-1.96611	-1.19012	89.3273	100.744
32	-1.96611	-1.17	90.6962	103.045
33	-1.96611	-1.15035	92.0195	105.306
34	-1.96611	-1.1359	93.3098	107.54
35	-1.96611	-1.11699	94.5575	109.736
36	-1.44817	-1.09847	95.7641	111.327
37	-1.44817	-1.08032	96.9312	112.891
38	-1.44817	-1.06694	98.0695	114.436
39	-1.44817	-1.04939	99.1708	115.956
40	-1.36649	-1.03215	100.236	117.366
41	-1.36649	-1.01522	101.267	118.754
42	-1.36649	-0.998575	102.264	120.118
43	-1.27297	-0.986272	103.237	121.374
44	-1.27297	-0.970094	104.178	122.609
45	-1.20397	-0.954165	105.088	123.757
46	-1.17118	-0.938476	105.969	124.856
47	-1.13943	-0.923014	106.821	125.908
48	-1.02165	-0.911562	107.652	126.839
49	-0.994252	-0.896473	108.455	127.731
50	-0.994252	-0.881587	109.233	128.607
51	-0.994252	-0.866894	109.984	129.469

52	-0.994252	-0.855996		110.717	130.32
53	-0.994252	-0.841621		111.425	131.157
54	-0.994252	-0.827417		112.11	131.98
55	-0.994252	-0.813379		112.771	132.788
56	-0.994252	-0.7995	113.411	133.583	
57	-0.994252	-0.789191		114.033	134.368
58	-0.994252	-0.775574		114.635	135.139
59	-0.994252	-0.7621	115.216	135.897	
60	-0.994252	-0.748762		115.776	136.641
61	-0.994252	-0.735557		116.317	137.373
62	-0.994252	-0.725736		116.844	138.094
63	-0.967584	-0.712751		117.352	138.784
64	-0.967584	-0.699883		117.842	139.461
65	-0.941609	-0.687131		118.314	140.108
66	-0.941609	-0.67449	118.769	140.743	
67	-0.916291	-0.665079		119.211	141.353
68	-0.84397	-0.652622	119.637	141.903	
69	-0.84397	-0.640266	120.047	142.444	
70	-0.820981	-0.628006		120.442	142.959
71	-0.755023	-0.618872		120.825	143.427
72	-0.733969	-0.606775		121.193	143.872
73	-0.71335	-0.594766	121.547	144.296	
74	-0.71335	-0.582841	121.886	144.712	
75	-0.71335	-0.570999	122.212	145.119	
76	-0.673345	-0.56217	122.528	145.498	
77	-0.653926	-0.550465		122.831	145.858
78	-0.616186	-0.538836		123.122	146.19
79	-0.616186	-0.52728	123.4	146.515	
80	-0.510826	-0.515791		123.666	146.778
81	-0.494296	-0.507221		123.923	147.029
82	-0.478036	-0.49585	124.169	147.266	
83	-0.415515	-0.484544		124.404	147.467
84	-0.274437	-0.473299		124.628	147.597
85	-0.248461	-0.464904		124.844	147.713
86	-0.174353	-0.453763		125.05	147.792
87	-0.0943107	-0.442676		125.246	147.834
88	-0.030459 2	-0.431644		125.432	147.847
89	-0.030459 2	-0.420664		125.609	147.86
90	0	-0.412463	125.779	147.86	
91	0	-0.401571	125.94	147.86	
92	0	-0.390726	126.093	147.86	
93	0	-0.379927	126.237	147.86	
94	0	-0.369171	126.374	147.86	
95	0	-0.361133	126.504	147.86	
96	0	-0.350451	126.627	147.86	
97	0	-0.33981	126.742	147.86	
98	0	-0.329206	126.851	147.86	
99	0	-0.318639	126.952	147.86	
100	0	-0.310738	127.049	147.86	
101	0	-0.300232	127.139	147.86	
102	0	-0.28976	127.223	147.86	
103	0	-0.279319	127.301	147.86	
104	0	-0.271509	127.375	147.86	
105	0	-0.26112	127.443	147.86	
106	0	-0.250759	127.506	147.86	
107	0	-0.240426	127.564	147.86	
108	0	-0.230118	127.617	147.86	
109	0	-0.222403	127.666	147.86	
110	0	-0.212137	127.711	147.86	
111	0	-0.201894	127.752	147.86	
112	0	-0.191671	127.788	147.86	
113	0	-0.181468	127.821	147.86	

114	0	-0.173829	127.852	147.86
115	0	-0.163659	127.878	147.86
116	0	-0.153505	127.902	147.86
117	0	-0.143367	127.923	147.86
118	0	-0.135774	127.941	147.86
119	0	-0.125661	127.957	147.86
120	0	-0.115562	127.97	147.86
121	0	-0.105474	127.981	147.86
122	0	-0.0953969	127.99	147.86
123	0	-0.0878447	127.998	147.86
124	0	-0.0777834	128.004	147.86
125	0	-0.0677301	128.009	147.86
126	0	-0.0576847	128.012	147.86
127	0	-0.0476439	128.014	147.86
128	0	-0.0401167	128.016	147.86
129	0	-0.0300838	128.017	147.86
130	0	-0.0200544	128.017	147.86
131	0	-0.0100272	128.017	147.86
132	0	0	128.017	147.86
133	0	0.0100272	128.017	147.86
134	0	0.0200544	128.018	147.86
135	0	0.0300838	128.019	147.86
136	0	0.0401167	128.02	147.86
137	0	0.0476439	128.023	147.86
138	0	0.0576847	128.026	147.86
139	0	0.0677301	128.03	147.86
140	0	0.0777834	128.037	147.86
141	0	0.0878447	128.044	147.86
142	0	0.0953969	128.053	147.86
143	0	0.105474	128.064	147.86
144	0	0.115562	128.078	147.86
145	0	0.125661	128.094	147.86
146	0	0.135774	128.112	147.86
147	0	0.143367	128.133	147.86
148	0	0.153505	128.156	147.86
149	0	0.163659	128.183	147.86
150	0	0.173829	128.213	147.86
151	0	0.181468	128.246	147.86
152	0	0.191671	128.283	147.86
153	0	0.201894	128.324	147.86
154	0	0.212137	128.369	147.86
155	0	0.222403	128.418	147.86
156	0	0.230118	128.471	147.86
157	0	0.240426	128.529	147.86
158	0	0.250759	128.592	147.86
159	0	0.26112	128.66	147.86
160	0	0.271509	128.734	147.86
161	0	0.279319	128.812	147.86
162	0	0.28976	128.896	147.86
163	0	0.300232	128.986	147.86
164	0	0.310738	129.082	147.86
165	0	0.318639	129.184	147.86
166	0	0.329206	129.292	147.86
167	0	0.33981	129.408	147.86
168	0	0.350451	129.53	147.86
169	0	0.361133	129.661	147.86
170	0	0.369171	129.797	147.86
171	0	0.379927	129.942	147.86
172	0	0.390726	130.094	147.86
173	0	0.401571	130.255	147.86
174	0	0.412463	130.426	147.86
175	0	0.420664	130.603	147.86

176	0	0.431644		130.789	147.86
177	0	0.442676		130.985	147.86
178	0	0.453763		131.191	147.86
179	0	0.464904		131.407	147.86
180	0	0.473299		131.631	147.86
181	0	0.484544		131.866	147.86
182	0	0.49585	132.112	147.86	
183	0	0.507221		132.369	147.86
184	0	0.515791		132.635	147.86
185	0	0.52728	132.913	147.86	
186	0	0.538836		133.203	147.86
187	0	0.550465		133.506	147.86
188	0	0.56217	133.822	147.86	
189	0	0.570999		134.148	147.86
190	0	0.582841		134.488	147.86
191	0	0.594766		134.842	147.86
192	0	0.606775		135.21	147.86
193	0	0.618872		135.593	147.86
194	0	0.628006		135.987	147.86
195	0	0.640266		136.397	147.86
196	0	0.652622		136.823	147.86
197	0	0.665079		137.266	147.86
198	0	0.67449	137.72	147.86	
199	0	0.687131		138.193	147.86
200	0	0.699883		138.682	147.86
201	0	0.712751		139.19	147.86
202	0	0.725736		139.717	147.86
203	0	0.735557		140.258	147.86
204	0	0.748762		140.819	147.86
205	0	0.7621	141.4	147.86	
206	0	0.775574		142.001	147.86
207	0	0.789191		142.624	147.86
208	0	0.7995	143.263	147.86	
209	0	0.813379		143.925	147.86
210	0	0.827417		144.609	147.86
211	0	0.841621		145.318	147.86
212	0	0.855996		146.05	147.86
213	0	0.866894		146.802	147.86
214	0	0.881587		147.579	147.86
215	0	0.896473		148.383	147.86
216	0	0.911562		149.214	147.86
217	0	0.923014		150.066	147.86
218	0	0.938476		150.946	147.86
219	0	0.954165		151.857	147.86
220	0	0.970094		152.798	147.86
221	0	0.986272		153.771	147.86
222	0	0.998575		154.768	147.86
223	0	1.01522	155.798	147.86	
224	0	1.03215	156.864	147.86	
225	0	1.04939	157.965	147.86	
226	0	1.06694	159.103	147.86	
227	0	1.08032	160.27	147.86	
228	0	1.09847	161.477	147.86	
229	0	1.11699	162.725	147.86	
230	0	1.1359	164.015	147.86	
231	0	1.15035	165.338	147.86	
232	0	1.17	166.707	147.86	
233	0	1.19012	168.124	147.86	
234	0	1.21073	169.589	147.86	
235	0	1.23187	171.107	147.86	
236	0	1.24809	172.665	147.86	
237	0	1.27024	174.278	147.86	

238	0	1.29303	175.95	147.86	
239	0.0487902		1.31652	177.683	147.924
240	0.10436	1.34075	179.481	148.064	
241	0.131028		1.35946	181.329	148.242
242	0.405465		1.38517	183.248	148.803
243	0.683097		1.41183	185.241	149.768
244	0.693147		1.43953	187.313	150.766
245	0.693147		1.46838	189.469	151.783
246	0.788457		1.49085	191.692	152.959
247	1.0116	1.52203	194.009	154.499	
248	1.22378	1.55477	196.426	156.401	
249	1.36098	1.58927	198.952	158.564	
250	1.38379	1.61644	201.565	160.801	
251	1.38629	1.65463	204.302	163.095	
252	1.41099	1.6954	207.177	165.487	
253	1.64866	1.7392	210.202	168.354	
254	1.6864	1.78661	213.394	171.367	
255	1.72277	1.82501	216.724	174.511	
256	1.79009	1.88079	220.262	177.878	
257	1.86408	1.94314	224.037	181.5	
258	1.93152	2.01409	228.094	185.391	
259	2.06686	2.09693	232.491	189.725	
260	2.06686	2.17009	237.2	194.21	
261	2.15176	2.29036	242.446	199.138	
262	2.17475	2.45727	248.484	204.482	
263	2.30259	2.74777	256.035	210.809	

Data Set Standard Deviation = 0.899045
Numerator = 44440.5
Denominator = 54220.4
W Statistic = 0.819627 = 44440.5 / 54220.4

5% Critical value of 0.976 exceeds 0.819627
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.819627
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,4-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.905655
0.905655 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.96611	0.00378788	-2.74777	42.6259	348.683
2	-1.96611	0.00757576	-2.45727	42.6259	334.497
3	-1.96611	0.0113636	-2.29036	42.6259	326.346
4	-1.96611	0.0151515	-2.17009	42.6259	320.473
5	-1.96611	0.0189394	-2.09693	42.6259	316.9
6	-1.96611	0.0227273	-2.01409	42.6259	312.855
7	-1.96611	0.0265152	-1.94314	42.6259	309.39
8	-1.96611	0.030303	-1.88079	42.6259	306.345
9	-1.96611	0.0340909	-1.82501	42.6259	303.621
10	-1.96611	0.0378788	-1.78661	42.6259	301.746
11	-1.96611	0.0416667	-1.7392	42.6259	299.431
12	-1.96611	0.0454545	-1.6954	42.6259	297.292
13	-1.96611	0.0492424	-1.65463	42.6259	295.301
14	-1.96611	0.0530303	-1.61644	42.6259	293.436
15	-1.96611	0.0568182	-1.58927	42.6259	292.109
16	-1.96611	0.0606061	-1.55477	42.6259	290.425
17	-1.96611	0.0643939	-1.52203	42.6259	288.826
18	-1.96611	0.0681818	-1.49085	42.6259	287.303
19	-1.96611	0.0719697	-1.46838	42.6259	286.206
20	-1.96611	0.0757576	-1.43953	42.6259	284.797
21	-1.96611	0.0795455	-1.41183	42.6259	283.444
22	-1.96611	0.0833333	-1.38517	42.6259	282.143
23	-1.96611	0.0871212	-1.35946	42.6259	280.887
24	-1.96611	0.0909091	-1.34075	42.6259	279.974
25	-1.96611	0.094697	-1.31652	42.6259	278.79
26	-1.96611	0.0984848	-1.29303	42.6259	277.643
27	-1.96611	0.102273	-1.27024	42.6259	276.53
28	-1.96611	0.106061	-1.24809	42.6259	275.448
29	-1.96611	0.109848	-1.23187	42.6259	274.656
30	-1.96611	0.113636	-1.21073	42.6259	273.624
31	-1.96611	0.117424	-1.19012	42.6259	272.617
32	-1.96611	0.121212	-1.17	42.6259	271.635
33	-1.96611	0.125	-1.15035	42.6259	270.675
34	-1.96611	0.128788	-1.1359	42.6259	269.97
35	-1.96611	0.132576	-1.11699	42.6259	269.046
36	-1.44817	0.136364	-1.09847	98.0458	268.142
37	-1.44817	0.140152	-1.08032	98.0458	267.256
38	-1.44817	0.143939	-1.06694	98.0458	266.602
39	-1.44817	0.147727	-1.04939	98.0458	265.745
40	-1.36649	0.151515	-1.03215	106.785	264.904
41	-1.36649	0.155303	-1.01522	106.785	264.077
42	-1.36649	0.159091	-0.998575	106.785	263.264
43	-1.27297	0.162879	-0.986272	116.793	262.663
44	-1.27297	0.166667	-0.970094	116.793	261.873
45	-1.20397	0.170455	-0.954165	124.175	261.095
46	-1.17118	0.174242	-0.938476	127.683	260.329
47	-1.13943	0.17803	-0.923014	131.081	259.574
48	-1.02165	0.181818	-0.911562	143.683	259.015

49	-0.994252	0.185606	-0.896473	146.615	258.278	
50	-0.994252	0.189394	-0.881587	146.615	257.551	
51	-0.994252	0.193182	-0.866894	146.615	256.833	
52	-0.994252	0.19697	-0.855996	146.615	256.301	
53	-0.994252	0.200758	-0.841621	146.615	255.599	
54	-0.994252	0.204545	-0.827417	146.615	254.906	
55	-0.994252	0.208333	-0.813379	146.615	254.22	
56	-0.994252	0.212121	-0.7995	146.615	253.542	
57	-0.994252	0.215909	-0.789191	146.615	253.039	
58	-0.994252	0.219697	-0.775574	146.615	252.374	
59	-0.994252	0.223485	-0.7621	146.615	251.716	
60	-0.994252	0.227273	-0.748762	146.615	251.065	
61	-0.994252	0.231061	-0.735557	146.615	250.42	
62	-0.994252	0.234848	-0.725736	146.615	249.94	
63	-0.967584	0.238636	-0.712751	149.469	249.306	
64	-0.967584	0.242424	-0.699883	149.469	248.678	
65	-0.941609	0.246212	-0.687131	152.248	248.055	
66	-0.941609	0.25	-0.67449	152.248	247.438	
67	-0.916291	0.253788	-0.665079	154.957	246.978	
68	-0.84397	0.257576	-0.652622	162.695	246.37	
69	-0.84397	0.261364	-0.640266	162.695	245.766	
70	-0.820981	0.265152	-0.628006	165.155	245.168	
71	-0.755023	0.268939	-0.618872	172.213	244.722	
72	-0.733969	0.272727	-0.606775	174.465	244.131	
73	-0.71335	0.276515	-0.594766	176.672	243.544	
74	-0.71335	0.280303	-0.582841	176.672	242.962	
75	-0.71335	0.284091	-0.570999	176.672	242.384	
76	-0.673345	0.287879	-0.56217	180.952	241.953	
77	-0.653926	0.291667	-0.550465	183.03	241.381	
78	-0.616186	0.295455	-0.538836	187.068	240.813	
79	-0.616186	0.299242	-0.52728	187.068	240.249	
80	-0.510826	0.30303	-0.515791	198.342	239.688	
81	-0.494296	0.306818	-0.507221	200.11	239.269	
82	-0.478036	0.310606	-0.49585	201.85	238.714	
83	-0.415515	0.314394	-0.484544	208.54	238.162	
84	-0.274437	0.318182	-0.473299	223.635	237.613	
85	-0.248461	0.32197	-0.464904	226.415	237.203	
86	-0.174353	0.325758	-0.453763	234.344	236.659	
87	-0.094310	7 0.329545	-0.442676	242.909	236.117	
88	-0.030459	2 0.333333	-0.431644	249.741	235.579	
89	-0.030459	2 0.337121	-0.420664	249.741	235.042	
90	0	0.340909	-0.412463	253	234.642	
91	0	0.344697	-0.401571	253	234.11	
92	0	0.348485	-0.390726	253	233.58	
93	0	0.352273	-0.379927	253	233.053	
94	0	0.356061	-0.369171	253	232.528	
95	0	0.359848	-0.361133	253	232.135	
96	0	0.363636	-0.350451	253	231.614	
97	0	0.367424	-0.33981	253	231.094	
98	0	0.371212	-0.329206	253	230.576	
99	0	0.375	-0.318639	253	230.06	
100	0	0.378788	-0.310738	253	229.674	
101	0	0.382576	-0.300232	253	229.161	
102	0	0.386364	-0.28976	253	228.65	
103	0	0.390152	-0.279319	253	228.14	
104	0	0.393939	-0.271509	253	227.759	
105	0	0.397727	-0.26112	253	227.251	
106	0	0.401515	-0.250759	253	226.745	
107	0	0.405303	-0.240426	253	226.241	
108	0	0.409091	-0.230118	253	225.737	
109	0	0.412879	-0.222403	253	225.361	
110	0	0.416667	-0.212137	253	224.859	

111	0	0.420455	-0.201894	253	224.359
112	0	0.424242	-0.191671	253	223.86
113	0	0.42803	-0.181468	253	223.362
114	0	0.431818	-0.173829	253	222.989
115	0	0.435606	-0.163659	253	222.492
116	0	0.439394	-0.153505	253	221.996
117	0	0.443182	-0.143367	253	221.501
118	0	0.44697	-0.135774	253	221.13
119	0	0.450758	-0.125661	253	220.636
120	0	0.454545	-0.115562	253	220.143
121	0	0.458333	-0.105474	253	219.651
122	0	0.462121	-0.0953969	253	219.159
123	0	0.465909	-0.0878447	253	218.79
124	0	0.469697	-0.0777834	253	218.298
125	0	0.473485	-0.0677301	253	217.807
126	0	0.477273	-0.0576847	253	217.317
127	0	0.481061	-0.0476439	253	216.827
128	0	0.484848	-0.0401167	253	216.459
129	0	0.488636	-0.0300838	253	215.969
130	0	0.492424	-0.0200544	253	215.479
131	0	0.496212	-0.0100272	253	214.99
132	0	0.5	0	253	214.5
133	0	0.503788	0.0100272	253	214.01
134	0	0.507576	0.0200544	253	213.521
135	0	0.511364	0.0300838	253	213.031
136	0	0.515152	0.0401167	253	212.541
137	0	0.518939	0.0476439	253	212.173
138	0	0.522727	0.0576847	253	211.683
139	0	0.526515	0.0677301	253	211.193
140	0	0.530303	0.0777834	253	210.702
141	0	0.534091	0.0878447	253	210.21
142	0	0.537879	0.0953969	253	209.841
143	0	0.541667	0.105474	253	209.349
144	0	0.545455	0.115562	253	208.857
145	0	0.549242	0.125661	253	208.364
146	0	0.55303	0.135774	253	207.87
147	0	0.556818	0.143367	253	207.499
148	0	0.560606	0.153505	253	207.004
149	0	0.564394	0.163659	253	206.508
150	0	0.568182	0.173829	253	206.011
151	0	0.57197	0.181468	253	205.638
152	0	0.575758	0.191671	253	205.14
153	0	0.579545	0.201894	253	204.641
154	0	0.583333	0.212137	253	204.141
155	0	0.587121	0.222403	253	203.639
156	0	0.590909	0.230118	253	203.263
157	0	0.594697	0.240426	253	202.759
158	0	0.598485	0.250759	253	202.255
159	0	0.602273	0.26112	253	201.749
160	0	0.606061	0.271509	253	201.241
161	0	0.609848	0.279319	253	200.86
162	0	0.613636	0.28976	253	200.35
163	0	0.617424	0.300232	253	199.839
164	0	0.621212	0.310738	253	199.326
165	0	0.625	0.318639	253	198.94
166	0	0.628788	0.329206	253	198.424
167	0	0.632576	0.33981	253	197.906
168	0	0.636364	0.350451	253	197.386
169	0	0.640152	0.361133	253	196.865
170	0	0.643939	0.369171	253	196.472
171	0	0.647727	0.379927	253	195.947
172	0	0.651515	0.390726	253	195.42

173	0	0.655303	0.401571	253	194.89
174	0	0.659091	0.412463	253	194.358
175	0	0.662879	0.420664	253	193.958
176	0	0.666667	0.431644	253	193.421
177	0	0.670455	0.442676	253	192.883
178	0	0.674242	0.453763	253	192.341
179	0	0.67803	0.464904	253	191.797
180	0	0.681818	0.473299	253	191.387
181	0	0.685606	0.484544	253	190.838
182	0	0.689394	0.49585	253	190.286
183	0	0.693182	0.507221	253	189.731
184	0	0.69697	0.515791	253	189.312
185	0	0.700758	0.52728	253	188.751
186	0	0.704545	0.538836	253	188.187
187	0	0.708333	0.550465	253	187.619
188	0	0.712121	0.56217	253	187.047
189	0	0.715909	0.570999	253	186.616
190	0	0.719697	0.582841	253	186.038
191	0	0.723485	0.594766	253	185.456
192	0	0.727273	0.606775	253	184.869
193	0	0.731061	0.618872	253	184.278
194	0	0.734848	0.628006	253	183.832
195	0	0.738636	0.640266	253	183.234
196	0	0.742424	0.652622	253	182.63
197	0	0.746212	0.665079	253	182.022
198	0	0.75	0.67449	253	181.562
199	0	0.753788	0.687131	253	180.945
200	0	0.757576	0.699883	253	180.322
201	0	0.761364	0.712751	253	179.694
202	0	0.765152	0.725736	253	179.06
203	0	0.768939	0.735557	253	178.58
204	0	0.772727	0.748762	253	177.935
205	0	0.776515	0.7621	253	177.284
206	0	0.780303	0.775574	253	176.626
207	0	0.784091	0.789191	253	175.961
208	0	0.787879	0.7995	253	175.458
209	0	0.791667	0.813379	253	174.78
210	0	0.795455	0.827417	253	174.094
211	0	0.799242	0.841621	253	173.401
212	0	0.80303	0.855996	253	172.699
213	0	0.806818	0.866894	253	172.167
214	0	0.810606	0.881587	253	171.449
215	0	0.814394	0.896473	253	170.722
216	0	0.818182	0.911562	253	169.985
217	0	0.82197	0.923014	253	169.426
218	0	0.825758	0.938476	253	168.671
219	0	0.829545	0.954165	253	167.905
220	0	0.833333	0.970094	253	167.127
221	0	0.837121	0.986272	253	166.337
222	0	0.840909	0.998575	253	165.736
223	0	0.844697	1.01522	253	164.923
224	0	0.848485	1.03215	253	164.096
225	0	0.852273	1.04939	253	163.255
226	0	0.856061	1.06694	253	162.398
227	0	0.859848	1.08032	253	161.744
228	0	0.863636	1.09847	253	160.858
229	0	0.867424	1.11699	253	159.954
230	0	0.871212	1.1359	253	159.03
231	0	0.875	1.15035	253	158.325
232	0	0.878788	1.17	253	157.365
233	0	0.882576	1.19012	253	156.383
234	0	0.886364	1.21073	253	155.376

235	0	0.890152		1.23187	253	154.344	
236	0	0.893939		1.24809	253	153.552	
237	0	0.897727		1.27024	253	152.47	
238	0	0.901515		1.29303	253	151.357	
239	0.0487902		0.905303		1.31652	258.221	150.21
240	0.10436	0.909091		1.34075	264.167	149.026	
241	0.131028		0.912879		1.35946	267.02	148.113
242	0.405465		0.916667		1.38517	296.385	146.857
243	0.683097		0.920455		1.41183	326.091	145.556
244	0.693147		0.924242		1.43953	327.167	144.203
245	0.693147		0.92803	1.46838	327.167	142.794	
246	0.788457		0.931818		1.49085	337.365	141.697
247	1.0116	0.935606		1.52203	361.241	140.174	
248	1.22378	0.939394		1.55477	383.944	138.575	
249	1.36098	0.943182		1.58927	398.624	136.891	
250	1.38379	0.94697	1.61644	401.066	135.564		
251	1.38629	0.950758		1.65463	401.333	133.699	
252	1.41099	0.954545		1.6954	403.976	131.708	
253	1.64866	0.958333		1.7392	429.406	129.569	
254	1.6864	0.962121		1.78661	433.445	127.254	
255	1.72277	0.965909		1.82501	437.336	125.379	
256	1.79009	0.969697		1.88079	444.54	122.655	
257	1.86408	0.973485		1.94314	452.457	119.61	
258	1.93152	0.977273		2.01409	459.673	116.145	
259	2.06686	0.981061		2.09693	474.154	112.1	
260	2.06686	0.984848		2.17009	474.154	108.527	
261	2.15176	0.988636		2.29036	483.239	102.654	
262	2.17475	0.992424		2.45727	485.698	94.5032	
263	2.30259	0.996212		2.74777	499.377	80.3175	

Kruskal-Wallis Non-Parametric Test

Parameter: 1,4-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	104.5
	9/23/1999	ND<0	104.5
	3/15/2000	ND<0	104.5
	9/24/2003	ND<0	104.5
	3/11/2004	ND<0	104.5
	10/12/2004	ND<0	104.5
	4/1/2005	ND<0	104.5
	10/25/2005	ND<0	104.5
	4/29/2006	ND<0	104.5
	11/18/2006	ND<0	104.5
	5/23/2007	ND<0	104.5
	11/28/2007	ND<0	104.5
	6/5/2008	ND<0	104.5
	11/20/2008	ND<0	104.5
	6/11/2009	ND<-1.96611	104.5
	11/16/2009	ND<-1.36649	104.5
	6/30/2010	ND<-1.96611	104.5
	6/30/2010	ND<-0.994252	104.5
	11/12/2010	ND<-0.994252 U	104.5
	11/12/2010	ND<-1.96611 U	104.5
	7/5/2011	ND<-1.96611 U	104.5

Rank Sum = 2194.5
Rank Mean = 104.5

Background Rank Sum = 2194.5
Background Rank Mean = 104.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<0	104.5
	8/24/1995	-0.673345 J	225
	9/28/1995	-0.510826 J	229
	10/26/1995	ND<0	104.5
	11/19/1996	ND<0	104.5
	12/19/1996	ND<0	104.5
	3/24/1997	ND<0	104.5
	9/24/1997	ND<0	104.5
	4/7/1998	ND<0	104.5
	9/23/1998	ND<0	104.5
	3/16/1999	ND<0	104.5
	9/23/1999	ND<0	104.5
	3/15/2000	ND<0	104.5
	9/24/2003	ND<0	104.5
	3/11/2004	ND<0	104.5
	10/12/2004	ND<0	104.5
	4/1/2005	-0.094310707 J	236
	10/25/2005	-0.616186 J	227
	4/29/2006	-0.84397 J	217

	11/18/2006	-0.916291	J	216
	5/23/2007	ND<0		104.5
	11/28/2007	-0.415515	J	232
	6/5/2008	-0.755023	J	220
	11/20/2008	-0.616186	J	228
	6/11/2009	-0.820981	J	219
	11/16/2009	ND<-1.36649		104.5
	6/30/2010	ND<-0.967584		104.5
	6/30/2010	-0.030459	2 J	237
	11/12/2010	ND<-0.994252	U	104.5
	11/12/2010	ND<-1.96611	U	104.5
	7/5/2011	-1.17118	J	212
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 4892.5
Rank Mean = 148.258

MW-6	7/20/1995	ND<0		104.5
	8/24/1995	ND<0		104.5
	9/28/1995	ND<0		104.5
	10/26/1995	ND<0		104.5
	11/19/1996	ND<0		104.5
	12/19/1996	ND<0		104.5
	3/24/1997	ND<0		104.5
	9/24/1997	ND<0		104.5
	4/7/1998	ND<0		104.5
	9/23/1998	ND<0		104.5
	3/16/1999	ND<0		104.5
	9/23/1999	ND<0		104.5
	3/15/2000	ND<0		104.5
	9/24/2003	ND<0		104.5
	3/11/2004	ND<0		104.5
	10/12/2004	ND<0		104.5
	4/1/2005	ND<0		104.5
	10/25/2005	ND<0		104.5
	4/29/2006	ND<0		104.5
	11/18/2006	ND<0		104.5
	5/23/2007	ND<0		104.5
	11/28/2007	ND<0		104.5
	6/5/2008	ND<0		104.5
	11/20/2008	ND<0		104.5
	6/11/2009	ND<-1.96611		104.5
	11/16/2009	ND<-1.36649		104.5
	6/30/2010	ND<-1.96611		104.5
	6/30/2010	ND<-0.994252		104.5
	11/12/2010	ND<-0.994252	U	104.5
	11/12/2010	ND<-1.96611	U	104.5
	7/5/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 3448.5
Rank Mean = 104.5

MW-8	7/20/1995	ND<0		104.5
	8/24/1995	ND<0		104.5
	9/28/1995	ND<0		104.5
	10/26/1995	ND<0		104.5
	11/19/1996	ND<0		104.5
	12/19/1996	ND<0		104.5
	3/24/1997	ND<0		104.5
	9/24/1997	ND<0		104.5
	4/7/1998	ND<0		104.5

	9/23/1998	ND<0	104.5	
	3/16/1999	ND<0	104.5	
	9/23/1999	ND<0	104.5	
	3/15/2000	ND<0	104.5	
	9/24/2003	ND<0	104.5	
	3/11/2004	ND<0	104.5	
	10/12/2004	ND<0	104.5	
	4/1/2005	ND<0	104.5	
	10/25/2005	-1.27297	J	209
	4/29/2006	-1.02165	J	214
	11/18/2006	-0.84397	J	218
	5/23/2007	ND<0	104.5	
	11/28/2007	-1.27297	J	210
	6/5/2008	-1.13943	J	213
	11/20/2008	ND<0	104.5	
	6/11/2009	-0.478036	J	231
	6/30/2010	ND<-1.96611		104.5
	11/12/2010	-0.274437	J	233
	7/5/2011	-0.653926	J	226
	11/22/2011	-0.71335	J	222
	11/22/2011	-0.71335	J	223

Rank Sum = 4289
Rank Mean = 142.967

MW-12BR	3/16/1999	ND<0	104.5	
	9/23/1999	ND<0	104.5	
	3/15/2000	ND<0	104.5	
	9/24/2003	ND<0	104.5	
	3/11/2004	ND<0	104.5	
	10/12/2004	ND<0	104.5	
	4/1/2005	0.10436	J	240
	10/25/2005	ND<0	104.5	
	4/29/2006	0.683097	J	243
	11/18/2006	ND<0	104.5	
	5/23/2007	ND<0	104.5	
	11/28/2007	ND<0	104.5	
	6/5/2008	ND<0	104.5	
	11/20/2008	ND<0	104.5	
	6/11/2009	ND<-1.96611		104.5
	11/16/2009	ND<-1.44817		104.5
	6/30/2010	ND<-1.96611		104.5
	6/30/2010	ND<-0.994252		104.5
	11/12/2010	ND<-1.96611	U	104.5
	11/12/2010	ND<-0.941609	U	104.5
	11/12/2010	ND<-0.941609	U	104.5
	7/5/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 2782
Rank Mean = 115.917

MW-11R	7/20/1995	ND<0	104.5	
	8/24/1995	0.788457		246
	9/28/1995	0.693147		244
	10/26/1995	ND<0	104.5	
	11/19/1996	ND<0	104.5	
	12/19/1996	ND<0	104.5	
	3/24/1997	ND<0	104.5	
	9/24/1997	ND<0	104.5	
	4/7/1998	ND<0	104.5	
	9/23/1998	ND<0	104.5	
	3/16/1999	ND<0	104.5	

	9/23/1999	ND<0		104.5
	3/15/2000	ND<0		104.5
	9/24/2003	1.6864		254
	3/11/2004	ND<0		104.5
	10/12/2004	ND<0		104.5
	4/1/2005	ND<0		104.5
	10/25/2005	ND<0		104.5
	4/29/2006	ND<0		104.5
	11/18/2006	ND<0		104.5
	5/23/2007	ND<0		104.5
	11/28/2007	-1.20397	J	211
	6/5/2008	ND<0		104.5
	11/20/2008	ND<0		104.5
	6/11/2009	-0.733969	J	221
	11/16/2009	ND<-1.44817		104.5
	6/30/2010	-0.994252	J	215
	6/30/2010	ND<-0.994252		104.5
	11/12/2010	ND<-0.994252	U	104.5
	11/12/2010	ND<-1.96611	U	104.5
	7/5/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 4212.5
Rank Mean = 127.652

MW-10	7/20/1995	ND<0		104.5
	8/24/1995	0.405465	J	242
	9/28/1995	1.38629		251
	10/26/1995	0.693147		245
	11/19/1996	ND<0		104.5
	12/19/1996	ND<0		104.5
	3/24/1997	ND<0		104.5
	9/24/1997	ND<0		104.5
	4/7/1998	ND<0		104.5
	9/23/1998	ND<0		104.5
	3/16/1999	2.17475		262
	9/23/1999	ND<0		104.5
	3/15/2000	ND<0		104.5
	9/24/2003	ND<0		104.5
	3/11/2004	ND<0		104.5
	10/12/2004	ND<0		104.5
	4/1/2005	1.0116		247
	10/25/2005	1.38379		250
	4/29/2006	1.72277		255
	11/18/2006	1.36098		249
	5/23/2007	1.41099		252
	11/28/2007	1.79009		256
	6/5/2008	1.86408		257
	11/20/2008	ND<0		104.5
	6/11/2009	1.22378		248
	11/16/2009	1.93152	J	258
	6/30/2010	ND<-0.994252		104.5
	6/30/2010	1.64866		253
	11/12/2010	2.15176		261
	11/12/2010	ND<-0.994252	U	104.5
	7/5/2011	2.30259		263
	11/22/2011	2.06686		259
	11/22/2011	2.06686		260

Rank Sum = 6135.5
Rank Mean = 185.924

MW-7	7/20/1995	ND<0		104.5

	8/24/1995	ND<0		104.5
	9/28/1995	ND<0		104.5
	10/26/1995	ND<0		104.5
	11/19/1996	ND<0		104.5
	12/19/1996	ND<0		104.5
	3/24/1997	ND<0		104.5
	9/24/1997	ND<0		104.5
	4/7/1998	ND<0		104.5
	9/23/1998	ND<0		104.5
	3/16/1999	ND<0		104.5
	9/23/1999	ND<0		104.5
	3/15/2000	ND<0		104.5
	9/24/2003	ND<0		104.5
	3/11/2004	ND<0		104.5
	10/12/2004	ND<0		104.5
	4/1/2005	ND<0		104.5
	10/25/2005	ND<0		104.5
	4/29/2006	ND<0		104.5
	11/18/2006	ND<0		104.5
	5/23/2007	ND<0		104.5
	11/28/2007	ND<0		104.5
	6/5/2008	ND<0		104.5
	11/20/2008	ND<0		104.5
	6/11/2009	ND<-1.96611		104.5
	11/16/2009	ND<-1.44817		104.5
	6/30/2010	ND<-1.96611		104.5
	6/30/2010	ND<-0.967584		104.5
	11/12/2010	ND<-0.994252	U	104.5
	11/12/2010	ND<-1.96611	U	104.5
	7/5/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 3448.5
Rank Mean = 104.5

MW-12A	R	3/16/1999	ND<0	104.5
	9/23/1999	ND<0		104.5
	3/15/2000	ND<0		104.5
	9/24/2003	ND<0		104.5
	3/11/2004	ND<0		104.5
	10/12/2004	ND<0		104.5
	4/1/2005	ND<0		104.5
	10/25/2005	0.0487902	J	239
	4/29/2006	0.131028	J	241
	11/18/2006	-0.174353	J	235
	5/23/2007	ND<0		104.5
	11/28/2007	-0.248461	J	234
	6/5/2008	-0.030459 2	J	238
	11/20/2008	-0.71335	J	224
	6/11/2009	ND<-1.96611		104.5
	11/16/2009	ND<-1.44817		104.5
	6/30/2010	ND<-0.994252		104.5
	6/30/2010	ND<-1.96611		104.5
	11/12/2010	ND<-0.994252	U	104.5
	11/12/2010	-0.494296	J	230
	7/5/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5
	11/22/2011	ND<-1.96611	U	104.5

Rank Sum = 3313
Rank Mean = 144.043

Calculation Results:

Kruskal-Wallis H Statistic = 31.8442
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 63.0171
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
31.8442 > 15.5073 indicating a significant group difference at 5% significance level
63.0171 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 104.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-9	148.258	43.7576	49.3961	
MW-6	104.5	0	49.3961	
MW-8	142.967	38.4667	50.3475	
MW-12BR		115.917	11.4167	52.8754
MW-11R	127.652	23.1515	49.3961	
MW-10	185.924	81.4242	49.3961	
MW-7	104.5	0	49.3961	
MW-12AR		144.043	39.5435	53.4091

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213
Mean background rank is 104.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-9	148.258	43.7576	53.3411	
MW-6	104.5	0	53.3411	
MW-8	142.967	38.4667	54.3684	
MW-12BR		115.917	11.4167	57.0983
MW-11R	127.652	23.1515	53.3411	
MW-10	185.924	81.4242	53.3411	
MW-7	104.5	0	53.3411	
MW-12AR		144.043	39.5435	57.6746

Shewhart-CUSUM Control Chart

Parameter: 1,4-Dichlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.414151
Baseline Std Dev = 0.554534
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	-0.746845	
3/24/1997	0	0	-0.746845	
9/24/1997	0	0	-0.746845	
9/24/1997	0	0	-0.746845	
4/7/1998	0	0	-0.746845	
4/7/1998	0	0	-0.746845	
9/23/1998	0	0	-0.746845	
9/23/1998	0	0	-0.746845	
3/16/1999	2.17475	2.17492	3.17492	
3/16/1999	2.17475	2.17492	3.17492	
9/23/1999	0	0.428074		-0.746845
9/23/1999	0	0.428074		-0.746845
3/15/2000	0	0	-0.746845	
3/15/2000	0	0	-0.746845	
9/24/2003	0	0	-0.746845	
9/24/2003	0	0	-0.746845	
3/11/2004	0	0	-0.746845	
3/11/2004	0	0	-0.746845	
10/12/2004	0	0	-0.746845	
10/12/2004	0	0	-0.746845	
4/1/2005	1.0116	0.0773906	1.07739	
4/1/2005	1.0116	0.0773906	1.07739	
10/25/2005	1.38379	0.825958		1.74857
10/25/2005	1.38379	0.825958		1.74857
4/29/2006	1.72277	2.1858	2.35985	
4/29/2006	1.72277	2.1858	2.35985	
11/18/2006	1.36098	2.89323	1.70743	
11/18/2006	1.36098	2.89323	1.70743	
5/23/2007	1.41099	3.69084	1.79761	
5/23/2007	1.41099	3.69084	1.79761	
11/28/2007	1.79009	5.17209	2.48125	
11/28/2007	1.79009	5.17209	2.48125	
6/5/2008	1.86408	6.78677	2.61468	
6/5/2008	1.86408	6.78677	2.61468	
11/20/2008	0	5.03993	-0.746845	
11/20/2008	0	5.03993	-0.746845	
6/11/2009	1.22378	5.49994	1.46001	
6/11/2009	1.22378	5.49994	1.46001	
11/16/2009	1.93152	7.23624	2.7363	
11/16/2009	1.93152	7.23624	2.7363	
6/30/2010	0.327203		6.01449	-0.221741
6/30/2010	0.327203		6.01449	-0.221741
11/12/2010	0.578755		5.43428	0.419785
11/12/2010	0.578755		5.43428	0.419785
7/5/2011	2.30259	7.83972	3.40544	

7/5/2011	2.30259	7.83972	3.40544	
11/22/2011		2.06686	11.0546	4.21487
11/22/2011		2.06686	11.0546	4.21487

Sen's Slope Analysis
Parameter: 1,4-Dichlorobenzene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
0.405465 J (8/24/1995)	ND<0 (7/20/1995)	(0.405465 - 0)/(2 - 1)	
0.405465			
1.38629 (9/28/1995)	ND<0 (7/20/1995)	(1.38629 - 0)/(3 - 1)	
0.693147			
0.693147 (10/26/1995)	ND<0 (7/20/1995)	(0.693147 - 0)/(4 - 1)	
0.231049			
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
2.17475 (3/16/1999)	ND<0 (7/20/1995)	(2.17475 - 0)/(11 - 1)	
0.217475			
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
1.0116 (4/1/2005)	ND<0 (7/20/1995)	(1.0116 - 0)/(17 - 1)	
0.0632251			
1.38379 (10/25/2005)	ND<0 (7/20/1995)	(1.38379 - 0)/(18 - 1)	
0.0813995			
1.72277 (4/29/2006)	ND<0 (7/20/1995)	(1.72277 - 0)/(19 - 1)	
0.0957093			
1.36098 (11/18/2006)	ND<0 (7/20/1995)	(1.36098 - 0)/(20 - 1)	
0.0716303			
1.41099 (5/23/2007)	ND<0 (7/20/1995)	(1.41099 - 0)/(21 - 1)	
0.0705493			
1.79009 (11/28/2007)	ND<0 (7/20/1995)	(1.79009 - 0)/(22 - 1)	
0.0852424			
1.86408 (6/5/2008)	ND<0 (7/20/1995)	(1.86408 - 0)/(23 - 1)	
0.0847309			
ND<0 (11/20/2008)	ND<0 (7/20/1995)	(0 - 0)/(24 - 1)	0
1.22378 (6/11/2009)	ND<0 (7/20/1995)	(1.22378 - 0)/(25 - 1)	
0.0509906			
1.93152 J (11/16/2009)	ND<0 (7/20/1995)	(1.93152 - 0)/(26 - 1)	
0.0772609			
ND<-0.994252 (6/30/2010)	ND<0 (7/20/1995)	(-0.994252 - 0)/(27 - 1)	
-0.0382405			
1.64866 (6/30/2010)	ND<0 (7/20/1995)	(1.64866 - 0)/(27 - 1)	
0.0634099			
2.15176 (11/12/2010)	ND<0 (7/20/1995)	(2.15176 - 0)/(28 - 1)	
0.0796949			
ND<-0.994252 U (11/12/2010)	ND<0 (7/20/1995)	(-0.994252 - 0)/(28 - 1)	
-0.0368242			
2.30259 (7/5/2011)	ND<0 (7/20/1995)	(2.30259 - 0)/(29 - 1)	
0.0822352			
2.06686 (11/22/2011)	ND<0 (7/20/1995)	(2.06686 - 0)/(30 - 1)	
0.0712711			

2.06686 (11/22/2011) ND<0 (7/20/1995) (2.06686 - 0)/(30 - 1)
0.0712711

1.38629 (9/28/1995) 0.405465 J (8/24/1995) (1.38629 - 0.405465)/(3 - 2)
0.980829
0.693147 (10/26/1995) 0.405465 J (8/24/1995) (0.693147 - 0.405465)/(4 - 2)
0.143841
ND<0 (11/19/1996) 0.405465 J (8/24/1995) (0 - 0.405465)/(5 - 2)
-0.135155
ND<0 (12/19/1996) 0.405465 J (8/24/1995) (0 - 0.405465)/(6 - 2)
-0.101366
ND<0 (3/24/1997) 0.405465 J (8/24/1995) (0 - 0.405465)/(7 - 2)
-0.081093
ND<0 (9/24/1997) 0.405465 J (8/24/1995) (0 - 0.405465)/(8 - 2)
-0.0675775
ND<0 (4/7/1998) 0.405465 J (8/24/1995) (0 - 0.405465)/(9 - 2)
-0.0579236
ND<0 (9/23/1998) 0.405465 J (8/24/1995) (0 - 0.405465)/(10 - 2)
-0.0506831
2.17475 (3/16/1999) 0.405465 J (8/24/1995) (2.17475 - 0.405465)/(11 - 2)
0.196587
ND<0 (9/23/1999) 0.405465 J (8/24/1995) (0 - 0.405465)/(12 - 2)
-0.0405465
ND<0 (3/15/2000) 0.405465 J (8/24/1995) (0 - 0.405465)/(13 - 2)
-0.0368605
ND<0 (9/24/2003) 0.405465 J (8/24/1995) (0 - 0.405465)/(14 - 2)
-0.0337888
ND<0 (3/11/2004) 0.405465 J (8/24/1995) (0 - 0.405465)/(15 - 2)
-0.0311896
ND<0 (10/12/2004) 0.405465 J (8/24/1995) (0 - 0.405465)/(16 - 2)
-0.0289618
1.0116 (4/1/2005) 0.405465 J (8/24/1995) (1.0116 - 0.405465)/(17 - 2)
0.0404091
1.38379 (10/25/2005) 0.405465 J (8/24/1995) (1.38379 - 0.405465)/(18 - 2)
0.0611454
1.72277 (4/29/2006) 0.405465 J (8/24/1995) (1.72277 - 0.405465)/(19 - 2)
0.0774883
1.36098 (11/18/2006) 0.405465 J (8/24/1995) (1.36098 - 0.405465)/(20 - 2)
0.053084
1.41099 (5/23/2007) 0.405465 J (8/24/1995) (1.41099 - 0.405465)/(21 - 2)
0.0529222
1.79009 (11/28/2007) 0.405465 J (8/24/1995) (1.79009 - 0.405465)/(22 - 2)
0.0692313
1.86408 (6/5/2008) 0.405465 J (8/24/1995) (1.86408 - 0.405465)/(23 - 2)
0.0694579
ND<0 (11/20/2008) 0.405465 J (8/24/1995) (0 - 0.405465)/(24 - 2)
-0.0184302
1.22378 (6/11/2009) 0.405465 J (8/24/1995) (1.22378 - 0.405465)/(25 - 2)
0.0355787
1.93152 J (11/16/2009) 0.405465 J (8/24/1995) (1.93152 - 0.405465)/(26 - 2)
0.0635857
ND<-0.994252 (6/30/2010) 0.405465 J (8/24/1995) (-0.994252 - 0.405465)/(27 - 2)
-0.0559887
1.64866 (6/30/2010) 0.405465 J (8/24/1995) (1.64866 - 0.405465)/(27 - 2)
0.0497277
2.15176 (11/12/2010) 0.405465 J (8/24/1995) (2.15176 - 0.405465)/(28 - 2)
0.0671653
ND<-0.994252 U (11/12/2010) 0.405465 J (8/24/1995) (-0.994252 - 0.405465)/(28 - 2)
-0.0538353
2.30259 (7/5/2011) 0.405465 J (8/24/1995) (2.30259 - 0.405465)/(29 - 2)
0.0702637

2.06686 (11/22/2011) 0.405465 J (8/24/1995) (2.06686 - 0.405465)/(30 - 2)
0.0593356
2.06686 (11/22/2011) 0.405465 J (8/24/1995) (2.06686 - 0.405465)/(30 - 2)
0.0593356

0.693147 (10/26/1995) 1.38629 (9/28/1995) (0.693147 - 1.38629)/(4 - 3)
-0.693147
ND<0 (11/19/1996) 1.38629 (9/28/1995) (0 - 1.38629)/(5 - 3)
-0.693147
ND<0 (12/19/1996) 1.38629 (9/28/1995) (0 - 1.38629)/(6 - 3)
-0.462098
ND<0 (3/24/1997) 1.38629 (9/28/1995) (0 - 1.38629)/(7 - 3)
-0.346574
ND<0 (9/24/1997) 1.38629 (9/28/1995) (0 - 1.38629)/(8 - 3)
-0.277259
ND<0 (4/7/1998) 1.38629 (9/28/1995) (0 - 1.38629)/(9 - 3)
-0.231049
ND<0 (9/23/1998) 1.38629 (9/28/1995) (0 - 1.38629)/(10 - 3)
-0.198042
2.17475 (3/16/1999) 1.38629 (9/28/1995) (2.17475 - 1.38629)/(11 - 3)
0.0985572
ND<0 (9/23/1999) 1.38629 (9/28/1995) (0 - 1.38629)/(12 - 3)
-0.154033
ND<0 (3/15/2000) 1.38629 (9/28/1995) (0 - 1.38629)/(13 - 3)
-0.138629
ND<0 (9/24/2003) 1.38629 (9/28/1995) (0 - 1.38629)/(14 - 3)
-0.126027
ND<0 (3/11/2004) 1.38629 (9/28/1995) (0 - 1.38629)/(15 - 3)
-0.115525
ND<0 (10/12/2004) 1.38629 (9/28/1995) (0 - 1.38629)/(16 - 3)
-0.106638
1.0116 (4/1/2005) 1.38629 (9/28/1995) (1.0116 - 1.38629)/(17 - 3)
-0.0267638
1.38379 (10/25/2005) 1.38629 (9/28/1995) (1.38379 - 1.38629)/(18 - 3)
-0.000166875
1.72277 (4/29/2006) 1.38629 (9/28/1995) (1.72277 - 1.38629)/(19 - 3)
0.0210295
1.36098 (11/18/2006) 1.38629 (9/28/1995) (1.36098 - 1.38629)/(20 - 3)
-0.00148928
1.41099 (5/23/2007) 1.38629 (9/28/1995) (1.41099 - 1.38629)/(21 - 3)
0.00137181
1.79009 (11/28/2007) 1.38629 (9/28/1995) (1.79009 - 1.38629)/(22 - 3)
0.0212525
1.86408 (6/5/2008) 1.38629 (9/28/1995) (1.86408 - 1.38629)/(23 - 3)
0.0238893
ND<0 (11/20/2008) 1.38629 (9/28/1995) (0 - 1.38629)/(24 - 3)
-0.066014
1.22378 (6/11/2009) 1.38629 (9/28/1995) (1.22378 - 1.38629)/(25 - 3)
-0.00738722
1.93152 J (11/16/2009) 1.38629 (9/28/1995) (1.93152 - 1.38629)/(26 - 3)
0.0237055
ND<-0.994252 (6/30/2010) 1.38629 (9/28/1995) (-0.994252 - 1.38629)/(27 - 3)
-0.0991894
1.64866 (6/30/2010) 1.38629 (9/28/1995) (1.64866 - 1.38629)/(27 - 3)
0.0109318
2.15176 (11/12/2010) 1.38629 (9/28/1995) (2.15176 - 1.38629)/(28 - 3)
0.0306187
ND<-0.994252 U (11/12/2010) 1.38629 (9/28/1995) (-0.994252 - 1.38629)/(28 - 3)
-0.0952219
2.30259 (7/5/2011) 1.38629 (9/28/1995) (2.30259 - 1.38629)/(29 - 3)
0.035242

2.06686 (11/22/2011) 1.38629 (9/28/1995) (2.06686 - 1.38629)/(30 - 3)
0.0252062
2.06686 (11/22/2011) 1.38629 (9/28/1995) (2.06686 - 1.38629)/(30 - 3)
0.0252062

ND<0 (11/19/1996) 0.693147 (10/26/1995) (0 - 0.693147)/(5 - 4)
-0.693147
ND<0 (12/19/1996) 0.693147 (10/26/1995) (0 - 0.693147)/(6 - 4)
-0.346574
ND<0 (3/24/1997) 0.693147 (10/26/1995) (0 - 0.693147)/(7 - 4)
-0.231049
ND<0 (9/24/1997) 0.693147 (10/26/1995) (0 - 0.693147)/(8 - 4)
-0.173287
ND<0 (4/7/1998) 0.693147 (10/26/1995) (0 - 0.693147)/(9 - 4)
-0.138629
ND<0 (9/23/1998) 0.693147 (10/26/1995) (0 - 0.693147)/(10 - 4)
-0.115525
2.17475 (3/16/1999) 0.693147 (10/26/1995) (2.17475 - 0.693147)/(11 - 4)
0.211658
ND<0 (9/23/1999) 0.693147 (10/26/1995) (0 - 0.693147)/(12 - 4)
-0.0866434
ND<0 (3/15/2000) 0.693147 (10/26/1995) (0 - 0.693147)/(13 - 4)
-0.0770164
ND<0 (9/24/2003) 0.693147 (10/26/1995) (0 - 0.693147)/(14 - 4)
-0.0693147
ND<0 (3/11/2004) 0.693147 (10/26/1995) (0 - 0.693147)/(15 - 4)
-0.0630134
ND<0 (10/12/2004) 0.693147 (10/26/1995) (0 - 0.693147)/(16 - 4)
-0.0577623
1.0116 (4/1/2005) 0.693147 (10/26/1995) (1.0116 - 0.693147)/(17 - 4)
0.0244964
1.38379 (10/25/2005) 0.693147 (10/26/1995) (1.38379 - 0.693147)/(18 - 4)
0.0493317
1.72277 (4/29/2006) 0.693147 (10/26/1995) (1.72277 - 0.693147)/(19 - 4)
0.0686413
1.36098 (11/18/2006) 0.693147 (10/26/1995) (1.36098 - 0.693147)/(20 - 4)
0.0417393
1.41099 (5/23/2007) 0.693147 (10/26/1995) (1.41099 - 0.693147)/(21 - 4)
0.0422259
1.79009 (11/28/2007) 0.693147 (10/26/1995) (1.79009 - 0.693147)/(22 - 4)
0.0609413
1.86408 (6/5/2008) 0.693147 (10/26/1995) (1.86408 - 0.693147)/(23 - 4)
0.0616281
ND<0 (11/20/2008) 0.693147 (10/26/1995) (0 - 0.693147)/(24 - 4)
-0.0346574
1.22378 (6/11/2009) 0.693147 (10/26/1995) (1.22378 - 0.693147)/(25 - 4)
0.025268
1.93152 J (11/16/2009) 0.693147 (10/26/1995) (1.93152 - 0.693147)/(26 - 4)
0.0562897
ND<-0.994252 (6/30/2010) 0.693147 (10/26/1995) (-0.994252 - 0.693147)/(27 - 4)
-0.0733652
1.64866 (6/30/2010) 0.693147 (10/26/1995) (1.64866 - 0.693147)/(27 - 4)
0.041544
2.15176 (11/12/2010) 0.693147 (10/26/1995) (2.15176 - 0.693147)/(28 - 4)
0.0607756
ND<-0.994252 U (11/12/2010) 0.693147 (10/26/1995) (-0.994252 - 0.693147)/(28 - 4)
-0.0703083
2.30259 (7/5/2011) 0.693147 (10/26/1995) (2.30259 - 0.693147)/(29 - 4)
0.0643775
2.06686 (11/22/2011) 0.693147 (10/26/1995) (2.06686 - 0.693147)/(30 - 4)
0.0528352

2.06686 (11/22/2011)	0.693147 (10/26/1995)	(2.06686 - 0.693147)/(30 - 4)		
0.0528352				
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
2.17475 (3/16/1999)	ND<0 (11/19/1996)	(2.17475 - 0)/(11 - 5)		
0.362459				
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
1.0116 (4/1/2005)	ND<0 (11/19/1996)	(1.0116 - 0)/(17 - 5)		
0.0843001				
1.38379 (10/25/2005)	ND<0 (11/19/1996)	(1.38379 - 0)/(18 - 5)		
0.106445				
1.72277 (4/29/2006)	ND<0 (11/19/1996)	(1.72277 - 0)/(19 - 5)		
0.123055				
1.36098 (11/18/2006)	ND<0 (11/19/1996)	(1.36098 - 0)/(20 - 5)		
0.0907318				
1.41099 (5/23/2007)	ND<0 (11/19/1996)	(1.41099 - 0)/(21 - 5)		
0.0881867				
1.79009 (11/28/2007)	ND<0 (11/19/1996)	(1.79009 - 0)/(22 - 5)		
0.105299				
1.86408 (6/5/2008)	ND<0 (11/19/1996)	(1.86408 - 0)/(23 - 5)		0.10356
ND<0 (11/20/2008)	ND<0 (11/19/1996)	(0 - 0)/(24 - 5)	0	
1.22378 (6/11/2009)	ND<0 (11/19/1996)	(1.22378 - 0)/(25 - 5)		
0.0611888				
1.93152 J (11/16/2009)	ND<0 (11/19/1996)	(1.93152 - 0)/(26 - 5)		
0.0919772				
ND<-0.994252 (6/30/2010)	ND<0 (11/19/1996)	(-0.994252 - 0)/(27 - 5)		
-0.0451933				
1.64866 (6/30/2010)	ND<0 (11/19/1996)	(1.64866 - 0)/(27 - 5)		
0.074939				
2.15176 (11/12/2010)	ND<0 (11/19/1996)	(2.15176 - 0)/(28 - 5)		
0.0935549				
ND<-0.994252 U (11/12/2010)	ND<0 (11/19/1996)	(-0.994252 - 0)/(28 - 5)		
-0.0432284				
2.30259 (7/5/2011)	ND<0 (11/19/1996)	(2.30259 - 0)/(29 - 5)		
0.095941				
2.06686 (11/22/2011)	ND<0 (11/19/1996)	(2.06686 - 0)/(30 - 5)		
0.0826745				
2.06686 (11/22/2011)	ND<0 (11/19/1996)	(2.06686 - 0)/(30 - 5)		
0.0826745				
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0	
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
2.17475 (3/16/1999)	ND<0 (12/19/1996)	(2.17475 - 0)/(11 - 6)		0.43495
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
1.0116 (4/1/2005)	ND<0 (12/19/1996)	(1.0116 - 0)/(17 - 6)		
0.0919637				
1.38379 (10/25/2005)	ND<0 (12/19/1996)	(1.38379 - 0)/(18 - 6)		
0.115316				

1.72277 (4/29/2006) ND<0 (12/19/1996) (1.72277 - 0)/(19 - 6)
0.132521
1.36098 (11/18/2006) ND<0 (12/19/1996) (1.36098 - 0)/(20 - 6)
0.0972126
1.41099 (5/23/2007) ND<0 (12/19/1996) (1.41099 - 0)/(21 - 6)
0.0940658
1.79009 (11/28/2007) ND<0 (12/19/1996) (1.79009 - 0)/(22 - 6)
0.111881
1.86408 (6/5/2008) ND<0 (12/19/1996) (1.86408 - 0)/(23 - 6)
0.109652
ND<0 (11/20/2008) ND<0 (12/19/1996) (0 - 0)/(24 - 6) 0
1.22378 (6/11/2009) ND<0 (12/19/1996) (1.22378 - 0)/(25 - 6)
0.0644092
1.93152 J (11/16/2009) ND<0 (12/19/1996) (1.93152 - 0)/(26 - 6)
0.0965761
ND<-0.994252 (6/30/2010) ND<0 (12/19/1996) (-0.994252 - 0)/(27 - 6)
-0.0473453
1.64866 (6/30/2010) ND<0 (12/19/1996) (1.64866 - 0)/(27 - 6)
0.0785076
2.15176 (11/12/2010) ND<0 (12/19/1996) (2.15176 - 0)/(28 - 6)
0.0978074
ND<-0.994252 U (11/12/2010) ND<0 (12/19/1996) (-0.994252 - 0)/(28 - 6)
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2.30259 (7/5/2011) ND<0 (12/19/1996) (2.30259 - 0)/(29 - 6)
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2.06686 (11/22/2011) ND<0 (12/19/1996) (2.06686 - 0)/(30 - 6)
0.0861193
2.06686 (11/22/2011) ND<0 (12/19/1996) (2.06686 - 0)/(30 - 6)
0.0861193

ND<0 (9/24/1997) ND<0 (3/24/1997) (0 - 0)/(8 - 7) 0
ND<0 (4/7/1998) ND<0 (3/24/1997) (0 - 0)/(9 - 7) 0
ND<0 (9/23/1998) ND<0 (3/24/1997) (0 - 0)/(10 - 7) 0
2.17475 (3/16/1999) ND<0 (3/24/1997) (2.17475 - 0)/(11 - 7)
0.543688
ND<0 (9/23/1999) ND<0 (3/24/1997) (0 - 0)/(12 - 7) 0
ND<0 (3/15/2000) ND<0 (3/24/1997) (0 - 0)/(13 - 7) 0
ND<0 (9/24/2003) ND<0 (3/24/1997) (0 - 0)/(14 - 7) 0
ND<0 (3/11/2004) ND<0 (3/24/1997) (0 - 0)/(15 - 7) 0
ND<0 (10/12/2004) ND<0 (3/24/1997) (0 - 0)/(16 - 7) 0
1.0116 (4/1/2005) ND<0 (3/24/1997) (1.0116 - 0)/(17 - 7) 0.10116
1.38379 (10/25/2005) ND<0 (3/24/1997) (1.38379 - 0)/(18 - 7)
0.125799
1.72277 (4/29/2006) ND<0 (3/24/1997) (1.72277 - 0)/(19 - 7)
0.143564
1.36098 (11/18/2006) ND<0 (3/24/1997) (1.36098 - 0)/(20 - 7)
0.104691
1.41099 (5/23/2007) ND<0 (3/24/1997) (1.41099 - 0)/(21 - 7)
0.100785
1.79009 (11/28/2007) ND<0 (3/24/1997) (1.79009 - 0)/(22 - 7)
0.119339
1.86408 (6/5/2008) ND<0 (3/24/1997) (1.86408 - 0)/(23 - 7)
0.116505
ND<0 (11/20/2008) ND<0 (3/24/1997) (0 - 0)/(24 - 7) 0
1.22378 (6/11/2009) ND<0 (3/24/1997) (1.22378 - 0)/(25 - 7)
0.0679875
1.93152 J (11/16/2009) ND<0 (3/24/1997) (1.93152 - 0)/(26 - 7)
0.101659
ND<-0.994252 (6/30/2010) ND<0 (3/24/1997) (-0.994252 - 0)/(27 - 7)
-0.0497126
1.64866 (6/30/2010) ND<0 (3/24/1997) (1.64866 - 0)/(27 - 7)
0.0824329

2.15176 (11/12/2010) ND<0 (3/24/1997) (2.15176 - 0)/(28 - 7)
0.102465
ND<-0.994252 U (11/12/2010) ND<0 (3/24/1997) (-0.994252 - 0)/(28 - 7)
-0.0473453
2.30259 (7/5/2011) ND<0 (3/24/1997) (2.30259 - 0)/(29 - 7)
0.104663
2.06686 (11/22/2011) ND<0 (3/24/1997) (2.06686 - 0)/(30 - 7)
0.0898636
2.06686 (11/22/2011) ND<0 (3/24/1997) (2.06686 - 0)/(30 - 7)
0.0898636

ND<0 (4/7/1998) ND<0 (9/24/1997) (0 - 0)/(9 - 8) 0
ND<0 (9/23/1998) ND<0 (9/24/1997) (0 - 0)/(10 - 8) 0
2.17475 (3/16/1999) ND<0 (9/24/1997) (2.17475 - 0)/(11 - 8)
0.724917
ND<0 (9/23/1999) ND<0 (9/24/1997) (0 - 0)/(12 - 8) 0
ND<0 (3/15/2000) ND<0 (9/24/1997) (0 - 0)/(13 - 8) 0
ND<0 (9/24/2003) ND<0 (9/24/1997) (0 - 0)/(14 - 8) 0
ND<0 (3/11/2004) ND<0 (9/24/1997) (0 - 0)/(15 - 8) 0
ND<0 (10/12/2004) ND<0 (9/24/1997) (0 - 0)/(16 - 8) 0
1.0116 (4/1/2005) ND<0 (9/24/1997) (1.0116 - 0)/(17 - 8) 0.1124
1.38379 (10/25/2005) ND<0 (9/24/1997) (1.38379 - 0)/(18 - 8)
0.138379
1.72277 (4/29/2006) ND<0 (9/24/1997) (1.72277 - 0)/(19 - 8)
0.156615
1.36098 (11/18/2006) ND<0 (9/24/1997) (1.36098 - 0)/(20 - 8)
0.113415
1.41099 (5/23/2007) ND<0 (9/24/1997) (1.41099 - 0)/(21 - 8)
0.108537
1.79009 (11/28/2007) ND<0 (9/24/1997) (1.79009 - 0)/(22 - 8)
0.127864
1.86408 (6/5/2008) ND<0 (9/24/1997) (1.86408 - 0)/(23 - 8)
0.124272
ND<0 (11/20/2008) ND<0 (9/24/1997) (0 - 0)/(24 - 8) 0
1.22378 (6/11/2009) ND<0 (9/24/1997) (1.22378 - 0)/(25 - 8)
0.0719868
1.93152 J (11/16/2009) ND<0 (9/24/1997) (1.93152 - 0)/(26 - 8)
0.107307
ND<-0.994252 (6/30/2010) ND<0 (9/24/1997) (-0.994252 - 0)/(27 - 8)
-0.0523291
1.64866 (6/30/2010) ND<0 (9/24/1997) (1.64866 - 0)/(27 - 8)
0.0867715
2.15176 (11/12/2010) ND<0 (9/24/1997) (2.15176 - 0)/(28 - 8)
0.107588
ND<-0.994252 U (11/12/2010) ND<0 (9/24/1997) (-0.994252 - 0)/(28 - 8)
-0.0497126
2.30259 (7/5/2011) ND<0 (9/24/1997) (2.30259 - 0)/(29 - 8)
0.109647
2.06686 (11/22/2011) ND<0 (9/24/1997) (2.06686 - 0)/(30 - 8)
0.0939483
2.06686 (11/22/2011) ND<0 (9/24/1997) (2.06686 - 0)/(30 - 8)
0.0939483

ND<0 (9/23/1998) ND<0 (4/7/1998) (0 - 0)/(10 - 9) 0
2.17475 (3/16/1999) ND<0 (4/7/1998) (2.17475 - 0)/(11 - 9) 1.08738
ND<0 (9/23/1999) ND<0 (4/7/1998) (0 - 0)/(12 - 9) 0
ND<0 (3/15/2000) ND<0 (4/7/1998) (0 - 0)/(13 - 9) 0
ND<0 (9/24/2003) ND<0 (4/7/1998) (0 - 0)/(14 - 9) 0
ND<0 (3/11/2004) ND<0 (4/7/1998) (0 - 0)/(15 - 9) 0
ND<0 (10/12/2004) ND<0 (4/7/1998) (0 - 0)/(16 - 9) 0
1.0116 (4/1/2005) ND<0 (4/7/1998) (1.0116 - 0)/(17 - 9) 0.12645

1.38379 (10/25/2005) ND<0 (4/7/1998) (1.38379 - 0)/(18 - 9)
0.153755
1.72277 (4/29/2006) ND<0 (4/7/1998) (1.72277 - 0)/(19 - 9)
0.172277
1.36098 (11/18/2006) ND<0 (4/7/1998) (1.36098 - 0)/(20 - 9)
0.123725
1.41099 (5/23/2007) ND<0 (4/7/1998) (1.41099 - 0)/(21 - 9)
0.117582
1.79009 (11/28/2007) ND<0 (4/7/1998) (1.79009 - 0)/(22 - 9)
0.137699
1.86408 (6/5/2008) ND<0 (4/7/1998) (1.86408 - 0)/(23 - 9)
0.133149
ND<0 (11/20/2008) ND<0 (4/7/1998) (0 - 0)/(24 - 9) 0
1.22378 (6/11/2009) ND<0 (4/7/1998) (1.22378 - 0)/(25 - 9)
0.076486
1.93152 J (11/16/2009) ND<0 (4/7/1998) (1.93152 - 0)/(26 - 9)
0.113619
ND<-0.994252 (6/30/2010) ND<0 (4/7/1998) (-0.994252 - 0)/(27 - 9)
-0.0552362
1.64866 (6/30/2010) ND<0 (4/7/1998) (1.64866 - 0)/(27 - 9)
0.0915921
2.15176 (11/12/2010) ND<0 (4/7/1998) (2.15176 - 0)/(28 - 9)
0.113251
ND<-0.994252 U (11/12/2010) ND<0 (4/7/1998) (-0.994252 - 0)/(28 - 9)
-0.0523291
2.30259 (7/5/2011) ND<0 (4/7/1998) (2.30259 - 0)/(29 - 9)
0.115129
2.06686 (11/22/2011) ND<0 (4/7/1998) (2.06686 - 0)/(30 - 9)
0.098422
2.06686 (11/22/2011) ND<0 (4/7/1998) (2.06686 - 0)/(30 - 9)
0.098422

2.17475 (3/16/1999) ND<0 (9/23/1998) (2.17475 - 0)/(11 - 10) 2.17475
ND<0 (9/23/1999) ND<0 (9/23/1998) (0 - 0)/(12 - 10) 0
ND<0 (3/15/2000) ND<0 (9/23/1998) (0 - 0)/(13 - 10) 0
ND<0 (9/24/2003) ND<0 (9/23/1998) (0 - 0)/(14 - 10) 0
ND<0 (3/11/2004) ND<0 (9/23/1998) (0 - 0)/(15 - 10) 0
ND<0 (10/12/2004) ND<0 (9/23/1998) (0 - 0)/(16 - 10) 0
1.0116 (4/1/2005) ND<0 (9/23/1998) (1.0116 - 0)/(17 - 10)
0.144514
1.38379 (10/25/2005) ND<0 (9/23/1998) (1.38379 - 0)/(18 - 10)
0.172974
1.72277 (4/29/2006) ND<0 (9/23/1998) (1.72277 - 0)/(19 - 10)
0.191419
1.36098 (11/18/2006) ND<0 (9/23/1998) (1.36098 - 0)/(20 - 10)
0.136098
1.41099 (5/23/2007) ND<0 (9/23/1998) (1.41099 - 0)/(21 - 10)
0.128272
1.79009 (11/28/2007) ND<0 (9/23/1998) (1.79009 - 0)/(22 - 10)
0.149174
1.86408 (6/5/2008) ND<0 (9/23/1998) (1.86408 - 0)/(23 - 10)
0.143391
ND<0 (11/20/2008) ND<0 (9/23/1998) (0 - 0)/(24 - 10) 0
1.22378 (6/11/2009) ND<0 (9/23/1998) (1.22378 - 0)/(25 - 10)
0.081585
1.93152 J (11/16/2009) ND<0 (9/23/1998) (1.93152 - 0)/(26 - 10) 0.12072
ND<-0.994252 (6/30/2010) ND<0 (9/23/1998) (-0.994252 - 0)/(27 - 10)
-0.0584854
1.64866 (6/30/2010) ND<0 (9/23/1998) (1.64866 - 0)/(27 - 10)
0.0969799
2.15176 (11/12/2010) ND<0 (9/23/1998) (2.15176 - 0)/(28 - 10)
0.119542

ND<-0.994252 U (11/12/2010)	ND<0 (9/23/1998)	(-0.994252 - 0)/(28 - 10)	-0.0552362
2.30259 (7/5/2011)	ND<0 (9/23/1998)	(2.30259 - 0)/(29 - 10)	0.121189
2.06686 (11/22/2011)	ND<0 (9/23/1998)	(2.06686 - 0)/(30 - 10)	0.103343
2.06686 (11/22/2011)	ND<0 (9/23/1998)	(2.06686 - 0)/(30 - 10)	0.103343

ND<0 (9/23/1999)	2.17475 (3/16/1999)	(0 - 2.17475)/(12 - 11)	-2.17475
ND<0 (3/15/2000)	2.17475 (3/16/1999)	(0 - 2.17475)/(13 - 11)	-1.08738
ND<0 (9/24/2003)	2.17475 (3/16/1999)	(0 - 2.17475)/(14 - 11)	-0.724917
ND<0 (3/11/2004)	2.17475 (3/16/1999)	(0 - 2.17475)/(15 - 11)	-0.543688
ND<0 (10/12/2004)	2.17475 (3/16/1999)	(0 - 2.17475)/(16 - 11)	-0.43495
1.0116 (4/1/2005)	2.17475 (3/16/1999)	(1.0116 - 2.17475)/(17 - 11)	-0.193858
1.38379 (10/25/2005)	2.17475 (3/16/1999)	(1.38379 - 2.17475)/(18 - 11)	-0.112994
1.72277 (4/29/2006)	2.17475 (3/16/1999)	(1.72277 - 2.17475)/(19 - 11)	-0.0564981
1.36098 (11/18/2006)	2.17475 (3/16/1999)	(1.36098 - 2.17475)/(20 - 11)	-0.0904195
1.41099 (5/23/2007)	2.17475 (3/16/1999)	(1.41099 - 2.17475)/(21 - 11)	-0.0763765
1.79009 (11/28/2007)	2.17475 (3/16/1999)	(1.79009 - 2.17475)/(22 - 11)	-0.0349691
1.86408 (6/5/2008)	2.17475 (3/16/1999)	(1.86408 - 2.17475)/(23 - 11)	-0.0258893
ND<0 (11/20/2008)	2.17475 (3/16/1999)	(0 - 2.17475)/(24 - 11)	-0.167289
1.22378 (6/11/2009)	2.17475 (3/16/1999)	(1.22378 - 2.17475)/(25 - 11)	-0.0679269
1.93152 J (11/16/2009)	2.17475 (3/16/1999)	(1.93152 - 2.17475)/(26 - 11)	-0.0162154
ND<-0.994252 (6/30/2010)	2.17475 (3/16/1999)	(-0.994252 - 2.17475)/(27 - 11)	-0.198063
1.64866 (6/30/2010)	2.17475 (3/16/1999)	(1.64866 - 2.17475)/(27 - 11)	-0.0328808
2.15176 (11/12/2010)	2.17475 (3/16/1999)	(2.15176 - 2.17475)/(28 - 11)	-0.00135232
ND<-0.994252 U (11/12/2010)	2.17475 (3/16/1999)	(-0.994252 - 2.17475)/(28 - 11)	-0.186412
2.30259 (7/5/2011)	2.17475 (3/16/1999)	(2.30259 - 2.17475)/(29 - 11)	0.00710185
2.06686 (11/22/2011)	2.17475 (3/16/1999)	(2.06686 - 2.17475)/(30 - 11)	-0.00567837
2.06686 (11/22/2011)	2.17475 (3/16/1999)	(2.06686 - 2.17475)/(30 - 11)	-0.00567837

ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
1.0116 (4/1/2005)	ND<0 (9/23/1999)	(1.0116 - 0)/(17 - 12)		0.20232
1.38379 (10/25/2005)	ND<0 (9/23/1999)	(1.38379 - 0)/(18 - 12)		0.230632
1.72277 (4/29/2006)	ND<0 (9/23/1999)	(1.72277 - 0)/(19 - 12)		0.24611
1.36098 (11/18/2006)	ND<0 (9/23/1999)	(1.36098 - 0)/(20 - 12)		0.170122

1.41099 (5/23/2007) ND<0 (9/23/1999) (1.41099 - 0)/(21 - 12)
0.156776
1.79009 (11/28/2007) ND<0 (9/23/1999) (1.79009 - 0)/(22 - 12)
0.179009
1.86408 (6/5/2008) ND<0 (9/23/1999) (1.86408 - 0)/(23 - 12)
0.169462
ND<0 (11/20/2008) ND<0 (9/23/1999) (0 - 0)/(24 - 12) 0
1.22378 (6/11/2009) ND<0 (9/23/1999) (1.22378 - 0)/(25 - 12)
0.0941366
1.93152 J (11/16/2009) ND<0 (9/23/1999) (1.93152 - 0)/(26 - 12)
0.137966
ND<-0.994252 (6/30/2010) ND<0 (9/23/1999) (-0.994252 - 0)/(27 - 12)
-0.0662835
1.64866 (6/30/2010) ND<0 (9/23/1999) (1.64866 - 0)/(27 - 12)
0.109911
2.15176 (11/12/2010) ND<0 (9/23/1999) (2.15176 - 0)/(28 - 12)
0.134485
ND<-0.994252 U (11/12/2010) ND<0 (9/23/1999) (-0.994252 - 0)/(28 - 12)
-0.0621408
2.30259 (7/5/2011) ND<0 (9/23/1999) (2.30259 - 0)/(29 - 12)
0.135446
2.06686 (11/22/2011) ND<0 (9/23/1999) (2.06686 - 0)/(30 - 12)
0.114826
2.06686 (11/22/2011) ND<0 (9/23/1999) (2.06686 - 0)/(30 - 12)
0.114826

ND<0 (9/24/2003) ND<0 (3/15/2000) (0 - 0)/(14 - 13) 0
ND<0 (3/11/2004) ND<0 (3/15/2000) (0 - 0)/(15 - 13) 0
ND<0 (10/12/2004) ND<0 (3/15/2000) (0 - 0)/(16 - 13) 0
1.0116 (4/1/2005) ND<0 (3/15/2000) (1.0116 - 0)/(17 - 13) 0.2529
1.38379 (10/25/2005) ND<0 (3/15/2000) (1.38379 - 0)/(18 - 13)
0.276758
1.72277 (4/29/2006) ND<0 (3/15/2000) (1.72277 - 0)/(19 - 13)
0.287128
1.36098 (11/18/2006) ND<0 (3/15/2000) (1.36098 - 0)/(20 - 13)
0.194425
1.41099 (5/23/2007) ND<0 (3/15/2000) (1.41099 - 0)/(21 - 13)
0.176373
1.79009 (11/28/2007) ND<0 (3/15/2000) (1.79009 - 0)/(22 - 13)
0.198899
1.86408 (6/5/2008) ND<0 (3/15/2000) (1.86408 - 0)/(23 - 13)
0.186408
ND<0 (11/20/2008) ND<0 (3/15/2000) (0 - 0)/(24 - 13) 0
1.22378 (6/11/2009) ND<0 (3/15/2000) (1.22378 - 0)/(25 - 13)
0.101981
1.93152 J (11/16/2009) ND<0 (3/15/2000) (1.93152 - 0)/(26 - 13)
0.148579
ND<-0.994252 (6/30/2010) ND<0 (3/15/2000) (-0.994252 - 0)/(27 - 13)
-0.071018
1.64866 (6/30/2010) ND<0 (3/15/2000) (1.64866 - 0)/(27 - 13)
0.117761
2.15176 (11/12/2010) ND<0 (3/15/2000) (2.15176 - 0)/(28 - 13)
0.143451
ND<-0.994252 U (11/12/2010) ND<0 (3/15/2000) (-0.994252 - 0)/(28 - 13)
-0.0662835
2.30259 (7/5/2011) ND<0 (3/15/2000) (2.30259 - 0)/(29 - 13)
0.143912
2.06686 (11/22/2011) ND<0 (3/15/2000) (2.06686 - 0)/(30 - 13) 0.12158
2.06686 (11/22/2011) ND<0 (3/15/2000) (2.06686 - 0)/(30 - 13) 0.12158

ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
ND<0 (10/12/2004) ND<0 (9/24/2003) (0 - 0)/(16 - 14) 0

1.0116 (4/1/2005) ND<0 (9/24/2003) (1.0116 - 0)/(17 - 14) 0.3372
1.38379 (10/25/2005) ND<0 (9/24/2003) (1.38379 - 0)/(18 - 14)
0.345948
1.72277 (4/29/2006) ND<0 (9/24/2003) (1.72277 - 0)/(19 - 14)
0.344553
1.36098 (11/18/2006) ND<0 (9/24/2003) (1.36098 - 0)/(20 - 14)
0.226829
1.41099 (5/23/2007) ND<0 (9/24/2003) (1.41099 - 0)/(21 - 14) 0.20157
1.79009 (11/28/2007) ND<0 (9/24/2003) (1.79009 - 0)/(22 - 14)
0.223761
1.86408 (6/5/2008) ND<0 (9/24/2003) (1.86408 - 0)/(23 - 14) 0.20712
ND<0 (11/20/2008) ND<0 (9/24/2003) (0 - 0)/(24 - 14) 0
1.22378 (6/11/2009) ND<0 (9/24/2003) (1.22378 - 0)/(25 - 14)
0.111252
1.93152 J (11/16/2009) ND<0 (9/24/2003) (1.93152 - 0)/(26 - 14) 0.16096
ND<-0.994252 (6/30/2010) ND<0 (9/24/2003) (-0.994252 - 0)/(27 - 14)
-0.0764809
1.64866 (6/30/2010) ND<0 (9/24/2003) (1.64866 - 0)/(27 - 14) 0.12682
2.15176 (11/12/2010) ND<0 (9/24/2003) (2.15176 - 0)/(28 - 14)
0.153697
ND<-0.994252 U (11/12/2010) ND<0 (9/24/2003) (-0.994252 - 0)/(28 - 14)
-0.071018
2.30259 (7/5/2011) ND<0 (9/24/2003) (2.30259 - 0)/(29 - 14)
0.153506
2.06686 (11/22/2011) ND<0 (9/24/2003) (2.06686 - 0)/(30 - 14)
0.129179
2.06686 (11/22/2011) ND<0 (9/24/2003) (2.06686 - 0)/(30 - 14)
0.129179

ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0
1.0116 (4/1/2005) ND<0 (3/11/2004) (1.0116 - 0)/(17 - 15) 0.5058
1.38379 (10/25/2005) ND<0 (3/11/2004) (1.38379 - 0)/(18 - 15)
0.461264
1.72277 (4/29/2006) ND<0 (3/11/2004) (1.72277 - 0)/(19 - 15)
0.430692
1.36098 (11/18/2006) ND<0 (3/11/2004) (1.36098 - 0)/(20 - 15)
0.272195
1.41099 (5/23/2007) ND<0 (3/11/2004) (1.41099 - 0)/(21 - 15)
0.235164
1.79009 (11/28/2007) ND<0 (3/11/2004) (1.79009 - 0)/(22 - 15)
0.255727
1.86408 (6/5/2008) ND<0 (3/11/2004) (1.86408 - 0)/(23 - 15) 0.23301
ND<0 (11/20/2008) ND<0 (3/11/2004) (0 - 0)/(24 - 15) 0
1.22378 (6/11/2009) ND<0 (3/11/2004) (1.22378 - 0)/(25 - 15)
0.122378
1.93152 J (11/16/2009) ND<0 (3/11/2004) (1.93152 - 0)/(26 - 15)
0.175593
ND<-0.994252 (6/30/2010) ND<0 (3/11/2004) (-0.994252 - 0)/(27 - 15)
-0.0828544
1.64866 (6/30/2010) ND<0 (3/11/2004) (1.64866 - 0)/(27 - 15)
0.137388
2.15176 (11/12/2010) ND<0 (3/11/2004) (2.15176 - 0)/(28 - 15) 0.16552
ND<-0.994252 U (11/12/2010) ND<0 (3/11/2004) (-0.994252 - 0)/(28 - 15)
-0.0764809
2.30259 (7/5/2011) ND<0 (3/11/2004) (2.30259 - 0)/(29 - 15) 0.16447
2.06686 (11/22/2011) ND<0 (3/11/2004) (2.06686 - 0)/(30 - 15)
0.137791
2.06686 (11/22/2011) ND<0 (3/11/2004) (2.06686 - 0)/(30 - 15)
0.137791

1.0116 (4/1/2005) ND<0 (10/12/2004) (1.0116 - 0)/(17 - 16) 1.0116

1.38379 (10/25/2005) ND<0 (10/12/2004) (1.38379 - 0)/(18 - 16)
0.691896
1.72277 (4/29/2006) ND<0 (10/12/2004) (1.72277 - 0)/(19 - 16)
0.574256
1.36098 (11/18/2006) ND<0 (10/12/2004) (1.36098 - 0)/(20 - 16)
0.340244
1.41099 (5/23/2007) ND<0 (10/12/2004) (1.41099 - 0)/(21 - 16)
0.282197
1.79009 (11/28/2007) ND<0 (10/12/2004) (1.79009 - 0)/(22 - 16)
0.298349
1.86408 (6/5/2008) ND<0 (10/12/2004) (1.86408 - 0)/(23 - 16)
0.266297
ND<0 (11/20/2008) ND<0 (10/12/2004) (0 - 0)/(24 - 16) 0
1.22378 (6/11/2009) ND<0 (10/12/2004) (1.22378 - 0)/(25 - 16)
0.135975
1.93152 J (11/16/2009) ND<0 (10/12/2004) (1.93152 - 0)/(26 - 16)
0.193152
ND<-0.994252 (6/30/2010) ND<0 (10/12/2004) (-0.994252 - 0)/(27 - 16)
-0.0903866
1.64866 (6/30/2010) ND<0 (10/12/2004) (1.64866 - 0)/(27 - 16)
0.149878
2.15176 (11/12/2010) ND<0 (10/12/2004) (2.15176 - 0)/(28 - 16)
0.179314
ND<-0.994252 U (11/12/2010) ND<0 (10/12/2004) (-0.994252 - 0)/(28 - 16)
-0.0828544
2.30259 (7/5/2011) ND<0 (10/12/2004) (2.30259 - 0)/(29 - 16)
0.177122
2.06686 (11/22/2011) ND<0 (10/12/2004) (2.06686 - 0)/(30 - 16)
0.147633
2.06686 (11/22/2011) ND<0 (10/12/2004) (2.06686 - 0)/(30 - 16)
0.147633

1.38379 (10/25/2005) 1.0116 (4/1/2005) (1.38379 - 1.0116)/(18 - 17)
0.37219
1.72277 (4/29/2006) 1.0116 (4/1/2005) (1.72277 - 1.0116)/(19 - 17)
0.355583
1.36098 (11/18/2006) 1.0116 (4/1/2005) (1.36098 - 1.0116)/(20 - 17)
0.116459
1.41099 (5/23/2007) 1.0116 (4/1/2005) (1.41099 - 1.0116)/(21 - 17)
0.0998465
1.79009 (11/28/2007) 1.0116 (4/1/2005) (1.79009 - 1.0116)/(22 - 17)
0.155698
1.86408 (6/5/2008) 1.0116 (4/1/2005) (1.86408 - 1.0116)/(23 - 17)
0.14208
ND<0 (11/20/2008) 1.0116 (4/1/2005) (0 - 1.0116)/(24 - 17)
-0.144514
1.22378 (6/11/2009) 1.0116 (4/1/2005) (1.22378 - 1.0116)/(25 - 17)
0.0265218
1.93152 J (11/16/2009) 1.0116 (4/1/2005) (1.93152 - 1.0116)/(26 - 17)
0.102213
ND<-0.994252 (6/30/2010) 1.0116 (4/1/2005) (-0.994252 - 1.0116)/(27 - 17)
-0.200585
1.64866 (6/30/2010) 1.0116 (4/1/2005) (1.64866 - 1.0116)/(27 - 17)
0.0637058
2.15176 (11/12/2010) 1.0116 (4/1/2005) (2.15176 - 1.0116)/(28 - 17)
0.103651
ND<-0.994252 U (11/12/2010) 1.0116 (4/1/2005) (-0.994252 - 1.0116)/(28 - 17)
-0.18235
2.30259 (7/5/2011) 1.0116 (4/1/2005) (2.30259 - 1.0116)/(29 - 17)
0.107582
2.06686 (11/22/2011) 1.0116 (4/1/2005) (2.06686 - 1.0116)/(30 - 17)
0.081174

2.06686 (11/22/2011) 1.0116 (4/1/2005) (2.06686 - 1.0116)/(30 - 17)
0.081174

1.72277 (4/29/2006) 1.38379 (10/25/2005) (1.72277 - 1.38379)/(19 - 18)
0.338975
1.36098 (11/18/2006) 1.38379 (10/25/2005) (1.36098 - 1.38379)/(20 - 18)
-0.0114073
1.41099 (5/23/2007) 1.38379 (10/25/2005) (1.41099 - 1.38379)/(21 - 18)
0.00906525
1.79009 (11/28/2007) 1.38379 (10/25/2005) (1.79009 - 1.38379)/(22 - 18)
0.101575
1.86408 (6/5/2008) 1.38379 (10/25/2005) (1.86408 - 1.38379)/(23 - 18)
0.0960578
ND<0 (11/20/2008) 1.38379 (10/25/2005) (0 - 1.38379)/(24 - 18)
-0.230632
1.22378 (6/11/2009) 1.38379 (10/25/2005) (1.22378 - 1.38379)/(25 - 18)
-0.0228594
1.93152 J (11/16/2009) 1.38379 (10/25/2005) (1.93152 - 1.38379)/(26 - 18)
0.0684663
ND<-0.994252 (6/30/2010) 1.38379 (10/25/2005) (-0.994252 - 1.38379)/(27 - 18)
-0.264227
1.64866 (6/30/2010) 1.38379 (10/25/2005) (1.64866 - 1.38379)/(27 - 18)
0.0294297
2.15176 (11/12/2010) 1.38379 (10/25/2005) (2.15176 - 1.38379)/(28 - 18)
0.0767971
ND<-0.994252 U (11/12/2010) 1.38379 (10/25/2005) (-0.994252 - 1.38379)/(28 - 18)
-0.237804
2.30259 (7/5/2011) 1.38379 (10/25/2005) (2.30259 - 1.38379)/(29 - 18)
0.0835267
2.06686 (11/22/2011) 1.38379 (10/25/2005) (2.06686 - 1.38379)/(30 - 18)
0.0569226
2.06686 (11/22/2011) 1.38379 (10/25/2005) (2.06686 - 1.38379)/(30 - 18)
0.0569226

1.36098 (11/18/2006) 1.72277 (4/29/2006) (1.36098 - 1.72277)/(20 - 19)
-0.36179
1.41099 (5/23/2007) 1.72277 (4/29/2006) (1.41099 - 1.72277)/(21 - 19)
-0.15589
1.79009 (11/28/2007) 1.72277 (4/29/2006) (1.79009 - 1.72277)/(22 - 19)
0.0224416
1.86408 (6/5/2008) 1.72277 (4/29/2006) (1.86408 - 1.72277)/(23 - 19)
0.0353284
ND<0 (11/20/2008) 1.72277 (4/29/2006) (0 - 1.72277)/(24 - 19)
-0.344553
1.22378 (6/11/2009) 1.72277 (4/29/2006) (1.22378 - 1.72277)/(25 - 19)
-0.0831652
1.93152 J (11/16/2009) 1.72277 (4/29/2006) (1.93152 - 1.72277)/(26 - 19)
0.0298221
ND<-0.994252 (6/30/2010) 1.72277 (4/29/2006) (-0.994252 - 1.72277)/(27 - 19)
-0.339627
1.64866 (6/30/2010) 1.72277 (4/29/2006) (1.64866 - 1.72277)/(27 - 19)
-0.0092635
2.15176 (11/12/2010) 1.72277 (4/29/2006) (2.15176 - 1.72277)/(28 - 19)
0.0476662
ND<-0.994252 U (11/12/2010) 1.72277 (4/29/2006) (-0.994252 - 1.72277)/(28 - 19)
-0.301891
2.30259 (7/5/2011) 1.72277 (4/29/2006) (2.30259 - 1.72277)/(29 - 19)
0.0579818
2.06686 (11/22/2011) 1.72277 (4/29/2006) (2.06686 - 1.72277)/(30 - 19)
0.0312815
2.06686 (11/22/2011) 1.72277 (4/29/2006) (2.06686 - 1.72277)/(30 - 19)
0.0312815

1.41099 (5/23/2007) 1.36098 (11/18/2006) (1.41099 - 1.36098)/(21 - 20)
0.0500104
1.79009 (11/28/2007) 1.36098 (11/18/2006) (1.79009 - 1.36098)/(22 - 20)
0.214557
1.86408 (6/5/2008) 1.36098 (11/18/2006) (1.86408 - 1.36098)/(23 - 20)
0.167701
ND<0 (11/20/2008) 1.36098 (11/18/2006) (0 - 1.36098)/(24 - 20)
-0.340244
1.22378 (6/11/2009) 1.36098 (11/18/2006) (1.22378 - 1.36098)/(25 - 20)
-0.0274402
1.93152 J (11/16/2009) 1.36098 (11/18/2006) (1.93152 - 1.36098)/(26 - 20)
0.0950908
ND<-0.994252 (6/30/2010) 1.36098 (11/18/2006) (-0.994252 - 1.36098)/(27 - 20)
-0.336461
1.64866 (6/30/2010) 1.36098 (11/18/2006) (1.64866 - 1.36098)/(27 - 20)
0.0410974
2.15176 (11/12/2010) 1.36098 (11/18/2006) (2.15176 - 1.36098)/(28 - 20)
0.0988482
ND<-0.994252 U (11/12/2010) 1.36098 (11/18/2006) (-0.994252 - 1.36098)/(28 - 20)
-0.294404
2.30259 (7/5/2011) 1.36098 (11/18/2006) (2.30259 - 1.36098)/(29 - 20)
0.104623
2.06686 (11/22/2011) 1.36098 (11/18/2006) (2.06686 - 1.36098)/(30 - 20)
0.0705886
2.06686 (11/22/2011) 1.36098 (11/18/2006) (2.06686 - 1.36098)/(30 - 20)
0.0705886

1.79009 (11/28/2007) 1.41099 (5/23/2007) (1.79009 - 1.41099)/(22 - 21)
0.379104
1.86408 (6/5/2008) 1.41099 (5/23/2007) (1.86408 - 1.41099)/(23 - 21)
0.226547
ND<0 (11/20/2008) 1.41099 (5/23/2007) (0 - 1.41099)/(24 - 21)
-0.470329
1.22378 (6/11/2009) 1.41099 (5/23/2007) (1.22378 - 1.41099)/(25 - 21)
-0.0468029
1.93152 J (11/16/2009) 1.41099 (5/23/2007) (1.93152 - 1.41099)/(26 - 21)
0.104107
ND<-0.994252 (6/30/2010) 1.41099 (5/23/2007) (-0.994252 - 1.41099)/(27 - 21)
-0.400873
1.64866 (6/30/2010) 1.41099 (5/23/2007) (1.64866 - 1.41099)/(27 - 21)
0.0396119
2.15176 (11/12/2010) 1.41099 (5/23/2007) (2.15176 - 1.41099)/(28 - 21)
0.105825
ND<-0.994252 U (11/12/2010) 1.41099 (5/23/2007) (-0.994252 - 1.41099)/(28 - 21)
-0.343606
2.30259 (7/5/2011) 1.41099 (5/23/2007) (2.30259 - 1.41099)/(29 - 21)
0.11145
2.06686 (11/22/2011) 1.41099 (5/23/2007) (2.06686 - 1.41099)/(30 - 21)
0.0728751
2.06686 (11/22/2011) 1.41099 (5/23/2007) (2.06686 - 1.41099)/(30 - 21)
0.0728751

1.86408 (6/5/2008) 1.79009 (11/28/2007) (1.86408 - 1.79009)/(23 - 22)
0.0739887
ND<0 (11/20/2008) 1.79009 (11/28/2007) (0 - 1.79009)/(24 - 22)
-0.895046
1.22378 (6/11/2009) 1.79009 (11/28/2007) (1.22378 - 1.79009)/(25 - 22)
-0.188772
1.93152 J (11/16/2009) 1.79009 (11/28/2007) (1.93152 - 1.79009)/(26 - 22)
0.0353575

ND<-0.994252 (6/30/2010) 1.79009 (11/28/2007) (-0.994252 - 1.79009)/(27 - 22)
-0.556869
1.64866 (6/30/2010) 1.79009 (11/28/2007) (1.64866 - 1.79009)/(27 - 22)
-0.0282866
2.15176 (11/12/2010) 1.79009 (11/28/2007) (2.15176 - 1.79009)/(28 - 22)
0.0602785
ND<-0.994252 U (11/12/2010) 1.79009 (11/28/2007) (-0.994252 - 1.79009)/(28 - 22)
-0.464057
2.30259 (7/5/2011) 1.79009 (11/28/2007) (2.30259 - 1.79009)/(29 - 22)
0.0732134
2.06686 (11/22/2011) 1.79009 (11/28/2007) (2.06686 - 1.79009)/(30 - 22)
0.0345964
2.06686 (11/22/2011) 1.79009 (11/28/2007) (2.06686 - 1.79009)/(30 - 22)
0.0345964

ND<0 (11/20/2008) 1.86408 (6/5/2008) (0 - 1.86408)/(24 - 23) -1.86408
1.22378 (6/11/2009) 1.86408 (6/5/2008) (1.22378 - 1.86408)/(25 - 23)
-0.320152
1.93152 J (11/16/2009) 1.86408 (6/5/2008) (1.93152 - 1.86408)/(26 - 23)
0.0224804
ND<-0.994252 (6/30/2010) 1.86408 (6/5/2008) (-0.994252 - 1.86408)/(27 - 23)
-0.714583
1.64866 (6/30/2010) 1.86408 (6/5/2008) (1.64866 - 1.86408)/(27 - 23)
-0.0538554
2.15176 (11/12/2010) 1.86408 (6/5/2008) (2.15176 - 1.86408)/(28 - 23)
0.0575364
ND<-0.994252 U (11/12/2010) 1.86408 (6/5/2008) (-0.994252 - 1.86408)/(28 - 23)
-0.571666
2.30259 (7/5/2011) 1.86408 (6/5/2008) (2.30259 - 1.86408)/(29 - 23)
0.0730842
2.06686 (11/22/2011) 1.86408 (6/5/2008) (2.06686 - 1.86408)/(30 - 23)
0.0289689
2.06686 (11/22/2011) 1.86408 (6/5/2008) (2.06686 - 1.86408)/(30 - 23)
0.0289689

1.22378 (6/11/2009) ND<0 (11/20/2008) (1.22378 - 0)/(25 - 24) 1.22378
1.93152 J (11/16/2009) ND<0 (11/20/2008) (1.93152 - 0)/(26 - 24)
0.965761
ND<-0.994252 (6/30/2010) ND<0 (11/20/2008) (-0.994252 - 0)/(27 - 24)
-0.331417
1.64866 (6/30/2010) ND<0 (11/20/2008) (1.64866 - 0)/(27 - 24)
0.549553
2.15176 (11/12/2010) ND<0 (11/20/2008) (2.15176 - 0)/(28 - 24)
0.537941
ND<-0.994252 U (11/12/2010) ND<0 (11/20/2008) (-0.994252 - 0)/(28 - 24)
-0.248563
2.30259 (7/5/2011) ND<0 (11/20/2008) (2.30259 - 0)/(29 - 24)
0.460517
2.06686 (11/22/2011) ND<0 (11/20/2008) (2.06686 - 0)/(30 - 24)
0.344477
2.06686 (11/22/2011) ND<0 (11/20/2008) (2.06686 - 0)/(30 - 24)
0.344477

1.93152 J (11/16/2009) 1.22378 (6/11/2009) (1.93152 - 1.22378)/(26 - 25)
0.707746
ND<-0.994252 (6/30/2010) 1.22378 (6/11/2009) (-0.994252 - 1.22378)/(27 - 25)
-1.10901
1.64866 (6/30/2010) 1.22378 (6/11/2009) (1.64866 - 1.22378)/(27 - 25)
0.212442
2.15176 (11/12/2010) 1.22378 (6/11/2009) (2.15176 - 1.22378)/(28 - 25)
0.309329

ND<-0.994252 U (11/12/2010) 1.22378 (6/11/2009) (-0.994252 - 1.22378)/(28 - 25)
-0.739343
2.30259 (7/5/2011) 1.22378 (6/11/2009) (2.30259 - 1.22378)/(29 - 25)
0.269702
2.06686 (11/22/2011) 1.22378 (6/11/2009) (2.06686 - 1.22378)/(30 - 25)
0.168617
2.06686 (11/22/2011) 1.22378 (6/11/2009) (2.06686 - 1.22378)/(30 - 25)
0.168617

ND<-0.994252 (6/30/2010) 1.93152 J (11/16/2009) (-0.994252 - 1.93152)/(27 - 26)
-2.92577
1.64866 (6/30/2010) 1.93152 J (11/16/2009) (1.64866 - 1.93152)/(27 - 26)
-0.282863
2.15176 (11/12/2010) 1.93152 J (11/16/2009) (2.15176 - 1.93152)/(28 - 26)
0.11012
ND<-0.994252 U (11/12/2010) 1.93152 J (11/16/2009) (-0.994252 - 1.93152)/(28 - 26)
-1.46289
2.30259 (7/5/2011) 1.93152 J (11/16/2009) (2.30259 - 1.93152)/(29 - 26)
0.123688
2.06686 (11/22/2011) 1.93152 J (11/16/2009) (2.06686 - 1.93152)/(30 - 26)
0.0338353
2.06686 (11/22/2011) 1.93152 J (11/16/2009) (2.06686 - 1.93152)/(30 - 26)
0.0338353

1.64866 (6/30/2010) ND<-0.994252 (6/30/2010) (1.64866 - -0.994252)/(27 - 27)
Same Date
2.15176 (11/12/2010) ND<-0.994252 (6/30/2010) (2.15176 - -0.994252)/(28 - 27)
3.14601
ND<-0.994252 U (11/12/2010) ND<-0.994252 (6/30/2010) (-0.994252 -
-0.994252)/(28 - 27) 0
2.30259 (7/5/2011) ND<-0.994252 (6/30/2010) (2.30259 - -0.994252)/(29 - 27)
1.64842
2.06686 (11/22/2011) ND<-0.994252 (6/30/2010) (2.06686 - -0.994252)/(30 - 27)
1.02037
2.06686 (11/22/2011) ND<-0.994252 (6/30/2010) (2.06686 - -0.994252)/(30 - 27)
1.02037

2.15176 (11/12/2010) 1.64866 (6/30/2010) (2.15176 - 1.64866)/(28 - 27)
0.503104
ND<-0.994252 U (11/12/2010) 1.64866 (6/30/2010) (-0.994252 - 1.64866)/(28 - 27)
-2.64291
2.30259 (7/5/2011) 1.64866 (6/30/2010) (2.30259 - 1.64866)/(29 - 27)
0.326963
2.06686 (11/22/2011) 1.64866 (6/30/2010) (2.06686 - 1.64866)/(30 - 27)
0.139401
2.06686 (11/22/2011) 1.64866 (6/30/2010) (2.06686 - 1.64866)/(30 - 27)
0.139401

ND<-0.994252 U (11/12/2010) 2.15176 (11/12/2010) (-0.994252 - 2.15176)/(28 - 28)
Same Date
2.30259 (7/5/2011) 2.15176 (11/12/2010) (2.30259 - 2.15176)/(29 - 28)
0.150823
2.06686 (11/22/2011) 2.15176 (11/12/2010) (2.06686 - 2.15176)/(30 - 28)
-0.0424497
2.06686 (11/22/2011) 2.15176 (11/12/2010) (2.06686 - 2.15176)/(30 - 28)
-0.0424497

2.30259 (7/5/2011) ND<-0.994252 U (11/12/2010) (2.30259 - -0.994252)/(29 - 28)
3.29684
2.06686 (11/22/2011) ND<-0.994252 U (11/12/2010) (2.06686 - -0.994252)/(30 - 28)
1.53056

2.06686	(11/22/2011)	ND<-0.994252	U (11/12/2010)	(2.06686 - -0.994252)/(30 - 28)	1.53056
2.06686	(11/22/2011)	2.30259	(7/5/2011)	(2.06686 - 2.30259)/(30 - 29)	-0.235722
2.06686	(11/22/2011)	2.30259	(7/5/2011)	(2.06686 - 2.30259)/(30 - 29)	-0.235722
2.06686	(11/22/2011)	2.06686	(11/22/2011)	(2.06686 - 2.06686)/(30 - 30)	Same Date

Number of Q values = 525

Ordered Q Values

n	Q
1	-2.92577
2	-2.64291
3	-2.17475
4	-1.86408
5	-1.46289
6	-1.10901
7	-1.08738
8	-0.895046
9	-0.739343
10	-0.724917
11	-0.714583
12	-0.693147
13	-0.693147
14	-0.693147
15	-0.571666
16	-0.556869
17	-0.543688
18	-0.470329
19	-0.464057
20	-0.462098
21	-0.43495
22	-0.400873
23	-0.36179
24	-0.346574
25	-0.346574
26	-0.344553
27	-0.343606
28	-0.340244
29	-0.339627
30	-0.336461
31	-0.331417
32	-0.320152
33	-0.301891
34	-0.294404
35	-0.282863
36	-0.277259
37	-0.264227
38	-0.248563
39	-0.237804
40	-0.235722
41	-0.235722
42	-0.231049
43	-0.231049
44	-0.230632
45	-0.200585

46	-0.198063
47	-0.198042
48	-0.193858
49	-0.188772
50	-0.186412
51	-0.18235
52	-0.173287
53	-0.167289
54	-0.15589
55	-0.154033
56	-0.144514
57	-0.138629
58	-0.138629
59	-0.135155
60	-0.126027
61	-0.115525
62	-0.115525
63	-0.112994
64	-0.106638
65	-0.101366
66	-0.0991894
67	-0.0952219
68	-0.0904195
69	-0.0903866
70	-0.0866434
71	-0.0831652
72	-0.0828544
73	-0.0828544
74	-0.081093
75	-0.0770164
76	-0.0764809
77	-0.0764809
78	-0.0763765
79	-0.0733652
80	-0.071018
81	-0.071018
82	-0.0703083
83	-0.0693147
84	-0.0679269
85	-0.0675775
86	-0.0662835
87	-0.0662835
88	-0.066014
89	-0.0630134
90	-0.0621408
91	-0.0584854
92	-0.0579236
93	-0.0577623
94	-0.0564981
95	-0.0559887
96	-0.0552362
97	-0.0552362
98	-0.0538554
99	-0.0538353
100	-0.0523291
101	-0.0523291
102	-0.0506831
103	-0.0497126
104	-0.0497126
105	-0.0473453
106	-0.0473453
107	-0.0468029

108	-0.0451933
109	-0.0451933
110	-0.0432284
111	-0.0424497
112	-0.0424497
113	-0.0405465
114	-0.0382405
115	-0.0368605
116	-0.0368242
117	-0.0349691
118	-0.0346574
119	-0.0337888
120	-0.0328808
121	-0.0311896
122	-0.0289618
123	-0.0282866
124	-0.0274402
125	-0.0267638
126	-0.0258893
127	-0.0228594
128	-0.0184302
129	-0.0162154
130	-0.0114073
131	-0.0092635
132	-0.00738722
133	-0.00567837
134	-0.00567837
135	-0.00148928
136	-0.00135232
137	-0.000166875
138	0
139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
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158	0
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164	0
165	0
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167	0
168	0
169	0

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177	0
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206	0
207	0
208	0
209	0
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211	0
212	0
213	0
214	0
215	0
216	0
217	0.00137181
218	0.00710185
219	0.00906525
220	0.0109318
221	0.0210295
222	0.0212525
223	0.0224416
224	0.0224804
225	0.0237055
226	0.0238893
227	0.0244964
228	0.0252062
229	0.0252062
230	0.025268
231	0.0265218

232	0.0289689
233	0.0289689
234	0.0294297
235	0.0298221
236	0.0306187
237	0.0312815
238	0.0312815
239	0.0338353
240	0.0338353
241	0.0345964
242	0.0345964
243	0.035242
244	0.0353284
245	0.0353575
246	0.0355787
247	0.0396119
248	0.0404091
249	0.0410974
250	0.041544
251	0.0417393
252	0.0422259
253	0.0476662
254	0.0493317
255	0.0497277
256	0.0500104
257	0.0509906
258	0.0528352
259	0.0528352
260	0.0529222
261	0.053084
262	0.0562897
263	0.0569226
264	0.0569226
265	0.0575364
266	0.0579818
267	0.0593356
268	0.0593356
269	0.0602785
270	0.0607756
271	0.0609413
272	0.0611454
273	0.0611888
274	0.0616281
275	0.0632251
276	0.0634099
277	0.0635857
278	0.0637058
279	0.0643775
280	0.0644092
281	0.0671653
282	0.0679875
283	0.0684663
284	0.0686413
285	0.0692313
286	0.0694579
287	0.0702637
288	0.0705493
289	0.0705886
290	0.0705886
291	0.0712711
292	0.0712711
293	0.0716303

294	0.0719868
295	0.0728751
296	0.0728751
297	0.0730842
298	0.0732134
299	0.0739887
300	0.074939
301	0.076486
302	0.0767971
303	0.0772609
304	0.0774883
305	0.0785076
306	0.0796949
307	0.081174
308	0.081174
309	0.0813995
310	0.081585
311	0.0822352
312	0.0824329
313	0.0826745
314	0.0826745
315	0.0835267
316	0.0843001
317	0.0847309
318	0.0852424
319	0.0861193
320	0.0861193
321	0.0867715
322	0.0881867
323	0.0898636
324	0.0898636
325	0.0907318
326	0.0915921
327	0.0919637
328	0.0919772
329	0.0935549
330	0.0939483
331	0.0939483
332	0.0940658
333	0.0941366
334	0.0950908
335	0.0957093
336	0.095941
337	0.0960578
338	0.0965761
339	0.0969799
340	0.0972126
341	0.0978074
342	0.098422
343	0.098422
344	0.0985572
345	0.0988482
346	0.0998465
347	0.100112
348	0.100785
349	0.10116
350	0.101575
351	0.101659
352	0.101981
353	0.102213
354	0.102465
355	0.103343

356	0.103343
357	0.10356
358	0.103651
359	0.104107
360	0.104623
361	0.104663
362	0.104691
363	0.105299
364	0.105825
365	0.106445
366	0.107307
367	0.107582
368	0.107588
369	0.108537
370	0.109647
371	0.109652
372	0.109911
373	0.11012
374	0.111252
375	0.11145
376	0.111881
377	0.1124
378	0.113251
379	0.113415
380	0.113619
381	0.114826
382	0.114826
383	0.115129
384	0.115316
385	0.116459
386	0.116505
387	0.117582
388	0.117761
389	0.119339
390	0.119542
391	0.12072
392	0.121189
393	0.12158
394	0.12158
395	0.122378
396	0.123055
397	0.123688
398	0.123725
399	0.124272
400	0.125799
401	0.12645
402	0.12682
403	0.127864
404	0.128272
405	0.129179
406	0.129179
407	0.132521
408	0.133149
409	0.134485
410	0.135446
411	0.135975
412	0.136098
413	0.137388
414	0.137699
415	0.137791
416	0.137791
417	0.137966

418	0.138379
419	0.139401
420	0.139401
421	0.14208
422	0.143391
423	0.143451
424	0.143564
425	0.143841
426	0.143912
427	0.144514
428	0.147633
429	0.147633
430	0.148579
431	0.149174
432	0.149878
433	0.150823
434	0.153506
435	0.153697
436	0.153755
437	0.155698
438	0.156615
439	0.156776
440	0.16096
441	0.16447
442	0.16552
443	0.167701
444	0.168617
445	0.168617
446	0.169462
447	0.170122
448	0.172277
449	0.172974
450	0.175593
451	0.176373
452	0.177122
453	0.179009
454	0.179314
455	0.186408
456	0.191419
457	0.193152
458	0.194425
459	0.196587
460	0.198899
461	0.20157
462	0.20232
463	0.20712
464	0.211658
465	0.212442
466	0.214557
467	0.217475
468	0.223761
469	0.226547
470	0.226829
471	0.230632
472	0.231049
473	0.23301
474	0.235164
475	0.24611
476	0.2529
477	0.255727
478	0.266297
479	0.269702

480	0.272195
481	0.276758
482	0.282197
483	0.287128
484	0.298349
485	0.309329
486	0.326963
487	0.3372
488	0.338975
489	0.340244
490	0.344477
491	0.344477
492	0.344553
493	0.345948
494	0.355583
495	0.362459
496	0.37219
497	0.379104
498	0.405465
499	0.430692
500	0.43495
501	0.460517
502	0.461264
503	0.503104
504	0.5058
505	0.537941
506	0.543688
507	0.549553
508	0.574256
509	0.691896
510	0.693147
511	0.707746
512	0.724917
513	0.965761
514	0.980829
515	1.0116
516	1.02037
517	1.02037
518	1.08738
519	1.22378
520	1.53056
521	1.53056
522	1.64842
523	2.17475
524	3.14601
525	3.29684

Sen's Estimator (Median Q) is 0.0569226

Tied Group	Value	Members
1	0	13
2	-0.994252	2
3	2.06686	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1

9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		2
11/12/2010		2
7/5/2011	1	
11/22/2011		2

There are 3 time periods with multiple data

A = 4872
B = 54
C = 1716
D = 0
E = 160
F = 6
a = 74976
b = 294624
c = 2112
Group Variance = 3892.12
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 102.617
M1 = (525 - 102.617)/2.0 = 211.191
M2 = (525 + 102.617)/2.0 + 1 = 314.809
Lower limit is 0 = Q(211)
Upper limit is 0.0835267 = Q(315)
0 < 0 < 0.0835267 indicating no trend in data.

Concentrations (ppb)

Parameter: 1,4-Dioxane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 42
Total Non-Detect: 35
Percent Non-Detects: 83.3333%
Total Background Measurements: 3
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	3	3 (100%)	11/16/2009	ND<3.2	ND<3.2
			11/12/2010	ND<3.2 U	ND<3.2 U
			7/5/2011	ND<3.3 U	ND<3.3 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-11R	5	5 (100%)	11/16/2009	ND<2.5	ND<2.5
			11/12/2010	ND<3.2 U	ND<3.2 U
			7/5/2011	ND<3.3 U	ND<3.3 U
			11/22/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.2 U	ND<3.2 U
MW-8	3	3 (100%)	7/5/2011	ND<3.3 U	ND<3.3 U
			11/22/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.2 U H	ND<3.2 U H
MW-6	5	5 (100%)	11/16/2009	ND<3.2	ND<3.2
			11/12/2010	ND<3.2 U	ND<3.2 U
			7/5/2011	ND<3.3 U	ND<3.3 U
			11/22/2011	ND<3.2 U H	ND<3.2 U H
			11/22/2011	ND<3.2 U	ND<3.2 U
MW-7	5	5 (100%)	11/16/2009	ND<2.5	ND<2.5
			11/12/2010	ND<3.2 U	ND<3.2 U
			7/5/2011	ND<3.4 U	ND<3.4 U
			11/22/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.1 U H	ND<3.1 U H
MW-10	5	2 (40%)	11/16/2009	ND<2.5	ND<2.5
			11/12/2010	ND<3.2 U	ND<3.2 U
			7/5/2011	12 M	12 M
			11/22/2011	21 H	21 H
			11/22/2011	18	18
MW-12AR	5	3 (60%)	11/16/2009	9.8	9.8
			11/12/2010	12	12
			7/5/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.2 U H	ND<3.2 U H
MW-12BR	6	6 (100%)	11/16/2009	ND<2.5	ND<2.5
			11/12/2010	ND<3.4 U	ND<3.4 U
			11/12/2010	ND<3.4 U	ND<3.4 U
			7/5/2011	ND<3.2 U	ND<3.2 U
			11/22/2011	ND<3.2 U	ND<3.2 U

			11/22/2011	ND<3.2 U H		ND<3.2 U H
MW-9	5	3 (60%)	11/16/2009	ND<3.2	ND<3.2	
			11/12/2010	20	20	
			7/5/2011	6.2 J M	6.2 J M	
			11/22/2011	ND<3.2 U		ND<3.2 U
			11/22/2011	ND<3.2 U		ND<3.2 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Wilks Test of Normality

Parameter: 1,4-Dioxane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

K = 21 for 42 measurements

i	x(i)	x(n-i+1)		x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	1.25	21	19.75	0.3917	7.73607	
2	1.25	20	18.75	0.2701	5.06438	
3	1.25	18	16.75	0.2345	3.92787	
4	1.25	12	10.75	0.2085	2.24138	
5	1.55	12	10.45	0.1874	1.95833	
6	1.6	9.8	8.2	0.1694	1.38908	
7	1.6	6.2	4.6	0.1535	0.7061	
8	1.6	1.7	0.1	0.1392	0.01392	
9	1.6	1.7	0.1	0.1259	0.01259	
10	1.6	1.7	0.1	0.1136	0.01136	
11	1.6	1.65	0.05	0.102	0.0051	
12	1.6	1.65	0.05	0.0909	0.004545	
13	1.6	1.65	0.05	0.0804	0.00402	
14	1.6	1.65	0.05	0.0701	0.003505	
15	1.6	1.6	0	0.0602	0	
16	1.6	1.6	0	0.0506	0	
17	1.6	1.6	0	0.0411	0	
18	1.6	1.6	0	0.0318	0	
19	1.6	1.6	0	0.0227	0	
20	1.6	1.6	0	0.0136	0	
21	1.6	1.6	0	0.0045	0	
22	1.6	1.6	0			
23	1.6	1.6	0			
24	1.6	1.6	0			
25	1.6	1.6	0			
26	1.6	1.6	0			
27	1.6	1.6	0			
28	1.6	1.6	0			
29	1.65	1.6	-0.05			
30	1.65	1.6	-0.05			
31	1.65	1.6	-0.05			
32	1.65	1.6	-0.05			
33	1.7	1.6	-0.1			
34	1.7	1.6	-0.1			
35	1.7	1.6	-0.1			
36	6.2	1.6	-4.6			
37	9.8	1.6	-8.2			
38	12	1.55	-10.45			
39	12	1.25	-10.75			
40	18	1.25	-16.75			
41	20	1.25	-18.75			
42	21	1.25	-19.75			

Sum of b values = 23.0782
Sample Standard Deviation = 5.20211
W Statistic = 0.480024

5% Critical value of 0.942 exceeds 0.480024
Evidence of non-normality at 95% level of significance

1% Critical value of 0.922 exceeds 0.480024

Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,4-Dioxane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.686587
0.686587 < 0.973 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.25	0.0232558	-1.99539	61.2917	360.663	
2	1.25	0.0465116	-1.68494	61.2917	337.922	
3	1.25	0.0697674	-1.48328	61.2917	323.15	
4	1.25	0.0930233	-1.32251	61.2917	311.374	
5	1.55	0.116279	-1.19522	66.6417	302.05	
6	1.6	0.139535	-1.08482	67.5333	293.963	
7	1.6	0.162791	-0.986272	67.5333	286.744	
8	1.6	0.186047	-0.892733	67.5333	279.893	
9	1.6	0.209302	-0.809896	67.5333	273.825	
10	1.6	0.232558	-0.732275	67.5333	268.139	
11	1.6	0.255814	-0.658838	67.5333	262.76	
12	1.6	0.27907	-0.585815	67.5333	257.411	
13	1.6	0.302326	-0.518658	67.5333	252.492	
14	1.6	0.325581	-0.453763	67.5333	247.738	
15	1.6	0.348837	-0.390726	67.5333	243.121	
16	1.6	0.372093	-0.326561	67.5333	238.421	
17	1.6	0.395349	-0.266311	67.5333	234.007	
18	1.6	0.418605	-0.207012	67.5333	229.664	
19	1.6	0.44186	-0.148434	67.5333	225.373	
20	1.6	0.465116	-0.0878447	67.5333	220.935	
21	1.6	0.488372	-0.0300838	67.5333	216.704	
22	1.6	0.511628	0.0300838	67.5333	212.296	
23	1.6	0.534884	0.0878447	67.5333	208.065	
24	1.6	0.55814	0.148434	67.5333	203.627	
25	1.6	0.581395	0.207012	67.5333	199.336	
26	1.6	0.604651	0.266311	67.5333	194.993	
27	1.6	0.627907	0.326561	67.5333	190.579	
28	1.6	0.651163	0.390726	67.5333	185.879	
29	1.65	0.674419	0.453763	68.425	181.262	
30	1.65	0.697674	0.518658	68.425	176.508	
31	1.65	0.72093	0.585815	68.425	171.589	
32	1.65	0.744186	0.658838	68.425	166.24	
33	1.7	0.767442	0.732275	69.3167	160.861	
34	1.7	0.790698	0.809896	69.3167	155.175	
35	1.7	0.813953	0.892733	69.3167	149.107	
36	6.2	0.837209	0.986272	149.567	142.256	
37	9.8	0.860465	1.08482	213.767	135.037	
38	12	0.883721	1.19522	253	126.95	
39	12	0.906977	1.32251	253	117.626	
40	18	0.930233	1.48328	360	105.85	
41	20	0.953488	1.68494	395.667	91.0782	
42	21	0.976744	1.99539	413.5	68.3373	

Shapiro-Wilks Test of Normality

Parameter: 1,4-Dioxane

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

K = 21 for 42 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.223144	3.04452	2.82138	0.3917	1.10513
2	0.223144	2.99573	2.77259	0.2701	0.748876
3	0.223144	2.89037	2.66723	0.2345	0.625465
4	0.223144	2.48491	2.26176	0.2085	0.471578
5	0.438255	2.48491	2.04665	0.1874	0.383543
6	0.470004	2.28238	1.81238	0.1694	0.307017
7	0.470004	1.82455	1.35455	0.1535	0.207923
8	0.470004	0.530628	0.0606246	0.1392	0.00843895
9	0.470004	0.530628	0.0606246	0.1259	0.00763264
10	0.470004	0.530628	0.0606246	0.1136	0.00688696
11	0.470004	0.500775	0.0307717	0.102	0.00313871
12	0.470004	0.500775	0.0307717	0.0909	0.00279714
13	0.470004	0.500775	0.0307717	0.0804	0.00247404
14	0.470004	0.500775	0.0307717	0.0701	0.00215709
15	0.470004	0.470004	0	0.0602	0
16	0.470004	0.470004	0	0.0506	0
17	0.470004	0.470004	0	0.0411	0
18	0.470004	0.470004	0	0.0318	0
19	0.470004	0.470004	0	0.0227	0
20	0.470004	0.470004	0	0.0136	0
21	0.470004	0.470004	0	0.0045	0
22	0.470004	0.470004	0		
23	0.470004	0.470004	0		
24	0.470004	0.470004	0		
25	0.470004	0.470004	0		
26	0.470004	0.470004	0		
27	0.470004	0.470004	0		
28	0.470004	0.470004	0		
29	0.500775	0.470004	-0.0307717		
30	0.500775	0.470004	-0.0307717		
31	0.500775	0.470004	-0.0307717		
32	0.500775	0.470004	-0.0307717		
33	0.530628	0.470004	-0.0606246		
34	0.530628	0.470004	-0.0606246		
35	0.530628	0.470004	-0.0606246		
36	1.82455	0.470004	-1.35455		
37	2.28238	0.470004	-1.81238		
38	2.48491	0.438255	-2.04665		
39	2.48491	0.223144	-2.26176		
40	2.89037	0.223144	-2.66723		
41	2.99573	0.223144	-2.77259		
42	3.04452	0.223144	-2.82138		

Sum of b values = 3.88306
Sample Standard Deviation = 0.82189
W Statistic = 0.544423

5% Critical value of 0.942 exceeds 0.544423
Evidence of non-normality at 95% level of significance

1% Critical value of 0.922 exceeds 0.544423

Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,4-Dioxane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.737743
0.737743 < 0.973 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.223144	0.0232558	-1.99539	68.8454	360.663
2	0.223144	0.0465116	-1.68494	68.8454	337.922
3	0.223144	0.0697674	-1.48328	68.8454	323.15
4	0.223144	0.0930233	-1.32251	68.8454	311.374
5	0.438255	0.116279	-1.19522	97.6166	302.05
6	0.470004	0.139535	-1.08482	101.863	293.963
7	0.470004	0.162791	-0.986272	101.863	286.744
8	0.470004	0.186047	-0.892733	101.863	279.893
9	0.470004	0.209302	-0.809896	101.863	273.825
10	0.470004	0.232558	-0.732275	101.863	268.139
11	0.470004	0.255814	-0.658838	101.863	262.76
12	0.470004	0.27907	-0.585815	101.863	257.411
13	0.470004	0.302326	-0.518658	101.863	252.492
14	0.470004	0.325581	-0.453763	101.863	247.738
15	0.470004	0.348837	-0.390726	101.863	243.121
16	0.470004	0.372093	-0.326561	101.863	238.421
17	0.470004	0.395349	-0.266311	101.863	234.007
18	0.470004	0.418605	-0.207012	101.863	229.664
19	0.470004	0.44186	-0.148434	101.863	225.373
20	0.470004	0.465116	-0.0878447	101.863	220.935
21	0.470004	0.488372	-0.0300838	101.863	216.704
22	0.470004	0.511628	0.0300838	101.863	212.296
23	0.470004	0.534884	0.0878447	101.863	208.065
24	0.470004	0.55814	0.148434	101.863	203.627
25	0.470004	0.581395	0.207012	101.863	199.336
26	0.470004	0.604651	0.266311	101.863	194.993
27	0.470004	0.627907	0.326561	101.863	190.579
28	0.470004	0.651163	0.390726	101.863	185.879
29	0.500775	0.674419	0.453763	105.979	181.262
30	0.500775	0.697674	0.518658	105.979	176.508
31	0.500775	0.72093	0.585815	105.979	171.589
32	0.500775	0.744186	0.658838	105.979	166.24
33	0.530628	0.767442	0.732275	109.972	160.861
34	0.530628	0.790698	0.809896	109.972	155.175
35	0.530628	0.813953	0.892733	109.972	149.107
36	1.82455	0.837209	0.986272	283.033	142.256
37	2.28238	0.860465	1.08482	344.269	135.037
38	2.48491	0.883721	1.19522	371.356	126.95
39	2.48491	0.906977	1.32251	371.356	117.626
40	2.89037	0.930233	1.48328	425.587	105.85
41	2.99573	0.953488	1.68494	439.679	91.0782
42	3.04452	0.976744	1.99539	446.205	68.3373

Kruskal-Wallis Non-Parametric Test

Parameter: 1,4-Dioxane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	11/16/2009	ND<0.470004	18
	11/12/2010	ND<0.470004 U	18
	7/5/2011	ND<0.500775 U	18

Rank Sum = 54
Rank Mean = 18

Background Rank Sum = 54
Background Rank Mean = 18

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	11/16/2009	ND<0.223144	18
	11/12/2010	ND<0.470004 U	18
	7/5/2011	ND<0.500775 U	18
	11/22/2011	ND<0.470004 U	18
	11/22/2011	ND<0.470004 U	18

Rank Sum = 90
Rank Mean = 18

MW-8	7/5/2011	ND<0.500775 U	18
	11/22/2011	ND<0.470004 U	18
	11/22/2011	ND<0.470004 U H	18

Rank Sum = 54
Rank Mean = 18

MW-6	11/16/2009	ND<0.470004	18
	11/12/2010	ND<0.470004 U	18
	7/5/2011	ND<0.500775 U	18
	11/22/2011	ND<0.470004 U H	18
	11/22/2011	ND<0.470004 U	18

Rank Sum = 90
Rank Mean = 18

MW-7	11/16/2009	ND<0.223144	18
	11/12/2010	ND<0.470004 U	18
	7/5/2011	ND<0.530628 U	18
	11/22/2011	ND<0.470004 U	18
	11/22/2011	ND<0.438255 U H	18

Rank Sum = 90
Rank Mean = 18

MW-10	11/16/2009	ND<0.223144	18
	11/12/2010	ND<0.470004 U	18
	7/5/2011	2.48491 M	38
	11/22/2011	3.04452 H	42
	11/22/2011	2.89037	40

Rank Sum = 156

Rank Mean = 31.2

MW-12A	R	11/16/2009	2.28238		37
	11/12/2010	2.48491		39	
	7/5/2011	ND<0.470004	U	18	
	11/22/2011	ND<0.470004	U	18	
	11/22/2011	ND<0.470004	U H		18

Rank Sum = 130
Rank Mean = 26

MW-12B	R	11/16/2009	ND<0.223144		18
	11/12/2010	ND<0.530628	U	18	
	11/12/2010	ND<0.530628	U	18	
	7/5/2011	ND<0.470004	U	18	
	11/22/2011	ND<0.470004	U	18	
	11/22/2011	ND<0.470004	U H		18

Rank Sum = 108
Rank Mean = 18

MW-9	11/16/2009	ND<0.470004		18	
	11/12/2010	2.99573		41	
	7/5/2011	1.82455	J M	36	
	11/22/2011	ND<0.470004	U	18	
	11/22/2011	ND<0.470004	U	18	

Rank Sum = 131
Rank Mean = 26.2

Calculation Results:

Kruskal-Wallis H Statistic = 6.73023
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 15.9696
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
6.73023 < 15.5073 indicating no significant group difference at 5% significance level
15.9696 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 18

Well	Mean Rank		Dif from Bkg		Critical Value
MW-11R	**18**	**0**	**20.8421**		
MW-8	**18**	**0**	**23.3022**		
MW-6	**18**	**0**	**20.8421**		
MW-7	**18**	**0**	**20.8421**		
MW-10	**31.2**	**13.2**	**20.8421**		
MW-12A	**R**	**26**	**8**	**20.8421**	
MW-12B	**R**	**18**	**0**	**20.1803**	
MW-9	**26.2**	**8.2**	**20.8421**		

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213
Mean background rank is 18

Well	Mean Rank		Dif from Bkg		Critical Value
MW-11R	**18**	**0**	**22.5066**		
MW-8	**18**	**0**	**25.1632**		
MW-6	**18**	**0**	**22.5066**		
MW-7	**18**	**0**	**22.5066**		
MW-10	**31.2**	**13.2**	**22.5066**		
MW-12A	**R**	**26**	**8**	**22.5066**	

MW-12BR		18	0	21.7919
MW-9	26.2	8.2	22.5066	

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: 1,4-Dioxane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 83.3333%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 3
Maximum Background Value = 0.500775
Confidence Level = 27.3%
False Positive Rate = 72.7%

Location	Date	Count	Mean	Significant
MW-11R	11/22/2011	2	0.470004	FALSE
MW-8	11/22/2011	2	0.470004	FALSE
MW-6	11/22/2011	2	0.470004	FALSE
MW-7	11/22/2011	2	0.454129	FALSE
MW-10	11/22/2011	2	2.96745	TRUE
MW-12AR	11/22/2011	2	0.470004	FALSE
MW-12BR	11/22/2011	2	0.470004	FALSE
MW-9	11/22/2011	2	0.470004	FALSE

Sen's Slope Analysis
Parameter: 1,4-Dioxane
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0.470004 U (11/12/2010)	ND<0.223144 (11/16/2009)	(0.470004 - 0.223144)/(2 - 1)	0.24686
2.48491 M (7/5/2011)	ND<0.223144 (11/16/2009)	(2.48491 - 0.223144)/(3 - 1)	1.13088
3.04452 H (11/22/2011)	ND<0.223144 (11/16/2009)	(3.04452 - 0.223144)/(4 - 1)	0.94046
2.89037 (11/22/2011)	ND<0.223144 (11/16/2009)	(2.89037 - 0.223144)/(4 - 1)	0.889076
2.48491 M (7/5/2011)	ND<0.470004 U (11/12/2010)	(2.48491 - 0.470004)/(3 - 2)	2.0149
3.04452 H (11/22/2011)	ND<0.470004 U (11/12/2010)	(3.04452 - 0.470004)/(4 - 2)	1.28726
2.89037 (11/22/2011)	ND<0.470004 U (11/12/2010)	(2.89037 - 0.470004)/(4 - 2)	1.21018
3.04452 H (11/22/2011)	2.48491 M (7/5/2011)	(3.04452 - 2.48491)/(4 - 3)	0.559616
2.89037 (11/22/2011)	2.48491 M (7/5/2011)	(2.89037 - 2.48491)/(4 - 3)	0.405465
2.89037 (11/22/2011)	3.04452 H (11/22/2011)	(2.89037 - 3.04452)/(4 - 4)	Same Date

Number of Q values = 9

Ordered Q Values

n	Q
1	0.24686
2	0.405465
3	0.559616
4	0.889076
5	0.94046
6	1.13088
7	1.21018
8	1.28726
9	2.0149

Sen's Estimator (Median Q) is 0.94046

Time Period	Observations
11/16/2009	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 0
B = 18
C = 0

D = 0
E = 0
F = 2
a = 300
b = 540
c = 40
Group Variance = 15.6667
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 6.51052
M1 = (9 - 6.51052)/2.0 = 1.24474
M2 = (9 + 6.51052)/2.0 + 1 = 8.75526
Lower limit is 0.24686 = Q(1)
Upper limit is 2.0149 = Q(9)
0.24686 > 0 indicating an upward trend in data.

Shewhart-CUSUM Control Chart

Parameter: 1,4-Dioxane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.82259
Baseline Std Dev = 1.36562
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean

Concentrations (ppb)

Parameter: Acetone

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 197
Percent Non-Detects: 80.0813%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<4	ND<4
			9/23/1999	ND<4	ND<4
			3/15/2000	ND<4	ND<4
			9/24/2003	ND<4	ND<4
			3/11/2004	ND<4	ND<4
			10/12/2004	ND<4	ND<4
			4/1/2005	ND<4	ND<4
			10/25/2005	ND<4	ND<4
			4/29/2006	ND<4	ND<4
			11/18/2006	ND<4	ND<4
			5/23/2007	ND<4	ND<4
			11/28/2007	ND<4	ND<4
			6/5/2008	ND<4	ND<4
			11/20/2008	ND<4	ND<4
			6/11/2009	ND<5	ND<5
			11/16/2009	ND<5	ND<5
			6/30/2010	ND<5	ND<5
			11/12/2010	ND<5 U	ND<5 U
			7/5/2011	ND<5 U	ND<5 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-11R	31	21 (67.7419%)	7/20/1995	ND<4	ND<4
			8/24/1995	ND<4	ND<4
			9/28/1995	16	16
			10/26/1995	ND<4	ND<4
			11/19/1996	ND<4	ND<4
			12/19/1996	ND<4	ND<4
			3/24/1997	ND<4	ND<4
			9/24/1997	ND<4	ND<4
			4/7/1998	ND<4	ND<4
			9/23/1998	ND<4	ND<4
			3/16/1999	350	350
			9/23/1999	ND<4	ND<4
			3/15/2000	ND<4	ND<4
			9/24/2003	320	320
			3/11/2004	400	400
			10/12/2004	2400	2400
			4/1/2005	ND<4	ND<4
			10/25/2005	ND<4	ND<4
			4/29/2006	ND<4	ND<4
			11/18/2006	13.9	13.9
			5/23/2007	100	100
			11/28/2007	6.72	6.72
			6/5/2008	ND<4	ND<4
			11/20/2008	ND<4	ND<4

			6/11/2009	ND<5	ND<5	
			11/16/2009	ND<5	ND<5	
			6/30/2010	ND<5	ND<5	
			11/12/2010	ND<5 U	ND<5 U	
			7/5/2011 ND<5 U	ND<5 U		
			11/22/2011	18 J	18 J	
			11/22/2011	18 J	18 J	
MW-7	31	17 (54.8387%)	7/20/1995		ND<4	ND<4
			8/24/1995	ND<4	ND<4	
			9/28/1995	ND<4	ND<4	
			10/26/1995	ND<4	ND<4	
			11/19/1996	ND<4	ND<4	
			12/19/1996	ND<4	ND<4	
			3/24/1997	260	260	
			9/24/1997	ND<4	ND<4	
			4/7/1998 ND<4	ND<4		
			9/23/1998	ND<4	ND<4	
			3/16/1999	4260	4260	
			9/23/1999	95.4	95.4	
			3/15/2000	130	130	
			9/24/2003	ND<4	ND<4	
			3/11/2004	ND<4	ND<4	
			10/12/2004	200	200	
			4/1/2005 ND<4	ND<4		
			10/25/2005	6.97	6.97	
			4/29/2006	ND<4	ND<4	
			11/18/2006	1.34 J	1.34 J	
			5/23/2007	ND<4	ND<4	
			11/28/2007	11.6	11.6	
			6/5/2008 932	932		
			11/20/2008	24	24	
			6/11/2009	52	52	
			11/16/2009	6 J	6 J	
			6/30/2010	ND<5	ND<5	
			11/12/2010	8.6 J	8.6 J	
			7/5/2011 6.4 J	6.4 J		
			11/22/2011	ND<5 U	ND<5 U	
			11/22/2011	ND<5 U	ND<5 U	
MW-8	30	20 (66.6667%)	7/20/1995		ND<4	ND<4
			8/24/1995	ND<4	ND<4	
			9/28/1995	ND<4	ND<4	
			10/26/1995	ND<4	ND<4	
			11/19/1996	ND<4	ND<4	
			12/19/1996	ND<4	ND<4	
			3/24/1997	ND<4	ND<4	
			9/24/1997	ND<4	ND<4	
			4/7/1998 ND<4	ND<4		
			9/23/1998	ND<4	ND<4	
			3/16/1999	35.2	35.2	
			9/23/1999	136	136	
			3/15/2000	ND<4	ND<4	
			9/24/2003	ND<4	ND<4	
			3/11/2004	ND<4	ND<4	
			10/12/2004	160	160	
			4/1/2005 ND<4	ND<4		
			10/25/2005	1.27 J	1.27 J	
			4/29/2006	ND<4	ND<4	
			11/18/2006	ND<4	ND<4	
			5/23/2007	ND<4	ND<4	
			11/28/2007	ND<4	ND<4	

			6/5/2008	ND<4	ND<4	
			11/20/2008	9.72	9.72	
			6/11/2009	9.8 J	9.8 J	
			6/30/2010	5.3 J	5.3 J	
			11/12/2010	ND<5 U	ND<5 U	
			7/5/2011	16 J	16 J	
			11/22/2011	13 J	13 J	
			11/22/2011	13 J	13 J	
MW-6	31	26 (83.871%)	7/20/1995		ND<4	ND<4
			8/24/1995	3.9 J	3.9 J	
			9/28/1995	ND<4	ND<4	
			10/26/1995	ND<4	ND<4	
			11/19/1996	ND<4	ND<4	
			12/19/1996	ND<4	ND<4	
			3/24/1997	ND<4	ND<4	
			9/24/1997	ND<4	ND<4	
			4/7/1998	ND<4	ND<4	
			9/23/1998	ND<4	ND<4	
			3/16/1999	ND<4	ND<4	
			9/23/1999	ND<4	ND<4	
			3/15/2000	ND<4	ND<4	
			9/24/2003	ND<4	ND<4	
			3/11/2004	ND<4	ND<4	
			10/12/2004	ND<4	ND<4	
			4/1/2005	ND<4	ND<4	
			10/25/2005	2.2 J	2.2 J	
			4/29/2006	ND<4	ND<4	
			11/18/2006	ND<4	ND<4	
			5/23/2007	ND<4	ND<4	
			11/28/2007	ND<4	ND<4	
			6/5/2008	ND<4	ND<4	
			11/20/2008	ND<4	ND<4	
			6/11/2009	7.6 J	7.6 J	
			11/16/2009	ND<5	ND<5	
			6/30/2010	ND<5	ND<5	
			11/12/2010	ND<5 U	ND<5 U	
			7/5/2011	ND<5 U	ND<5 U	
			11/22/2011	13 J	13 J	
			11/22/2011	13 J	13 J	
MW-9	31	25 (80.6452%)	7/20/1995		ND<4	ND<4
			8/24/1995	10	10	
			9/28/1995	ND<4	ND<4	
			10/26/1995	ND<4	ND<4	
			11/19/1996	ND<4	ND<4	
			12/19/1996	ND<4	ND<4	
			3/24/1997	ND<4	ND<4	
			9/24/1997	ND<4	ND<4	
			4/7/1998	120	120	
			9/23/1998	ND<4	ND<4	
			3/16/1999	38.3	38.3	
			9/23/1999	ND<4	ND<4	
			3/15/2000	ND<4	ND<4	
			9/24/2003	ND<4	ND<4	
			3/11/2004	ND<4	ND<4	
			10/12/2004	ND<4	ND<4	
			4/1/2005	ND<4	ND<4	
			10/25/2005	ND<4	ND<4	
			4/29/2006	ND<4	ND<4	
			11/18/2006	ND<4	ND<4	
			5/23/2007	ND<4	ND<4	

			11/28/2007	2.74 J	2.74 J		
			6/5/2008	ND<4	ND<4		
			11/20/2008	ND<4	ND<4		
			6/11/2009	ND<5	ND<5		
			11/16/2009	ND<5	ND<5		
			6/30/2010	ND<5	ND<5		
			11/12/2010	ND<5 U	ND<5 U		
			7/5/2011	ND<5 U	ND<5 U		
			11/22/2011	8.6 J	8.6 J		
			11/22/2011	8.6 J	8.6 J		
MW-12BR		21	19 (90.4762%)	3/16/1999		ND<4	ND<4
			9/23/1999	ND<4	ND<4		
			3/15/2000	ND<4	ND<4		
			9/24/2003	ND<4	ND<4		
			3/11/2004	ND<4	ND<4		
			10/12/2004	ND<4	ND<4		
			4/1/2005	ND<4	ND<4		
			10/25/2005	ND<4	ND<4		
			4/29/2006	ND<4	ND<4		
			11/18/2006	ND<4	ND<4		
			5/23/2007	ND<4	ND<4		
			11/28/2007	ND<4	ND<4		
			6/5/2008	ND<4	ND<4		
			11/20/2008	ND<4	ND<4		
			6/11/2009	ND<5	ND<5		
			11/16/2009	ND<5	ND<5		
			6/30/2010	ND<5	ND<5		
			11/12/2010	ND<5 U	ND<5 U		
			7/5/2011	ND<5 U	ND<5 U		
			11/22/2011	18 J	18 J		
			11/22/2011	18 J	18 J		
MW-10	31	29 (93.5484%)	7/20/1995		ND<4	ND<4	
			8/24/1995	ND<4	ND<4		
			9/28/1995	ND<4	ND<4		
			10/26/1995	ND<4	ND<4		
			11/19/1996	ND<4	ND<4		
			12/19/1996	ND<4	ND<4		
			3/24/1997	ND<4	ND<4		
			9/24/1997	ND<4	ND<4		
			4/7/1998	ND<4	ND<4		
			9/23/1998	ND<4	ND<4		
			3/16/1999	67.2	67.2		
			9/23/1999	ND<4	ND<4		
			3/15/2000	ND<4	ND<4		
			9/24/2003	ND<4	ND<4		
			3/11/2004	ND<4	ND<4		
			10/12/2004	ND<4	ND<4		
			4/1/2005	ND<4	ND<4		
			10/25/2005	ND<4	ND<4		
			4/29/2006	ND<4	ND<4		
			11/18/2006	ND<4	ND<4		
			5/23/2007	ND<4	ND<4		
			11/28/2007	ND<4	ND<4		
			6/5/2008	ND<4	ND<4		
			11/20/2008	ND<4	ND<4		
			6/11/2009	ND<5	ND<5		
			11/16/2009	26	26		
			6/30/2010	ND<5	ND<5		
			11/12/2010	ND<5 U	ND<5 U		
			7/5/2011	ND<5 U	ND<5 U		

		11/22/2011	ND<5 U	ND<5 U		
		11/22/2011	ND<5 U	ND<5 U		
MW-12A R	21	21 (100%)	3/16/1999		ND<4	ND<4
		9/23/1999	ND<4	ND<4		
		3/15/2000	ND<4	ND<4		
		9/24/2003	ND<4	ND<4		
		3/11/2004	ND<4	ND<4		
		10/12/2004	ND<4	ND<4		
		4/1/2005 ND<4	ND<4			
		10/25/2005	ND<4	ND<4		
		4/29/2006	ND<4	ND<4		
		11/18/2006	ND<4	ND<4		
		5/23/2007	ND<4	ND<4		
		11/28/2007	ND<4	ND<4		
		6/5/2008 ND<4	ND<4			
		11/20/2008	ND<4	ND<4		
		6/11/2009	ND<5	ND<5		
		11/16/2009	ND<5	ND<5		
		6/30/2010	ND<5	ND<5		
		11/12/2010	ND<5 U	ND<5 U		
		7/5/2011 ND<5 U	ND<5 U			
		11/22/2011	ND<5 U	ND<5 U		
		11/22/2011	ND<5 U	ND<5 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Acetone

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.27	-2.65209	7.03356	-3.36815
2	1.34	-2.40892	12.8365	-6.59611
3	2	-2.25713	17.9311	-11.1104
4	2	-2.14441	22.5296	-15.3992
5	2	-2.05375	26.7475	-19.5067
6	2	-1.97737	30.6575	-23.4614
7	2	-1.91103	34.3095	-27.2835
8	2	-1.85218	37.7401	-30.9878
9	2	-1.79912	40.9769	-34.5861
10	2	-1.75069	44.0418	-38.0874
11	2	-1.70604	46.9524	-41.4995
12	2	-1.66456	49.7231	-44.8286
13	2	-1.62576	52.3662	-48.0802
14	2	-1.58927	54.892	-51.2587
15	2	-1.55477	57.3093	-54.3683
16	2	-1.52203	59.6259	-57.4123
17	2	-1.49085	61.8486	-60.394
18	2	-1.46106	63.9833	-63.3161
19	2	-1.4325	66.0353	-66.1812
20	2	-1.40507	68.0096	-68.9913
21	2	-1.3722	69.8925	-71.7357
22	2	-1.34694	71.7067	-74.4296
23	2	-1.32251	73.4558	-77.0746
24	2	-1.29884	75.1427	-79.6723
25	2	-1.27588	76.7706	-82.224
26	2	-1.25357	78.342	-84.7312
27	2	-1.23187	79.8595	-87.1949
28	2	-1.21073	81.3254	-89.6163
29	2	-1.19012	82.7418	-91.9966
30	2	-1.17	84.1107	-94.3366
31	2	-1.15035	85.434	-96.6373
32	2	-1.13113	86.7134	-98.8995
33	2	-1.11232	87.9507	-101.124
34	2	-1.0939	89.1473	-103.312
35	2	-1.07584	90.3047	-105.464
36	2	-1.05812	91.4243	-107.58
37	2	-1.04073	92.5075	-109.661
38	2	-1.02365	93.5553	-111.709
39	2	-1.00687	94.5691	-113.722
40	2	-0.990356	95.5499	-115.703
41	2	-0.974114	96.4988	-117.651
42	2	-0.954165	97.4092	-119.56
43	2	-0.938476	98.29	-121.437
44	2	-0.923014	99.1419	-123.283
45	2	-0.907769	99.966	-125.098
46	2	-0.892733	100.763	-126.884
47	2	-0.877897	101.534	-128.639
48	2	-0.863249	102.279	-130.366
49	2	-0.848786	102.999	-132.064
50	2	-0.834498	103.696	-133.733
51	2	-0.820379	104.369	-135.373

52	2	-0.806422	105.019	-136.986
53	2	-0.792618	105.647	-138.571
54	2	-0.778966	106.254	-140.129
55	2	-0.765456	106.84	-141.66
56	2	-0.752084	107.406	-143.164
57	2	-0.738846	107.951	-144.642
58	2	-0.725736	108.478	-146.094
59	2	-0.712751	108.986	-147.519
60	2	-0.699883	109.476	-148.919
61	2	-0.687131	109.948	-150.293
62	2	-0.671346	110.399	-151.636
63	2	-0.658838	110.833	-152.953
64	2	-0.646431	111.251	-154.246
65	2	-0.634124	111.653	-155.515
66	2	-0.621911	112.04	-156.758
67	2	-0.609791	112.412	-157.978
68	2	-0.597761	112.769	-159.173
69	2	-0.585815	113.112	-160.345
70	2	-0.573953	113.441	-161.493
71	2	-0.56217	113.758	-162.617
72	2	-0.550465	114.061	-163.718
73	2	-0.538836	114.351	-164.796
74	2	-0.52728	114.629	-165.85
75	2	-0.515791	114.895	-166.882
76	2	-0.504372	115.149	-167.891
77	2	-0.493018	115.392	-168.877
78	2	-0.481728	115.624	-169.84
79	2	-0.470498	115.846	-170.781
80	2	-0.459327	116.057	-171.7
81	2	-0.448213	116.258	-172.596
82	2	-0.437153	116.449	-173.471
83	2	-0.423405	116.628	-174.317
84	2	-0.412463	116.798	-175.142
85	2	-0.401571	116.959	-175.946
86	2	-0.390726	117.112	-176.727
87	2	-0.379927	117.256	-177.487
88	2	-0.369171	117.393	-178.225
89	2	-0.358459	117.521	-178.942
90	2	-0.347787	117.642	-179.638
91	2	-0.337155	117.756	-180.312
92	2	-0.326561	117.863	-180.965
93	2	-0.316004	117.962	-181.597
94	2	-0.305481	118.056	-182.208
95	2	-0.294992	118.143	-182.798
96	2	-0.284535	118.224	-183.367
97	2	-0.27411	118.299	-183.915
98	2	-0.263715	118.368	-184.443
99	2	-0.253347	118.433	-184.95
100	2	-0.243007	118.492	-185.436
101	2	-0.232693	118.546	-185.901
102	2	-0.222403	118.595	-186.346
103	2	-0.209575	118.639	-186.765
104	2	-0.199336	118.679	-187.164
105	2	-0.189118	118.715	-187.542
106	2	-0.17892	118.747	-187.9
107	2	-0.168741	118.775	-188.237
108	2	-0.158579	118.8	-188.554
109	2	-0.148434	118.822	-188.851
110	2	-0.138305	118.841	-189.128
111	2	-0.128189	118.858	-189.384
112	2	-0.118085	118.872	-189.62
113	2	-0.107995	118.883	-189.836

114	2	-0.0979139	118.893	-190.032
115	2	-0.0878447	118.901	-190.208
116	2	-0.0777834	118.907	-190.363
117	2	-0.0677301	118.911	-190.499
118	2	-0.0576847	118.915	-190.614
119	2	-0.0476439	118.917	-190.709
120	2	-0.0376076	118.918	-190.785
121	2	-0.0275759	118.919	-190.84
122	2	-0.0175476	118.919	-190.875
123	2	-0.00751925	118.92	-190.89
124	2	0.00751925	118.92	-190.875
125	2	0.0175476	118.92	-190.84
126	2	0.0275759	118.921	-190.785
127	2	0.0376076	118.922	-190.709
128	2	0.0476439	118.924	-190.614
129	2	0.0576847	118.928	-190.499
130	2	0.0677301	118.932	-190.363
131	2	0.0777834	118.938	-190.208
132	2	0.0878447	118.946	-190.032
133	2	0.0979139	118.956	-189.836
134	2	0.107995	118.967	-189.62
135	2	0.118085	118.981	-189.384
136	2	0.128189	118.998	-189.128
137	2	0.138305	119.017	-188.851
138	2	0.148434	119.039	-188.554
139	2	0.158579	119.064	-188.237
140	2	0.168741	119.092	-187.9
141	2	0.17892	119.124	-187.542
142	2	0.189118	119.16	-187.164
143	2	0.199336	119.2	-186.765
144	2	0.209575	119.244	-186.346
145	2	0.222403	119.293	-185.901
146	2	0.232693	119.347	-185.436
147	2	0.243007	119.407	-184.95
148	2	0.253347	119.471	-184.443
149	2	0.263715	119.54	-183.915
150	2	0.27411	119.615	-183.367
151	2	0.284535	119.696	-182.798
152	2	0.294992	119.783	-182.208
153	2	0.305481	119.877	-181.597
154	2	0.316004	119.977	-180.965
155	2	0.326561	120.083	-180.312
156	2	0.337155	120.197	-179.638
157	2	0.347787	120.318	-178.942
158	2	0.358459	120.446	-178.225
159	2.2	0.369171	120.583	-177.413
160	2.5	0.379927	120.727	-176.463
161	2.5	0.390726	120.88	-175.486
162	2.5	0.401571	121.041	-174.482
163	2.5	0.412463	121.211	-173.451
164	2.5	0.423405	121.39	-172.393
165	2.5	0.437153	121.581	-171.3
166	2.5	0.448213	121.782	-170.179
167	2.5	0.459327	121.993	-169.031
168	2.5	0.470498	122.215	-167.855
169	2.5	0.481728	122.447	-166.651
170	2.5	0.493018	122.69	-165.418
171	2.5	0.504372	122.944	-164.157
172	2.5	0.515791	123.21	-162.868
173	2.5	0.52728	123.488	-161.549
174	2.5	0.538836	123.779	-160.202
175	2.5	0.550465	124.082	-158.826

176	2.5	0.56217	124.398	-157.421	
177	2.5	0.573953		124.727	-155.986
178	2.5	0.585815		125.07	-154.521
179	2.5	0.597761		125.428	-153.027
180	2.5	0.609791		125.799	-151.502
181	2.5	0.621911		126.186	-149.948
182	2.5	0.634124		126.588	-148.362
183	2.5	0.646431		127.006	-146.746
184	2.5	0.658838		127.44	-145.099
185	2.5	0.671346		127.891	-143.421
186	2.5	0.687131		128.363	-141.703
187	2.5	0.699883		128.853	-139.953
188	2.5	0.712751		129.361	-138.171
189	2.5	0.725736		129.888	-136.357
190	2.5	0.738846		130.433	-134.51
191	2.5	0.752084		130.999	-132.63
192	2.5	0.765456		131.585	-130.716
193	2.5	0.778966		132.192	-128.769
194	2.5	0.792618		132.82	-126.787
195	2.5	0.806422		133.47	-124.771
196	2.5	0.820379		134.143	-122.72
197	2.5	0.834498		134.84	-120.634
198	2.5	0.848786		135.56	-118.512
199	2.5	0.863249		136.305	-116.354
200	2.5	0.877897		137.076	-114.159
201	2.74	0.892733		137.873	-111.713
202	3.9	0.907769		138.697	-108.173
203	5.3	0.923014		139.549	-103.281
204	6	0.938476		140.43	-97.6498
205	6.4	0.954165		141.34	-91.5431
206	6.72	0.974114		142.289	-84.9971
207	6.97	0.990356		143.27	-78.0943
208	7.6	1.00687	144.284	-70.4421	
209	8.6	1.02365	145.332	-61.6387	
210	8.6	1.04073	146.415	-52.6884	
211	8.6	1.05812	147.534	-43.5886	
212	9.72	1.07584	148.692	-33.1314	
213	9.8	1.0939	149.888	-22.4113	
214	10	1.11232	151.126	-11.288	
215	11.6	1.13113	152.405	1.83308	
216	13	1.15035	153.728	16.7876	
217	13	1.17	155.097	31.9976	
218	13	1.19012	156.514	47.4692	
219	13	1.21073	157.98	63.2087	
220	13.9	1.23187	159.497	80.3316	
221	16	1.25357	161.068	100.389	
222	16	1.27588	162.696	120.803	
223	18	1.29884	164.383	144.182	
224	18	1.32251	166.132	167.987	
225	18	1.34694	167.947	192.232	
226	18	1.3722	169.83	216.931	
227	24	1.40507	171.804	250.653	
228	26	1.4325	173.856	287.898	
229	35.2	1.46106	175.991	339.327	
230	38.3	1.49085	178.213	396.427	
231	52	1.52203	180.53	475.573	
232	67.2	1.55477	182.947	580.054	
233	95.4	1.58927	185.473	731.67	
234	100	1.62576	188.116	894.246	
235	120	1.66456	190.887	1093.99	
236	130	1.70604	193.797	1315.78	
237	136	1.75069	196.862	1553.87	

238	160	1.79912	200.099	1841.73
239	200	1.85218	203.53	2212.17
240	260	1.91103	207.182	2709.03
241	320	1.97737	211.092	3341.79
242	350	2.05375	215.309	4060.6
243	400	2.14441	219.908	4918.37
244	932	2.25713	225.003	7022.01
245	2400	2.40892	230.806	12803.4
246	4260	2.65209	237.839	24101.3

Data Set Standard Deviation = 318.825
Numerator = 5.80874e+008
Denominator = 5.92316e+009
W Statistic = 0.0980682 = 5.80874e+008 / 5.92316e+009

5% Critical value of 0.976 exceeds 0.0980682
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.0980682
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Acetone

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.325882
0.325882 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.27	0.00404858	-2.65209	39.1359	344.01	
2	1.34	0.00809717	-2.40892	39.1434	332.136	
3	2	0.0121457	-2.25713	39.214	324.723	
4	2	0.0161943	-2.14441	39.214	319.219	
5	2	0.0202429	-2.05375	39.214	314.791	
6	2	0.0242915	-1.97737	39.214	311.062	
7	2	0.0283401	-1.91103	39.214	307.822	
8	2	0.0323887	-1.85218	39.214	304.948	
9	2	0.0364372	-1.79912	39.214	302.357	
10	2	0.0404858	-1.75069	39.214	299.992	
11	2	0.0445344	-1.70604	39.214	297.812	
12	2	0.048583	-1.66456	39.214	295.786	
13	2	0.0526316	-1.62576	39.214	293.891	
14	2	0.0566802	-1.58927	39.214	292.109	
15	2	0.0607287	-1.55477	39.214	290.425	
16	2	0.0647773	-1.52203	39.214	288.826	
17	2	0.0688259	-1.49085	39.214	287.303	
18	2	0.0728745	-1.46106	39.214	285.848	
19	2	0.0769231	-1.4325	39.214	284.454	
20	2	0.0809717	-1.40507	39.214	283.114	
21	2	0.0850202	-1.3722	39.214	281.509	
22	2	0.0890688	-1.34694	39.214	280.276	
23	2	0.0931174	-1.32251	39.214	279.082	
24	2	0.097166	-1.29884	39.214	277.926	
25	2	0.101215	-1.27588	39.214	276.805	
26	2	0.105263	-1.25357	39.214	275.716	
27	2	0.109312	-1.23187	39.214	274.656	
28	2	0.11336	-1.21073	39.214	273.624	
29	2	0.117409	-1.19012	39.214	272.617	
30	2	0.121457	-1.17	39.214	271.635	
31	2	0.125506	-1.15035	39.214	270.675	
32	2	0.129555	-1.13113	39.214	269.737	
33	2	0.133603	-1.11232	39.214	268.818	
34	2	0.137652	-1.0939	39.214	267.919	
35	2	0.1417	-1.07584	39.214	267.037	
36	2	0.145749	-1.05812	39.214	266.172	
37	2	0.149798	-1.04073	39.214	265.322	
38	2	0.153846	-1.02365	39.214	264.488	
39	2	0.157895	-1.00687	39.214	263.669	
40	2	0.161943	-0.990356	39.214	262.862	
41	2	0.165992	-0.974114	39.214	262.069	
42	2	0.17004	-0.954165	39.214	261.095	
43	2	0.174089	-0.938476	39.214	260.329	
44	2	0.178138	-0.923014	39.214	259.574	
45	2	0.182186	-0.907769	39.214	258.829	
46	2	0.186235	-0.892733	39.214	258.095	
47	2	0.190283	-0.877897	39.214	257.371	
48	2	0.194332	-0.863249	39.214	256.655	

49	2	0.198381	-0.848786	39.214	255.949
50	2	0.202429	-0.834498	39.214	255.251
51	2	0.206478	-0.820379	39.214	254.562
52	2	0.210526	-0.806422	39.214	253.88
53	2	0.214575	-0.792618	39.214	253.206
54	2	0.218623	-0.778966	39.214	252.54
55	2	0.222672	-0.765456	39.214	251.88
56	2	0.226721	-0.752084	39.214	251.227
57	2	0.230769	-0.738846	39.214	250.58
58	2	0.234818	-0.725736	39.214	249.94
59	2	0.238866	-0.712751	39.214	249.306
60	2	0.242915	-0.699883	39.214	248.678
61	2	0.246964	-0.687131	39.214	248.055
62	2	0.251012	-0.671346	39.214	247.284
63	2	0.255061	-0.658838	39.214	246.673
64	2	0.259109	-0.646431	39.214	246.067
65	2	0.263158	-0.634124	39.214	245.466
66	2	0.267206	-0.621911	39.214	244.87
67	2	0.271255	-0.609791	39.214	244.278
68	2	0.275304	-0.597761	39.214	243.691
69	2	0.279352	-0.585815	39.214	243.107
70	2	0.283401	-0.573953	39.214	242.528
71	2	0.287449	-0.56217	39.214	241.953
72	2	0.291498	-0.550465	39.214	241.381
73	2	0.295547	-0.538836	39.214	240.813
74	2	0.299595	-0.52728	39.214	240.249
75	2	0.303644	-0.515791	39.214	239.688
76	2	0.307692	-0.504372	39.214	239.13
77	2	0.311741	-0.493018	39.214	238.576
78	2	0.315789	-0.481728	39.214	238.024
79	2	0.319838	-0.470498	39.214	237.476
80	2	0.323887	-0.459327	39.214	236.93
81	2	0.327935	-0.448213	39.214	236.388
82	2	0.331984	-0.437153	39.214	235.848
83	2	0.336032	-0.423405	39.214	235.176
84	2	0.340081	-0.412463	39.214	234.642
85	2	0.34413	-0.401571	39.214	234.11
86	2	0.348178	-0.390726	39.214	233.58
87	2	0.352227	-0.379927	39.214	233.053
88	2	0.356275	-0.369171	39.214	232.528
89	2	0.360324	-0.358459	39.214	232.005
90	2	0.364372	-0.347787	39.214	231.484
91	2	0.368421	-0.337155	39.214	230.964
92	2	0.37247	-0.326561	39.214	230.447
93	2	0.376518	-0.316004	39.214	229.932
94	2	0.380567	-0.305481	39.214	229.418
95	2	0.384615	-0.294992	39.214	228.905
96	2	0.388664	-0.284535	39.214	228.395
97	2	0.392713	-0.27411	39.214	227.886
98	2	0.396761	-0.263715	39.214	227.378
99	2	0.40081	-0.253347	39.214	226.872
100	2	0.404858	-0.243007	39.214	226.367
101	2	0.408907	-0.232693	39.214	225.863
102	2	0.412955	-0.222403	39.214	225.361
103	2	0.417004	-0.209575	39.214	224.734
104	2	0.421053	-0.199336	39.214	224.234
105	2	0.425101	-0.189118	39.214	223.735
106	2	0.42915	-0.17892	39.214	223.237
107	2	0.433198	-0.168741	39.214	222.74
108	2	0.437247	-0.158579	39.214	222.244
109	2	0.441296	-0.148434	39.214	221.749
110	2	0.445344	-0.138305	39.214	221.254

111	2	0.449393	-0.128189	39.214	220.76
112	2	0.453441	-0.118085	39.214	220.267
113	2	0.45749	-0.107995	39.214	219.774
114	2	0.461538	-0.0979139	39.214	219.281
115	2	0.465587	-0.0878447	39.214	218.79
116	2	0.469636	-0.0777834	39.214	218.298
117	2	0.473684	-0.0677301	39.214	217.807
118	2	0.477733	-0.0576847	39.214	217.317
119	2	0.481781	-0.0476439	39.214	216.827
120	2	0.48583	-0.0376076	39.214	216.337
121	2	0.489879	-0.0275759	39.214	215.847
122	2	0.493927	-0.0175476	39.214	215.357
123	2	0.497976	-0.00751925	39.214	214.867
124	2	0.502024	0.00751925	39.214	214.133
125	2	0.506073	0.0175476	39.214	213.643
126	2	0.510121	0.0275759	39.214	213.153
127	2	0.51417	0.0376076	39.214	212.663
128	2	0.518219	0.0476439	39.214	212.173
129	2	0.522267	0.0576847	39.214	211.683
130	2	0.526316	0.0677301	39.214	211.193
131	2	0.530364	0.0777834	39.214	210.702
132	2	0.534413	0.0878447	39.214	210.21
133	2	0.538462	0.0979139	39.214	209.719
134	2	0.54251	0.107995	39.214	209.226
135	2	0.546559	0.118085	39.214	208.733
136	2	0.550607	0.128189	39.214	208.24
137	2	0.554656	0.138305	39.214	207.746
138	2	0.558704	0.148434	39.214	207.251
139	2	0.562753	0.158579	39.214	206.756
140	2	0.566802	0.168741	39.214	206.26
141	2	0.57085	0.17892	39.214	205.763
142	2	0.574899	0.189118	39.214	205.265
143	2	0.578947	0.199336	39.214	204.766
144	2	0.582996	0.209575	39.214	204.266
145	2	0.587045	0.222403	39.214	203.639
146	2	0.591093	0.232693	39.214	203.137
147	2	0.595142	0.243007	39.214	202.633
148	2	0.59919	0.253347	39.214	202.128
149	2	0.603239	0.263715	39.214	201.622
150	2	0.607287	0.27411	39.214	201.114
151	2	0.611336	0.284535	39.214	200.605
152	2	0.615385	0.294992	39.214	200.095
153	2	0.619433	0.305481	39.214	199.582
154	2	0.623482	0.316004	39.214	199.068
155	2	0.62753	0.326561	39.214	198.553
156	2	0.631579	0.337155	39.214	198.036
157	2	0.635628	0.347787	39.214	197.516
158	2	0.639676	0.358459	39.214	196.995
159	2.2	0.643725	0.369171	39.2354	196.472
160	2.5	0.647773	0.379927	39.2675	195.947
161	2.5	0.651822	0.390726	39.2675	195.42
162	2.5	0.65587	0.401571	39.2675	194.89
163	2.5	0.659919	0.412463	39.2675	194.358
164	2.5	0.663968	0.423405	39.2675	193.824
165	2.5	0.668016	0.437153	39.2675	193.152
166	2.5	0.672065	0.448213	39.2675	192.612
167	2.5	0.676113	0.459327	39.2675	192.07
168	2.5	0.680162	0.470498	39.2675	191.524
169	2.5	0.684211	0.481728	39.2675	190.976
170	2.5	0.688259	0.493018	39.2675	190.424
171	2.5	0.692308	0.504372	39.2675	189.87
172	2.5	0.696356	0.515791	39.2675	189.312

173	2.5	0.700405		0.52728	39.2675	188.751
174	2.5	0.704453		0.538836		39.2675 188.187
175	2.5	0.708502		0.550465		39.2675 187.619
176	2.5	0.712551		0.56217	39.2675	187.047
177	2.5	0.716599		0.573953		39.2675 186.472
178	2.5	0.720648		0.585815		39.2675 185.893
179	2.5	0.724696		0.597761		39.2675 185.309
180	2.5	0.728745		0.609791		39.2675 184.722
181	2.5	0.732794		0.621911		39.2675 184.13
182	2.5	0.736842		0.634124		39.2675 183.534
183	2.5	0.740891		0.646431		39.2675 182.933
184	2.5	0.744939		0.658838		39.2675 182.327
185	2.5	0.748988		0.671346		39.2675 181.716
186	2.5	0.753036		0.687131		39.2675 180.945
187	2.5	0.757085		0.699883		39.2675 180.322
188	2.5	0.761134		0.712751		39.2675 179.694
189	2.5	0.765182		0.725736		39.2675 179.06
190	2.5	0.769231		0.738846		39.2675 178.42
191	2.5	0.773279		0.752084		39.2675 177.773
192	2.5	0.777328		0.765456		39.2675 177.12
193	2.5	0.781377		0.778966		39.2675 176.46
194	2.5	0.785425		0.792618		39.2675 175.794
195	2.5	0.789474		0.806422		39.2675 175.12
196	2.5	0.793522		0.820379		39.2675 174.438
197	2.5	0.797571		0.834498		39.2675 173.749
198	2.5	0.801619		0.848786		39.2675 173.051
199	2.5	0.805668		0.863249		39.2675 172.345
200	2.5	0.809717		0.877897		39.2675 171.629
201	2.74	0.813765		0.892733		39.2932 170.905
202	3.9	0.817814		0.907769		39.4173 170.171
203	5.3	0.821862		0.923014		39.5671 169.426
204	6	0.825911		0.938476		39.642 168.671
205	6.4	0.82996	0.954165		39.6848	167.905
206	6.72	0.834008		0.974114		39.719 166.931
207	6.97	0.838057		0.990356		39.7458 166.138
208	7.6	0.842105		1.00687	39.8132	165.331
209	8.6	0.846154		1.02365	39.9202	164.512
210	8.6	0.850202		1.04073	39.9202	163.678
211	8.6	0.854251		1.05812	39.9202	162.828
212	9.72	0.8583	1.07584	40.04	161.963	
213	9.8	0.862348		1.0939	40.0486	161.081
214	10	0.866397		1.11232	40.07	160.182
215	11.6	0.870445		1.13113	40.2412	159.263
216	13	0.874494		1.15035	40.391	158.325
217	13	0.878543		1.17	40.391	157.365
218	13	0.882591		1.19012	40.391	156.383
219	13	0.88664	1.21073	40.391	155.376	
220	13.9	0.890688		1.23187	40.4873	154.344
221	16	0.894737		1.25357	40.712	153.284
222	16	0.898785		1.27588	40.712	152.195
223	18	0.902834		1.29884	40.926	151.074
224	18	0.906883		1.32251	40.926	149.918
225	18	0.910931		1.34694	40.926	148.724
226	18	0.91498	1.3722	40.926	147.491	
227	24	0.919028		1.40507	41.568	145.886
228	26	0.923077		1.4325	41.782	144.546
229	35.2	0.927126		1.46106	42.7664	143.152
230	38.3	0.931174		1.49085	43.0981	141.697
231	52	0.935223		1.52203	44.564	140.174
232	67.2	0.939271		1.55477	46.1904	138.575
233	95.4	0.94332	1.58927	49.2078	136.891	
234	100	0.947368		1.62576	49.7	135.109

235	120	0.951417	1.66456	51.84	133.214
236	130	0.955466	1.70604	52.91	131.188
237	136	0.959514	1.75069	53.552	129.008
238	160	0.963563	1.79912	56.12	126.643
239	200	0.967611	1.85218	60.4	124.052
240	260	0.97166	1.91103	66.82	121.178
241	320	0.975709	1.97737	73.24	117.938
242	350	0.979757	2.05375	76.45	114.209
243	400	0.983806	2.14441	81.8	109.781
244	932	0.987854	2.25713	138.724	104.277
245	2400	0.991903	2.40892	295.8	96.8642
246	4260	0.995951	2.65209	494.82	84.9898

Shapiro-Francia Test of Normality

Parameter: Acetone

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.239017	-2.65209	7.03356	-0.633894
2	0.29267	-2.40892	12.8365	-1.33891
3	0.693147	-2.25713	17.9311	-2.90344
4	0.693147	-2.14441	22.5296	-4.38982
5	0.693147	-2.05375	26.7475	-5.81337
6	0.693147	-1.97737	30.6575	-7.18398
7	0.693147	-1.91103	34.3095	-8.50861
8	0.693147	-1.85218	37.7401	-9.79244
9	0.693147	-1.79912	40.9769	-11.0395
10	0.693147	-1.75069	44.0418	-12.253
11	0.693147	-1.70604	46.9524	-13.4355
12	0.693147	-1.66456	49.7231	-14.5893
13	0.693147	-1.62576	52.3662	-15.7162
14	0.693147	-1.58927	54.892	-16.8178
15	0.693147	-1.55477	57.3093	-17.8955
16	0.693147	-1.52203	59.6259	-18.9505
17	0.693147	-1.49085	61.8486	-19.9839
18	0.693147	-1.46106	63.9833	-20.9966
19	0.693147	-1.4325	66.0353	-21.9895
20	0.693147	-1.40507	68.0096	-22.9634
21	0.693147	-1.3722	69.8925	-23.9146
22	0.693147	-1.34694	71.7067	-24.8482
23	0.693147	-1.32251	73.4558	-25.7649
24	0.693147	-1.29884	75.1427	-26.6652
25	0.693147	-1.27588	76.7706	-27.5495
26	0.693147	-1.25357	78.342	-28.4185
27	0.693147	-1.23187	79.8595	-29.2723
28	0.693147	-1.21073	81.3254	-30.1115
29	0.693147	-1.19012	82.7418	-30.9365
30	0.693147	-1.17	84.1107	-31.7474
31	0.693147	-1.15035	85.434	-32.5448
32	0.693147	-1.13113	86.7134	-33.3288
33	0.693147	-1.11232	87.9507	-34.0998
34	0.693147	-1.0939	89.1473	-34.8581
35	0.693147	-1.07584	90.3047	-35.6038
36	0.693147	-1.05812	91.4243	-36.3372
37	0.693147	-1.04073	92.5075	-37.0586
38	0.693147	-1.02365	93.5553	-37.7681
39	0.693147	-1.00687	94.5691	-38.4661
40	0.693147	-0.990356	95.5499	-39.1525
41	0.693147	-0.974114	96.4988	-39.8277
42	0.693147	-0.954165	97.4092	-40.4891
43	0.693147	-0.938476	98.29	-41.1396
44	0.693147	-0.923014	99.1419	-41.7794
45	0.693147	-0.907769	99.966	-42.4086
46	0.693147	-0.892733	100.763	-43.0274
47	0.693147	-0.877897	101.534	-43.6359
48	0.693147	-0.863249	102.279	-44.2343
49	0.693147	-0.848786	102.999	-44.8226
50	0.693147	-0.834498	103.696	-45.401
51	0.693147	-0.820379	104.369	-45.9697

52	0.693147	-0.806422	105.019	-46.5286
53	0.693147	-0.792618	105.647	-47.078
54	0.693147	-0.778966	106.254	-47.618
55	0.693147	-0.765456	106.84	-48.1486
56	0.693147	-0.752084	107.406	-48.6699
57	0.693147	-0.738846	107.951	-49.182
58	0.693147	-0.725736	108.478	-49.685
59	0.693147	-0.712751	108.986	-50.1791
60	0.693147	-0.699883	109.476	-50.6642
61	0.693147	-0.687131	109.948	-51.1405
62	0.693147	-0.671346	110.399	-51.6058
63	0.693147	-0.658838	110.833	-52.0625
64	0.693147	-0.646431	111.251	-52.5106
65	0.693147	-0.634124	111.653	-52.9501
66	0.693147	-0.621911	112.04	-53.3812
67	0.693147	-0.609791	112.412	-53.8039
68	0.693147	-0.597761	112.769	-54.2182
69	0.693147	-0.585815	113.112	-54.6242
70	0.693147	-0.573953	113.441	-55.0221
71	0.693147	-0.56217	113.758	-55.4117
72	0.693147	-0.550465	114.061	-55.7933
73	0.693147	-0.538836	114.351	-56.1668
74	0.693147	-0.52728	114.629	-56.5323
75	0.693147	-0.515791	114.895	-56.8898
76	0.693147	-0.504372	115.149	-57.2394
77	0.693147	-0.493018	115.392	-57.5811
78	0.693147	-0.481728	115.624	-57.915
79	0.693147	-0.470498	115.846	-58.2412
80	0.693147	-0.459327	116.057	-58.5595
81	0.693147	-0.448213	116.258	-58.8702
82	0.693147	-0.437153	116.449	-59.1732
83	0.693147	-0.423405	116.628	-59.4667
84	0.693147	-0.412463	116.798	-59.7526
85	0.693147	-0.401571	116.959	-60.031
86	0.693147	-0.390726	117.112	-60.3018
87	0.693147	-0.379927	117.256	-60.5651
88	0.693147	-0.369171	117.393	-60.821
89	0.693147	-0.358459	117.521	-61.0695
90	0.693147	-0.347787	117.642	-61.3106
91	0.693147	-0.337155	117.756	-61.5443
92	0.693147	-0.326561	117.863	-61.7706
93	0.693147	-0.316004	117.962	-61.9897
94	0.693147	-0.305481	118.056	-62.2014
95	0.693147	-0.294992	118.143	-62.4059
96	0.693147	-0.284535	118.224	-62.6031
97	0.693147	-0.27411	118.299	-62.7931
98	0.693147	-0.263715	118.368	-62.9759
99	0.693147	-0.253347	118.433	-63.1515
100	0.693147	-0.243007	118.492	-63.3199
101	0.693147	-0.232693	118.546	-63.4812
102	0.693147	-0.222403	118.595	-63.6354
103	0.693147	-0.209575	118.639	-63.7806
104	0.693147	-0.199336	118.679	-63.9188
105	0.693147	-0.189118	118.715	-64.0499
106	0.693147	-0.17892	118.747	-64.1739
107	0.693147	-0.168741	118.775	-64.2909
108	0.693147	-0.158579	118.8	-64.4008
109	0.693147	-0.148434	118.822	-64.5037
110	0.693147	-0.138305	118.841	-64.5996
111	0.693147	-0.128189	118.858	-64.6884
112	0.693147	-0.118085	118.872	-64.7703
113	0.693147	-0.107995	118.883	-64.8451

114	0.693147	-0.0979139	118.893	-64.913
115	0.693147	-0.0878447	118.901	-64.9739
116	0.693147	-0.0777834	118.907	-65.0278
117	0.693147	-0.0677301	118.911	-65.0747
118	0.693147	-0.0576847	118.915	-65.1147
119	0.693147	-0.0476439	118.917	-65.1477
120	0.693147	-0.0376076	118.918	-65.1738
121	0.693147	-0.0275759	118.919	-65.1929
122	0.693147	-0.0175476	118.919	-65.2051
123	0.693147	-0.00751925	118.92	-65.2103
124	0.693147	0.00751925	118.92	-65.2051
125	0.693147	0.0175476	118.92	-65.1929
126	0.693147	0.0275759	118.921	-65.1738
127	0.693147	0.0376076	118.922	-65.1477
128	0.693147	0.0476439	118.924	-65.1147
129	0.693147	0.0576847	118.928	-65.0747
130	0.693147	0.0677301	118.932	-65.0278
131	0.693147	0.0777834	118.938	-64.9739
132	0.693147	0.0878447	118.946	-64.913
133	0.693147	0.0979139	118.956	-64.8451
134	0.693147	0.107995	118.967	-64.7703
135	0.693147	0.118085	118.981	-64.6884
136	0.693147	0.128189	118.998	-64.5996
137	0.693147	0.138305	119.017	-64.5037
138	0.693147	0.148434	119.039	-64.4008
139	0.693147	0.158579	119.064	-64.2909
140	0.693147	0.168741	119.092	-64.1739
141	0.693147	0.17892	119.124	-64.0499
142	0.693147	0.189118	119.16	-63.9188
143	0.693147	0.199336	119.2	-63.7806
144	0.693147	0.209575	119.244	-63.6354
145	0.693147	0.222403	119.293	-63.4812
146	0.693147	0.232693	119.347	-63.3199
147	0.693147	0.243007	119.407	-63.1515
148	0.693147	0.253347	119.471	-62.9759
149	0.693147	0.263715	119.54	-62.7931
150	0.693147	0.27411	119.615	-62.6031
151	0.693147	0.284535	119.696	-62.4059
152	0.693147	0.294992	119.783	-62.2014
153	0.693147	0.305481	119.877	-61.9897
154	0.693147	0.316004	119.977	-61.7706
155	0.693147	0.326561	120.083	-61.5443
156	0.693147	0.337155	120.197	-61.3106
157	0.693147	0.347787	120.318	-61.0695
158	0.693147	0.358459	120.446	-60.821
159	0.788457	0.369171	120.583	-60.53
160	0.916291	0.379927	120.727	-60.1818
161	0.916291	0.390726	120.88	-59.8238
162	0.916291	0.401571	121.041	-59.4559
163	0.916291	0.412463	121.211	-59.0779
164	0.916291	0.423405	121.39	-58.69
165	0.916291	0.437153	121.581	-58.2894
166	0.916291	0.448213	121.782	-57.8787
167	0.916291	0.459327	121.993	-57.4578
168	0.916291	0.470498	122.215	-57.0267
169	0.916291	0.481728	122.447	-56.5853
170	0.916291	0.493018	122.69	-56.1336
171	0.916291	0.504372	122.944	-55.6714
172	0.916291	0.515791	123.21	-55.1988
173	0.916291	0.52728	123.488	-54.7157
174	0.916291	0.538836	123.779	-54.2219
175	0.916291	0.550465	124.082	-53.7175

176	0.916291	0.56217	124.398	-53.2024	
177	0.916291	0.573953	124.727	-52.6765	
178	0.916291	0.585815	125.07	-52.1397	
179	0.916291	0.597761	125.428	-51.592	
180	0.916291	0.609791	125.799	-51.0333	
181	0.916291	0.621911	126.186	-50.4634	
182	0.916291	0.634124	126.588	-49.8824	
183	0.916291	0.646431	127.006	-49.2901	
184	0.916291	0.658838	127.44	-48.6864	
185	0.916291	0.671346	127.891	-48.0712	
186	0.916291	0.687131	128.363	-47.4416	
187	0.916291	0.699883	128.853	-46.8003	
188	0.916291	0.712751	129.361	-46.1472	
189	0.916291	0.725736	129.888	-45.4822	
190	0.916291	0.738846	130.433	-44.8053	
191	0.916291	0.752084	130.999	-44.1161	
192	0.916291	0.765456	131.585	-43.4147	
193	0.916291	0.778966	132.192	-42.701	
194	0.916291	0.792618	132.82	-41.9747	
195	0.916291	0.806422	133.47	-41.2358	
196	0.916291	0.820379	134.143	-40.4841	
197	0.916291	0.834498	134.84	-39.7195	
198	0.916291	0.848786	135.56	-38.9417	
199	0.916291	0.863249	136.305	-38.1507	
200	0.916291	0.877897	137.076	-37.3463	
201	1.00796	0.892733	137.873	-36.4465	
202	1.36098	0.907769	138.697	-35.211	
203	1.66771	0.923014	139.549	-33.6717	
204	1.79176	0.938476	140.43	-31.9902	
205	1.8563	0.954165	141.34	-30.219	
206	1.90509	0.974114	142.289	-28.3632	
207	1.94162	0.990356	143.27	-26.4403	
208	2.02815	1.00687	144.284	-24.3982	
209	2.15176	1.02365	145.332	-22.1956	
210	2.15176	1.04073	146.415	-19.9562	
211	2.15176	1.05812	147.534	-17.6794	
212	2.27419	1.07584	148.692	-15.2327	
213	2.28238	1.0939	149.888	-12.736	
214	2.30259	1.11232	151.126	-10.1748	
215	2.45101	1.13113	152.405	-7.40238	
216	2.56495	1.15035	153.728	-4.45179	
217	2.56495	1.17	155.097	-1.4508	
218	2.56495	1.19012	156.514	1.60179	
219	2.56495	1.21073	157.98	4.70725	
220	2.63189	1.23187	159.497	7.94938	
221	2.77259	1.25357	161.068	11.425	
222	2.77259	1.27588	162.696	14.9625	
223	2.89037	1.29884	164.383	18.7166	
224	2.89037	1.32251	166.132	22.5391	
225	2.89037	1.34694	167.947	26.4323	
226	2.89037	1.3722	169.83	30.3985	
227	3.17805	1.40507	171.804	34.8639	
228	3.2581	1.4325	173.856	39.5311	
229	3.56105	1.46106	175.991	44.734	
230	3.64545	1.49085	178.213	50.1688	
231	3.95124	1.52203	180.53	56.1828	
232	4.20767	1.55477	182.947	62.7247	
233	4.55808	1.58927	185.473	69.9687	
234	4.60517	1.62576	188.116	77.4557	
235	4.78749	1.66456	190.887	85.4247	
236	4.86753	1.70604	193.797	93.729	
237	4.91265	1.75069	196.862	102.329	

238	5.07517	1.79912	200.099	111.46
239	5.29832	1.85218	203.53	121.274
240	5.56068	1.91103	207.182	131.9
241	5.76832	1.97737	211.092	143.306
242	5.85793	2.05375	215.309	155.337
243	5.99146	2.14441	219.908	168.185
244	6.83733	2.25713	225.003	183.618
245	7.78322	2.40892	230.806	202.367
246	8.35702	2.65209	237.839	224.531

Data Set Standard Deviation = 1.31408
Numerator = 50414.1
Denominator = 100623
W Statistic = 0.501021 = 50414.1 / 100623

5% Critical value of 0.976 exceeds 0.501021
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.501021
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Acetone

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.711457
0.711457 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.239017	0.00404858	-2.65209	53.2082	344.01
2	0.29267	0.00809717	-2.40892	56.3976	332.136
3	0.693147	0.0121457	-2.25713	80.2037	324.723
4	0.693147	0.0161943	-2.14441	80.2037	319.219
5	0.693147	0.0202429	-2.05375	80.2037	314.791
6	0.693147	0.0242915	-1.97737	80.2037	311.062
7	0.693147	0.0283401	-1.91103	80.2037	307.822
8	0.693147	0.0323887	-1.85218	80.2037	304.948
9	0.693147	0.0364372	-1.79912	80.2037	302.357
10	0.693147	0.0404858	-1.75069	80.2037	299.992
11	0.693147	0.0445344	-1.70604	80.2037	297.812
12	0.693147	0.048583	-1.66456	80.2037	295.786
13	0.693147	0.0526316	-1.62576	80.2037	293.891
14	0.693147	0.0566802	-1.58927	80.2037	292.109
15	0.693147	0.0607287	-1.55477	80.2037	290.425
16	0.693147	0.0647773	-1.52203	80.2037	288.826
17	0.693147	0.0688259	-1.49085	80.2037	287.303
18	0.693147	0.0728745	-1.46106	80.2037	285.848
19	0.693147	0.0769231	-1.4325	80.2037	284.454
20	0.693147	0.0809717	-1.40507	80.2037	283.114
21	0.693147	0.0850202	-1.3722	80.2037	281.509
22	0.693147	0.0890688	-1.34694	80.2037	280.276
23	0.693147	0.0931174	-1.32251	80.2037	279.082
24	0.693147	0.097166	-1.29884	80.2037	277.926
25	0.693147	0.101215	-1.27588	80.2037	276.805
26	0.693147	0.105263	-1.25357	80.2037	275.716
27	0.693147	0.109312	-1.23187	80.2037	274.656
28	0.693147	0.11336	-1.21073	80.2037	273.624
29	0.693147	0.117409	-1.19012	80.2037	272.617
30	0.693147	0.121457	-1.17	80.2037	271.635
31	0.693147	0.125506	-1.15035	80.2037	270.675
32	0.693147	0.129555	-1.13113	80.2037	269.737
33	0.693147	0.133603	-1.11232	80.2037	268.818
34	0.693147	0.137652	-1.0939	80.2037	267.919
35	0.693147	0.1417	-1.07584	80.2037	267.037
36	0.693147	0.145749	-1.05812	80.2037	266.172
37	0.693147	0.149798	-1.04073	80.2037	265.322
38	0.693147	0.153846	-1.02365	80.2037	264.488
39	0.693147	0.157895	-1.00687	80.2037	263.669
40	0.693147	0.161943	-0.990356	80.2037	262.862
41	0.693147	0.165992	-0.974114	80.2037	262.069
42	0.693147	0.17004	-0.954165	80.2037	261.095
43	0.693147	0.174089	-0.938476	80.2037	260.329
44	0.693147	0.178138	-0.923014	80.2037	259.574
45	0.693147	0.182186	-0.907769	80.2037	258.829
46	0.693147	0.186235	-0.892733	80.2037	258.095
47	0.693147	0.190283	-0.877897	80.2037	257.371
48	0.693147	0.194332	-0.863249	80.2037	256.655

49	0.693147	0.198381	-0.848786	80.2037	255.949
50	0.693147	0.202429	-0.834498	80.2037	255.251
51	0.693147	0.206478	-0.820379	80.2037	254.562
52	0.693147	0.210526	-0.806422	80.2037	253.88
53	0.693147	0.214575	-0.792618	80.2037	253.206
54	0.693147	0.218623	-0.778966	80.2037	252.54
55	0.693147	0.222672	-0.765456	80.2037	251.88
56	0.693147	0.226721	-0.752084	80.2037	251.227
57	0.693147	0.230769	-0.738846	80.2037	250.58
58	0.693147	0.234818	-0.725736	80.2037	249.94
59	0.693147	0.238866	-0.712751	80.2037	249.306
60	0.693147	0.242915	-0.699883	80.2037	248.678
61	0.693147	0.246964	-0.687131	80.2037	248.055
62	0.693147	0.251012	-0.671346	80.2037	247.284
63	0.693147	0.255061	-0.658838	80.2037	246.673
64	0.693147	0.259109	-0.646431	80.2037	246.067
65	0.693147	0.263158	-0.634124	80.2037	245.466
66	0.693147	0.267206	-0.621911	80.2037	244.87
67	0.693147	0.271255	-0.609791	80.2037	244.278
68	0.693147	0.275304	-0.597761	80.2037	243.691
69	0.693147	0.279352	-0.585815	80.2037	243.107
70	0.693147	0.283401	-0.573953	80.2037	242.528
71	0.693147	0.287449	-0.56217	80.2037	241.953
72	0.693147	0.291498	-0.550465	80.2037	241.381
73	0.693147	0.295547	-0.538836	80.2037	240.813
74	0.693147	0.299595	-0.52728	80.2037	240.249
75	0.693147	0.303644	-0.515791	80.2037	239.688
76	0.693147	0.307692	-0.504372	80.2037	239.13
77	0.693147	0.311741	-0.493018	80.2037	238.576
78	0.693147	0.315789	-0.481728	80.2037	238.024
79	0.693147	0.319838	-0.470498	80.2037	237.476
80	0.693147	0.323887	-0.459327	80.2037	236.93
81	0.693147	0.327935	-0.448213	80.2037	236.388
82	0.693147	0.331984	-0.437153	80.2037	235.848
83	0.693147	0.336032	-0.423405	80.2037	235.176
84	0.693147	0.340081	-0.412463	80.2037	234.642
85	0.693147	0.34413	-0.401571	80.2037	234.11
86	0.693147	0.348178	-0.390726	80.2037	233.58
87	0.693147	0.352227	-0.379927	80.2037	233.053
88	0.693147	0.356275	-0.369171	80.2037	232.528
89	0.693147	0.360324	-0.358459	80.2037	232.005
90	0.693147	0.364372	-0.347787	80.2037	231.484
91	0.693147	0.368421	-0.337155	80.2037	230.964
92	0.693147	0.37247	-0.326561	80.2037	230.447
93	0.693147	0.376518	-0.316004	80.2037	229.932
94	0.693147	0.380567	-0.305481	80.2037	229.418
95	0.693147	0.384615	-0.294992	80.2037	228.905
96	0.693147	0.388664	-0.284535	80.2037	228.395
97	0.693147	0.392713	-0.27411	80.2037	227.886
98	0.693147	0.396761	-0.263715	80.2037	227.378
99	0.693147	0.40081	-0.253347	80.2037	226.872
100	0.693147	0.404858	-0.243007	80.2037	226.367
101	0.693147	0.408907	-0.232693	80.2037	225.863
102	0.693147	0.412955	-0.222403	80.2037	225.361
103	0.693147	0.417004	-0.209575	80.2037	224.734
104	0.693147	0.421053	-0.199336	80.2037	224.234
105	0.693147	0.425101	-0.189118	80.2037	223.735
106	0.693147	0.42915	-0.17892	80.2037	223.237
107	0.693147	0.433198	-0.168741	80.2037	222.74
108	0.693147	0.437247	-0.158579	80.2037	222.244
109	0.693147	0.441296	-0.148434	80.2037	221.749
110	0.693147	0.445344	-0.138305	80.2037	221.254

111	0.693147	0.449393	-0.128189	80.2037	220.76
112	0.693147	0.453441	-0.118085	80.2037	220.267
113	0.693147	0.45749	-0.107995	80.2037	219.774
114	0.693147	0.461538	-0.0979139	80.2037	219.281
115	0.693147	0.465587	-0.0878447	80.2037	218.79
116	0.693147	0.469636	-0.0777834	80.2037	218.298
117	0.693147	0.473684	-0.0677301	80.2037	217.807
118	0.693147	0.477733	-0.0576847	80.2037	217.317
119	0.693147	0.481781	-0.0476439	80.2037	216.827
120	0.693147	0.48583	-0.0376076	80.2037	216.337
121	0.693147	0.489879	-0.0275759	80.2037	215.847
122	0.693147	0.493927	-0.0175476	80.2037	215.357
123	0.693147	0.497976	-0.00751925	80.2037	214.867
124	0.693147	0.502024	0.00751925	80.2037	214.133
125	0.693147	0.506073	0.0175476	80.2037	213.643
126	0.693147	0.510121	0.0275759	80.2037	213.153
127	0.693147	0.51417	0.0376076	80.2037	212.663
128	0.693147	0.518219	0.0476439	80.2037	212.173
129	0.693147	0.522267	0.0576847	80.2037	211.683
130	0.693147	0.526316	0.0677301	80.2037	211.193
131	0.693147	0.530364	0.0777834	80.2037	210.702
132	0.693147	0.534413	0.0878447	80.2037	210.21
133	0.693147	0.538462	0.0979139	80.2037	209.719
134	0.693147	0.54251	0.107995	80.2037	209.226
135	0.693147	0.546559	0.118085	80.2037	208.733
136	0.693147	0.550607	0.128189	80.2037	208.24
137	0.693147	0.554656	0.138305	80.2037	207.746
138	0.693147	0.558704	0.148434	80.2037	207.251
139	0.693147	0.562753	0.158579	80.2037	206.756
140	0.693147	0.566802	0.168741	80.2037	206.26
141	0.693147	0.57085	0.17892	80.2037	205.763
142	0.693147	0.574899	0.189118	80.2037	205.265
143	0.693147	0.578947	0.199336	80.2037	204.766
144	0.693147	0.582996	0.209575	80.2037	204.266
145	0.693147	0.587045	0.222403	80.2037	203.639
146	0.693147	0.591093	0.232693	80.2037	203.137
147	0.693147	0.595142	0.243007	80.2037	202.633
148	0.693147	0.59919	0.253347	80.2037	202.128
149	0.693147	0.603239	0.263715	80.2037	201.622
150	0.693147	0.607287	0.27411	80.2037	201.114
151	0.693147	0.611336	0.284535	80.2037	200.605
152	0.693147	0.615385	0.294992	80.2037	200.095
153	0.693147	0.619433	0.305481	80.2037	199.582
154	0.693147	0.623482	0.316004	80.2037	199.068
155	0.693147	0.62753	0.326561	80.2037	198.553
156	0.693147	0.631579	0.337155	80.2037	198.036
157	0.693147	0.635628	0.347787	80.2037	197.516
158	0.693147	0.639676	0.358459	80.2037	196.995
159	0.788457	0.643725	0.369171	85.8694	196.472
160	0.916291	0.647773	0.379927	93.4684	195.947
161	0.916291	0.651822	0.390726	93.4684	195.42
162	0.916291	0.65587	0.401571	93.4684	194.89
163	0.916291	0.659919	0.412463	93.4684	194.358
164	0.916291	0.663968	0.423405	93.4684	193.824
165	0.916291	0.668016	0.437153	93.4684	193.152
166	0.916291	0.672065	0.448213	93.4684	192.612
167	0.916291	0.676113	0.459327	93.4684	192.07
168	0.916291	0.680162	0.470498	93.4684	191.524
169	0.916291	0.684211	0.481728	93.4684	190.976
170	0.916291	0.688259	0.493018	93.4684	190.424
171	0.916291	0.692308	0.504372	93.4684	189.87
172	0.916291	0.696356	0.515791	93.4684	189.312

173	0.916291	0.700405	0.52728	93.4684	188.751	
174	0.916291	0.704453	0.538836	93.4684	188.187	
175	0.916291	0.708502	0.550465	93.4684	187.619	
176	0.916291	0.712551	0.56217	93.4684	187.047	
177	0.916291	0.716599	0.573953	93.4684	186.472	
178	0.916291	0.720648	0.585815	93.4684	185.893	
179	0.916291	0.724696	0.597761	93.4684	185.309	
180	0.916291	0.728745	0.609791	93.4684	184.722	
181	0.916291	0.732794	0.621911	93.4684	184.13	
182	0.916291	0.736842	0.634124	93.4684	183.534	
183	0.916291	0.740891	0.646431	93.4684	182.933	
184	0.916291	0.744939	0.658838	93.4684	182.327	
185	0.916291	0.748988	0.671346	93.4684	181.716	
186	0.916291	0.753036	0.687131	93.4684	180.945	
187	0.916291	0.757085	0.699883	93.4684	180.322	
188	0.916291	0.761134	0.712751	93.4684	179.694	
189	0.916291	0.765182	0.725736	93.4684	179.06	
190	0.916291	0.769231	0.738846	93.4684	178.42	
191	0.916291	0.773279	0.752084	93.4684	177.773	
192	0.916291	0.777328	0.765456	93.4684	177.12	
193	0.916291	0.781377	0.778966	93.4684	176.46	
194	0.916291	0.785425	0.792618	93.4684	175.794	
195	0.916291	0.789474	0.806422	93.4684	175.12	
196	0.916291	0.793522	0.820379	93.4684	174.438	
197	0.916291	0.797571	0.834498	93.4684	173.749	
198	0.916291	0.801619	0.848786	93.4684	173.051	
199	0.916291	0.805668	0.863249	93.4684	172.345	
200	0.916291	0.809717	0.877897	93.4684	171.629	
201	1.00796	0.813765	0.892733	98.9175	170.905	
202	1.36098	0.817814	0.907769	119.902	170.171	
203	1.66771	0.821862	0.923014	138.136	169.426	
204	1.79176	0.825911	0.938476	145.51	168.671	
205	1.8563	0.82996	0.954165	149.347	167.905	
206	1.90509	0.834008	0.974114	152.247	166.931	
207	1.94162	0.838057	0.990356	154.418	166.138	
208	2.02815	0.842105	1.00687	159.562	165.331	
209	2.15176	0.846154	1.02365	166.91	164.512	
210	2.15176	0.850202	1.04073	166.91	163.678	
211	2.15176	0.854251	1.05812	166.91	162.828	
212	2.27419	0.8583	1.07584	174.188	161.963	
213	2.28238	0.862348	1.0939	174.675	161.081	
214	2.30259	0.866397	1.11232	175.876	160.182	
215	2.45101	0.870445	1.13113	184.699	159.263	
216	2.56495	0.874494	1.15035	191.472	158.325	
217	2.56495	0.878543	1.17	191.472	157.365	
218	2.56495	0.882591	1.19012	191.472	156.383	
219	2.56495	0.88664	1.21073	191.472	155.376	
220	2.63189	0.890688	1.23187	195.451	154.344	
221	2.77259	0.894737	1.25357	203.815	153.284	
222	2.77259	0.898785	1.27588	203.815	152.195	
223	2.89037	0.902834	1.29884	210.817	151.074	
224	2.89037	0.906883	1.32251	210.817	149.918	
225	2.89037	0.910931	1.34694	210.817	148.724	
226	2.89037	0.91498	1.3722	210.817	147.491	
227	3.17805	0.919028	1.40507	227.918	145.886	
228	3.2581	0.923077	1.4325	232.676	144.546	
229	3.56105	0.927126	1.46106	250.684	143.152	
230	3.64545	0.931174	1.49085	255.702	141.697	
231	3.95124	0.935223	1.52203	273.879	140.174	
232	4.20767	0.939271	1.55477	289.123	138.575	
233	4.55808	0.94332	1.58927	309.952	136.891	
234	4.60517	0.947368	1.62576	312.752	135.109	

235	4.78749	0.951417		1.66456	323.59	133.214
236	4.86753	0.955466		1.70604	328.348	131.188
237	4.91265	0.959514		1.75069	331.03	129.008
238	5.07517	0.963563		1.79912	340.691	126.643
239	5.29832	0.967611		1.85218	353.956	124.052
240	5.56068	0.97166	1.91103	369.552	121.178	
241	5.76832	0.975709		1.97737	381.895	117.938
242	5.85793	0.979757		2.05375	387.222	114.209
243	5.99146	0.983806		2.14441	395.159	109.781
244	6.83733	0.987854		2.25713	445.441	104.277
245	7.78322	0.991903		2.40892	501.669	96.8642
246	8.35702	0.995951		2.65209	535.779	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Acetone

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0.693147	99
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99
	10/12/2004	ND<0.693147	99
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	ND<0.693147	99
	5/23/2007	ND<0.693147	99
	11/28/2007	ND<0.693147	99
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	ND<0.916291	99
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99

Rank Sum = 1881
Rank Mean = 99

Background Rank Sum = 1881
Background Rank Mean = 99

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	ND<0.693147	99
	8/24/1995	ND<0.693147	99
	9/28/1995	2.77259	221
	10/26/1995	ND<0.693147	99
	11/19/1996	ND<0.693147	99
	12/19/1996	ND<0.693147	99
	3/24/1997	ND<0.693147	99
	9/24/1997	ND<0.693147	99
	4/7/1998	ND<0.693147	99
	9/23/1998	ND<0.693147	99
	3/16/1999	5.85793	242
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	5.76832	241
	3/11/2004	5.99146	243
	10/12/2004	7.78322	245
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	2.63189	220
	5/23/2007	4.60517	234

	11/28/2007	1.90509	206
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	ND<0.916291	99
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99
	11/22/2011	2.89037 J	223
	11/22/2011	2.89037 J	224

Rank Sum = 4378
Rank Mean = 141.226

MW-7	7/20/1995	ND<0.693147	99
	8/24/1995	ND<0.693147	99
	9/28/1995	ND<0.693147	99
	10/26/1995	ND<0.693147	99
	11/19/1996	ND<0.693147	99
	12/19/1996	ND<0.693147	99
	3/24/1997	5.56068	240
	9/24/1997	ND<0.693147	99
	4/7/1998	ND<0.693147	99
	9/23/1998	ND<0.693147	99
	3/16/1999	8.35702	246
	9/23/1999	4.55808	233
	3/15/2000	4.86753	236
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99
	10/12/2004	5.29832	239
	4/1/2005	ND<0.693147	99
	10/25/2005	1.94162	207
	4/29/2006	ND<0.693147	99
	11/18/2006	0.29267 J	199
	5/23/2007	ND<0.693147	99
	11/28/2007	2.45101	215
	6/5/2008	6.83733	244
	11/20/2008	3.17805	227
	6/11/2009	3.95124	231
	11/16/2009	1.79176 J	204
	6/30/2010	ND<0.916291	99
	11/12/2010	2.15176 J	209
	7/5/2011	1.8563 J	205
	11/22/2011	ND<0.916291 U	99
	11/22/2011	ND<0.916291 U	99

Rank Sum = 4818
Rank Mean = 155.419

MW-8	7/20/1995	ND<0.693147	99
	8/24/1995	ND<0.693147	99
	9/28/1995	ND<0.693147	99
	10/26/1995	ND<0.693147	99
	11/19/1996	ND<0.693147	99
	12/19/1996	ND<0.693147	99
	3/24/1997	ND<0.693147	99
	9/24/1997	ND<0.693147	99
	4/7/1998	ND<0.693147	99
	9/23/1998	ND<0.693147	99
	3/16/1999	3.56105	229
	9/23/1999	4.91265	237
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99

	10/12/2004	5.07517		238
	4/1/2005	ND<0.693147		99
	10/25/2005	0.239017	J	198
	4/29/2006	ND<0.693147		99
	11/18/2006	ND<0.693147		99
	5/23/2007	ND<0.693147		99
	11/28/2007	ND<0.693147		99
	6/5/2008	ND<0.693147		99
	11/20/2008	2.27419		212
	6/11/2009	2.28238	J	213
	6/30/2010	1.66771	J	203
	11/12/2010	ND<0.916291	U	99
	7/5/2011	2.77259	J	222
	11/22/2011	2.56495	J	216
	11/22/2011	2.56495	J	217

Rank Sum = 4165
Rank Mean = 138.833

MW-6	7/20/1995	ND<0.693147		99
	8/24/1995	1.36098	J	202
	9/28/1995	ND<0.693147		99
	10/26/1995	ND<0.693147		99
	11/19/1996	ND<0.693147		99
	12/19/1996	ND<0.693147		99
	3/24/1997	ND<0.693147		99
	9/24/1997	ND<0.693147		99
	4/7/1998	ND<0.693147		99
	9/23/1998	ND<0.693147		99
	3/16/1999	ND<0.693147		99
	9/23/1999	ND<0.693147		99
	3/15/2000	ND<0.693147		99
	9/24/2003	ND<0.693147		99
	3/11/2004	ND<0.693147		99
	10/12/2004	ND<0.693147		99
	4/1/2005	ND<0.693147		99
	10/25/2005	0.788457	J	200
	4/29/2006	ND<0.693147		99
	11/18/2006	ND<0.693147		99
	5/23/2007	ND<0.693147		99
	11/28/2007	ND<0.693147		99
	6/5/2008	ND<0.693147		99
	11/20/2008	ND<0.693147		99
	6/11/2009	2.02815	J	208
	11/16/2009	ND<0.916291		99
	6/30/2010	ND<0.916291		99
	11/12/2010	ND<0.916291	U	99
	7/5/2011	ND<0.916291	U	99
	11/22/2011	2.56495	J	218
	11/22/2011	2.56495	J	219

Rank Sum = 3621
Rank Mean = 116.806

MW-9	7/20/1995	ND<0.693147		99
	8/24/1995	2.30259		214
	9/28/1995	ND<0.693147		99
	10/26/1995	ND<0.693147		99
	11/19/1996	ND<0.693147		99
	12/19/1996	ND<0.693147		99
	3/24/1997	ND<0.693147		99
	9/24/1997	ND<0.693147		99
	4/7/1998	4.78749		235
	9/23/1998	ND<0.693147		99

	3/16/1999	3.64545	230
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99
	10/12/2004	ND<0.693147	99
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	ND<0.693147	99
	5/23/2007	ND<0.693147	99
	11/28/2007	1.00796 J	201
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	ND<0.916291	99
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99
	11/22/2011	2.15176 J	210
	11/22/2011	2.15176 J	211

Rank Sum = 3776
Rank Mean = 121.806

MW-12BR	3/16/1999	ND<0.693147	99
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99
	10/12/2004	ND<0.693147	99
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	ND<0.693147	99
	5/23/2007	ND<0.693147	99
	11/28/2007	ND<0.693147	99
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	ND<0.916291	99
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99
	11/22/2011	2.89037 J	225
	11/22/2011	2.89037 J	226

Rank Sum = 2332
Rank Mean = 111.048

MW-10	7/20/1995	ND<0.693147	99
	8/24/1995	ND<0.693147	99
	9/28/1995	ND<0.693147	99
	10/26/1995	ND<0.693147	99
	11/19/1996	ND<0.693147	99
	12/19/1996	ND<0.693147	99
	3/24/1997	ND<0.693147	99
	9/24/1997	ND<0.693147	99
	4/7/1998	ND<0.693147	99
	9/23/1998	ND<0.693147	99
	3/16/1999	4.20767	232
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99

	3/11/2004	ND<0.693147	99
	10/12/2004	ND<0.693147	99
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	ND<0.693147	99
	5/23/2007	ND<0.693147	99
	11/28/2007	ND<0.693147	99
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	3.2581	228
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99
	11/22/2011	ND<0.916291 U	99
	11/22/2011	ND<0.916291 U	99

Rank Sum = 3331
Rank Mean = 107.452

MW-12A R	3/16/1999	ND<0.693147	99
	9/23/1999	ND<0.693147	99
	3/15/2000	ND<0.693147	99
	9/24/2003	ND<0.693147	99
	3/11/2004	ND<0.693147	99
	10/12/2004	ND<0.693147	99
	4/1/2005	ND<0.693147	99
	10/25/2005	ND<0.693147	99
	4/29/2006	ND<0.693147	99
	11/18/2006	ND<0.693147	99
	5/23/2007	ND<0.693147	99
	11/28/2007	ND<0.693147	99
	6/5/2008	ND<0.693147	99
	11/20/2008	ND<0.693147	99
	6/11/2009	ND<0.916291	99
	11/16/2009	ND<0.916291	99
	6/30/2010	ND<0.916291	99
	11/12/2010	ND<0.916291 U	99
	7/5/2011	ND<0.916291 U	99
	11/22/2011	ND<0.916291 U	99
	11/22/2011	ND<0.916291 U	99

Rank Sum = 2079
Rank Mean = 99

Calculation Results:

Kruskal-Wallis H Statistic = 16.8078
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 34.5524
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
16.8078 > 15.5073 indicating a significant group difference at 5% significance level
34.5524 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 99

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	**141.226**	**42.2258**	**48.231**
MW-7	**155.419**	**56.4194**	**48.231**
MW-8	**138.833**	**39.8333**	**48.5355**
MW-6	**116.806**	**17.8065**	**48.231**

MW-9	121.806	22.8065	48.231	
MW-12BR		111.048	12.0476	52.4134
MW-10	107.452	8.45161	48.231	
MW-12AR		99	0	52.4134

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 99

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	141.226	42.2258	52.0829
MW-7	155.419	56.4194	52.0829
MW-8	138.833	39.8333	52.4118
MW-6	116.806	17.8065	52.0829
MW-9	121.806	22.8065	52.0829
MW-12BR		111.048	12.0476	56.5994
MW-10	107.452	8.45161	52.0829
MW-12AR		99	0	56.5994

Shewhart-CUSUM Control Chart

Parameter: Acetone

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.693147
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std	Mean
3/24/1997	5.56068	0		0	
3/24/1997	5.56068	0		0	
9/24/1997	0.693147			0	0
9/24/1997	0.693147			0	0
4/7/1998	0.693147		0	0	
4/7/1998	0.693147		0	0	
9/23/1998	0.693147			0	0
9/23/1998	0.693147			0	0
3/16/1999	8.35702	0		0	
3/16/1999	8.35702	0		0	
9/23/1999	4.55808	0		0	
9/23/1999	4.55808	0		0	
3/15/2000	4.86753	0		0	
3/15/2000	4.86753	0		0	
9/24/2003	0.693147			0	0
9/24/2003	0.693147			0	0
3/11/2004	0.693147			0	0
3/11/2004	0.693147			0	0
10/12/2004	5.29832	0		0	
10/12/2004	5.29832	0		0	
4/1/2005	0.693147		0	0	
4/1/2005	0.693147		0	0	
10/25/2005	1.94162	0		0	
10/25/2005	1.94162	0		0	
4/29/2006	0.693147			0	0
4/29/2006	0.693147			0	0
11/18/2006	0.29267	0		0	
11/18/2006	0.29267	0		0	
5/23/2007	0.693147			0	0
5/23/2007	0.693147			0	0
11/28/2007	2.45101	0		0	
11/28/2007	2.45101	0		0	
6/5/2008	6.83733	0	0		
6/5/2008	6.83733	0	0		
11/20/2008	3.17805	0		0	
11/20/2008	3.17805	0		0	
6/11/2009	3.95124	0		0	
6/11/2009	3.95124	0		0	
11/16/2009	1.79176	0		0	
11/16/2009	1.79176	0		0	
6/30/2010	0.916291			0	0
6/30/2010	0.916291			0	0
11/12/2010	2.15176	0		0	
11/12/2010	2.15176	0		0	
7/5/2011	1.8563	0	0		

7/5/2011	1.8563	0	0	
11/22/2011	0.916291		0	0
11/22/2011	0.916291		0	0

Sen's Slope Analysis
Parameter: Acetone
Location: MW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0.693147	(8/24/1995)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(2 - 1) 0
ND<0.693147	(9/28/1995)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(3 - 1) 0
ND<0.693147	(10/26/1995)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(4 - 1) 0
ND<0.693147	(11/19/1996)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(5 - 1) 0
ND<0.693147	(12/19/1996)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(6 - 1) 0
5.56068	(3/24/1997)	ND<0.693147 (7/20/1995)	(5.56068 - 0.693147)/(7 - 1) 0.811256
ND<0.693147	(9/24/1997)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(8 - 1) 0
ND<0.693147	(4/7/1998)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(9 - 1) 0
ND<0.693147	(9/23/1998)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(10 - 1) 0
8.35702	(3/16/1999)	ND<0.693147 (7/20/1995)	(8.35702 - 0.693147)/(11 - 1) 0.766388
4.55808	(9/23/1999)	ND<0.693147 (7/20/1995)	(4.55808 - 0.693147)/(12 - 1) 0.351357
4.86753	(3/15/2000)	ND<0.693147 (7/20/1995)	(4.86753 - 0.693147)/(13 - 1) 0.347866
ND<0.693147	(9/24/2003)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(14 - 1) 0
ND<0.693147	(3/11/2004)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(15 - 1) 0
5.29832	(10/12/2004)	ND<0.693147 (7/20/1995)	(5.29832 - 0.693147)/(16 - 1) 0.307011
ND<0.693147	(4/1/2005)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(17 - 1) 0
1.94162	(10/25/2005)	ND<0.693147 (7/20/1995)	(1.94162 - 0.693147)/(18 - 1) 0.0734393
ND<0.693147	(4/29/2006)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(19 - 1) 0
0.29267 J	(11/18/2006)	ND<0.693147 (7/20/1995)	(0.29267 - 0.693147)/(20 - 1) -0.0210778
ND<0.693147	(5/23/2007)	ND<0.693147 (7/20/1995)	(0.693147 - 0.693147)/(21 - 1) 0
2.45101	(11/28/2007)	ND<0.693147 (7/20/1995)	(2.45101 - 0.693147)/(22 - 1) 0.0837075
6.83733	(6/5/2008)	ND<0.693147 (7/20/1995)	(6.83733 - 0.693147)/(23 - 1) 0.279281
3.17805	(11/20/2008)	ND<0.693147 (7/20/1995)	(3.17805 - 0.693147)/(24 - 1) 0.108039
3.95124	(6/11/2009)	ND<0.693147 (7/20/1995)	(3.95124 - 0.693147)/(25 - 1) 0.135754
1.79176 J	(11/16/2009)	ND<0.693147 (7/20/1995)	(1.79176 - 0.693147)/(26 - 1) 0.0439445

ND<0.916291	(6/30/2010)	ND<0.693147	(7/20/1995)	(0.916291 - 0.693147)/(27 - 1)	0.00858244
2.15176 J	(11/12/2010)	ND<0.693147	(7/20/1995)	(2.15176 - 0.693147)/(28 - 1)	0.0540228
1.8563 J	(7/5/2011)	ND<0.693147	(7/20/1995)	(1.8563 - 0.693147)/(29 - 1)	0.0415411
ND<0.916291 U	(11/22/2011)	ND<0.693147	(7/20/1995)	(0.916291 - 0.693147)/(30 - 1)	0.00769461
ND<0.916291 U	(11/22/2011)	ND<0.693147	(7/20/1995)	(0.916291 - 0.693147)/(30 - 1)	0.00769461
ND<0.693147	(9/28/1995)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(3 - 2)	0
ND<0.693147	(10/26/1995)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(4 - 2)	0
ND<0.693147	(11/19/1996)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(5 - 2)	0
ND<0.693147	(12/19/1996)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(6 - 2)	0
5.56068	(3/24/1997)	ND<0.693147	(8/24/1995)	(5.56068 - 0.693147)/(7 - 2)	0.973507
ND<0.693147	(9/24/1997)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(8 - 2)	0
ND<0.693147	(4/7/1998)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(9 - 2)	0
ND<0.693147	(9/23/1998)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(10 - 2)	0
8.35702	(3/16/1999)	ND<0.693147	(8/24/1995)	(8.35702 - 0.693147)/(11 - 2)	0.851542
4.55808	(9/23/1999)	ND<0.693147	(8/24/1995)	(4.55808 - 0.693147)/(12 - 2)	0.386493
4.86753	(3/15/2000)	ND<0.693147	(8/24/1995)	(4.86753 - 0.693147)/(13 - 2)	0.37949
ND<0.693147	(9/24/2003)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(14 - 2)	0
ND<0.693147	(3/11/2004)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(15 - 2)	0
5.29832	(10/12/2004)	ND<0.693147	(8/24/1995)	(5.29832 - 0.693147)/(16 - 2)	0.328941
ND<0.693147	(4/1/2005)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(17 - 2)	0
1.94162	(10/25/2005)	ND<0.693147	(8/24/1995)	(1.94162 - 0.693147)/(18 - 2)	0.0780293
ND<0.693147	(4/29/2006)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(19 - 2)	0
0.29267 J	(11/18/2006)	ND<0.693147	(8/24/1995)	(0.29267 - 0.693147)/(20 - 2)	-0.0222488
ND<0.693147	(5/23/2007)	ND<0.693147	(8/24/1995)	(0.693147 - 0.693147)/(21 - 2)	0
2.45101	(11/28/2007)	ND<0.693147	(8/24/1995)	(2.45101 - 0.693147)/(22 - 2)	0.0878929
6.83733	(6/5/2008)	ND<0.693147	(8/24/1995)	(6.83733 - 0.693147)/(23 - 2)	0.29258
3.17805	(11/20/2008)	ND<0.693147	(8/24/1995)	(3.17805 - 0.693147)/(24 - 2)	0.11295
3.95124	(6/11/2009)	ND<0.693147	(8/24/1995)	(3.95124 - 0.693147)/(25 - 2)	0.141656
1.79176 J	(11/16/2009)	ND<0.693147	(8/24/1995)	(1.79176 - 0.693147)/(26 - 2)	0.0457755
ND<0.916291	(6/30/2010)	ND<0.693147	(8/24/1995)	(0.916291 - 0.693147)/(27 - 2)	0.00892574

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0.0561006
1.8563 J (7/5/2011) ND<0.693147 (8/24/1995) (1.8563 - 0.693147)/(29 - 2)
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ND<0.916291 U (11/22/2011) ND<0.693147 (8/24/1995) (0.916291 - 0.693147)/(30
- 2) 0.00796941
ND<0.916291 U (11/22/2011) ND<0.693147 (8/24/1995) (0.916291 - 0.693147)/(30
- 2) 0.00796941

ND<0.693147 (10/26/1995) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(4 -
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ND<0.693147 (11/19/1996) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(5 -
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ND<0.693147 (12/19/1996) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(6 -
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ND<0.693147 (9/24/1997) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(8 -
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0
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- 3) 0
8.35702 (3/16/1999) ND<0.693147 (9/28/1995) (8.35702 - 0.693147)/(11 - 3)
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4.55808 (9/23/1999) ND<0.693147 (9/28/1995) (4.55808 - 0.693147)/(12 - 3)
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4.86753 (3/15/2000) ND<0.693147 (9/28/1995) (4.86753 - 0.693147)/(13 - 3)
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- 3) 0
ND<0.693147 (3/11/2004) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(15
- 3) 0
5.29832 (10/12/2004) ND<0.693147 (9/28/1995) (5.29832 - 0.693147)/(16 - 3)
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ND<0.693147 (4/1/2005) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(17 - 3)
0
1.94162 (10/25/2005) ND<0.693147 (9/28/1995) (1.94162 - 0.693147)/(18 - 3)
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- 3) 0
0.29267 J (11/18/2006) ND<0.693147 (9/28/1995) (0.29267 - 0.693147)/(20 - 3)
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ND<0.693147 (5/23/2007) ND<0.693147 (9/28/1995) (0.693147 - 0.693147)/(21
- 3) 0
2.45101 (11/28/2007) ND<0.693147 (9/28/1995) (2.45101 - 0.693147)/(22 - 3)
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6.83733 (6/5/2008) ND<0.693147 (9/28/1995) (6.83733 - 0.693147)/(23 - 3)
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3.17805 (11/20/2008) ND<0.693147 (9/28/1995) (3.17805 - 0.693147)/(24 - 3)
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3.95124 (6/11/2009) ND<0.693147 (9/28/1995) (3.95124 - 0.693147)/(25 - 3)
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1.79176 J (11/16/2009) ND<0.693147 (9/28/1995) (1.79176 - 0.693147)/(26 - 3)
0.0477658
ND<0.916291 (6/30/2010) ND<0.693147 (9/28/1995) (0.916291 - 0.693147)/(27
- 3) 0.00929765
2.15176 J (11/12/2010) ND<0.693147 (9/28/1995) (2.15176 - 0.693147)/(28 - 3)
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0.0447366

ND<0.916291 U (11/22/2011) ND<0.693147 (9/28/1995) (0.916291 - 0.693147)/(30 - 3) 0.00826458
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5.56068 (3/24/1997) ND<0.693147 (10/26/1995) (5.56068 - 0.693147)/(7 - 4) 1.62251
ND<0.693147 (9/24/1997) ND<0.693147 (10/26/1995) (0.693147 - 0.693147)/(8 - 4) 0
ND<0.693147 (4/7/1998) ND<0.693147 (10/26/1995) (0.693147 - 0.693147)/(9 - 4) 0
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4.55808 (9/23/1999) ND<0.693147 (10/26/1995) (4.55808 - 0.693147)/(12 - 4) 0.483116
4.86753 (3/15/2000) ND<0.693147 (10/26/1995) (4.86753 - 0.693147)/(13 - 4) 0.463821
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1.94162 (10/25/2005) ND<0.693147 (10/26/1995) (1.94162 - 0.693147)/(18 - 4) 0.0891763
ND<0.693147 (4/29/2006) ND<0.693147 (10/26/1995) (0.693147 - 0.693147)/(19 - 4) 0
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ND<0.693147 (5/23/2007) ND<0.693147 (10/26/1995) (0.693147 - 0.693147)/(21 - 4) 0
2.45101 (11/28/2007) ND<0.693147 (10/26/1995) (2.45101 - 0.693147)/(22 - 4) 0.0976588
6.83733 (6/5/2008) ND<0.693147 (10/26/1995) (6.83733 - 0.693147)/(23 - 4) 0.323378
3.17805 (11/20/2008) ND<0.693147 (10/26/1995) (3.17805 - 0.693147)/(24 - 4) 0.124245
3.95124 (6/11/2009) ND<0.693147 (10/26/1995) (3.95124 - 0.693147)/(25 - 4) 0.155147
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2.15176 J (11/12/2010) ND<0.693147 (10/26/1995) (2.15176 - 0.693147)/(28 - 4) 0.0607756
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ND<0.916291 U (11/22/2011) ND<0.693147 (10/26/1995) (0.916291 - 0.693147)/(30 - 4) 0.00858244
ND<0.916291 U (11/22/2011) ND<0.693147 (10/26/1995) (0.916291 - 0.693147)/(30 - 4) 0.00858244

ND<0.693147 (12/19/1996) ND<0.693147 (11/19/1996) (0.693147 - 0.693147)/(6 - 5) 0

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ND<0.693147 (9/23/1998) ND<0.693147 (11/19/1996) (0.693147 - 0.693147)/(10
- 5) 0
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ND<0.693147 (9/24/2003) ND<0.693147 (11/19/1996) (0.693147 - 0.693147)/(14
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1.79176 J (11/16/2009) ND<0.693147 (11/19/1996) (1.79176 - 0.693147)/(26 - 5)
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ND<0.916291 (6/30/2010) ND<0.693147 (11/19/1996) (0.916291 - 0.693147)/(27
- 5) 0.0101429
2.15176 J (11/12/2010) ND<0.693147 (11/19/1996) (2.15176 - 0.693147)/(28 - 5)
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1.8563 J (7/5/2011) ND<0.693147 (11/19/1996) (1.8563 - 0.693147)/(29 - 5)
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ND<0.916291 U (11/22/2011) ND<0.693147 (11/19/1996) (0.916291 - 0.693147)/(30
- 5) 0.00892574
ND<0.916291 U (11/22/2011) ND<0.693147 (11/19/1996) (0.916291 - 0.693147)/(30
- 5) 0.00892574

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ND<0.693147 (9/24/1997) ND<0.693147 (12/19/1996) (0.693147 - 0.693147)/(8 -
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- 6) 0
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ND<0.693147 (5/23/2007) ND<0.693147 (12/19/1996) (0.693147 - 0.693147)/(21
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3.17805 (11/20/2008) ND<0.693147 (12/19/1996) (3.17805 - 0.693147)/(24 - 6)
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3.95124 (6/11/2009) ND<0.693147 (12/19/1996) (3.95124 - 0.693147)/(25 - 6)
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1.79176 J (11/16/2009) ND<0.693147 (12/19/1996) (1.79176 - 0.693147)/(26 - 6)
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ND<0.916291 (6/30/2010) ND<0.693147 (12/19/1996) (0.916291 - 0.693147)/(27
- 6) 0.0106259
2.15176 J (11/12/2010) ND<0.693147 (12/19/1996) (2.15176 - 0.693147)/(28 - 6)
0.0663007
1.8563 J (7/5/2011) ND<0.693147 (12/19/1996) (1.8563 - 0.693147)/(29 - 6)
0.0505718
ND<0.916291 U (11/22/2011) ND<0.693147 (12/19/1996) (0.916291 - 0.693147)/(30
- 6) 0.00929765
ND<0.916291 U (11/22/2011) ND<0.693147 (12/19/1996) (0.916291 - 0.693147)/(30
- 6) 0.00929765

ND<0.693147 (9/24/1997) 5.56068 (3/24/1997) (0.693147 - 5.56068)/(8 - 7)
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ND<0.693147 (4/7/1998) 5.56068 (3/24/1997) (0.693147 - 5.56068)/(9 - 7)
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ND<0.693147 (9/23/1998) 5.56068 (3/24/1997) (0.693147 - 5.56068)/(10 - 7)
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ND<0.693147 (3/11/2004) 5.56068 (3/24/1997) (0.693147 - 5.56068)/(15 - 7)
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3.95124 (6/11/2009) 5.56068 (3/24/1997) (3.95124 - 5.56068)/(25 - 7)
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- 14) 0.0139465

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-0.265033
3.95124 (6/11/2009) 5.29832 (10/12/2004) (3.95124 - 5.29832)/(25 - 16)
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1.79176 J (11/16/2009) 5.29832 (10/12/2004) (1.79176 - 5.29832)/(26 - 16)
-0.350656

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-0.313002

1.94162 (10/25/2005) ND<0.693147 (4/1/2005) (1.94162 - 0.693147)/(18 - 17)
1.24847
ND<0.693147 (4/29/2006) ND<0.693147 (4/1/2005) (0.693147 - 0.693147)/(19 - 17)
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ND<0.693147 (5/23/2007) ND<0.693147 (4/1/2005) (0.693147 - 0.693147)/(21 - 17)
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1.8563 J (7/5/2011) 1.94162 (10/25/2005) (1.8563 - 1.94162)/(29 - 18)
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ND<0.916291 U (11/22/2011) 1.94162 (10/25/2005) (0.916291 - 1.94162)/(30 - 18) -0.0854437
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ND<0.916291 (6/30/2010) 0.29267 J (11/18/2006) (0.916291 - 0.29267)/(27 - 20) 0.0890887
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ND<0.916291 U (11/22/2011) 0.29267 J (11/18/2006) (0.916291 - 0.29267)/(30 - 20) 0.0623621
ND<0.916291 U (11/22/2011) 0.29267 J (11/18/2006) (0.916291 - 0.29267)/(30 - 20) 0.0623621

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1.8563 J (7/5/2011) ND<0.693147 (5/23/2007) (1.8563 - 0.693147)/(29 - 21) 0.145394
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ND<0.916291 U (11/22/2011) ND<0.693147 (5/23/2007) (0.916291 - 0.693147)/(30 - 21) 0.0247937

6.83733 (6/5/2008) 2.45101 (11/28/2007) (6.83733 - 2.45101)/(23 - 22) 4.38633
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ND<0.916291 (6/30/2010) 2.45101 (11/28/2007) (0.916291 - 2.45101)/(27 - 22) -0.306943
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ND<0.916291 U (11/22/2011) 2.45101 (11/28/2007) (0.916291 - 2.45101)/(30 - 22) -0.191839
ND<0.916291 U (11/22/2011) 2.45101 (11/28/2007) (0.916291 - 2.45101)/(30 - 22) -0.191839

3.17805 (11/20/2008) 6.83733 (6/5/2008) (3.17805 - 6.83733)/(24 - 23) -3.65928
3.95124 (6/11/2009) 6.83733 (6/5/2008) (3.95124 - 6.83733)/(25 - 23) -1.44304
1.79176 J (11/16/2009) 6.83733 (6/5/2008) (1.79176 - 6.83733)/(26 - 23) -1.68186
ND<0.916291 (6/30/2010) 6.83733 (6/5/2008) (0.916291 - 6.83733)/(27 - 23) -1.48026
2.15176 J (11/12/2010) 6.83733 (6/5/2008) (2.15176 - 6.83733)/(28 - 23) -0.937114
1.8563 J (7/5/2011) 6.83733 (6/5/2008) (1.8563 - 6.83733)/(29 - 23) -0.830172
ND<0.916291 U (11/22/2011) 6.83733 (6/5/2008) (0.916291 - 6.83733)/(30 - 23) -0.845863
ND<0.916291 U (11/22/2011) 6.83733 (6/5/2008) (0.916291 - 6.83733)/(30 - 23) -0.845863

3.95124 (6/11/2009) 3.17805 (11/20/2008) (3.95124 - 3.17805)/(25 - 24) 0.77319
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ND<0.916291 (6/30/2010) 3.17805 (11/20/2008) (0.916291 - 3.17805)/(27 - 24) -0.753921
2.15176 J (11/12/2010) 3.17805 (11/20/2008) (2.15176 - 3.17805)/(28 - 24) -0.256573
1.8563 J (7/5/2011) 3.17805 (11/20/2008) (1.8563 - 3.17805)/(29 - 24) -0.264351
ND<0.916291 U (11/22/2011) 3.17805 (11/20/2008) (0.916291 - 3.17805)/(30 - 24) -0.376961

ND<0.916291 U (11/22/2011) 3.17805 (11/20/2008) (0.916291 - 3.17805)/(30 - 24)
-0.376961

1.79176 J (11/16/2009) 3.95124 (6/11/2009) (1.79176 - 3.95124)/(26 - 25)
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ND<0.916291 (6/30/2010) 3.95124 (6/11/2009) (0.916291 - 3.95124)/(27 - 25)
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2.15176 J (11/12/2010) 3.95124 (6/11/2009) (2.15176 - 3.95124)/(28 - 25)
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1.8563 J (7/5/2011) 3.95124 (6/11/2009) (1.8563 - 3.95124)/(29 - 25)
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ND<0.916291 U (11/22/2011) 3.95124 (6/11/2009) (0.916291 - 3.95124)/(30 - 25)
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ND<0.916291 U (11/22/2011) 3.95124 (6/11/2009) (0.916291 - 3.95124)/(30 - 25)
-0.606991

ND<0.916291 (6/30/2010) 1.79176 J (11/16/2009) (0.916291 - 1.79176)/(27 - 26)
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1.8563 J (7/5/2011) 1.79176 J (11/16/2009) (1.8563 - 1.79176)/(29 - 26)
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ND<0.916291 U (11/22/2011) 1.79176 J (11/16/2009) (0.916291 - 1.79176)/(30 - 26)
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ND<0.916291 U (11/22/2011) 1.79176 J (11/16/2009) (0.916291 - 1.79176)/(30 - 26)
-0.218867

2.15176 J (11/12/2010) ND<0.916291 (6/30/2010) (2.15176 - 0.916291)/(28 - 27)
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1.8563 J (7/5/2011) ND<0.916291 (6/30/2010) (1.8563 - 0.916291)/(29 - 27)
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ND<0.916291 U (11/22/2011) ND<0.916291 (6/30/2010) (0.916291 - 0.916291)/(30 - 27) 0
ND<0.916291 U (11/22/2011) ND<0.916291 (6/30/2010) (0.916291 - 0.916291)/(30 - 27) 0

1.8563 J (7/5/2011) 2.15176 J (11/12/2010) (1.8563 - 2.15176)/(29 - 28)
-0.295464
ND<0.916291 U (11/22/2011) 2.15176 J (11/12/2010) (0.916291 - 2.15176)/(30 - 28)
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ND<0.916291 U (11/22/2011) 2.15176 J (11/12/2010) (0.916291 - 2.15176)/(30 - 28)
-0.617736

ND<0.916291 U (11/22/2011) 1.8563 J (7/5/2011) (0.916291 - 1.8563)/(30 - 29)
-0.940007
ND<0.916291 U (11/22/2011) 1.8563 J (7/5/2011) (0.916291 - 1.8563)/(30 - 29)
-0.940007

ND<0.916291 U (11/22/2011) ND<0.916291 U (11/22/2011) (0.916291 - 0.916291)/(30 - 30) Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-4.86753
2	-4.60517
3	-4.17439
4	-3.79895
5	-3.65928

6	-2.55463
7	-2.43377
8	-2.15948
9	-2.08719
10	-1.93247
11	-1.91597
12	-1.74474
13	-1.68186
14	-1.67835
15	-1.62251
16	-1.53506
17	-1.51748
18	-1.48026
19	-1.44304
20	-1.28831
21	-1.27731
22	-1.25141
23	-1.24847
24	-1.0436
25	-0.957985
26	-0.940007
27	-0.940007
28	-0.937114
29	-0.921034
30	-0.916487
31	-0.896039
32	-0.875469
33	-0.845863
34	-0.845863
35	-0.830172
36	-0.824473
37	-0.772986
38	-0.766388
39	-0.753921
40	-0.695731
41	-0.695362
42	-0.693147
43	-0.653552
44	-0.617736
45	-0.617736
46	-0.611741
47	-0.608442
48	-0.606991
49	-0.606991
50	-0.599827
51	-0.585184
52	-0.552133
53	-0.536911
54	-0.533176
55	-0.523736
56	-0.521798
57	-0.486753
58	-0.474552
59	-0.465046
60	-0.437684
61	-0.436077
62	-0.429437
63	-0.416156
64	-0.405628
65	-0.405232
66	-0.400478
67	-0.398382

68	-0.398366
69	-0.391618
70	-0.391618
71	-0.376961
72	-0.376961
73	-0.365015
74	-0.361151
75	-0.350656
76	-0.347681
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78	-0.314699
79	-0.313002
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81	-0.306943
82	-0.295464
83	-0.282232
84	-0.268503
85	-0.265033
86	-0.264771
87	-0.264351
88	-0.262213
89	-0.256573
90	-0.242786
91	-0.236598
92	-0.232426
93	-0.232426
94	-0.23222
95	-0.218867
96	-0.218867
97	-0.210707
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100	-0.202322
101	-0.20193
102	-0.20193
103	-0.200521
104	-0.198364
105	-0.197594
106	-0.191839
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110	-0.168381
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121	-0.115002
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124	-0.0854437
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126	-0.0849582
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243	0.00858244
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247	0.00892574
248	0.00892574
249	0.00929765
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251	0.00929765
252	0.00970189
253	0.0101429

254	0.0101429
255	0.0101429
256	0.0106259
257	0.0106259
258	0.0106259
259	0.0111572
260	0.0111572
261	0.0117444
262	0.0123969
263	0.0131261
264	0.0139465
265	0.0139465
266	0.0148762
267	0.0148762
268	0.0171649
269	0.0171649
270	0.0171649
271	0.0185953
272	0.0202858
273	0.0202858
274	0.0210147
275	0.0215128
276	0.0223144
277	0.0247937
278	0.0247937
279	0.0278929
280	0.0371906
281	0.0415411
282	0.0430797
283	0.0439445
284	0.0447366
285	0.0457755
286	0.046526
287	0.0477658
288	0.0484646
289	0.0499369
290	0.0505718
291	0.0523149
292	0.0540228
293	0.0549306
294	0.0553881
295	0.0561006
296	0.0581575
297	0.0583446
298	0.0607756
299	0.061034
300	0.0612185
301	0.0623621
302	0.0623621
303	0.063418
304	0.0646243
305	0.0663007
306	0.0686633
307	0.0729308
308	0.0734393
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313	0.0810342
314	0.0830822
315	0.0832312

316	0.0837075
317	0.0878929
318	0.0890887
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320	0.091551
321	0.0925188
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323	0.0969292
324	0.0976588
325	0.0998738
326	0.103403
327	0.104039
328	0.104187
329	0.108039
330	0.109866
331	0.112201
332	0.11295
333	0.116315
334	0.118329
335	0.122068
336	0.124245
337	0.124847
338	0.125561
339	0.127347
340	0.130785
341	0.132601
342	0.13522
343	0.135754
344	0.13805
345	0.138719
346	0.141656
347	0.143594
348	0.145394
349	0.146488
350	0.148095
351	0.155147
352	0.155307
353	0.156059
354	0.156945
355	0.162068
356	0.162905
357	0.16566
358	0.171479
359	0.173736
360	0.177493
361	0.180001
362	0.18506
363	0.191653
364	0.19698
365	0.203631
366	0.206073
367	0.207205
368	0.208374
369	0.217206
370	0.219722
371	0.219732
372	0.219859
373	0.232387
374	0.248491
375	0.249848
376	0.251123
377	0.276101

378	0.279281
379	0.28709
380	0.29258
381	0.296191
382	0.307011
383	0.307209
384	0.309456
385	0.312117
386	0.323378
387	0.32581
388	0.328941
389	0.341344
390	0.347866
391	0.351357
392	0.351572
393	0.354244
394	0.354987
395	0.361423
396	0.363524
397	0.37949
398	0.383764
399	0.386493
400	0.400478
401	0.407262
402	0.409612
403	0.416156
404	0.417439
405	0.418652
406	0.429437
407	0.43887
408	0.460517
409	0.463821
410	0.470004
411	0.47263
412	0.483116
413	0.496981
414	0.50008
415	0.521798
416	0.543016
417	0.552133
418	0.575646
419	0.585953
420	0.596341
421	0.644155
422	0.657881
423	0.682687
424	0.699086
425	0.721346
426	0.731715
427	0.766388
428	0.767528
429	0.768023
430	0.77319
431	0.811256
432	0.814524
433	0.828302
434	0.834877
435	0.851542
436	0.957985
437	0.966233
438	0.973507
439	0.979144

440	1.02403
441	1.0436
442	1.07917
443	1.09484
444	1.21688
445	1.23547
446	1.24847
447	1.27731
448	1.28831
449	1.39146
450	1.53278
451	1.53605
452	1.62251
453	1.75786
454	1.93247
455	2.18155
456	2.30259
457	2.43377
458	2.55463
459	3.07209
460	3.83194
461	4.38633
462	4.60517
463	4.86753
464	7.66388

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0.693147	14
2	0.916291	3

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	

11/22/2011 2
There are 1 time periods with multiple data

A = 6072
B = 18
C = 2190
D = 0
E = 188
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3123.54
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9285
M1 = (464 - 91.9285)/2.0 = 186.036
M2 = (464 + 91.9285)/2.0 + 1 = 278.964
Lower limit is 0 = Q(186)
Upper limit is 0.0278929 = Q(279)
0 < 0 < 0.0278929 indicating no trend in data.

Concentrations (ppb)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 142
Percent Non-Detects: 59.1667%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	16 (84.2105%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	37	37
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	1.11 J	1.11 J
			11/28/2007	ND<2	ND<2
			6/5/2008	1.45 J	1.45 J
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.4	ND<0.4
			11/16/2009	ND<0.4	ND<0.4
			6/30/2010	ND<0.4	ND<0.4
			11/12/2010	ND<0.4 U	ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12A R		20	9 (45%) 3/16/1999	ND<2	ND<2
			9/23/1999	5	5
			3/15/2000	16	16
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	2.02	2.02
			4/29/2006	1.48 J	1.48 J
			11/18/2006	1.05 J	1.05 J
			5/23/2007	1.05 J	1.05 J
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	0.42 J	0.42 J
			11/16/2009	0.5 J	0.5 J
			6/30/2010	0.54 J	0.54 J
			11/12/2010	0.75 J	0.75 J
			7/5/2011	0.61 J	0.61 J
			11/22/2011	ND<0.4 U	ND<0.4 U
MW-7	30	13 (43.3333%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	12.7	12.7

			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	11.7	11.7	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	5	5	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 5.76	5.76		
			10/25/2005	8.44	8.44	
			4/29/2006	9.41	9.41	
			11/18/2006	4.84	4.84	
			5/23/2007	9.45	9.45	
			11/28/2007	12.3	12.3	
			6/5/2008 8.8	8.8		
			11/20/2008	5.73	5.73	
			6/11/2009	5.2	5.2	
			11/16/2009	2.6	2.6	
			6/30/2010	6.7 H	6.7 H	
			11/12/2010	7.7	7.7	
			7/5/2011 4	4		
			11/22/2011	5	5	
MW-8	29	13 (44.8276%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	12.2	12.2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	2	2	
			9/23/1999	40	40	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 5.17	5.17		
			10/25/2005	6.67	6.67	
			4/29/2006	4.63	4.63	
			11/18/2006	3.32	3.32	
			5/23/2007	5.92	5.92	
			11/28/2007	5.85	5.85	
			6/5/2008 2.23	2.23		
			11/20/2008	1.05 J	1.05 J	
			6/11/2009	3.6	3.6	
			6/30/2010	1.7 H	1.7 H	
			11/12/2010	5.1	5.1	
			7/5/2011 0.6 J	0.6 J		
			11/22/2011	2.6	2.6	
MW-11R	31	22 (70.9677%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	

			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	17	17	
			3/11/2004	ND<2	ND<2	
			10/12/2004	15	15	
			4/1/2005	10.4	10.4	
			10/25/2005	7.5	7.5	
			4/29/2006	7.92	7.92	
			11/18/2006	2.65	2.65	
			5/23/2007	25.5	25.5	
			11/28/2007	4.87	4.87	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	1.7 H	1.7 H	
			11/12/2010	ND<0.4 U	ND<0.4 U	
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
MW-6	30	26 (86.6667%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	5	5	
			9/23/1999	2	2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	1.09 J	1.09 J	
			11/20/2008	5.75	5.75	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U	ND<0.4 U	
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
MW-12BR	20	17 (85%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	

			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.95 J	1.95 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	1.92 J	1.92 J	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	0.45 J	0.45 J	
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
MW-9	31	10 (32.2581%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	17	17	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	17	17	
			3/16/1999	5	5	
			9/23/1999	5	5	
			3/15/2000	17	17	
			9/24/2003	13	13	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	3.91	3.91	
			10/25/2005	6.28	6.28	
			4/29/2006	11	11	
			11/18/2006	11.4	11.4	
			5/23/2007	10.8	10.8	
			11/28/2007	8.98	8.98	
			6/5/2008	8.48	8.48	
			11/20/2008	13.8	13.8	
			6/11/2009	8.6	8.6	
			11/16/2009	8.7	8.7	
			6/30/2010	10 H	10 H	
			11/12/2010	9.1	9.1	
			7/5/2011	8.3	8.3	
			11/22/2011	7	7	
			11/22/2011	7	7	
MW-10	30	16 (53.3333%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	4	4	
			9/23/1999	ND<2	ND<2	

3/15/2000		ND<2	ND<2
9/24/2003		ND<2	ND<2
3/11/2004		ND<2	ND<2
10/12/2004		ND<2	ND<2
4/1/2005	1.13 J	1.13 J	
10/25/2005		ND<2	ND<2
4/29/2006		1.31 J	1.31 J
11/18/2006		1.88 J	1.88 J
5/23/2007		3.62	3.62
11/28/2007		4.82	4.82
6/5/2008	2.23	2.23	
11/20/2008		2.11	2.11
6/11/2009		3.1	3.1
11/16/2009		3.6	3.6
6/30/2010		4.2 H	4.2 H
11/12/2010		4.3	4.3
7/5/2011	2.7 J	2.7 J	
11/22/2011		4.6	4.6

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Arsenic

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.65209	7.03356	-0.530417
2	0.2	-2.40892	12.8365	-1.0122
3	0.2	-2.25713	17.9311	-1.46363
4	0.2	-2.14441	22.5296	-1.89251
5	0.2	-2.05375	26.7475	-2.30326
6	0.2	-1.97737	30.6575	-2.69873
7	0.2	-1.8957	34.2511	-3.07787
8	0.2	-1.83843	37.6309	-3.44556
9	0.2	-1.78661	40.8229	-3.80288
10	0.2	-1.7392	43.8477	-4.15072
11	0.2	-1.6954	46.7221	-4.4898
12	0.2	-1.65463	49.4599	-4.82072
13	0.2	-1.61644	52.0728	-5.14401
14	0.2	-1.57179	54.5433	-5.45837
15	0.2	-1.5382	56.9093	-5.76601
16	0.2	-1.50626	59.1782	-6.06726
17	0.2	-1.47579	61.3561	-6.36242
18	0.2	-1.44663	63.4489	-6.65175
19	0.2	-1.41865	65.4614	-6.93548
20	0.2	-1.39175	67.3984	-7.21383
21	0.2	-1.35946	69.2465	-7.48572
22	0.2	-1.33462	71.0278	-7.75264
23	0.2	-1.31058	72.7454	-8.01476
24	0.42	-1.28727	74.4024	-8.55541
25	0.45	-1.26464	76.0018	-9.1245
26	0.5	-1.24264	77.5459	-9.74582
27	0.54	-1.21596	79.0245	-10.4024
28	0.6	-1.19522	80.453	-11.1196
29	0.61	-1.17499	81.8336	-11.8363
30	0.75	-1.15522	83.1682	-12.7027
31	1	-1.1359	84.4584	-13.8386
32	1	-1.11699	85.7061	-14.9556
33	1	-1.09847	86.9127	-16.0541
34	1	-1.07584	88.0701	-17.1299
35	1	-1.05812	89.1898	-18.188
36	1	-1.04073	90.2729	-19.2288
37	1	-1.02365	91.3208	-20.2524
38	1	-1.00687	92.3345	-21.2593
39	1	-0.990356	93.3153	-22.2496
40	1	-0.974114	94.2642	-23.2238
41	1	-0.954165	95.1747	-24.1779
42	1	-0.938476	96.0554	-25.1164
43	1	-0.923014	96.9074	-26.0394
44	1	-0.907769	97.7314	-26.9472
45	1	-0.892733	98.5284	-27.8399
46	1	-0.877897	99.2991	-28.7178
47	1	-0.859618	100.038	-29.5774
48	1	-0.845198	100.752	-30.4226
49	1	-0.830953	101.443	-31.2536
50	1	-0.816874	102.11	-32.0705
51	1	-0.802956	102.755	-32.8734

52	1	-0.789191	103.378	-33.6626
53	1	-0.775574	103.979	-34.4382
54	1	-0.758753	104.555	-35.1969
55	1	-0.745449	105.111	-35.9424
56	1	-0.732275	105.647	-36.6747
57	1	-0.719228	106.164	-37.3939
58	1	-0.706302	106.663	-38.1002
59	1	-0.693493	107.144	-38.7937
60	1	-0.680797	107.607	-39.4745
61	1	-0.665079	108.05	-40.1396
62	1	-0.652622	108.476	-40.7922
63	1	-0.640266	108.886	-41.4324
64	1	-0.628006	109.28	-42.0605
65	1	-0.615839	109.659	-42.6763
66	1	-0.603765	110.024	-43.2801
67	1	-0.588793	110.37	-43.8688
68	1	-0.576911	110.703	-44.4458
69	1	-0.565108	111.023	-45.0109
70	1	-0.553384	111.329	-45.5643
71	1	-0.541736	111.622	-46.106
72	1	-0.530162	111.903	-46.6361
73	1	-0.518658	112.172	-47.1548
74	1	-0.504372	112.427	-47.6592
75	1	-0.493018	112.67	-48.1522
76	1	-0.481728	112.902	-48.6339
77	1	-0.470498	113.123	-49.1044
78	1	-0.459327	113.334	-49.5637
79	1	-0.448213	113.535	-50.012
80	1	-0.437153	113.726	-50.4491
81	1	-0.423405	113.906	-50.8725
82	1	-0.412463	114.076	-51.285
83	1	-0.401571	114.237	-51.6866
84	1	-0.390726	114.39	-52.0773
85	1	-0.379927	114.534	-52.4572
86	1	-0.369171	114.67	-52.8264
87	1	-0.358459	114.799	-53.1848
88	1	-0.345126	114.918	-53.53
89	1	-0.334503	115.03	-53.8645
90	1	-0.323919	115.135	-54.1884
91	1	-0.31337	115.233	-54.5018
92	1	-0.302855	115.325	-54.8046
93	1	-0.292375	115.41	-55.097
94	1	-0.279319	115.488	-55.3763
95	1	-0.268908	115.56	-55.6452
96	1	-0.258527	115.627	-55.9037
97	1	-0.248174	115.689	-56.1519
98	1	-0.237847	115.745	-56.3898
99	1	-0.227545	115.797	-56.6173
100	1	-0.217267	115.844	-56.8346
101	1	-0.204452	115.886	-57.039
102	1	-0.194225	115.924	-57.2332
103	1	-0.184017	115.958	-57.4173
104	1	-0.173829	115.988	-57.5911
105	1	-0.163659	116.015	-57.7548
106	1	-0.153505	116.038	-57.9083
107	1	-0.143367	116.059	-58.0516
108	1	-0.130716	116.076	-58.1823
109	1	-0.12061	116.091	-58.3029
110	1	-0.110516	116.103	-58.4135
111	1	-0.100433	116.113	-58.5139
112	1	-0.0903606	116.121	-58.6043
113	1	-0.0802981	116.127	-58.6846

114	1	-0.0677301	116.132	-58.7523
115	1	-0.0576847	116.135	-58.81
116	1	-0.0476439	116.138	-58.8576
117	1	-0.0376076	116.139	-58.8952
118	1	-0.0275759	116.14	-58.9228
119	1	-0.0175476	116.14	-58.9403
120	1	-0.00751925	116.14	-58.9479
121	1	0.00751925	116.14	-58.9403
122	1	0.0175476	116.141	-58.9228
123	1	0.0275759	116.141	-58.8952
124	1	0.0376076	116.143	-58.8576
125	1	0.0476439	116.145	-58.81
126	1	0.0576847	116.148	-58.7523
127	1	0.0677301	116.153	-58.6846
128	1	0.0802981	116.159	-58.6043
129	1	0.0903606	116.167	-58.5139
130	1	0.100433	116.178	-58.4135
131	1	0.110516	116.19	-58.3029
132	1	0.12061	116.204	-58.1823
133	1	0.130716	116.221	-58.0516
134	1	0.143367	116.242	-57.9083
135	1	0.153505	116.266	-57.7548
136	1	0.163659	116.292	-57.5911
137	1	0.173829	116.323	-57.4173
138	1	0.184017	116.356	-57.2332
139	1	0.194225	116.394	-57.039
140	1	0.204452	116.436	-56.8346
141	1	0.217267	116.483	-56.6173
142	1	0.227545	116.535	-56.3898
143	1	0.237847	116.591	-56.1519
144	1	0.248174	116.653	-55.9037
145	1	0.258527	116.72	-55.6452
146	1	0.268908	116.792	-55.3763
147	1	0.279319	116.87	-55.097
148	1	0.292375	116.956	-54.8046
149	1	0.302855	117.047	-54.5018
150	1.05	0.31337	117.146	-54.1727
151	1.05	0.323919	117.251	-53.8326
152	1.05	0.334503	117.362	-53.4814
153	1.09	0.345126	117.482	-53.1052
154	1.11	0.358459	117.61	-52.7073
155	1.13	0.369171	117.746	-52.2901
156	1.31	0.379927	117.891	-51.7924
157	1.45	0.390726	118.043	-51.2259
158	1.48	0.401571	118.205	-50.6315
159	1.7	0.412463	118.375	-49.9304
160	1.7	0.423405	118.554	-49.2106
161	1.88	0.437153	118.745	-48.3887
162	1.92	0.448213	118.946	-47.5282
163	1.95	0.459327	119.157	-46.6325
164	2	0.470498	119.378	-45.6915
165	2	0.481728	119.61	-44.728
166	2.02	0.493018	119.853	-43.7321
167	2.11	0.504372	120.108	-42.6679
168	2.23	0.518658	120.377	-41.5113
169	2.23	0.530162	120.658	-40.329
170	2.6	0.541736	120.951	-38.9205
171	2.6	0.553384	121.258	-37.4817
172	2.65	0.565108	121.577	-35.9842
173	2.7	0.576911	121.91	-34.4265
174	3.1	0.588793	122.257	-32.6013
175	3.32	0.603765	122.621	-30.5968

176	3.6	0.615839		123	-28.3797
177	3.6	0.628006		123.395	-26.1189
178	3.62	0.640266		123.805	-23.8012
179	3.91	0.652622		124.231	-21.2494
180	4	0.665079		124.673	-18.5891
181	4	0.680797		125.136	-15.8659
182	4.2	0.693493		125.617	-12.9532
183	4.3	0.706302		126.116	-9.91614
184	4.6	0.719228		126.633	-6.60769
185	4.63	0.732275		127.17	-3.21725
186	4.82	0.745449		127.725	0.375811
187	4.84	0.758753		128.301	4.04817
188	4.87	0.775574		128.903	7.82522
189	5	0.789191		129.525	11.7712
190	5	0.802956		130.17	15.786
191	5	0.816874		130.837	19.8703
192	5	0.830953		131.528	24.0251
193	5	0.845198		132.242	28.2511
194	5	0.859618		132.981	32.5492
195	5.1	0.877897		133.752	37.0264
196	5.17	0.892733		134.549	41.6419
197	5.2	0.907769		135.373	46.3623
198	5.73	0.923014		136.225	51.6511
199	5.75	0.938476		137.106	57.0474
200	5.76	0.954165		138.016	62.5434
201	5.85	0.974114		138.965	68.2419
202	5.92	0.990356		139.946	74.1048
203	6.28	1.00687	140.96	80.428	
204	6.67	1.02365	142.007	87.2557	
205	6.7	1.04073	143.091	94.2286	
206	7	1.05812	144.21	101.635	
207	7	1.07584	145.368	109.166	
208	7.5	1.09847	146.574	117.405	
209	7.7	1.11699	147.822	126.006	
210	7.92	1.1359	149.112	135.002	
211	8.3	1.15522	150.447	144.59	
212	8.44	1.17499	151.827	154.507	
213	8.48	1.19522	153.256	164.643	
214	8.6	1.21596	154.734	175.1	
215	8.7	1.24264	156.279	185.911	
216	8.8	1.26464	157.878	197.04	
217	8.98	1.28727	159.535	208.599	
218	9.1	1.31058	161.253	220.526	
219	9.41	1.33462	163.034	233.085	
220	9.45	1.35946	164.882	245.931	
221	10	1.39175	166.819	259.849	
222	10.4	1.41865	168.831	274.603	
223	10.8	1.44663	170.924	290.227	
224	11	1.47579	173.102	306.46	
225	11.4	1.50626	175.371	323.632	
226	11.7	1.5382	177.737	341.629	
227	12.2	1.57179	180.208	360.804	
228	12.3	1.61644	182.82	380.687	
229	12.7	1.65463	185.558	401.7	
230	13	1.6954	188.433	423.74	
231	13.8	1.7392	191.457	447.741	
232	15	1.78661	194.649	474.541	
233	16	1.83843	198.029	503.955	
234	17	1.8957	201.623	536.182	
235	17	1.97737	205.533	569.797	
236	17	2.05375	209.751	604.711	
237	17	2.14441	214.349	641.166	

238	25.5	2.25713	219.444	698.723
239	37	2.40892	225.247	787.853
240	40	2.65209	232.28	893.937

Data Set Standard Deviation = 5.12863
Numerator = 799123
Denominator = 1.4602e+006
W Statistic = 0.547269 = 799123 / 1.4602e+006

5% Critical value of 0.976 exceeds 0.547269
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.547269
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Arsenic

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.744744
0.744744 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00414938	-2.65209	41.675	344.01	
2	0.2	0.00829876	-2.40892	41.675	332.136	
3	0.2	0.0124481	-2.25713	41.675	324.723	
4	0.2	0.0165975	-2.14441	41.675	319.219	
5	0.2	0.0207469	-2.05375	41.675	314.791	
6	0.2	0.0248963	-1.97737	41.675	311.062	
7	0.2	0.0290456	-1.8957	41.675	307.073	
8	0.2	0.033195	-1.83843	41.675	304.276	
9	0.2	0.0373444	-1.78661	41.675	301.746	
10	0.2	0.0414938	-1.7392	41.675	299.431	
11	0.2	0.0456432	-1.6954	41.675	297.292	
12	0.2	0.0497925	-1.65463	41.675	295.301	
13	0.2	0.0539419	-1.61644	41.675	293.436	
14	0.2	0.0580913	-1.57179	41.675	291.256	
15	0.2	0.0622407	-1.5382	41.675	289.615	
16	0.2	0.06639	-1.50626	41.675	288.056	
17	0.2	0.0705394	-1.47579	41.675	286.568	
18	0.2	0.0746888	-1.44663	41.675	285.144	
19	0.2	0.0788382	-1.41865	41.675	283.778	
20	0.2	0.0829876	-1.39175	41.675	282.464	
21	0.2	0.0871369	-1.35946	41.675	280.887	
22	0.2	0.0912863	-1.33462	41.675	279.674	
23	0.2	0.0954357	-1.31058	41.675	278.5	
24	0.42	0.0995851	-1.28727	44.6175	277.362	
25	0.45	0.103734	-1.26464	45.0187	276.257	
26	0.5	0.107884	-1.24264	45.6875	275.182	
27	0.54	0.112033	-1.21596	46.2225	273.879	
28	0.6	0.116183	-1.19522	47.025	272.867	
29	0.61	0.120332	-1.17499	47.1587	271.879	
30	0.75	0.124481	-1.15522	49.0313	270.913	
31	1	0.128631	-1.1359	52.375	269.97	
32	1	0.13278	-1.11699	52.375	269.046	
33	1	0.136929	-1.09847	52.375	268.142	
34	1	0.141079	-1.07584	52.375	267.037	
35	1	0.145228	-1.05812	52.375	266.172	
36	1	0.149378	-1.04073	52.375	265.322	
37	1	0.153527	-1.02365	52.375	264.488	
38	1	0.157676	-1.00687	52.375	263.669	
39	1	0.161826	-0.990356	52.375	262.862	
40	1	0.165975	-0.974114	52.375	262.069	
41	1	0.170124	-0.954165	52.375	261.095	
42	1	0.174274	-0.938476	52.375	260.329	
43	1	0.178423	-0.923014	52.375	259.574	
44	1	0.182573	-0.907769	52.375	258.829	
45	1	0.186722	-0.892733	52.375	258.095	
46	1	0.190871	-0.877897	52.375	257.371	
47	1	0.195021	-0.859618	52.375	256.478	
48	1	0.19917	-0.845198	52.375	255.774	

49	1	0.20332	-0.830953	52.375	255.078	
50	1	0.207469	-0.816874	52.375	254.391	
51	1	0.211618	-0.802956	52.375	253.711	
52	1	0.215768	-0.789191	52.375	253.039	
53	1	0.219917	-0.775574	52.375	252.374	
54	1	0.224066	-0.758753	52.375	251.552	
55	1	0.228216	-0.745449	52.375	250.903	
56	1	0.232365	-0.732275	52.375	250.259	
57	1	0.236515	-0.719228	52.375	249.622	
58	1	0.240664	-0.706302	52.375	248.991	
59	1	0.244813	-0.693493	52.375	248.366	
60	1	0.248963	-0.680797	52.375	247.746	
61	1	0.253112	-0.665079	52.375	246.978	
62	1	0.257261	-0.652622	52.375	246.37	
63	1	0.261411	-0.640266	52.375	245.766	
64	1	0.26556	-0.628006	52.375	245.168	
65	1	0.26971	-0.615839	52.375	244.573	
66	1	0.273859	-0.603765	52.375	243.984	
67	1	0.278008	-0.588793	52.375	243.253	
68	1	0.282158	-0.576911	52.375	242.672	
69	1	0.286307	-0.565108	52.375	242.096	
70	1	0.290456	-0.553384	52.375	241.524	
71	1	0.294606	-0.541736	52.375	240.955	
72	1	0.298755	-0.530162	52.375	240.39	
73	1	0.302905	-0.518658	52.375	239.828	
74	1	0.307054	-0.504372	52.375	239.13	
75	1	0.311203	-0.493018	52.375	238.576	
76	1	0.315353	-0.481728	52.375	238.024	
77	1	0.319502	-0.470498	52.375	237.476	
78	1	0.323651	-0.459327	52.375	236.93	
79	1	0.327801	-0.448213	52.375	236.388	
80	1	0.33195	-0.437153	52.375	235.848	
81	1	0.3361	-0.423405	52.375	235.176	
82	1	0.340249	-0.412463	52.375	234.642	
83	1	0.344398	-0.401571	52.375	234.11	
84	1	0.348548	-0.390726	52.375	233.58	
85	1	0.352697	-0.379927	52.375	233.053	
86	1	0.356846	-0.369171	52.375	232.528	
87	1	0.360996	-0.358459	52.375	232.005	
88	1	0.365145	-0.345126	52.375	231.354	
89	1	0.369295	-0.334503	52.375	230.835	
90	1	0.373444	-0.323919	52.375	230.318	
91	1	0.377593	-0.31337	52.375	229.803	
92	1	0.381743	-0.302855	52.375	229.289	
93	1	0.385892	-0.292375	52.375	228.778	
94	1	0.390041	-0.279319	52.375	228.14	
95	1	0.394191	-0.268908	52.375	227.632	
96	1	0.39834	-0.258527	52.375	227.125	
97	1	0.40249	-0.248174	52.375	226.619	
98	1	0.406639	-0.237847	52.375	226.115	
99	1	0.410788	-0.227545	52.375	225.612	
100	1	0.414938	-0.217267	52.375	225.11	
101	1	0.419087	-0.204452	52.375	224.484	
102	1	0.423237	-0.194225	52.375	223.985	
103	1	0.427386	-0.184017	52.375	223.486	
104	1	0.431535	-0.173829	52.375	222.989	
105	1	0.435685	-0.163659	52.375	222.492	
106	1	0.439834	-0.153505	52.375	221.996	
107	1	0.443983	-0.143367	52.375	221.501	
108	1	0.448133	-0.130716	52.375	220.883	
109	1	0.452282	-0.12061	52.375	220.39	
110	1	0.456432	-0.110516	52.375	219.897	

111	1	0.460581	-0.100433	52.375	219.404
112	1	0.46473	-0.0903606	52.375	218.913
113	1	0.46888	-0.0802981	52.375	218.421
114	1	0.473029	-0.0677301	52.375	217.807
115	1	0.477178	-0.0576847	52.375	217.317
116	1	0.481328	-0.0476439	52.375	216.827
117	1	0.485477	-0.0376076	52.375	216.337
118	1	0.489627	-0.0275759	52.375	215.847
119	1	0.493776	-0.0175476	52.375	215.357
120	1	0.497925	-0.00751925	52.375	214.867
121	1	0.502075	0.00751925	52.375	214.133
122	1	0.506224	0.0175476	52.375	213.643
123	1	0.510373	0.0275759	52.375	213.153
124	1	0.514523	0.0376076	52.375	212.663
125	1	0.518672	0.0476439	52.375	212.173
126	1	0.522822	0.0576847	52.375	211.683
127	1	0.526971	0.0677301	52.375	211.193
128	1	0.53112	0.0802981	52.375	210.579
129	1	0.53527	0.0903606	52.375	210.087
130	1	0.539419	0.100433	52.375	209.596
131	1	0.543568	0.110516	52.375	209.103
132	1	0.547718	0.12061	52.375	208.61
133	1	0.551867	0.130716	52.375	208.117
134	1	0.556017	0.143367	52.375	207.499
135	1	0.560166	0.153505	52.375	207.004
136	1	0.564315	0.163659	52.375	206.508
137	1	0.568465	0.173829	52.375	206.011
138	1	0.572614	0.184017	52.375	205.514
139	1	0.576763	0.194225	52.375	205.015
140	1	0.580913	0.204452	52.375	204.516
141	1	0.585062	0.217267	52.375	203.89
142	1	0.589212	0.227545	52.375	203.388
143	1	0.593361	0.237847	52.375	202.885
144	1	0.59751	0.248174	52.375	202.381
145	1	0.60166	0.258527	52.375	201.875
146	1	0.605809	0.268908	52.375	201.368
147	1	0.609959	0.279319	52.375	200.86
148	1	0.614108	0.292375	52.375	200.222
149	1	0.618257	0.302855	52.375	199.711
150	1.05	0.622407	0.31337	53.0438	199.197
151	1.05	0.626556	0.323919	53.0438	198.682
152	1.05	0.630705	0.334503	53.0438	198.165
153	1.09	0.634855	0.345126	53.5787	197.646
154	1.11	0.639004	0.358459	53.8462	196.995
155	1.13	0.643154	0.369171	54.1137	196.472
156	1.31	0.647303	0.379927	56.5213	195.947
157	1.45	0.651452	0.390726	58.3937	195.42
158	1.48	0.655602	0.401571	58.795	194.89
159	1.7	0.659751	0.412463	61.7375	194.358
160	1.7	0.6639	0.423405	61.7375	193.824
161	1.88	0.66805	0.437153	64.145	193.152
162	1.92	0.672199	0.448213	64.68	192.612
163	1.95	0.676349	0.459327	65.0812	192.07
164	2	0.680498	0.470498	65.75	191.524
165	2	0.684647	0.481728	65.75	190.976
166	2.02	0.688797	0.493018	66.0175	190.424
167	2.11	0.692946	0.504372	67.2212	189.87
168	2.23	0.697095	0.518658	68.8263	189.172
169	2.23	0.701245	0.530162	68.8263	188.61
170	2.6	0.705394	0.541736	73.775	188.045
171	2.6	0.709544	0.553384	73.775	187.476
172	2.65	0.713693	0.565108	74.4437	186.904

173	2.7	0.717842		0.576911	75.1125	186.328
174	3.1	0.721992		0.588793	80.4625	185.747
175	3.32	0.726141		0.603765	83.405	185.016
176	3.6	0.73029	0.615839	87.15	184.427	
177	3.6	0.73444	0.628006	87.15	183.832	
178	3.62	0.738589		0.640266	87.4175	183.234
179	3.91	0.742739		0.652622	91.2963	182.63
180	4	0.746888		0.665079	92.5	182.022
181	4	0.751037		0.680797	92.5	181.254
182	4.2	0.755187		0.693493	95.175	180.634
183	4.3	0.759336		0.706302	96.5125	180.009
184	4.6	0.763485		0.719228	100.525	179.378
185	4.63	0.767635		0.732275	100.926	178.741
186	4.82	0.771784		0.745449	103.468	178.097
187	4.84	0.775934		0.758753	103.735	177.448
188	4.87	0.780083		0.775574	104.136	176.626
189	5	0.784232		0.789191	105.875	175.961
190	5	0.788382		0.802956	105.875	175.289
191	5	0.792531		0.816874	105.875	174.609
192	5	0.79668	0.830953	105.875	173.922	
193	5	0.80083	0.845198	105.875	173.226	
194	5	0.804979		0.859618	105.875	172.522
195	5.1	0.809129		0.877897	107.213	171.629
196	5.17	0.813278		0.892733	108.149	170.905
197	5.2	0.817427		0.907769	108.55	170.171
198	5.73	0.821577		0.923014	115.639	169.426
199	5.75	0.825726		0.938476	115.906	168.671
200	5.76	0.829876		0.954165	116.04	167.905
201	5.85	0.834025		0.974114	117.244	166.931
202	5.92	0.838174		0.990356	118.18	166.138
203	6.28	0.842324		1.00687	122.995	165.331
204	6.67	0.846473		1.02365	128.211	164.512
205	6.7	0.850622		1.04073	128.613	163.678
206	7	0.854772		1.05812	132.625	162.828
207	7	0.858921		1.07584	132.625	161.963
208	7.5	0.863071		1.09847	139.313	160.858
209	7.7	0.86722	1.11699	141.988	159.954	
210	7.92	0.871369		1.1359	144.93	159.03
211	8.3	0.875519		1.15522	150.012	158.087
212	8.44	0.879668		1.17499	151.885	157.121
213	8.48	0.883817		1.19522	152.42	156.133
214	8.6	0.887967		1.21596	154.025	155.121
215	8.7	0.892116		1.24264	155.362	153.818
216	8.8	0.896266		1.26464	156.7	152.743
217	8.98	0.900415		1.28727	159.108	151.638
218	9.1	0.904564		1.31058	160.712	150.5
219	9.41	0.908714		1.33462	164.859	149.326
220	9.45	0.912863		1.35946	165.394	148.113
221	10	0.917012		1.39175	172.75	146.536
222	10.4	0.921162		1.41865	178.1	145.222
223	10.8	0.925311		1.44663	183.45	143.856
224	11	0.929461		1.47579	186.125	142.432
225	11.4	0.93361	1.50626	191.475	140.944	
226	11.7	0.937759		1.5382	195.487	139.385
227	12.2	0.941909		1.57179	202.175	137.744
228	12.3	0.946058		1.61644	203.512	135.564
229	12.7	0.950207		1.65463	208.863	133.699
230	13	0.954357		1.6954	212.875	131.708
231	13.8	0.958506		1.7392	223.575	129.569
232	15	0.962656		1.78661	239.625	127.254
233	16	0.966805		1.83843	253	124.724
234	17	0.970954		1.8957	266.375	121.927

235	17	0.975104	1.97737	266.375	117.938
236	17	0.979253	2.05375	266.375	114.209
237	17	0.983402	2.14441	266.375	109.781
238	25.5	0.987552	2.25713	380.063	104.277
239	37	0.991701	2.40892	533.875	96.8642
240	40	0.995851	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: Arsenic

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.60944	-2.65209	7.03356	4.26837
2	-1.60944	-2.40892	12.8365	8.14538
3	-1.60944	-2.25713	17.9311	11.7781
4	-1.60944	-2.14441	22.5296	15.2294
5	-1.60944	-2.05375	26.7475	18.5348
6	-1.60944	-1.97737	30.6575	21.7172
7	-1.60944	-1.8957	34.2511	24.7682
8	-1.60944	-1.83843	37.6309	27.7271
9	-1.60944	-1.78661	40.8229	30.6025
10	-1.60944	-1.7392	43.8477	33.4016
11	-1.60944	-1.6954	46.7221	36.1303
12	-1.60944	-1.65463	49.4599	38.7933
13	-1.60944	-1.61644	52.0728	41.3948
14	-1.60944	-1.57179	54.5433	43.9245
15	-1.60944	-1.5382	56.9093	46.4002
16	-1.60944	-1.50626	59.1782	48.8244
17	-1.60944	-1.47579	61.3561	51.1996
18	-1.60944	-1.44663	63.4489	53.5279
19	-1.60944	-1.41865	65.4614	55.8111
20	-1.60944	-1.39175	67.3984	58.051
21	-1.60944	-1.35946	69.2465	60.239
22	-1.60944	-1.33462	71.0278	62.387
23	-1.60944	-1.31058	72.7454	64.4963
24	-0.867501	-1.28727	74.4024	65.613
25	-0.798508	-1.26464	76.0018	66.6228
26	-0.693147	-1.24264	77.5459	67.4842
27	-0.616186	-1.21596	79.0245	68.2334
28	-0.510826	-1.19522	80.453	68.844
29	-0.494296	-1.17499	81.8336	69.4248
30	-0.287682	-1.15522	83.1682	69.7571
31	0	-1.1359	84.4584	69.7571
32	0	-1.11699	85.7061	69.7571
33	0	-1.09847	86.9127	69.7571
34	0	-1.07584	88.0701	69.7571
35	0	-1.05812	89.1898	69.7571
36	0	-1.04073	90.2729	69.7571
37	0	-1.02365	91.3208	69.7571
38	0	-1.00687	92.3345	69.7571
39	0	-0.990356	93.3153	69.7571
40	0	-0.974114	94.2642	69.7571
41	0	-0.954165	95.1747	69.7571
42	0	-0.938476	96.0554	69.7571
43	0	-0.923014	96.9074	69.7571
44	0	-0.907769	97.7314	69.7571
45	0	-0.892733	98.5284	69.7571
46	0	-0.877897	99.2991	69.7571
47	0	-0.859618	100.038	69.7571
48	0	-0.845198	100.752	69.7571
49	0	-0.830953	101.443	69.7571
50	0	-0.816874	102.11	69.7571
51	0	-0.802956	102.755	69.7571

52	0	-0.789191	103.378	69.7571
53	0	-0.775574	103.979	69.7571
54	0	-0.758753	104.555	69.7571
55	0	-0.745449	105.111	69.7571
56	0	-0.732275	105.647	69.7571
57	0	-0.719228	106.164	69.7571
58	0	-0.706302	106.663	69.7571
59	0	-0.693493	107.144	69.7571
60	0	-0.680797	107.607	69.7571
61	0	-0.665079	108.05	69.7571
62	0	-0.652622	108.476	69.7571
63	0	-0.640266	108.886	69.7571
64	0	-0.628006	109.28	69.7571
65	0	-0.615839	109.659	69.7571
66	0	-0.603765	110.024	69.7571
67	0	-0.588793	110.37	69.7571
68	0	-0.576911	110.703	69.7571
69	0	-0.565108	111.023	69.7571
70	0	-0.553384	111.329	69.7571
71	0	-0.541736	111.622	69.7571
72	0	-0.530162	111.903	69.7571
73	0	-0.518658	112.172	69.7571
74	0	-0.504372	112.427	69.7571
75	0	-0.493018	112.67	69.7571
76	0	-0.481728	112.902	69.7571
77	0	-0.470498	113.123	69.7571
78	0	-0.459327	113.334	69.7571
79	0	-0.448213	113.535	69.7571
80	0	-0.437153	113.726	69.7571
81	0	-0.423405	113.906	69.7571
82	0	-0.412463	114.076	69.7571
83	0	-0.401571	114.237	69.7571
84	0	-0.390726	114.39	69.7571
85	0	-0.379927	114.534	69.7571
86	0	-0.369171	114.67	69.7571
87	0	-0.358459	114.799	69.7571
88	0	-0.345126	114.918	69.7571
89	0	-0.334503	115.03	69.7571
90	0	-0.323919	115.135	69.7571
91	0	-0.31337	115.233	69.7571
92	0	-0.302855	115.325	69.7571
93	0	-0.292375	115.41	69.7571
94	0	-0.279319	115.488	69.7571
95	0	-0.268908	115.56	69.7571
96	0	-0.258527	115.627	69.7571
97	0	-0.248174	115.689	69.7571
98	0	-0.237847	115.745	69.7571
99	0	-0.227545	115.797	69.7571
100	0	-0.217267	115.844	69.7571
101	0	-0.204452	115.886	69.7571
102	0	-0.194225	115.924	69.7571
103	0	-0.184017	115.958	69.7571
104	0	-0.173829	115.988	69.7571
105	0	-0.163659	116.015	69.7571
106	0	-0.153505	116.038	69.7571
107	0	-0.143367	116.059	69.7571
108	0	-0.130716	116.076	69.7571
109	0	-0.12061	116.091	69.7571
110	0	-0.110516	116.103	69.7571
111	0	-0.100433	116.113	69.7571
112	0	-0.0903606	116.121	69.7571
113	0	-0.0802981	116.127	69.7571

114	0	-0.0677301	116.132	69.7571	
115	0	-0.0576847	116.135	69.7571	
116	0	-0.0476439	116.138	69.7571	
117	0	-0.0376076	116.139	69.7571	
118	0	-0.0275759	116.14	69.7571	
119	0	-0.0175476	116.14	69.7571	
120	0	-0.00751925	116.14	69.7571	
121	0	0.00751925	116.14	69.7571	
122	0	0.0175476	116.141	69.7571	
123	0	0.0275759	116.141	69.7571	
124	0	0.0376076	116.143	69.7571	
125	0	0.0476439	116.145	69.7571	
126	0	0.0576847	116.148	69.7571	
127	0	0.0677301	116.153	69.7571	
128	0	0.0802981	116.159	69.7571	
129	0	0.0903606	116.167	69.7571	
130	0	0.100433	116.178	69.7571	
131	0	0.110516	116.19	69.7571	
132	0	0.12061	116.204	69.7571	
133	0	0.130716	116.221	69.7571	
134	0	0.143367	116.242	69.7571	
135	0	0.153505	116.266	69.7571	
136	0	0.163659	116.292	69.7571	
137	0	0.173829	116.323	69.7571	
138	0	0.184017	116.356	69.7571	
139	0	0.194225	116.394	69.7571	
140	0	0.204452	116.436	69.7571	
141	0	0.217267	116.483	69.7571	
142	0	0.227545	116.535	69.7571	
143	0	0.237847	116.591	69.7571	
144	0	0.248174	116.653	69.7571	
145	0	0.258527	116.72	69.7571	
146	0	0.268908	116.792	69.7571	
147	0	0.279319	116.87	69.7571	
148	0	0.292375	116.956	69.7571	
149	0	0.302855	117.047	69.7571	
150	0.0487902	0.31337	117.146	69.7724	
151	0.0487902	0.323919	117.251	69.7882	
152	0.0487902	0.334503	117.362	69.8045	
153	0.0861777	0.345126	117.482	69.8342	
154	0.10436	0.358459	117.61	69.8717	
155	0.122218	0.369171	117.746	69.9168	
156	0.270027	0.379927	117.891	70.0194	
157	0.371564	0.390726	118.043	70.1645	
158	0.392042	0.401571	118.205	70.322	
159	0.530628	0.412463	118.375	70.5408	
160	0.530628	0.423405	118.554	70.7655	
161	0.631272	0.437153	118.745	71.0415	
162	0.652325	0.448213	118.946	71.3339	
163	0.667829	0.459327	119.157	71.6406	
164	0.693147	0.470498	119.378	71.9667	
165	0.693147	0.481728	119.61	72.3006	
166	0.703098	0.493018	119.853	72.6473	
167	0.746688	0.504372	120.108	73.0239	
168	0.802002	0.518658	120.377	73.4398	
169	0.802002	0.530162	120.658	73.865	
170	0.955511	0.541736	120.951	74.3827	
171	0.955511	0.553384	121.258	74.9114	
172	0.97456	0.565108	121.577	75.4622	
173	0.993252	0.576911	121.91	76.0352	
174	1.1314	0.588793	122.257	76.7013	
175	1.19996	0.603765	122.621	77.4258	

176	1.28093	0.615839		123	78.2147
177	1.28093	0.628006		123.395	79.0191
178	1.28647	0.640266		123.805	79.8428
179	1.36354	0.652622		124.231	80.7327
180	1.38629	0.665079		124.673	81.6547
181	1.38629	0.680797		125.136	82.5985
182	1.43508	0.693493		125.617	83.5937
183	1.45862	0.706302		126.116	84.6239
184	1.52606	0.719228		126.633	85.7215
185	1.53256	0.732275		127.17	86.8438
186	1.57277	0.745449		127.725	88.0162
187	1.57691	0.758753		128.301	89.2127
188	1.58309	0.775574		128.903	90.4405
189	1.60944	0.789191		129.525	91.7106
190	1.60944	0.802956		130.17	93.0029
191	1.60944	0.816874		130.837	94.3176
192	1.60944	0.830953		131.528	95.655
193	1.60944	0.845198		132.242	97.0153
194	1.60944	0.859618		132.981	98.3988
195	1.62924	0.877897		133.752	99.8291
196	1.64287	0.892733		134.549	101.296
197	1.64866	0.907769		135.373	102.792
198	1.74572	0.923014		136.225	104.404
199	1.7492	0.938476		137.106	106.045
200	1.75094	0.954165		138.016	107.716
201	1.76644	0.974114		138.965	109.437
202	1.77834	0.990356		139.946	111.198
203	1.83737	1.00687	140.96	113.048	
204	1.89762	1.02365	142.007	114.99	
205	1.90211	1.04073	143.091	116.97	
206	1.94591	1.05812	144.21	119.029	
207	1.94591	1.07584	145.368	121.122	
208	2.0149	1.09847	146.574	123.336	
209	2.04122	1.11699	147.822	125.616	
210	2.06939	1.1359	149.112	127.966	
211	2.11626	1.15522	150.447	130.411	
212	2.13298	1.17499	151.827	132.917	
213	2.13771	1.19522	153.256	135.472	
214	2.15176	1.21596	154.734	138.089	
215	2.16332	1.24264	156.279	140.777	
216	2.17475	1.26464	157.878	143.527	
217	2.195	1.28727	159.535	146.353	
218	2.20827	1.31058	161.253	149.247	
219	2.24177	1.33462	163.034	152.239	
220	2.24601	1.35946	164.882	155.292	
221	2.30259	1.39175	166.819	158.497	
222	2.34181	1.41865	168.831	161.819	
223	2.37955	1.44663	170.924	165.261	
224	2.3979	1.47579	173.102	168.8	
225	2.43361	1.50626	175.371	172.466	
226	2.45959	1.5382	177.737	176.249	
227	2.50144	1.57179	180.208	180.181	
228	2.5096	1.61644	182.82	184.238	
229	2.5416	1.65463	185.558	188.443	
230	2.56495	1.6954	188.433	192.792	
231	2.62467	1.7392	191.457	197.356	
232	2.70805	1.78661	194.649	202.195	
233	2.77259	1.83843	198.029	207.292	
234	2.83321	1.8957	201.623	212.663	
235	2.83321	1.97737	205.533	218.265	
236	2.83321	2.05375	209.751	224.084	
237	2.83321	2.14441	214.349	230.159	

238	3.23868	2.25713	219.444	237.469
239	3.61092	2.40892	225.247	246.168
240	3.68888	2.65209	232.28	255.951

Data Set Standard Deviation = 1.15911
Numerator = 65511
Denominator = 74586.4
W Statistic = 0.878323 = 65511 / 74586.4

5% Critical value of 0.976 exceeds 0.878323
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.878323
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.936694
0.936694 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00414938	-2.65209	73.8251	344.01
2	-1.60944	0.00829876	-2.40892	73.8251	332.136
3	-1.60944	0.0124481	-2.25713	73.8251	324.723
4	-1.60944	0.0165975	-2.14441	73.8251	319.219
5	-1.60944	0.0207469	-2.05375	73.8251	314.791
6	-1.60944	0.0248963	-1.97737	73.8251	311.062
7	-1.60944	0.0290456	-1.8957	73.8251	307.073
8	-1.60944	0.033195	-1.83843	73.8251	304.276
9	-1.60944	0.0373444	-1.78661	73.8251	301.746
10	-1.60944	0.0414938	-1.7392	73.8251	299.431
11	-1.60944	0.0456432	-1.6954	73.8251	297.292
12	-1.60944	0.0497925	-1.65463	73.8251	295.301
13	-1.60944	0.0539419	-1.61644	73.8251	293.436
14	-1.60944	0.0580913	-1.57179	73.8251	291.256
15	-1.60944	0.0622407	-1.5382	73.8251	289.615
16	-1.60944	0.06639	-1.50626	73.8251	288.056
17	-1.60944	0.0705394	-1.47579	73.8251	286.568
18	-1.60944	0.0746888	-1.44663	73.8251	285.144
19	-1.60944	0.0788382	-1.41865	73.8251	283.778
20	-1.60944	0.0829876	-1.39175	73.8251	282.464
21	-1.60944	0.0871369	-1.35946	73.8251	280.887
22	-1.60944	0.0912863	-1.33462	73.8251	279.674
23	-1.60944	0.0954357	-1.31058	73.8251	278.5
24	-0.867501	0.0995851	-1.28727	139.981	277.362
25	-0.798508	0.103734	-1.26464	146.133	276.257
26	-0.693147	0.107884	-1.24264	155.528	275.182
27	-0.616186	0.112033	-1.21596	162.39	273.879
28	-0.510826	0.116183	-1.19522	171.785	272.867
29	-0.494296	0.120332	-1.17499	173.259	271.879
30	-0.287682	0.124481	-1.15522	191.682	270.913
31	0	0.128631	-1.1359	217.333	269.97
32	0	0.13278	-1.11699	217.333	269.046
33	0	0.136929	-1.09847	217.333	268.142
34	0	0.141079	-1.07584	217.333	267.037
35	0	0.145228	-1.05812	217.333	266.172
36	0	0.149378	-1.04073	217.333	265.322
37	0	0.153527	-1.02365	217.333	264.488
38	0	0.157676	-1.00687	217.333	263.669
39	0	0.161826	-0.990356	217.333	262.862
40	0	0.165975	-0.974114	217.333	262.069
41	0	0.170124	-0.954165	217.333	261.095
42	0	0.174274	-0.938476	217.333	260.329
43	0	0.178423	-0.923014	217.333	259.574
44	0	0.182573	-0.907769	217.333	258.829
45	0	0.186722	-0.892733	217.333	258.095
46	0	0.190871	-0.877897	217.333	257.371
47	0	0.195021	-0.859618	217.333	256.478
48	0	0.19917	-0.845198	217.333	255.774

49	0	0.20332	-0.830953	217.333	255.078
50	0	0.207469	-0.816874	217.333	254.391
51	0	0.211618	-0.802956	217.333	253.711
52	0	0.215768	-0.789191	217.333	253.039
53	0	0.219917	-0.775574	217.333	252.374
54	0	0.224066	-0.758753	217.333	251.552
55	0	0.228216	-0.745449	217.333	250.903
56	0	0.232365	-0.732275	217.333	250.259
57	0	0.236515	-0.719228	217.333	249.622
58	0	0.240664	-0.706302	217.333	248.991
59	0	0.244813	-0.693493	217.333	248.366
60	0	0.248963	-0.680797	217.333	247.746
61	0	0.253112	-0.665079	217.333	246.978
62	0	0.257261	-0.652622	217.333	246.37
63	0	0.261411	-0.640266	217.333	245.766
64	0	0.26556	-0.628006	217.333	245.168
65	0	0.26971	-0.615839	217.333	244.573
66	0	0.273859	-0.603765	217.333	243.984
67	0	0.278008	-0.588793	217.333	243.253
68	0	0.282158	-0.576911	217.333	242.672
69	0	0.286307	-0.565108	217.333	242.096
70	0	0.290456	-0.553384	217.333	241.524
71	0	0.294606	-0.541736	217.333	240.955
72	0	0.298755	-0.530162	217.333	240.39
73	0	0.302905	-0.518658	217.333	239.828
74	0	0.307054	-0.504372	217.333	239.13
75	0	0.311203	-0.493018	217.333	238.576
76	0	0.315353	-0.481728	217.333	238.024
77	0	0.319502	-0.470498	217.333	237.476
78	0	0.323651	-0.459327	217.333	236.93
79	0	0.327801	-0.448213	217.333	236.388
80	0	0.33195	-0.437153	217.333	235.848
81	0	0.3361	-0.423405	217.333	235.176
82	0	0.340249	-0.412463	217.333	234.642
83	0	0.344398	-0.401571	217.333	234.11
84	0	0.348548	-0.390726	217.333	233.58
85	0	0.352697	-0.379927	217.333	233.053
86	0	0.356846	-0.369171	217.333	232.528
87	0	0.360996	-0.358459	217.333	232.005
88	0	0.365145	-0.345126	217.333	231.354
89	0	0.369295	-0.334503	217.333	230.835
90	0	0.373444	-0.323919	217.333	230.318
91	0	0.377593	-0.31337	217.333	229.803
92	0	0.381743	-0.302855	217.333	229.289
93	0	0.385892	-0.292375	217.333	228.778
94	0	0.390041	-0.279319	217.333	228.14
95	0	0.394191	-0.268908	217.333	227.632
96	0	0.39834	-0.258527	217.333	227.125
97	0	0.40249	-0.248174	217.333	226.619
98	0	0.406639	-0.237847	217.333	226.115
99	0	0.410788	-0.227545	217.333	225.612
100	0	0.414938	-0.217267	217.333	225.11
101	0	0.419087	-0.204452	217.333	224.484
102	0	0.423237	-0.194225	217.333	223.985
103	0	0.427386	-0.184017	217.333	223.486
104	0	0.431535	-0.173829	217.333	222.989
105	0	0.435685	-0.163659	217.333	222.492
106	0	0.439834	-0.153505	217.333	221.996
107	0	0.443983	-0.143367	217.333	221.501
108	0	0.448133	-0.130716	217.333	220.883
109	0	0.452282	-0.12061	217.333	220.39
110	0	0.456432	-0.110516	217.333	219.897

111	0	0.460581	-0.100433	217.333	219.404	
112	0	0.46473	-0.0903606	217.333	218.913	
113	0	0.46888	-0.0802981	217.333	218.421	
114	0	0.473029	-0.0677301	217.333	217.807	
115	0	0.477178	-0.0576847	217.333	217.317	
116	0	0.481328	-0.0476439	217.333	216.827	
117	0	0.485477	-0.0376076	217.333	216.337	
118	0	0.489627	-0.0275759	217.333	215.847	
119	0	0.493776	-0.0175476	217.333	215.357	
120	0	0.497925	-0.00751925	217.333	214.867	
121	0	0.502075	0.00751925	217.333	214.133	
122	0	0.506224	0.0175476	217.333	213.643	
123	0	0.510373	0.0275759	217.333	213.153	
124	0	0.514523	0.0376076	217.333	212.663	
125	0	0.518672	0.0476439	217.333	212.173	
126	0	0.522822	0.0576847	217.333	211.683	
127	0	0.526971	0.0677301	217.333	211.193	
128	0	0.53112	0.0802981	217.333	210.579	
129	0	0.53527	0.0903606	217.333	210.087	
130	0	0.539419	0.100433	217.333	209.596	
131	0	0.543568	0.110516	217.333	209.103	
132	0	0.547718	0.12061	217.333	208.61	
133	0	0.551867	0.130716	217.333	208.117	
134	0	0.556017	0.143367	217.333	207.499	
135	0	0.560166	0.153505	217.333	207.004	
136	0	0.564315	0.163659	217.333	206.508	
137	0	0.568465	0.173829	217.333	206.011	
138	0	0.572614	0.184017	217.333	205.514	
139	0	0.576763	0.194225	217.333	205.015	
140	0	0.580913	0.204452	217.333	204.516	
141	0	0.585062	0.217267	217.333	203.89	
142	0	0.589212	0.227545	217.333	203.388	
143	0	0.593361	0.237847	217.333	202.885	
144	0	0.59751	0.248174	217.333	202.381	
145	0	0.60166	0.258527	217.333	201.875	
146	0	0.605809	0.268908	217.333	201.368	
147	0	0.609959	0.279319	217.333	200.86	
148	0	0.614108	0.292375	217.333	200.222	
149	0	0.618257	0.302855	217.333	199.711	
150	0.0487902	0.622407	0.31337	221.684	199.197	
151	0.0487902	0.626556	0.323919	221.684	198.682	
152	0.0487902	0.630705	0.334503	221.684	198.165	
153	0.0861777	0.634855	0.345126	225.018	197.646	
154	0.10436	0.639004	0.358459	226.639	196.995	
155	0.122218	0.643154	0.369171	228.231	196.472	
156	0.270027	0.647303	0.379927	241.411	195.947	
157	0.371564	0.651452	0.390726	250.464	195.42	
158	0.392042	0.655602	0.401571	252.29	194.89	
159	0.530628	0.659751	0.412463	264.648	194.358	
160	0.530628	0.6639	0.423405	264.648	193.824	
161	0.631272	0.66805	0.437153	273.622	193.152	
162	0.652325	0.672199	0.448213	275.499	192.612	
163	0.667829	0.676349	0.459327	276.881	192.07	
164	0.693147	0.680498	0.470498	279.139	191.524	
165	0.693147	0.684647	0.481728	279.139	190.976	
166	0.703098	0.688797	0.493018	280.026	190.424	
167	0.746688	0.692946	0.504372	283.913	189.87	
168	0.802002	0.697095	0.518658	288.845	189.172	
169	0.802002	0.701245	0.530162	288.845	188.61	
170	0.955511	0.705394	0.541736	302.533	188.045	
171	0.955511	0.709544	0.553384	302.533	187.476	
172	0.97456	0.713693	0.565108	304.232	186.904	

173	0.993252	0.717842	0.576911	305.898	186.328		
174	1.1314	0.721992	0.588793	318.217	185.747		
175	1.19996	0.726141	0.603765	324.33	185.016		
176	1.28093	0.73029	0.615839	331.55	184.427		
177	1.28093	0.73444	0.628006	331.55	183.832		
178	1.28647	0.738589	0.640266	332.044	183.234		
179	1.36354	0.742739	0.652622	338.915	182.63		
180	1.38629	0.746888	0.665079	340.945	182.022		
181	1.38629	0.751037	0.680797	340.945	181.254		
182	1.43508	0.755187	0.693493	345.295	180.634		
183	1.45862	0.759336	0.706302	347.393	180.009		
184	1.52606	0.763485	0.719228	353.407	179.378		
185	1.53256	0.767635	0.732275	353.986	178.741		
186	1.57277	0.771784	0.745449	357.572	178.097		
187	1.57691	0.775934	0.758753	357.942	177.448		
188	1.58309	0.780083	0.775574	358.493	176.626		
189	1.60944	0.784232	0.789191	360.842	175.961		
190	1.60944	0.788382	0.802956	360.842	175.289		
191	1.60944	0.792531	0.816874	360.842	174.609		
192	1.60944	0.79668	0.830953	360.842	173.922		
193	1.60944	0.80083	0.845198	360.842	173.226		
194	1.60944	0.804979	0.859618	360.842	172.522		
195	1.62924	0.809129	0.877897	362.607	171.629		
196	1.64287	0.813278	0.892733	363.823	170.905		
197	1.64866	0.817427	0.907769	364.339	170.171		
198	1.74572	0.821577	0.923014	372.993	169.426		
199	1.7492	0.825726	0.938476	373.304	168.671		
200	1.75094	0.829876	0.954165	373.459	167.905		
201	1.76644	0.834025	0.974114	374.841	166.931		
202	1.77834	0.838174	0.990356	375.902	166.138		
203	1.83737	0.842324	1.00687	381.165	165.331		
204	1.89762	0.846473	1.02365	386.538	164.512		
205	1.90211	0.850622	1.04073	386.938	163.678		
206	1.94591	0.854772	1.05812	390.844	162.828		
207	1.94591	0.858921	1.07584	390.844	161.963		
208	2.0149	0.863071	1.09847	396.996	160.858		
209	2.04122	0.86722	1.11699	399.342	159.954		
210	2.06939	0.871369	1.1359	401.854	159.03		
211	2.11626	0.875519	1.15522	406.033	158.087		
212	2.13298	0.879668	1.17499	407.524	157.121		
213	2.13771	0.883817	1.19522	407.946	156.133		
214	2.15176	0.887967	1.21596	409.199	155.121		
215	2.16332	0.892116	1.24264	410.23	153.818		
216	2.17475	0.896266	1.26464	411.249	152.743		
217	2.195	0.900415	1.28727	413.054	151.638		
218	2.20827	0.904564	1.31058	414.238	150.5		
219	2.24177	0.908714	1.33462	417.225	149.326		
220	2.24601	0.912863	1.35946	417.603	148.113		
221	2.30259	0.917012	1.39175	422.647	146.536		
222	2.34181	0.921162	1.41865	426.144	145.222		
223	2.37955	0.925311	1.44663	429.51	143.856		
224	2.3979	0.929461	1.47579	431.146	142.432		
225	2.43361	0.93361	1.50626	434.331	140.944		
226	2.45959	0.937759	1.5382	436.647	139.385		
227	2.50144	0.941909	1.57179	440.378	137.744		
228	2.5096	0.946058	1.61644	441.106	135.564		
229	2.5416	0.950207	1.65463	443.96	133.699		
230	2.56495	0.954357	1.6954	446.041	131.708		
231	2.62467	0.958506	1.7392	451.366	129.569		
232	2.70805	0.962656	1.78661	458.801	127.254		
233	2.77259	0.966805	1.83843	464.556	124.724		
234	2.83321	0.970954	1.8957	469.962	121.927		

235	2.83321	0.975104	1.97737	469.962	117.938
236	2.83321	0.979253	2.05375	469.962	114.209
237	2.83321	0.983402	2.14441	469.962	109.781
238	3.23868	0.987552	2.25713	506.115	104.277
239	3.61092	0.991701	2.40892	539.307	96.8642
240	3.68888	0.995851	2.65209	546.258	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	71.5
	9/23/1999	ND<0	71.5
	3/15/2000	3.61092	239
	9/24/2003	ND<0	71.5
	3/11/2004	ND<0	71.5
	10/12/2004	ND<0	71.5
	4/1/2005	ND<0	71.5
	10/25/2005	ND<0	71.5
	4/29/2006	ND<0	71.5
	11/18/2006	ND<0	71.5
	5/23/2007	0.10436 J	154
	11/28/2007	ND<0	71.5
	6/5/2008	0.371564 J	157
	11/20/2008	ND<0	71.5
	6/11/2009	ND<-1.60944	71.5
	11/16/2009	ND<-1.60944	71.5
	6/30/2010	ND<-1.60944	71.5
	11/12/2010	ND<-1.60944 U	71.5
	7/5/2011	ND<-1.60944 U	71.5

Rank Sum = 1694
Rank Mean = 89.1579

Background Rank Sum = 1694
Background Rank Mean = 89.1579

Compliance Locations

Loc. ID	Date	Value	Rank
MW-12A R	3/16/1999	ND<0	71.5
	9/23/1999	1.60944	189
	3/15/2000	2.77259	233
	9/24/2003	ND<0	71.5
	3/11/2004	ND<0	71.5
	10/12/2004	ND<0	71.5
	4/1/2005	ND<0	71.5
	10/25/2005	0.703098	166
	4/29/2006	0.392042 J	158
	11/18/2006	0.0487902 J	150
	5/23/2007	0.0487902 J	151
	11/28/2007	ND<0	71.5
	6/5/2008	ND<0	71.5
	11/20/2008	ND<0	71.5
	6/11/2009	-0.867501 J	143
	11/16/2009	-0.693147 J	145
	6/30/2010	-0.616186 J	146
	11/12/2010	-0.287682 J	149
	7/5/2011	-0.494296 J	148
	11/22/2011	ND<-1.60944 U	71.5

Rank Sum = 2421.5

Rank Mean = 121.075

MW-7	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	2.5416	229	
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	2.45959		226
	3/24/1997	ND<0	71.5	
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	ND<0	71.5	
	3/16/1999	1.60944		190
	9/23/1999	ND<0	71.5	
	3/15/2000	ND<0	71.5	
	9/24/2003	ND<0	71.5	
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	1.75094	200	
	10/25/2005	2.13298		212
	4/29/2006	2.24177		219
	11/18/2006	1.57691		187
	5/23/2007	2.24601		220
	11/28/2007	2.5096	228	
	6/5/2008	2.17475	216	
	11/20/2008	1.74572		198
	6/11/2009	1.64866		197
	11/16/2009	0.955511		170
	6/30/2010	1.90211	H	205
	11/12/2010	2.04122		209
	7/5/2011	1.38629	180	
	11/22/2011	1.60944		191

Rank Sum = 4406.5
Rank Mean = 146.883

MW-8	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	2.50144		227
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	ND<0	71.5	
	3/24/1997	ND<0	71.5	
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	ND<0	71.5	
	3/16/1999	0.693147		164
	9/23/1999	3.68888		240
	3/15/2000	ND<0	71.5	
	9/24/2003	ND<0	71.5	
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	1.64287	196	
	10/25/2005	1.89762		204
	4/29/2006	1.53256		185
	11/18/2006	1.19996		175
	5/23/2007	1.77834		202
	11/28/2007	1.76644		201
	6/5/2008	0.802002	168	
	11/20/2008	0.0487902	J	152
	6/11/2009	1.28093		176
	6/30/2010	0.530628	H	159
	11/12/2010	1.62924		195

	7/5/2011	-0.510826	J	147
	11/22/2011	0.955511		171

Rank Sum = 3891.5
Rank Mean = 134.19

MW-11R	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	ND<0	71.5	
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	ND<0	71.5	
	3/24/1997	ND<0	71.5	
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	ND<0	71.5	
	3/16/1999	ND<0	71.5	
	9/23/1999	ND<0	71.5	
	3/15/2000	ND<0	71.5	
	9/24/2003	2.833	21	234
	3/11/2004	ND<0	71.5	
	10/12/2004	2.708	05	232
	4/1/2005	2.341	81	222
	10/25/2005	2.0149	208	
	4/29/2006	2.069	39	210
	11/18/2006	0.974	56	172
	5/23/2007	3.238	68	238
	11/28/2007	1.583	09	188
	6/5/2008	ND<0	71.5	
	11/20/2008	ND<0	71.5	
	6/11/2009	ND<-1.60	944	71.5
	11/16/2009	ND<-1.60	944	71.5
	6/30/2010	0.530	628 H	160
	11/12/2010	ND<-1.60	944 U	71.5
	7/5/2011	ND<-1.60	944 U	71.5
	11/22/2011	ND<-1.60	944 U	71.5
	11/22/2011	ND<-1.60	944 U	71.5

Rank Sum = 3437
Rank Mean = 110.871

MW-6	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	ND<0	71.5	
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	ND<0	71.5	
	3/24/1997	ND<0	71.5	
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	ND<0	71.5	
	3/16/1999	1.609	44	192
	9/23/1999	0.693	147	165
	3/15/2000	ND<0	71.5	
	9/24/2003	ND<0	71.5	
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	ND<0	71.5	
	10/25/2005	ND<0	71.5	
	4/29/2006	ND<0	71.5	
	11/18/2006	ND<0	71.5	
	5/23/2007	ND<0	71.5	
	11/28/2007	ND<0	71.5	
	6/5/2008	0.0861777	J	153

	11/20/2008	1.7492	199	
	6/11/2009	ND<-1.60944		71.5
	11/16/2009	ND<-1.60944		71.5
	6/30/2010	ND<-1.60944		71.5
	11/12/2010	ND<-1.60944 U		71.5
	7/5/2011	ND<-1.60944 U	71.5	
	11/22/2011	ND<-1.60944 U		71.5

Rank Sum = 2568
Rank Mean = 85.6

MW-12BR	3/16/1999		ND<0	71.5
	9/23/1999	ND<0	71.5	
	3/15/2000	ND<0	71.5	
	9/24/2003	ND<0	71.5	
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	0.667829 J	163	
	10/25/2005	ND<0	71.5	
	4/29/2006	ND<0	71.5	
	11/18/2006	ND<0	71.5	
	5/23/2007	ND<0	71.5	
	11/28/2007	ND<0	71.5	
	6/5/2008	0.652325 J	162	
	11/20/2008	ND<0	71.5	
	6/11/2009	ND<-1.60944		71.5
	11/16/2009	ND<-1.60944		71.5
	6/30/2010	ND<-1.60944		71.5
	11/12/2010	-0.798508 J		144
	7/5/2011	ND<-1.60944 U	71.5	
	11/22/2011	ND<-1.60944 U		71.5

Rank Sum = 1684.5
Rank Mean = 84.225

MW-9	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	ND<0	71.5	
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	ND<0	71.5	
	3/24/1997	2.83321		235
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	2.83321		236
	3/16/1999	1.60944		193
	9/23/1999	1.60944		194
	3/15/2000	2.83321		237
	9/24/2003	2.56495		230
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	1.36354	179	
	10/25/2005	1.83737		203
	4/29/2006	2.3979	224	
	11/18/2006	2.43361		225
	5/23/2007	2.37955		223
	11/28/2007	2.195	217	
	6/5/2008	2.13771	213	
	11/20/2008	2.62467		231
	6/11/2009	2.15176		214
	11/16/2009	2.16332		215
	6/30/2010	2.30259 H		221
	11/12/2010	2.20827		218
	7/5/2011	2.11626	211	

	11/22/2011	1.94591		206
	11/22/2011	1.94591		207

Rank Sum = 5247
Rank Mean = 169.258

MW-10	7/20/1995	ND<0	71.5	
	8/24/1995	ND<0	71.5	
	9/28/1995	ND<0	71.5	
	10/26/1995	ND<0	71.5	
	11/19/1996	ND<0	71.5	
	12/19/1996	ND<0	71.5	
	3/24/1997	ND<0	71.5	
	9/24/1997	ND<0	71.5	
	4/7/1998	ND<0	71.5	
	9/23/1998	ND<0	71.5	
	3/16/1999	1.38629		181
	9/23/1999	ND<0	71.5	
	3/15/2000	ND<0	71.5	
	9/24/2003	ND<0	71.5	
	3/11/2004	ND<0	71.5	
	10/12/2004	ND<0	71.5	
	4/1/2005	0.122218 J	155	
	10/25/2005	ND<0	71.5	
	4/29/2006	0.270027 J		156
	11/18/2006	0.631272 J		161
	5/23/2007	1.28647		178
	11/28/2007	1.57277		186
	6/5/2008	0.802002	169	
	11/20/2008	0.746688		167
	6/11/2009	1.1314	174	
	11/16/2009	1.28093		177
	6/30/2010	1.43508 H		182
	11/12/2010	1.45862		183
	7/5/2011	0.993252 J	173	
	11/22/2011	1.52606		184

Rank Sum = 3570
Rank Mean = 119

Calculation Results:

Kruskal-Wallis H Statistic = 38.275
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 48.2732
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
38.275 > 15.5073 indicating a significant group difference at 5% significance level
48.2732 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 89.1579

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	**121.075**	**31.9171**	**51.7413**
MW-7	**146.883**	**57.7254**	**47.3541**
MW-8	**134.19**	**45.0318**	**47.6696**
MW-11R	**110.871**	**21.7131**	**47.057**
MW-6	**85.6**	**-3.55789**	**47.3541**
MW-12BR	**84.225**	**-4.93289**	**51.7413**
MW-9	**169.258**	**80.1002**	**47.057**
MW-10	**119**	**29.8421**	**47.3541**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 89.1579

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	**121.075**	**31.9171**	**55.8736**
MW-7	**146.883**	**57.7254**	**51.136**
MW-8	**134.19**	**45.0318**	**51.4767**
MW-11R	**110.871**	**21.7131**	**50.8152**
MW-6	**85.6**	**-3.55789**	**51.136**
MW-12BR	**84.225**	**-4.93289**	**55.8736**
MW-9	**169.258**	**80.1002**	**50.8152**
MW-10	**119**	**29.8421**	**51.136**

Shewhart-CUSUM Control Chart

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.833532
Baseline Std Dev = 1.29156
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	-0.645367	
3/24/1997	0	0	-0.645367	
9/24/1997	0	0	-0.645367	
9/24/1997	0	0	-0.645367	
4/7/1998	0	0	-0.645367	
4/7/1998	0	0	-0.645367	
9/23/1998	0	0	-0.645367	
9/23/1998	0	0	-0.645367	
3/16/1999	1.60944	0	0.60075	
3/16/1999	1.60944	0	0.60075	
9/23/1999	0	0	-0.645367	
9/23/1999	0	0	-0.645367	
3/15/2000	0	0	-0.645367	
3/15/2000	0	0	-0.645367	
9/24/2003	0	0	-0.645367	
9/24/2003	0	0	-0.645367	
3/11/2004	0	0	-0.645367	
3/11/2004	0	0	-0.645367	
10/12/2004	0	0	-0.645367	
10/12/2004	0	0	-0.645367	
4/1/2005	1.75094	0	0.710307	
4/1/2005	1.75094	0	0.710307	
10/25/2005	2.13298	0.00610746		1.00611
10/25/2005	2.13298	0.00610746		1.00611
4/29/2006	2.24177	0.0964467		1.09034
4/29/2006	2.24177	0.0964467		1.09034
11/18/2006	1.57691	0	0.575569	
11/18/2006	1.57691	0	0.575569	
5/23/2007	2.24601	0.0936235		1.09362
5/23/2007	2.24601	0.0936235		1.09362
11/28/2007	2.5096	0.391329		1.29771
11/28/2007	2.5096	0.391329		1.29771
6/5/2008	2.17475	0.429777	1.03845	
6/5/2008	2.17475	0.429777	1.03845	
11/20/2008	1.74572	0.13604	0.706264	
11/20/2008	1.74572	0.13604	0.706264	
6/11/2009	1.64866	0	0.631117	
6/11/2009	1.64866	0	0.631117	
11/16/2009	0.955511		0	0.0944435
11/16/2009	0.955511		0	0.0944435
6/30/2010	1.90211	0	0.827351	
6/30/2010	1.90211	0	0.827351	
11/12/2010	2.04122	0	0.93506	
11/12/2010	2.04122	0	0.93506	
7/5/2011	1.38629	0	0.42798	

7/5/2011	1.38629	0	0.42798	
11/22/2011		1.60944	0	0.60075
11/22/2011		1.60944	0	0.60075

Shewhart-CUSUM Control Chart

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	2.83321	0	0
3/24/1997	2.83321	0	0
9/24/1997	0	0	0
9/24/1997	0	0	0
4/7/1998	0	0	0
4/7/1998	0	0	0
9/23/1998	2.83321	0	0
9/23/1998	2.83321	0	0
3/16/1999	1.60944	0	0
3/16/1999	1.60944	0	0
9/23/1999	1.60944	0	0
9/23/1999	1.60944	0	0
3/15/2000	2.83321	0	0
3/15/2000	2.83321	0	0
9/24/2003	2.56495	0	0
9/24/2003	2.56495	0	0
3/11/2004	0	0	0
3/11/2004	0	0	0
10/12/2004	0	0	0
10/12/2004	0	0	0
4/1/2005	1.36354	0	0
4/1/2005	1.36354	0	0
10/25/2005	1.83737	0	0
10/25/2005	1.83737	0	0
4/29/2006	2.3979	0	0
4/29/2006	2.3979	0	0
11/18/2006	2.43361	0	0
11/18/2006	2.43361	0	0
5/23/2007	2.37955	0	0
5/23/2007	2.37955	0	0
11/28/2007	2.195	0	0
11/28/2007	2.195	0	0
6/5/2008	2.13771	0	0
6/5/2008	2.13771	0	0
11/20/2008	2.62467	0	0
11/20/2008	2.62467	0	0
6/11/2009	2.15176	0	0
6/11/2009	2.15176	0	0
11/16/2009	2.16332	0	0
11/16/2009	2.16332	0	0
6/30/2010	2.30259	0	0
6/30/2010	2.30259	0	0
11/12/2010	2.20827	0	0
11/12/2010	2.20827	0	0
7/5/2011	2.11626	0	0

7/5/2011	2.11626	0	0	
11/22/2011		1.94591	0	0
11/22/2011		1.94591	0	0

Sen's Slope Analysis
Parameter: Arsenic
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0	(8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1) 0
ND<0	(9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1) 0
ND<0	(10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1) 0
ND<0	(11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1) 0
ND<0	(12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1) 0
2.83321	(3/24/1997)	ND<0 (7/20/1995)	(2.83321 - 0)/(7 - 1) 0.472202
ND<0	(9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1) 0
ND<0	(4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1) 0
2.83321	(9/23/1998)	ND<0 (7/20/1995)	(2.83321 - 0)/(10 - 1) 0.314801
1.60944	(3/16/1999)	ND<0 (7/20/1995)	(1.60944 - 0)/(11 - 1) 0.160944
1.60944	(9/23/1999)	ND<0 (7/20/1995)	(1.60944 - 0)/(12 - 1) 0.146313
2.83321	(3/15/2000)	ND<0 (7/20/1995)	(2.83321 - 0)/(13 - 1) 0.236101
2.56495	(9/24/2003)	ND<0 (7/20/1995)	(2.56495 - 0)/(14 - 1) 0.197304
ND<0	(3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1) 0
ND<0	(10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1) 0
1.36354	(4/1/2005)	ND<0 (7/20/1995)	(1.36354 - 0)/(17 - 1) 0.0852211
1.83737	(10/25/2005)	ND<0 (7/20/1995)	(1.83737 - 0)/(18 - 1) 0.108081
2.3979	(4/29/2006)	ND<0 (7/20/1995)	(2.3979 - 0)/(19 - 1) 0.133216
2.43361	(11/18/2006)	ND<0 (7/20/1995)	(2.43361 - 0)/(20 - 1) 0.128085
2.37955	(5/23/2007)	ND<0 (7/20/1995)	(2.37955 - 0)/(21 - 1) 0.118977
2.195	(11/28/2007)	ND<0 (7/20/1995)	(2.195 - 0)/(22 - 1) 0.104524
2.13771	(6/5/2008)	ND<0 (7/20/1995)	(2.13771 - 0)/(23 - 1) 0.0971687
2.62467	(11/20/2008)	ND<0 (7/20/1995)	(2.62467 - 0)/(24 - 1) 0.114116
2.15176	(6/11/2009)	ND<0 (7/20/1995)	(2.15176 - 0)/(25 - 1) 0.0896568
2.16332	(11/16/2009)	ND<0 (7/20/1995)	(2.16332 - 0)/(26 - 1) 0.0865329
2.30259 H	(6/30/2010)	ND<0 (7/20/1995)	(2.30259 - 0)/(27 - 1) 0.088561
2.20827	(11/12/2010)	ND<0 (7/20/1995)	(2.20827 - 0)/(28 - 1) 0.0817879
2.11626	(7/5/2011)	ND<0 (7/20/1995)	(2.11626 - 0)/(29 - 1) 0.0755806
1.94591	(11/22/2011)	ND<0 (7/20/1995)	(1.94591 - 0)/(30 - 1) 0.0671003
1.94591	(11/22/2011)	ND<0 (7/20/1995)	(1.94591 - 0)/(30 - 1) 0.0671003

ND<0	(9/28/1995)	ND<0	(8/24/1995)	(0 - 0)/(3 - 2)	0
ND<0	(10/26/1995)	ND<0	(8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0	(11/19/1996)	ND<0	(8/24/1995)	(0 - 0)/(5 - 2)	0
ND<0	(12/19/1996)	ND<0	(8/24/1995)	(0 - 0)/(6 - 2)	0
2.83321	(3/24/1997)	ND<0	(8/24/1995)	(2.83321 - 0)/(7 - 2)	
0.566643					
ND<0	(9/24/1997)	ND<0	(8/24/1995)	(0 - 0)/(8 - 2)	0
ND<0	(4/7/1998)	ND<0	(8/24/1995)	(0 - 0)/(9 - 2)	0
2.83321	(9/23/1998)	ND<0	(8/24/1995)	(2.83321 - 0)/(10 - 2)	
0.354152					
1.60944	(3/16/1999)	ND<0	(8/24/1995)	(1.60944 - 0)/(11 - 2)	
0.178826					
1.60944	(9/23/1999)	ND<0	(8/24/1995)	(1.60944 - 0)/(12 - 2)	
0.160944					
2.83321	(3/15/2000)	ND<0	(8/24/1995)	(2.83321 - 0)/(13 - 2)	
0.257565					
2.56495	(9/24/2003)	ND<0	(8/24/1995)	(2.56495 - 0)/(14 - 2)	
0.213746					
ND<0	(3/11/2004)	ND<0	(8/24/1995)	(0 - 0)/(15 - 2)	0
ND<0	(10/12/2004)	ND<0	(8/24/1995)	(0 - 0)/(16 - 2)	0
1.36354	(4/1/2005)	ND<0	(8/24/1995)	(1.36354 - 0)/(17 - 2)	
0.0909025					
1.83737	(10/25/2005)	ND<0	(8/24/1995)	(1.83737 - 0)/(18 - 2)	
0.114836					
2.3979	(4/29/2006)	ND<0	(8/24/1995)	(2.3979 - 0)/(19 - 2)	
0.141053					
2.43361	(11/18/2006)	ND<0	(8/24/1995)	(2.43361 - 0)/(20 - 2)	
0.135201					
2.37955	(5/23/2007)	ND<0	(8/24/1995)	(2.37955 - 0)/(21 - 2)	
0.125239					
2.195	(11/28/2007)	ND<0	(8/24/1995)	(2.195 - 0)/(22 - 2)	0.10975
2.13771	(6/5/2008)	ND<0	(8/24/1995)	(2.13771 - 0)/(23 - 2)	
0.101796					
2.62467	(11/20/2008)	ND<0	(8/24/1995)	(2.62467 - 0)/(24 - 2)	
0.119303					
2.15176	(6/11/2009)	ND<0	(8/24/1995)	(2.15176 - 0)/(25 - 2)	
0.0935549					
2.16332	(11/16/2009)	ND<0	(8/24/1995)	(2.16332 - 0)/(26 - 2)	
0.0901385					
2.30259	H (6/30/2010)	ND<0	(8/24/1995)	(2.30259 - 0)/(27 - 2)	
0.0921034					
2.20827	(11/12/2010)	ND<0	(8/24/1995)	(2.20827 - 0)/(28 - 2)	
0.0849336					
2.11626	(7/5/2011)	ND<0	(8/24/1995)	(2.11626 - 0)/(29 - 2)	
0.0783798					
1.94591	(11/22/2011)	ND<0	(8/24/1995)	(1.94591 - 0)/(30 - 2)	
0.0694968					
1.94591	(11/22/2011)	ND<0	(8/24/1995)	(1.94591 - 0)/(30 - 2)	
0.0694968					
ND<0	(10/26/1995)	ND<0	(9/28/1995)	(0 - 0)/(4 - 3)	0
ND<0	(11/19/1996)	ND<0	(9/28/1995)	(0 - 0)/(5 - 3)	0
ND<0	(12/19/1996)	ND<0	(9/28/1995)	(0 - 0)/(6 - 3)	0
2.83321	(3/24/1997)	ND<0	(9/28/1995)	(2.83321 - 0)/(7 - 3)	
0.708303					
ND<0	(9/24/1997)	ND<0	(9/28/1995)	(0 - 0)/(8 - 3)	0
ND<0	(4/7/1998)	ND<0	(9/28/1995)	(0 - 0)/(9 - 3)	0
2.83321	(9/23/1998)	ND<0	(9/28/1995)	(2.83321 - 0)/(10 - 3)	
0.404745					
1.60944	(3/16/1999)	ND<0	(9/28/1995)	(1.60944 - 0)/(11 - 3)	0.20118

1.60944 (9/23/1999)	ND<0 (9/28/1995)	(1.60944 - 0)/(12 - 3)			
0.178826					
2.83321 (3/15/2000)	ND<0 (9/28/1995)	(2.83321 - 0)/(13 - 3)			
0.283321					
2.56495 (9/24/2003)	ND<0 (9/28/1995)	(2.56495 - 0)/(14 - 3)			
0.233177					
ND<0 (3/11/2004)	ND<0 (9/28/1995)	(0 - 0)/(15 - 3)	0		
ND<0 (10/12/2004)	ND<0 (9/28/1995)	(0 - 0)/(16 - 3)	0		
1.36354 (4/1/2005)	ND<0 (9/28/1995)	(1.36354 - 0)/(17 - 3)			
0.0973955					
1.83737 (10/25/2005)	ND<0 (9/28/1995)	(1.83737 - 0)/(18 - 3)			
0.122491					
2.3979 (4/29/2006)	ND<0 (9/28/1995)	(2.3979 - 0)/(19 - 3)			
0.149868					
2.43361 (11/18/2006)	ND<0 (9/28/1995)	(2.43361 - 0)/(20 - 3)			
0.143154					
2.37955 (5/23/2007)	ND<0 (9/28/1995)	(2.37955 - 0)/(21 - 3)			
0.132197					
2.195 (11/28/2007)	ND<0 (9/28/1995)	(2.195 - 0)/(22 - 3)			
0.115526					
2.13771 (6/5/2008)	ND<0 (9/28/1995)	(2.13771 - 0)/(23 - 3)			
0.106886					
2.62467 (11/20/2008)	ND<0 (9/28/1995)	(2.62467 - 0)/(24 - 3)			
0.124984					
2.15176 (6/11/2009)	ND<0 (9/28/1995)	(2.15176 - 0)/(25 - 3)			
0.0978074					
2.16332 (11/16/2009)	ND<0 (9/28/1995)	(2.16332 - 0)/(26 - 3)			
0.0940575					
2.30259 H (6/30/2010)	ND<0 (9/28/1995)	(2.30259 - 0)/(27 - 3)			
0.095941					
2.20827 (11/12/2010)	ND<0 (9/28/1995)	(2.20827 - 0)/(28 - 3)			
0.088331					
2.11626 (7/5/2011)	ND<0 (9/28/1995)	(2.11626 - 0)/(29 - 3)			
0.0813944					
1.94591 (11/22/2011)	ND<0 (9/28/1995)	(1.94591 - 0)/(30 - 3)			
0.0720707					
1.94591 (11/22/2011)	ND<0 (9/28/1995)	(1.94591 - 0)/(30 - 3)			
0.0720707					
ND<0 (11/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(5 - 4)	0		
ND<0 (12/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(6 - 4)	0		
2.83321 (3/24/1997)	ND<0 (10/26/1995)	(2.83321 - 0)/(7 - 4)			
0.944404					
ND<0 (9/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(8 - 4)	0		
ND<0 (4/7/1998)	ND<0 (10/26/1995)	(0 - 0)/(9 - 4)	0		
2.83321 (9/23/1998)	ND<0 (10/26/1995)	(2.83321 - 0)/(10 - 4)			
0.472202					
1.60944 (3/16/1999)	ND<0 (10/26/1995)	(1.60944 - 0)/(11 - 4)		0.22992	
1.60944 (9/23/1999)	ND<0 (10/26/1995)	(1.60944 - 0)/(12 - 4)		0.20118	
2.83321 (3/15/2000)	ND<0 (10/26/1995)	(2.83321 - 0)/(13 - 4)			
0.314801					
2.56495 (9/24/2003)	ND<0 (10/26/1995)	(2.56495 - 0)/(14 - 4)			
0.256495					
ND<0 (3/11/2004)	ND<0 (10/26/1995)	(0 - 0)/(15 - 4)	0		
ND<0 (10/12/2004)	ND<0 (10/26/1995)	(0 - 0)/(16 - 4)	0		
1.36354 (4/1/2005)	ND<0 (10/26/1995)	(1.36354 - 0)/(17 - 4)			
0.104887					
1.83737 (10/25/2005)	ND<0 (10/26/1995)	(1.83737 - 0)/(18 - 4)			
0.131241					
2.3979 (4/29/2006)	ND<0 (10/26/1995)	(2.3979 - 0)/(19 - 4)		0.15986	
2.43361 (11/18/2006)	ND<0 (10/26/1995)	(2.43361 - 0)/(20 - 4)			
0.152101					

2.37955 (5/23/2007)	ND<0 (10/26/1995)	(2.37955 - 0)/(21 - 4)			
0.139973					
2.195 (11/28/2007)	ND<0 (10/26/1995)	(2.195 - 0)/(22 - 4)			
0.121944					
2.13771 (6/5/2008)	ND<0 (10/26/1995)	(2.13771 - 0)/(23 - 4)			
0.112511					
2.62467 (11/20/2008)	ND<0 (10/26/1995)	(2.62467 - 0)/(24 - 4)			
0.131233					
2.15176 (6/11/2009)	ND<0 (10/26/1995)	(2.15176 - 0)/(25 - 4)			
0.102465					
2.16332 (11/16/2009)	ND<0 (10/26/1995)	(2.16332 - 0)/(26 - 4)			
0.0983329					
2.30259 H (6/30/2010)	ND<0 (10/26/1995)	(2.30259 - 0)/(27 - 4)			
0.100112					
2.20827 (11/12/2010)	ND<0 (10/26/1995)	(2.20827 - 0)/(28 - 4)			
0.0920114					
2.11626 (7/5/2011)	ND<0 (10/26/1995)	(2.11626 - 0)/(29 - 4)			
0.0846502					
1.94591 (11/22/2011)	ND<0 (10/26/1995)	(1.94591 - 0)/(30 - 4)			
0.0748427					
1.94591 (11/22/2011)	ND<0 (10/26/1995)	(1.94591 - 0)/(30 - 4)			
0.0748427					
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0		
2.83321 (3/24/1997)	ND<0 (11/19/1996)	(2.83321 - 0)/(7 - 5)		1.41661	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0		
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0		
2.83321 (9/23/1998)	ND<0 (11/19/1996)	(2.83321 - 0)/(10 - 5)			
0.566643					
1.60944 (3/16/1999)	ND<0 (11/19/1996)	(1.60944 - 0)/(11 - 5)		0.26824	
1.60944 (9/23/1999)	ND<0 (11/19/1996)	(1.60944 - 0)/(12 - 5)		0.22992	
2.83321 (3/15/2000)	ND<0 (11/19/1996)	(2.83321 - 0)/(13 - 5)			
0.354152					
2.56495 (9/24/2003)	ND<0 (11/19/1996)	(2.56495 - 0)/(14 - 5)			
0.284994					
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0		
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0		
1.36354 (4/1/2005)	ND<0 (11/19/1996)	(1.36354 - 0)/(17 - 5)			
0.113628					
1.83737 (10/25/2005)	ND<0 (11/19/1996)	(1.83737 - 0)/(18 - 5)			
0.141336					
2.3979 (4/29/2006)	ND<0 (11/19/1996)	(2.3979 - 0)/(19 - 5)			
0.171278					
2.43361 (11/18/2006)	ND<0 (11/19/1996)	(2.43361 - 0)/(20 - 5)			
0.162241					
2.37955 (5/23/2007)	ND<0 (11/19/1996)	(2.37955 - 0)/(21 - 5)			
0.148722					
2.195 (11/28/2007)	ND<0 (11/19/1996)	(2.195 - 0)/(22 - 5)			
0.129118					
2.13771 (6/5/2008)	ND<0 (11/19/1996)	(2.13771 - 0)/(23 - 5)			
0.118762					
2.62467 (11/20/2008)	ND<0 (11/19/1996)	(2.62467 - 0)/(24 - 5)		0.13814	
2.15176 (6/11/2009)	ND<0 (11/19/1996)	(2.15176 - 0)/(25 - 5)			
0.107588					
2.16332 (11/16/2009)	ND<0 (11/19/1996)	(2.16332 - 0)/(26 - 5)			
0.103015					
2.30259 H (6/30/2010)	ND<0 (11/19/1996)	(2.30259 - 0)/(27 - 5)			
0.104663					
2.20827 (11/12/2010)	ND<0 (11/19/1996)	(2.20827 - 0)/(28 - 5)			
0.0960119					
2.11626 (7/5/2011)	ND<0 (11/19/1996)	(2.11626 - 0)/(29 - 5)			
0.0881773					

1.94591 (11/22/2011)	ND<0 (11/19/1996)	(1.94591 - 0)/(30 - 5)			
0.0778364					
1.94591 (11/22/2011)	ND<0 (11/19/1996)	(1.94591 - 0)/(30 - 5)			
0.0778364					
2.83321 (3/24/1997)	ND<0 (12/19/1996)	(2.83321 - 0)/(7 - 6)			2.83321
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)		0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)		0	
2.83321 (9/23/1998)	ND<0 (12/19/1996)	(2.83321 - 0)/(10 - 6)			
0.708303					
1.60944 (3/16/1999)	ND<0 (12/19/1996)	(1.60944 - 0)/(11 - 6)			
0.321888					
1.60944 (9/23/1999)	ND<0 (12/19/1996)	(1.60944 - 0)/(12 - 6)			0.26824
2.83321 (3/15/2000)	ND<0 (12/19/1996)	(2.83321 - 0)/(13 - 6)			
0.404745					
2.56495 (9/24/2003)	ND<0 (12/19/1996)	(2.56495 - 0)/(14 - 6)			
0.320619					
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)		0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)		0	
1.36354 (4/1/2005)	ND<0 (12/19/1996)	(1.36354 - 0)/(17 - 6)			
0.123958					
1.83737 (10/25/2005)	ND<0 (12/19/1996)	(1.83737 - 0)/(18 - 6)			
0.153114					
2.3979 (4/29/2006)	ND<0 (12/19/1996)	(2.3979 - 0)/(19 - 6)			
0.184453					
2.43361 (11/18/2006)	ND<0 (12/19/1996)	(2.43361 - 0)/(20 - 6)			0.17383
2.37955 (5/23/2007)	ND<0 (12/19/1996)	(2.37955 - 0)/(21 - 6)			
0.158636					
2.195 (11/28/2007)	ND<0 (12/19/1996)	(2.195 - 0)/(22 - 6)			
0.137187					
2.13771 (6/5/2008)	ND<0 (12/19/1996)	(2.13771 - 0)/(23 - 6)			
0.125748					
2.62467 (11/20/2008)	ND<0 (12/19/1996)	(2.62467 - 0)/(24 - 6)			
0.145815					
2.15176 (6/11/2009)	ND<0 (12/19/1996)	(2.15176 - 0)/(25 - 6)			
0.113251					
2.16332 (11/16/2009)	ND<0 (12/19/1996)	(2.16332 - 0)/(26 - 6)			
0.108166					
2.30259 H (6/30/2010)	ND<0 (12/19/1996)	(2.30259 - 0)/(27 - 6)			
0.109647					
2.20827 (11/12/2010)	ND<0 (12/19/1996)	(2.20827 - 0)/(28 - 6)			
0.100376					
2.11626 (7/5/2011)	ND<0 (12/19/1996)	(2.11626 - 0)/(29 - 6)			
0.0920111					
1.94591 (11/22/2011)	ND<0 (12/19/1996)	(1.94591 - 0)/(30 - 6)			
0.0810796					
1.94591 (11/22/2011)	ND<0 (12/19/1996)	(1.94591 - 0)/(30 - 6)			
0.0810796					
ND<0 (9/24/1997)	2.83321 (3/24/1997)	(0 - 2.83321)/(8 - 7)			-2.83321
ND<0 (4/7/1998)	2.83321 (3/24/1997)	(0 - 2.83321)/(9 - 7)			-1.41661
2.83321 (9/23/1998)	2.83321 (3/24/1997)	(2.83321 - 2.83321)/(10 - 7)			
0					
1.60944 (3/16/1999)	2.83321 (3/24/1997)	(1.60944 - 2.83321)/(11 - 7)			
-0.305944					
1.60944 (9/23/1999)	2.83321 (3/24/1997)	(1.60944 - 2.83321)/(12 - 7)			
-0.244755					
2.83321 (3/15/2000)	2.83321 (3/24/1997)	(2.83321 - 2.83321)/(13 - 7)			
0					
2.56495 (9/24/2003)	2.83321 (3/24/1997)	(2.56495 - 2.83321)/(14 - 7)			
-0.0383234					

ND<0	(3/11/2004)	2.83321	(3/24/1997)	(0 - 2.83321)/(15 - 7)	
	-0.354152				
ND<0	(10/12/2004)	2.83321	(3/24/1997)	(0 - 2.83321)/(16 - 7)	
	-0.314801				
1.36354	(4/1/2005)	2.83321	(3/24/1997)	(1.36354 - 2.83321)/(17 - 7)	
	-0.146968				
1.83737	(10/25/2005)	2.83321	(3/24/1997)	(1.83737 - 2.83321)/(18 - 7)	
	-0.0905312				
2.3979	(4/29/2006)	2.83321	(3/24/1997)	(2.3979 - 2.83321)/(19 - 7)	
	-0.0362765				
2.43361	(11/18/2006)	2.83321	(3/24/1997)	(2.43361 - 2.83321)/(20 - 7)	
	-0.0307385				
2.37955	(5/23/2007)	2.83321	(3/24/1997)	(2.37955 - 2.83321)/(21 - 7)	
	-0.0324048				
2.195	(11/28/2007)	2.83321	(3/24/1997)	(2.195 - 2.83321)/(22 - 7)	
	-0.0425476				
2.13771	(6/5/2008)	2.83321	(3/24/1997)	(2.13771 - 2.83321)/(23 - 7)	
	-0.0434689				
2.62467	(11/20/2008)	2.83321	(3/24/1997)	(2.62467 - 2.83321)/(24 - 7)	
	-0.0122673				
2.15176	(6/11/2009)	2.83321	(3/24/1997)	(2.15176 - 2.83321)/(25 - 7)	
	-0.0378584				
2.16332	(11/16/2009)	2.83321	(3/24/1997)	(2.16332 - 2.83321)/(26 - 7)	
	-0.0352574				
2.30259	H (6/30/2010)	2.83321	(3/24/1997)	(2.30259 - 2.83321)/(27 - 7)	
	-0.0265314				
2.20827	(11/12/2010)	2.83321	(3/24/1997)	(2.20827 - 2.83321)/(28 - 7)	
	-0.029759				
2.11626	(7/5/2011)	2.83321	(3/24/1997)	(2.11626 - 2.83321)/(29 - 7)	
	-0.032589				
1.94591	(11/22/2011)	2.83321	(3/24/1997)	(1.94591 - 2.83321)/(30 - 7)	
	-0.0385784				
1.94591	(11/22/2011)	2.83321	(3/24/1997)	(1.94591 - 2.83321)/(30 - 7)	
	-0.0385784				

ND<0	(4/7/1998)	ND<0	(9/24/1997)	(0 - 0)/(9 - 8)	0	
2.83321	(9/23/1998)	ND<0	(9/24/1997)	(2.83321 - 0)/(10 - 8)		1.41661
1.60944	(3/16/1999)	ND<0	(9/24/1997)	(1.60944 - 0)/(11 - 8)		
	0.536479					
1.60944	(9/23/1999)	ND<0	(9/24/1997)	(1.60944 - 0)/(12 - 8)		
	0.402359					
2.83321	(3/15/2000)	ND<0	(9/24/1997)	(2.83321 - 0)/(13 - 8)		
	0.566643					
2.56495	(9/24/2003)	ND<0	(9/24/1997)	(2.56495 - 0)/(14 - 8)		
	0.427492					
ND<0	(3/11/2004)	ND<0	(9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0	(10/12/2004)	ND<0	(9/24/1997)	(0 - 0)/(16 - 8)	0	
1.36354	(4/1/2005)	ND<0	(9/24/1997)	(1.36354 - 0)/(17 - 8)		
	0.151504					
1.83737	(10/25/2005)	ND<0	(9/24/1997)	(1.83737 - 0)/(18 - 8)		
	0.183737					
2.3979	(4/29/2006)	ND<0	(9/24/1997)	(2.3979 - 0)/(19 - 8)		0.21799
2.43361	(11/18/2006)	ND<0	(9/24/1997)	(2.43361 - 0)/(20 - 8)		
	0.202801					
2.37955	(5/23/2007)	ND<0	(9/24/1997)	(2.37955 - 0)/(21 - 8)		
	0.183042					
2.195	(11/28/2007)	ND<0	(9/24/1997)	(2.195 - 0)/(22 - 8)		
	0.156786					
2.13771	(6/5/2008)	ND<0	(9/24/1997)	(2.13771 - 0)/(23 - 8)		
	0.142514					
2.62467	(11/20/2008)	ND<0	(9/24/1997)	(2.62467 - 0)/(24 - 8)		
	0.164042					

2.15176	(6/11/2009)	ND<0	(9/24/1997)	(2.15176 - 0)/(25 - 8)	
0.126574					
2.16332	(11/16/2009)	ND<0	(9/24/1997)	(2.16332 - 0)/(26 - 8)	
0.120185					
2.30259 H	(6/30/2010)	ND<0	(9/24/1997)	(2.30259 - 0)/(27 - 8)	
0.121189					
2.20827	(11/12/2010)	ND<0	(9/24/1997)	(2.20827 - 0)/(28 - 8)	
0.110414					
2.11626	(7/5/2011)	ND<0	(9/24/1997)	(2.11626 - 0)/(29 - 8)	
0.100774					
1.94591	(11/22/2011)	ND<0	(9/24/1997)	(1.94591 - 0)/(30 - 8)	
0.0884505					
1.94591	(11/22/2011)	ND<0	(9/24/1997)	(1.94591 - 0)/(30 - 8)	
0.0884505					
2.83321	(9/23/1998)	ND<0	(4/7/1998)	(2.83321 - 0)/(10 - 9)	2.83321
1.60944	(3/16/1999)	ND<0	(4/7/1998)	(1.60944 - 0)/(11 - 9)	
0.804719					
1.60944	(9/23/1999)	ND<0	(4/7/1998)	(1.60944 - 0)/(12 - 9)	
0.536479					
2.83321	(3/15/2000)	ND<0	(4/7/1998)	(2.83321 - 0)/(13 - 9)	
0.708303					
2.56495	(9/24/2003)	ND<0	(4/7/1998)	(2.56495 - 0)/(14 - 9)	0.51299
ND<0	(3/11/2004)	ND<0	(4/7/1998)	(0 - 0)/(15 - 9) 0	
ND<0	(10/12/2004)	ND<0	(4/7/1998)	(0 - 0)/(16 - 9) 0	
1.36354	(4/1/2005)	ND<0	(4/7/1998)	(1.36354 - 0)/(17 - 9)	
0.170442					
1.83737	(10/25/2005)	ND<0	(4/7/1998)	(1.83737 - 0)/(18 - 9)	
0.204152					
2.3979	(4/29/2006)	ND<0	(4/7/1998)	(2.3979 - 0)/(19 - 9)	0.23979
2.43361	(11/18/2006)	ND<0	(4/7/1998)	(2.43361 - 0)/(20 - 9)	
0.221238					
2.37955	(5/23/2007)	ND<0	(4/7/1998)	(2.37955 - 0)/(21 - 9)	
0.198296					
2.195	(11/28/2007)	ND<0	(4/7/1998)	(2.195 - 0)/(22 - 9)	
0.168846					
2.13771	(6/5/2008)	ND<0	(4/7/1998)	(2.13771 - 0)/(23 - 9)	
0.152694					
2.62467	(11/20/2008)	ND<0	(4/7/1998)	(2.62467 - 0)/(24 - 9)	
0.174978					
2.15176	(6/11/2009)	ND<0	(4/7/1998)	(2.15176 - 0)/(25 - 9)	
0.134485					
2.16332	(11/16/2009)	ND<0	(4/7/1998)	(2.16332 - 0)/(26 - 9)	
0.127254					
2.30259 H	(6/30/2010)	ND<0	(4/7/1998)	(2.30259 - 0)/(27 - 9)	
0.127921					
2.20827	(11/12/2010)	ND<0	(4/7/1998)	(2.20827 - 0)/(28 - 9)	
0.116225					
2.11626	(7/5/2011)	ND<0	(4/7/1998)	(2.11626 - 0)/(29 - 9)	
0.105813					
1.94591	(11/22/2011)	ND<0	(4/7/1998)	(1.94591 - 0)/(30 - 9)	
0.0926624					
1.94591	(11/22/2011)	ND<0	(4/7/1998)	(1.94591 - 0)/(30 - 9)	
0.0926624					
1.60944	(3/16/1999)	2.83321	(9/23/1998)	(1.60944 - 2.83321)/(11 - 10)	
-1.22378					
1.60944	(9/23/1999)	2.83321	(9/23/1998)	(1.60944 - 2.83321)/(12 - 10)	
-0.611888					
2.83321	(3/15/2000)	2.83321	(9/23/1998)	(2.83321 - 2.83321)/(13 - 10)	
0					

2.56495	(9/24/2003)	2.83321	(9/23/1998)	(2.56495 - 2.83321)/(14 - 10)	-0.067066
ND<0	(3/11/2004)	2.83321	(9/23/1998)	(0 - 2.83321)/(15 - 10)	-0.566643
ND<0	(10/12/2004)	2.83321	(9/23/1998)	(0 - 2.83321)/(16 - 10)	-0.472202
1.36354	(4/1/2005)	2.83321	(9/23/1998)	(1.36354 - 2.83321)/(17 - 10)	-0.209954
1.83737	(10/25/2005)	2.83321	(9/23/1998)	(1.83737 - 2.83321)/(18 - 10)	-0.12448
2.3979	(4/29/2006)	2.83321	(9/23/1998)	(2.3979 - 2.83321)/(19 - 10)	-0.0483687
2.43361	(11/18/2006)	2.83321	(9/23/1998)	(2.43361 - 2.83321)/(20 - 10)	-0.03996
2.37955	(5/23/2007)	2.83321	(9/23/1998)	(2.37955 - 2.83321)/(21 - 10)	-0.0412425
2.195	(11/28/2007)	2.83321	(9/23/1998)	(2.195 - 2.83321)/(22 - 10)	-0.0531845
2.13771	(6/5/2008)	2.83321	(9/23/1998)	(2.13771 - 2.83321)/(23 - 10)	-0.0535002
2.62467	(11/20/2008)	2.83321	(9/23/1998)	(2.62467 - 2.83321)/(24 - 10)	-0.0148961
2.15176	(6/11/2009)	2.83321	(9/23/1998)	(2.15176 - 2.83321)/(25 - 10)	-0.0454301
2.16332	(11/16/2009)	2.83321	(9/23/1998)	(2.16332 - 2.83321)/(26 - 10)	-0.0418681
2.30259	H (6/30/2010)	2.83321	(9/23/1998)	(2.30259 - 2.83321)/(27 - 10)	-0.0312134
2.20827	(11/12/2010)	2.83321	(9/23/1998)	(2.20827 - 2.83321)/(28 - 10)	-0.0347188
2.11626	(7/5/2011)	2.83321	(9/23/1998)	(2.11626 - 2.83321)/(29 - 10)	-0.0377346
1.94591	(11/22/2011)	2.83321	(9/23/1998)	(1.94591 - 2.83321)/(30 - 10)	-0.0443652
1.94591	(11/22/2011)	2.83321	(9/23/1998)	(1.94591 - 2.83321)/(30 - 10)	-0.0443652

1.60944	(9/23/1999)	1.60944	(3/16/1999)	(1.60944 - 1.60944)/(12 - 11)	0
2.83321	(3/15/2000)	1.60944	(3/16/1999)	(2.83321 - 1.60944)/(13 - 11)	0.611888
2.56495	(9/24/2003)	1.60944	(3/16/1999)	(2.56495 - 1.60944)/(14 - 11)	0.318504
ND<0	(3/11/2004)	1.60944	(3/16/1999)	(0 - 1.60944)/(15 - 11)	-0.402359
ND<0	(10/12/2004)	1.60944	(3/16/1999)	(0 - 1.60944)/(16 - 11)	-0.321888
1.36354	(4/1/2005)	1.60944	(3/16/1999)	(1.36354 - 1.60944)/(17 - 11)	-0.0409834
1.83737	(10/25/2005)	1.60944	(3/16/1999)	(1.83737 - 1.60944)/(18 - 11)	0.0325617
2.3979	(4/29/2006)	1.60944	(3/16/1999)	(2.3979 - 1.60944)/(19 - 11)	0.0985572
2.43361	(11/18/2006)	1.60944	(3/16/1999)	(2.43361 - 1.60944)/(20 - 11)	0.091575
2.37955	(5/23/2007)	1.60944	(3/16/1999)	(2.37955 - 1.60944)/(21 - 11)	0.0770108
2.195	(11/28/2007)	1.60944	(3/16/1999)	(2.195 - 1.60944)/(22 - 11)	0.0532329
2.13771	(6/5/2008)	1.60944	(3/16/1999)	(2.13771 - 1.60944)/(23 - 11)	0.0440227

2.62467	(11/20/2008)	1.60944	(3/16/1999)	(2.62467 - 1.60944)/(24 - 11)	
0.0780947					
2.15176	(6/11/2009)	1.60944	(3/16/1999)	(2.15176 - 1.60944)/(25 - 11)	
0.0387374					
2.16332	(11/16/2009)	1.60944	(3/16/1999)	(2.16332 - 1.60944)/(26 - 11)	
0.0369257					
2.30259	H (6/30/2010)	1.60944	(3/16/1999)	(2.30259 - 1.60944)/(27 - 11)	
0.0433217					
2.20827	(11/12/2010)	1.60944	(3/16/1999)	(2.20827 - 1.60944)/(28 - 11)	
0.0352257					
2.11626	(7/5/2011)	1.60944	(3/16/1999)	(2.11626 - 1.60944)/(29 - 11)	
0.0281565					
1.94591	(11/22/2011)	1.60944	(3/16/1999)	(1.94591 - 1.60944)/(30 - 11)	
0.0177091					
1.94591	(11/22/2011)	1.60944	(3/16/1999)	(1.94591 - 1.60944)/(30 - 11)	
0.0177091					
2.83321	(3/15/2000)	1.60944	(9/23/1999)	(2.83321 - 1.60944)/(13 - 12)	
1.22378					
2.56495	(9/24/2003)	1.60944	(9/23/1999)	(2.56495 - 1.60944)/(14 - 12)	
0.477756					
ND<0	(3/11/2004)	1.60944	(9/23/1999)	(0 - 1.60944)/(15 - 12)	
-0.536479					
ND<0	(10/12/2004)	1.60944	(9/23/1999)	(0 - 1.60944)/(16 - 12)	
-0.402359					
1.36354	(4/1/2005)	1.60944	(9/23/1999)	(1.36354 - 1.60944)/(17 - 12)	
-0.0491801					
1.83737	(10/25/2005)	1.60944	(9/23/1999)	(1.83737 - 1.60944)/(18 - 12)	
0.0379887					
2.3979	(4/29/2006)	1.60944	(9/23/1999)	(2.3979 - 1.60944)/(19 - 12)	
0.112637					
2.43361	(11/18/2006)	1.60944	(9/23/1999)	(2.43361 - 1.60944)/(20 - 12)	
0.103022					
2.37955	(5/23/2007)	1.60944	(9/23/1999)	(2.37955 - 1.60944)/(21 - 12)	
0.0855676					
2.195	(11/28/2007)	1.60944	(9/23/1999)	(2.195 - 1.60944)/(22 - 12)	
0.0585562					
2.13771	(6/5/2008)	1.60944	(9/23/1999)	(2.13771 - 1.60944)/(23 - 12)	
0.0480248					
2.62467	(11/20/2008)	1.60944	(9/23/1999)	(2.62467 - 1.60944)/(24 - 12)	
0.0846026					
2.15176	(6/11/2009)	1.60944	(9/23/1999)	(2.15176 - 1.60944)/(25 - 12)	
0.0417173					
2.16332	(11/16/2009)	1.60944	(9/23/1999)	(2.16332 - 1.60944)/(26 - 12)	
0.0395632					
2.30259	H (6/30/2010)	1.60944	(9/23/1999)	(2.30259 - 1.60944)/(27 - 12)	
0.0462098					
2.20827	(11/12/2010)	1.60944	(9/23/1999)	(2.20827 - 1.60944)/(28 - 12)	
0.0374273					
2.11626	(7/5/2011)	1.60944	(9/23/1999)	(2.11626 - 1.60944)/(29 - 12)	
0.0298128					
1.94591	(11/22/2011)	1.60944	(9/23/1999)	(1.94591 - 1.60944)/(30 - 12)	
0.0186929					
1.94591	(11/22/2011)	1.60944	(9/23/1999)	(1.94591 - 1.60944)/(30 - 12)	
0.0186929					
2.56495	(9/24/2003)	2.83321	(3/15/2000)	(2.56495 - 2.83321)/(14 - 13)	
-0.268264					
ND<0	(3/11/2004)	2.83321	(3/15/2000)	(0 - 2.83321)/(15 - 13)	-1.41661
ND<0	(10/12/2004)	2.83321	(3/15/2000)	(0 - 2.83321)/(16 - 13)	
-0.944404					

1.36354 (4/1/2005)	2.83321 (3/15/2000)	(1.36354 - 2.83321)/(17 - 13)		
-0.367419				
1.83737 (10/25/2005)	2.83321 (3/15/2000)	(1.83737 - 2.83321)/(18 - 13)		
-0.199169				
2.3979 (4/29/2006)	2.83321 (3/15/2000)	(2.3979 - 2.83321)/(19 - 13)		
-0.072553				
2.43361 (11/18/2006)	2.83321 (3/15/2000)	(2.43361 - 2.83321)/(20 - 13)		
-0.0570857				
2.37955 (5/23/2007)	2.83321 (3/15/2000)	(2.37955 - 2.83321)/(21 - 13)		
-0.0567084				
2.195 (11/28/2007)	2.83321 (3/15/2000)	(2.195 - 2.83321)/(22 - 13)		
-0.0709126				
2.13771 (6/5/2008)	2.83321 (3/15/2000)	(2.13771 - 2.83321)/(23 - 13)		
-0.0695503				
2.62467 (11/20/2008)	2.83321 (3/15/2000)	(2.62467 - 2.83321)/(24 - 13)		
-0.0189586				
2.15176 (6/11/2009)	2.83321 (3/15/2000)	(2.15176 - 2.83321)/(25 - 13)		
-0.0567876				
2.16332 (11/16/2009)	2.83321 (3/15/2000)	(2.16332 - 2.83321)/(26 - 13)		
-0.05153				
2.30259 H (6/30/2010)	2.83321 (3/15/2000)	(2.30259 - 2.83321)/(27 - 13)		
-0.037902				
2.20827 (11/12/2010)	2.83321 (3/15/2000)	(2.20827 - 2.83321)/(28 - 13)		
-0.0416626				
2.11626 (7/5/2011)	2.83321 (3/15/2000)	(2.11626 - 2.83321)/(29 - 13)		
-0.0448099				
1.94591 (11/22/2011)	2.83321 (3/15/2000)	(1.94591 - 2.83321)/(30 - 13)		
-0.0521943				
1.94591 (11/22/2011)	2.83321 (3/15/2000)	(1.94591 - 2.83321)/(30 - 13)		
-0.0521943				
ND<0 (3/11/2004)	2.56495 (9/24/2003)	(0 - 2.56495)/(15 - 14)	-2.56495	
ND<0 (10/12/2004)	2.56495 (9/24/2003)	(0 - 2.56495)/(16 - 14)	-1.28247	
1.36354 (4/1/2005)	2.56495 (9/24/2003)	(1.36354 - 2.56495)/(17 - 14)		
-0.400471				
1.83737 (10/25/2005)	2.56495 (9/24/2003)	(1.83737 - 2.56495)/(18 - 14)		
-0.181895				
2.3979 (4/29/2006)	2.56495 (9/24/2003)	(2.3979 - 2.56495)/(19 - 14)		
-0.0334108				
2.43361 (11/18/2006)	2.56495 (9/24/2003)	(2.43361 - 2.56495)/(20 - 14)		
-0.0218893				
2.37955 (5/23/2007)	2.56495 (9/24/2003)	(2.37955 - 2.56495)/(21 - 14)		
-0.0264862				
2.195 (11/28/2007)	2.56495 (9/24/2003)	(2.195 - 2.56495)/(22 - 14)		
-0.0462437				
2.13771 (6/5/2008)	2.56495 (9/24/2003)	(2.13771 - 2.56495)/(23 - 14)		
-0.047471				
2.62467 (11/20/2008)	2.56495 (9/24/2003)	(2.62467 - 2.56495)/(24 - 14)		
0.00597192				
2.15176 (6/11/2009)	2.56495 (9/24/2003)	(2.15176 - 2.56495)/(25 - 14)		
-0.0375625				
2.16332 (11/16/2009)	2.56495 (9/24/2003)	(2.16332 - 2.56495)/(26 - 14)		
-0.0334689				
2.30259 H (6/30/2010)	2.56495 (9/24/2003)	(2.30259 - 2.56495)/(27 - 14)		
-0.0201819				
2.20827 (11/12/2010)	2.56495 (9/24/2003)	(2.20827 - 2.56495)/(28 - 14)		
-0.0254768				
2.11626 (7/5/2011)	2.56495 (9/24/2003)	(2.11626 - 2.56495)/(29 - 14)		
-0.0299129				
1.94591 (11/22/2011)	2.56495 (9/24/2003)	(1.94591 - 2.56495)/(30 - 14)		
-0.03869				

1.94591 (11/22/2011)	2.56495 (9/24/2003)	(1.94591 - 2.56495)/(30 - 14)		
-0.03869				
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0	
1.36354 (4/1/2005)	ND<0 (3/11/2004)	(1.36354 - 0)/(17 - 15)		
0.681769				
1.83737 (10/25/2005)	ND<0 (3/11/2004)	(1.83737 - 0)/(18 - 15)		
0.612457				
2.3979 (4/29/2006)	ND<0 (3/11/2004)	(2.3979 - 0)/(19 - 15)		
0.599474				
2.43361 (11/18/2006)	ND<0 (3/11/2004)	(2.43361 - 0)/(20 - 15)		
0.486723				
2.37955 (5/23/2007)	ND<0 (3/11/2004)	(2.37955 - 0)/(21 - 15)		
0.396591				
2.195 (11/28/2007)	ND<0 (3/11/2004)	(2.195 - 0)/(22 - 15)		
0.313571				
2.13771 (6/5/2008)	ND<0 (3/11/2004)	(2.13771 - 0)/(23 - 15)		
0.267214				
2.62467 (11/20/2008)	ND<0 (3/11/2004)	(2.62467 - 0)/(24 - 15)		0.29163
2.15176 (6/11/2009)	ND<0 (3/11/2004)	(2.15176 - 0)/(25 - 15)		
0.215176				
2.16332 (11/16/2009)	ND<0 (3/11/2004)	(2.16332 - 0)/(26 - 15)		
0.196666				
2.30259 H (6/30/2010)	ND<0 (3/11/2004)	(2.30259 - 0)/(27 - 15)		
0.191882				
2.20827 (11/12/2010)	ND<0 (3/11/2004)	(2.20827 - 0)/(28 - 15)		
0.169867				
2.11626 (7/5/2011)	ND<0 (3/11/2004)	(2.11626 - 0)/(29 - 15)		
0.151161				
1.94591 (11/22/2011)	ND<0 (3/11/2004)	(1.94591 - 0)/(30 - 15)		
0.129727				
1.94591 (11/22/2011)	ND<0 (3/11/2004)	(1.94591 - 0)/(30 - 15)		
0.129727				
1.36354 (4/1/2005)	ND<0 (10/12/2004)	(1.36354 - 0)/(17 - 16)		1.36354
1.83737 (10/25/2005)	ND<0 (10/12/2004)	(1.83737 - 0)/(18 - 16)		
0.918685				
2.3979 (4/29/2006)	ND<0 (10/12/2004)	(2.3979 - 0)/(19 - 16)		
0.799298				
2.43361 (11/18/2006)	ND<0 (10/12/2004)	(2.43361 - 0)/(20 - 16)		
0.608403				
2.37955 (5/23/2007)	ND<0 (10/12/2004)	(2.37955 - 0)/(21 - 16)		
0.475909				
2.195 (11/28/2007)	ND<0 (10/12/2004)	(2.195 - 0)/(22 - 16)		
0.365833				
2.13771 (6/5/2008)	ND<0 (10/12/2004)	(2.13771 - 0)/(23 - 16)		
0.305387				
2.62467 (11/20/2008)	ND<0 (10/12/2004)	(2.62467 - 0)/(24 - 16)		
0.328084				
2.15176 (6/11/2009)	ND<0 (10/12/2004)	(2.15176 - 0)/(25 - 16)		
0.239085				
2.16332 (11/16/2009)	ND<0 (10/12/2004)	(2.16332 - 0)/(26 - 16)		
0.216332				
2.30259 H (6/30/2010)	ND<0 (10/12/2004)	(2.30259 - 0)/(27 - 16)		
0.209326				
2.20827 (11/12/2010)	ND<0 (10/12/2004)	(2.20827 - 0)/(28 - 16)		
0.184023				
2.11626 (7/5/2011)	ND<0 (10/12/2004)	(2.11626 - 0)/(29 - 16)		
0.162789				
1.94591 (11/22/2011)	ND<0 (10/12/2004)	(1.94591 - 0)/(30 - 16)		
0.138994				

1.94591 (11/22/2011)	ND<0 (10/12/2004)	(1.94591 - 0)/(30 - 16)
0.138994		
1.83737 (10/25/2005)	1.36354 (4/1/2005)	(1.83737 - 1.36354)/(18 - 17)
0.473833		
2.3979 (4/29/2006)	1.36354 (4/1/2005)	(2.3979 - 1.36354)/(19 - 17)
0.517179		
2.43361 (11/18/2006)	1.36354 (4/1/2005)	(2.43361 - 1.36354)/(20 - 17)
0.356692		
2.37955 (5/23/2007)	1.36354 (4/1/2005)	(2.37955 - 1.36354)/(21 - 17)
0.254002		
2.195 (11/28/2007)	1.36354 (4/1/2005)	(2.195 - 1.36354)/(22 - 17)
0.166293		
2.13771 (6/5/2008)	1.36354 (4/1/2005)	(2.13771 - 1.36354)/(23 - 17)
0.129029		
2.62467 (11/20/2008)	1.36354 (4/1/2005)	(2.62467 - 1.36354)/(24 - 17)
0.180162		
2.15176 (6/11/2009)	1.36354 (4/1/2005)	(2.15176 - 1.36354)/(25 - 17)
0.0985281		
2.16332 (11/16/2009)	1.36354 (4/1/2005)	(2.16332 - 1.36354)/(26 - 17)
0.0888651		
2.30259 H (6/30/2010)	1.36354 (4/1/2005)	(2.30259 - 1.36354)/(27 - 17)
0.0939048		
2.20827 (11/12/2010)	1.36354 (4/1/2005)	(2.20827 - 1.36354)/(28 - 17)
0.0767943		
2.11626 (7/5/2011)	1.36354 (4/1/2005)	(2.11626 - 1.36354)/(29 - 17)
0.0627265		
1.94591 (11/22/2011)	1.36354 (4/1/2005)	(1.94591 - 1.36354)/(30 - 17)
0.0447979		
1.94591 (11/22/2011)	1.36354 (4/1/2005)	(1.94591 - 1.36354)/(30 - 17)
0.0447979		
2.3979 (4/29/2006)	1.83737 (10/25/2005)	(2.3979 - 1.83737)/(19 - 18)
0.560525		
2.43361 (11/18/2006)	1.83737 (10/25/2005)	(2.43361 - 1.83737)/(20 - 18)
0.298122		
2.37955 (5/23/2007)	1.83737 (10/25/2005)	(2.37955 - 1.83737)/(21 - 18)
0.180725		
2.195 (11/28/2007)	1.83737 (10/25/2005)	(2.195 - 1.83737)/(22 - 18)
0.0894075		
2.13771 (6/5/2008)	1.83737 (10/25/2005)	(2.13771 - 1.83737)/(23 - 18)
0.0600681		
2.62467 (11/20/2008)	1.83737 (10/25/2005)	(2.62467 - 1.83737)/(24 - 18)
0.131216		
2.15176 (6/11/2009)	1.83737 (10/25/2005)	(2.15176 - 1.83737)/(25 - 18)
0.0449132		
2.16332 (11/16/2009)	1.83737 (10/25/2005)	(2.16332 - 1.83737)/(26 - 18)
0.0407441		
2.30259 H (6/30/2010)	1.83737 (10/25/2005)	(2.30259 - 1.83737)/(27 - 18)
0.0516906		
2.20827 (11/12/2010)	1.83737 (10/25/2005)	(2.20827 - 1.83737)/(28 - 18)
0.0370904		
2.11626 (7/5/2011)	1.83737 (10/25/2005)	(2.11626 - 1.83737)/(29 - 18)
0.0253532		
1.94591 (11/22/2011)	1.83737 (10/25/2005)	(1.94591 - 1.83737)/(30 - 18)
0.00904501		
1.94591 (11/22/2011)	1.83737 (10/25/2005)	(1.94591 - 1.83737)/(30 - 18)
0.00904501		
2.43361 (11/18/2006)	2.3979 (4/29/2006)	(2.43361 - 2.3979)/(20 - 19)
0.0357181		

2.37955 (5/23/2007)	2.3979 (4/29/2006)	(2.37955 - 2.3979)/(21 - 19)
-0.00917457		
2.195 (11/28/2007)	2.3979 (4/29/2006)	(2.195 - 2.3979)/(22 - 19)
-0.0676318		
2.13771 (6/5/2008)	2.3979 (4/29/2006)	(2.13771 - 2.3979)/(23 - 19)
-0.0650462		
2.62467 (11/20/2008)	2.3979 (4/29/2006)	(2.62467 - 2.3979)/(24 - 19)
0.0453547		
2.15176 (6/11/2009)	2.3979 (4/29/2006)	(2.15176 - 2.3979)/(25 - 19)
-0.0410222		
2.16332 (11/16/2009)	2.3979 (4/29/2006)	(2.16332 - 2.3979)/(26 - 19)
-0.0335103		
2.30259 H (6/30/2010)	2.3979 (4/29/2006)	(2.30259 - 2.3979)/(27 - 19)
-0.0119138		
2.20827 (11/12/2010)	2.3979 (4/29/2006)	(2.20827 - 2.3979)/(28 - 19)
-0.021069		
2.11626 (7/5/2011)	2.3979 (4/29/2006)	(2.11626 - 2.3979)/(29 - 19)
-0.028164		
1.94591 (11/22/2011)	2.3979 (4/29/2006)	(1.94591 - 2.3979)/(30 - 19)
-0.0410896		
1.94591 (11/22/2011)	2.3979 (4/29/2006)	(1.94591 - 2.3979)/(30 - 19)
-0.0410896		
2.37955 (5/23/2007)	2.43361 (11/18/2006)	(2.37955 - 2.43361)/(21 - 20)
-0.0540672		
2.195 (11/28/2007)	2.43361 (11/18/2006)	(2.195 - 2.43361)/(22 - 20)
-0.119307		
2.13771 (6/5/2008)	2.43361 (11/18/2006)	(2.13771 - 2.43361)/(23 - 20)
-0.0986343		
2.62467 (11/20/2008)	2.43361 (11/18/2006)	(2.62467 - 2.43361)/(24 - 20)
0.0477638		
2.15176 (6/11/2009)	2.43361 (11/18/2006)	(2.15176 - 2.43361)/(25 - 20)
-0.0563702		
2.16332 (11/16/2009)	2.43361 (11/18/2006)	(2.16332 - 2.43361)/(26 - 20)
-0.0450484		
2.30259 H (6/30/2010)	2.43361 (11/18/2006)	(2.30259 - 2.43361)/(27 - 20)
-0.0187183		
2.20827 (11/12/2010)	2.43361 (11/18/2006)	(2.20827 - 2.43361)/(28 - 20)
-0.0281674		
2.11626 (7/5/2011)	2.43361 (11/18/2006)	(2.11626 - 2.43361)/(29 - 20)
-0.035262		
1.94591 (11/22/2011)	2.43361 (11/18/2006)	(1.94591 - 2.43361)/(30 - 20)
-0.0487703		
1.94591 (11/22/2011)	2.43361 (11/18/2006)	(1.94591 - 2.43361)/(30 - 20)
-0.0487703		
2.195 (11/28/2007)	2.37955 (5/23/2007)	(2.195 - 2.37955)/(22 - 21)
-0.184546		
2.13771 (6/5/2008)	2.37955 (5/23/2007)	(2.13771 - 2.37955)/(23 - 21)
-0.120918		
2.62467 (11/20/2008)	2.37955 (5/23/2007)	(2.62467 - 2.37955)/(24 - 21)
0.0817075		
2.15176 (6/11/2009)	2.37955 (5/23/2007)	(2.15176 - 2.37955)/(25 - 21)
-0.056946		
2.16332 (11/16/2009)	2.37955 (5/23/2007)	(2.16332 - 2.37955)/(26 - 21)
-0.0432446		
2.30259 H (6/30/2010)	2.37955 (5/23/2007)	(2.30259 - 2.37955)/(27 - 21)
-0.0128268		
2.20827 (11/12/2010)	2.37955 (5/23/2007)	(2.20827 - 2.37955)/(28 - 21)
-0.0244674		
2.11626 (7/5/2011)	2.37955 (5/23/2007)	(2.11626 - 2.37955)/(29 - 21)
-0.0329113		

1.94591	(11/22/2011)	2.37955	(5/23/2007)	(1.94591 - 2.37955)/(30 - 21)	-0.0481818
1.94591	(11/22/2011)	2.37955	(5/23/2007)	(1.94591 - 2.37955)/(30 - 21)	-0.0481818
2.13771	(6/5/2008)	2.195	(11/28/2007)	(2.13771 - 2.195)/(23 - 22)	-0.0572894
2.62467	(11/20/2008)	2.195	(11/28/2007)	(2.62467 - 2.195)/(24 - 22)	0.214834
2.15176	(6/11/2009)	2.195	(11/28/2007)	(2.15176 - 2.195)/(25 - 22)	-0.0144126
2.16332	(11/16/2009)	2.195	(11/28/2007)	(2.16332 - 2.195)/(26 - 22)	-0.00791921
2.30259	H (6/30/2010)	2.195	(11/28/2007)	(2.30259 - 2.195)/(27 - 22)	0.021517
2.20827	(11/12/2010)	2.195	(11/28/2007)	(2.20827 - 2.195)/(28 - 22)	0.00221242
2.11626	(7/5/2011)	2.195	(11/28/2007)	(2.11626 - 2.195)/(29 - 22)	-0.0112492
1.94591	(11/22/2011)	2.195	(11/28/2007)	(1.94591 - 2.195)/(30 - 22)	-0.0311362
1.94591	(11/22/2011)	2.195	(11/28/2007)	(1.94591 - 2.195)/(30 - 22)	-0.0311362
2.62467	(11/20/2008)	2.13771	(6/5/2008)	(2.62467 - 2.13771)/(24 - 23)	0.486958
2.15176	(6/11/2009)	2.13771	(6/5/2008)	(2.15176 - 2.13771)/(25 - 23)	0.00702588
2.16332	(11/16/2009)	2.13771	(6/5/2008)	(2.16332 - 2.13771)/(26 - 23)	0.00853753
2.30259	H (6/30/2010)	2.13771	(6/5/2008)	(2.30259 - 2.13771)/(27 - 23)	0.0412187
2.20827	(11/12/2010)	2.13771	(6/5/2008)	(2.20827 - 2.13771)/(28 - 23)	0.0141128
2.11626	(7/5/2011)	2.13771	(6/5/2008)	(2.11626 - 2.13771)/(29 - 23)	-0.00357582
1.94591	(11/22/2011)	2.13771	(6/5/2008)	(1.94591 - 2.13771)/(30 - 23)	-0.0274
1.94591	(11/22/2011)	2.13771	(6/5/2008)	(1.94591 - 2.13771)/(30 - 23)	-0.0274
2.15176	(6/11/2009)	2.62467	(11/20/2008)	(2.15176 - 2.62467)/(25 - 24)	-0.472906
2.16332	(11/16/2009)	2.62467	(11/20/2008)	(2.16332 - 2.62467)/(26 - 24)	-0.230673
2.30259	H (6/30/2010)	2.62467	(11/20/2008)	(2.30259 - 2.62467)/(27 - 24)	-0.107361
2.20827	(11/12/2010)	2.62467	(11/20/2008)	(2.20827 - 2.62467)/(28 - 24)	-0.104099
2.11626	(7/5/2011)	2.62467	(11/20/2008)	(2.11626 - 2.62467)/(29 - 24)	-0.101683
1.94591	(11/22/2011)	2.62467	(11/20/2008)	(1.94591 - 2.62467)/(30 - 24)	-0.113126
1.94591	(11/22/2011)	2.62467	(11/20/2008)	(1.94591 - 2.62467)/(30 - 24)	-0.113126
2.16332	(11/16/2009)	2.15176	(6/11/2009)	(2.16332 - 2.15176)/(26 - 25)	0.0115608
2.30259	H (6/30/2010)	2.15176	(6/11/2009)	(2.30259 - 2.15176)/(27 - 25)	0.0754114
2.20827	(11/12/2010)	2.15176	(6/11/2009)	(2.20827 - 2.15176)/(28 - 25)	0.0188374

2.11626	(7/5/2011)		2.15176	(6/11/2009)	(2.11626 - 2.15176)/(29 - 25)
	-0.00887667				
1.94591	(11/22/2011)		2.15176	(6/11/2009)	(1.94591 - 2.15176)/(30 - 25)
	-0.0411704				
1.94591	(11/22/2011)		2.15176	(6/11/2009)	(1.94591 - 2.15176)/(30 - 25)
	-0.0411704				
2.30259	H	(6/30/2010)	2.16332	(11/16/2009)	(2.30259 - 2.16332)/(27 - 26)
	0.139262				
2.20827	(11/12/2010)		2.16332	(11/16/2009)	(2.20827 - 2.16332)/(28 - 26)
	0.0224757				
2.11626	(7/5/2011)		2.16332	(11/16/2009)	(2.11626 - 2.16332)/(29 - 26)
	-0.0156892				
1.94591	(11/22/2011)		2.16332	(11/16/2009)	(1.94591 - 2.16332)/(30 - 26)
	-0.0543532				
1.94591	(11/22/2011)		2.16332	(11/16/2009)	(1.94591 - 2.16332)/(30 - 26)
	-0.0543532				
2.20827	(11/12/2010)		2.30259	H	(6/30/2010) (2.20827 - 2.30259)/(28 - 27)
	-0.0943107				
2.11626	(7/5/2011)		2.30259	H	(6/30/2010) (2.11626 - 2.30259)/(29 - 27)
	-0.0931648				
1.94591	(11/22/2011)		2.30259	H	(6/30/2010) (1.94591 - 2.30259)/(30 - 27)
	-0.118892				
1.94591	(11/22/2011)		2.30259	H	(6/30/2010) (1.94591 - 2.30259)/(30 - 27)
	-0.118892				
2.11626	(7/5/2011)		2.20827	(11/12/2010)	(2.11626 - 2.20827)/(29 - 28)
	-0.0920189				
1.94591	(11/22/2011)		2.20827	(11/12/2010)	(1.94591 - 2.20827)/(30 - 28)
	-0.131182				
1.94591	(11/22/2011)		2.20827	(11/12/2010)	(1.94591 - 2.20827)/(30 - 28)
	-0.131182				
1.94591	(11/22/2011)		2.11626	(7/5/2011)	(1.94591 - 2.11626)/(30 - 29)
	-0.170345				
1.94591	(11/22/2011)		2.11626	(7/5/2011)	(1.94591 - 2.11626)/(30 - 29)
	-0.170345				
1.94591	(11/22/2011)		1.94591	(11/22/2011)	(1.94591 - 1.94591)/(30 - 30)
	Same Date				

Number of Q values = 464

Ordered Q Values

n	Q
1	-2.83321
2	-2.56495
3	-1.41661
4	-1.41661
5	-1.28247
6	-1.22378
7	-0.944404
8	-0.611888
9	-0.566643
10	-0.536479
11	-0.472906
12	-0.472202
13	-0.402359
14	-0.402359

15	-0.400471
16	-0.367419
17	-0.354152
18	-0.321888
19	-0.314801
20	-0.305944
21	-0.268264
22	-0.244755
23	-0.230673
24	-0.209954
25	-0.199169
26	-0.184546
27	-0.181895
28	-0.170345
29	-0.170345
30	-0.146968
31	-0.131182
32	-0.131182
33	-0.12448
34	-0.120918
35	-0.119307
36	-0.118892
37	-0.118892
38	-0.113126
39	-0.113126
40	-0.107361
41	-0.104099
42	-0.101683
43	-0.0986343
44	-0.0943107
45	-0.0931648
46	-0.0920189
47	-0.0905312
48	-0.072553
49	-0.0709126
50	-0.0695503
51	-0.0676318
52	-0.067066
53	-0.0650462
54	-0.0572894
55	-0.0570857
56	-0.056946
57	-0.0567876
58	-0.0567084
59	-0.0563702
60	-0.0543532
61	-0.0543532
62	-0.0540672
63	-0.0535002
64	-0.0531845
65	-0.0521943
66	-0.0521943
67	-0.05153
68	-0.0491801
69	-0.0487703
70	-0.0487703
71	-0.0483687
72	-0.0481818
73	-0.0481818
74	-0.047471
75	-0.0462437
76	-0.0454301

77	-0.0450484
78	-0.0448099
79	-0.0443652
80	-0.0443652
81	-0.0434689
82	-0.0432446
83	-0.0425476
84	-0.0418681
85	-0.0416626
86	-0.0412425
87	-0.0411704
88	-0.0411704
89	-0.0410896
90	-0.0410896
91	-0.0410222
92	-0.0409834
93	-0.03996
94	-0.03869
95	-0.03869
96	-0.0385784
97	-0.0385784
98	-0.0383234
99	-0.037902
100	-0.0378584
101	-0.0377346
102	-0.0375625
103	-0.0362765
104	-0.035262
105	-0.0352574
106	-0.0347188
107	-0.0335103
108	-0.0334689
109	-0.0334108
110	-0.0329113
111	-0.032589
112	-0.0324048
113	-0.0312134
114	-0.0311362
115	-0.0311362
116	-0.0307385
117	-0.0299129
118	-0.029759
119	-0.0281674
120	-0.028164
121	-0.0274
122	-0.0274
123	-0.0265314
124	-0.0264862
125	-0.0254768
126	-0.0244674
127	-0.0218893
128	-0.021069
129	-0.0201819
130	-0.0189586
131	-0.0187183
132	-0.0156892
133	-0.0148961
134	-0.0144126
135	-0.0128268
136	-0.0122673
137	-0.0119138
138	-0.0112492

139	-0.00917457
140	-0.00887667
141	-0.00791921
142	-0.00357582
143	0
144	0
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0
154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0
181	0
182	0
183	0
184	0
185	0
186	0
187	0
188	0
189	0
190	0
191	0
192	0.00221242
193	0.00597192
194	0.00702588
195	0.00853753
196	0.00904501
197	0.00904501
198	0.0115608
199	0.0141128
200	0.0177091

201	0.0177091
202	0.0186929
203	0.0186929
204	0.0188374
205	0.021517
206	0.0224757
207	0.0253532
208	0.0281565
209	0.0298128
210	0.0325617
211	0.0352257
212	0.0357181
213	0.0369257
214	0.0370904
215	0.0374273
216	0.0379887
217	0.0387374
218	0.0395632
219	0.0407441
220	0.0412187
221	0.0417173
222	0.0433217
223	0.0440227
224	0.0447979
225	0.0447979
226	0.0449132
227	0.0453547
228	0.0462098
229	0.0477638
230	0.0480248
231	0.0516906
232	0.0532329
233	0.0585562
234	0.0600681
235	0.0627265
236	0.0671003
237	0.0671003
238	0.0694968
239	0.0694968
240	0.0720707
241	0.0720707
242	0.0748427
243	0.0748427
244	0.0754114
245	0.0755806
246	0.0767943
247	0.0770108
248	0.0778364
249	0.0778364
250	0.0780947
251	0.0783798
252	0.0810796
253	0.0810796
254	0.0813944
255	0.0817075
256	0.0817879
257	0.0846026
258	0.0846502
259	0.0849336
260	0.0852211
261	0.0855676
262	0.0865329

263	0.0881773
264	0.088331
265	0.0884505
266	0.0884505
267	0.088561
268	0.0888651
269	0.0894075
270	0.0896568
271	0.0901385
272	0.0909025
273	0.091575
274	0.0920111
275	0.0920114
276	0.0921034
277	0.0926624
278	0.0926624
279	0.0935549
280	0.0939048
281	0.0940575
282	0.095941
283	0.0960119
284	0.0971687
285	0.0973955
286	0.0978074
287	0.0983329
288	0.0985281
289	0.0985572
290	0.100112
291	0.100376
292	0.100774
293	0.101796
294	0.102465
295	0.103015
296	0.103022
297	0.104524
298	0.104663
299	0.104887
300	0.105813
301	0.106886
302	0.107588
303	0.108081
304	0.108166
305	0.109647
306	0.10975
307	0.110414
308	0.112511
309	0.112637
310	0.113251
311	0.113628
312	0.114116
313	0.114836
314	0.115526
315	0.116225
316	0.118762
317	0.118977
318	0.119303
319	0.120185
320	0.121189
321	0.121944
322	0.122491
323	0.123958
324	0.124984

325	0.125239
326	0.125748
327	0.126574
328	0.127254
329	0.127921
330	0.128085
331	0.129029
332	0.129118
333	0.129727
334	0.129727
335	0.131216
336	0.131233
337	0.131241
338	0.132197
339	0.133216
340	0.134485
341	0.135201
342	0.137187
343	0.13814
344	0.138994
345	0.138994
346	0.139262
347	0.139973
348	0.141053
349	0.141336
350	0.142514
351	0.143154
352	0.145815
353	0.146313
354	0.148722
355	0.149868
356	0.151161
357	0.151504
358	0.152101
359	0.152694
360	0.153114
361	0.156786
362	0.158636
363	0.15986
364	0.160944
365	0.160944
366	0.162241
367	0.162789
368	0.164042
369	0.166293
370	0.168846
371	0.169867
372	0.170442
373	0.171278
374	0.17383
375	0.174978
376	0.178826
377	0.178826
378	0.180162
379	0.180725
380	0.183042
381	0.183737
382	0.184023
383	0.184453
384	0.191882
385	0.196666
386	0.197304

387	0.198296
388	0.20118
389	0.20118
390	0.202801
391	0.204152
392	0.209326
393	0.213746
394	0.214834
395	0.215176
396	0.216332
397	0.21799
398	0.221238
399	0.22992
400	0.22992
401	0.233177
402	0.236101
403	0.239085
404	0.23979
405	0.254002
406	0.256495
407	0.257565
408	0.267214
409	0.26824
410	0.26824
411	0.283321
412	0.284994
413	0.29163
414	0.298122
415	0.305387
416	0.313571
417	0.314801
418	0.314801
419	0.318504
420	0.320619
421	0.321888
422	0.328084
423	0.354152
424	0.354152
425	0.356692
426	0.365833
427	0.396591
428	0.402359
429	0.404745
430	0.404745
431	0.427492
432	0.472202
433	0.472202
434	0.473833
435	0.475909
436	0.477756
437	0.486723
438	0.486958
439	0.51299
440	0.517179
441	0.536479
442	0.536479
443	0.560525
444	0.566643
445	0.566643
446	0.566643
447	0.599474
448	0.608403

449	0.611888
450	0.612457
451	0.681769
452	0.708303
453	0.708303
454	0.708303
455	0.799298
456	0.804719
457	0.918685
458	0.944404
459	1.22378
460	1.36354
461	1.41661
462	1.41661
463	2.83321
464	2.83321

Sen's Estimator (Median Q) is 0.0558946

Tied Group	Value	Members
1	0	10
2	2.83321	3
3	1.60944	2
4	1.94591	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 2352
B = 18
C = 726
D = 0

E = 100
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3330.11
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 94.9197
M1 = (464 - 94.9197)/2.0 = 184.54
M2 = (464 + 94.9197)/2.0 + 1 = 280.46
Lower limit is 0 = Q(185)
Upper limit is 0.0939048 = Q(280)
0 < 0 < 0.0939048 indicating no trend in data.

Sen's Slope Analysis
Parameter: Arsenic
Location: MW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0 (8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
2.5416 (9/28/1995)	ND<0 (7/20/1995)	(2.5416 - 0)/(3 - 1)	1.2708
ND<0 (10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1)	0
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
2.45959 (12/19/1996)	ND<0 (7/20/1995)	(2.45959 - 0)/(6 - 1)	
0.491918			
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
1.60944 (3/16/1999)	ND<0 (7/20/1995)	(1.60944 - 0)/(11 - 1)	
0.160944			
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
1.75094 (4/1/2005)	ND<0 (7/20/1995)	(1.75094 - 0)/(17 - 1)	
0.109434			
2.13298 (10/25/2005)	ND<0 (7/20/1995)	(2.13298 - 0)/(18 - 1)	0.12547
2.24177 (4/29/2006)	ND<0 (7/20/1995)	(2.24177 - 0)/(19 - 1)	
0.124543			
1.57691 (11/18/2006)	ND<0 (7/20/1995)	(1.57691 - 0)/(20 - 1)	
0.0829955			
2.24601 (5/23/2007)	ND<0 (7/20/1995)	(2.24601 - 0)/(21 - 1)	
0.112301			
2.5096 (11/28/2007)	ND<0 (7/20/1995)	(2.5096 - 0)/(22 - 1)	
0.119505			
2.17475 (6/5/2008)	ND<0 (7/20/1995)	(2.17475 - 0)/(23 - 1)	
0.0988524			
1.74572 (11/20/2008)	ND<0 (7/20/1995)	(1.74572 - 0)/(24 - 1)	
0.0759007			
1.64866 (6/11/2009)	ND<0 (7/20/1995)	(1.64866 - 0)/(25 - 1)	
0.0686941			
0.955511 (11/16/2009)	ND<0 (7/20/1995)	(0.955511 - 0)/(26 - 1)	
0.0382205			
1.90211 H (6/30/2010)	ND<0 (7/20/1995)	(1.90211 - 0)/(27 - 1)	
0.073158			
2.04122 (11/12/2010)	ND<0 (7/20/1995)	(2.04122 - 0)/(28 - 1)	
0.0756008			
1.38629 (7/5/2011)	ND<0 (7/20/1995)	(1.38629 - 0)/(29 - 1)	
0.0495105			
1.60944 (11/22/2011)	ND<0 (7/20/1995)	(1.60944 - 0)/(30 - 1)	
0.0554979			
2.5416 (9/28/1995)	ND<0 (8/24/1995)	(2.5416 - 0)/(3 - 2)	2.5416
ND<0 (10/26/1995)	ND<0 (8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0 (11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0
2.45959 (12/19/1996)	ND<0 (8/24/1995)	(2.45959 - 0)/(6 - 2)	
0.614897			
ND<0 (3/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(7 - 2)	0

ND<0	(9/24/1997)	ND<0	(8/24/1995)	(0 - 0)/(8 - 2)	0
ND<0	(4/7/1998)	ND<0	(8/24/1995)	(0 - 0)/(9 - 2)	0
ND<0	(9/23/1998)	ND<0	(8/24/1995)	(0 - 0)/(10 - 2)	0
1.60944	(3/16/1999)	ND<0	(8/24/1995)	(1.60944 - 0)/(11 - 2)	
	0.178826				
ND<0	(9/23/1999)	ND<0	(8/24/1995)	(0 - 0)/(12 - 2)	0
ND<0	(3/15/2000)	ND<0	(8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0	(9/24/2003)	ND<0	(8/24/1995)	(0 - 0)/(14 - 2)	0
ND<0	(3/11/2004)	ND<0	(8/24/1995)	(0 - 0)/(15 - 2)	0
ND<0	(10/12/2004)	ND<0	(8/24/1995)	(0 - 0)/(16 - 2)	0
1.75094	(4/1/2005)	ND<0	(8/24/1995)	(1.75094 - 0)/(17 - 2)	
	0.116729				
2.13298	(10/25/2005)	ND<0	(8/24/1995)	(2.13298 - 0)/(18 - 2)	
	0.133311				
2.24177	(4/29/2006)	ND<0	(8/24/1995)	(2.24177 - 0)/(19 - 2)	
	0.131869				
1.57691	(11/18/2006)	ND<0	(8/24/1995)	(1.57691 - 0)/(20 - 2)	
	0.0876064				
2.24601	(5/23/2007)	ND<0	(8/24/1995)	(2.24601 - 0)/(21 - 2)	
	0.118211				
2.5096	(11/28/2007)	ND<0	(8/24/1995)	(2.5096 - 0)/(22 - 2)	0.12548
2.17475	(6/5/2008)	ND<0	(8/24/1995)	(2.17475 - 0)/(23 - 2)	0.10356
1.74572	(11/20/2008)	ND<0	(8/24/1995)	(1.74572 - 0)/(24 - 2)	
	0.0793507				
1.64866	(6/11/2009)	ND<0	(8/24/1995)	(1.64866 - 0)/(25 - 2)	
	0.0716808				
0.955511	(11/16/2009)	ND<0	(8/24/1995)	(0.955511 - 0)/(26 - 2)	
	0.039813				
1.90211 H	(6/30/2010)	ND<0	(8/24/1995)	(1.90211 - 0)/(27 - 2)	
	0.0760843				
2.04122	(11/12/2010)	ND<0	(8/24/1995)	(2.04122 - 0)/(28 - 2)	
	0.0785085				
1.38629	(7/5/2011)	ND<0	(8/24/1995)	(1.38629 - 0)/(29 - 2)	
	0.0513442				
1.60944	(11/22/2011)	ND<0	(8/24/1995)	(1.60944 - 0)/(30 - 2)	
	0.0574799				
ND<0	(10/26/1995)	2.5416	(9/28/1995)	(0 - 2.5416)/(4 - 3)	-2.5416
ND<0	(11/19/1996)	2.5416	(9/28/1995)	(0 - 2.5416)/(5 - 3)	-1.2708
2.45959	(12/19/1996)	2.5416	(9/28/1995)	(2.45959 - 2.5416)/(6 - 3)	
	-0.0273377				
ND<0	(3/24/1997)	2.5416	(9/28/1995)	(0 - 2.5416)/(7 - 3)	-0.6354
ND<0	(9/24/1997)	2.5416	(9/28/1995)	(0 - 2.5416)/(8 - 3)	-0.50832
ND<0	(4/7/1998)	2.5416	(9/28/1995)	(0 - 2.5416)/(9 - 3)	-0.4236
ND<0	(9/23/1998)	2.5416	(9/28/1995)	(0 - 2.5416)/(10 - 3)	
	-0.363086				
1.60944	(3/16/1999)	2.5416	(9/28/1995)	(1.60944 - 2.5416)/(11 - 3)	
	-0.116521				
ND<0	(9/23/1999)	2.5416	(9/28/1995)	(0 - 2.5416)/(12 - 3)	-0.2824
ND<0	(3/15/2000)	2.5416	(9/28/1995)	(0 - 2.5416)/(13 - 3)	-0.25416
ND<0	(9/24/2003)	2.5416	(9/28/1995)	(0 - 2.5416)/(14 - 3)	
	-0.231055				
ND<0	(3/11/2004)	2.5416	(9/28/1995)	(0 - 2.5416)/(15 - 3)	-0.2118
ND<0	(10/12/2004)	2.5416	(9/28/1995)	(0 - 2.5416)/(16 - 3)	
	-0.195508				
1.75094	(4/1/2005)	2.5416	(9/28/1995)	(1.75094 - 2.5416)/(17 - 3)	
	-0.056476				
2.13298	(10/25/2005)	2.5416	(9/28/1995)	(2.13298 - 2.5416)/(18 - 3)	
	-0.0272413				
2.24177	(4/29/2006)	2.5416	(9/28/1995)	(2.24177 - 2.5416)/(19 - 3)	
	-0.0187393				

1.57691	(11/18/2006)	2.5416	(9/28/1995)	(1.57691 - 2.5416)/(20 - 3)	
-0.0567463					
2.24601	(5/23/2007)	2.5416	(9/28/1995)	(2.24601 - 2.5416)/(21 - 3)	
-0.0164215					
2.5096	(11/28/2007)	2.5416	(9/28/1995)	(2.5096 - 2.5416)/(22 - 3)	
-0.00168435					
2.17475	(6/5/2008)	2.5416	(9/28/1995)	(2.17475 - 2.5416)/(23 - 3)	
-0.0183425					
1.74572	(11/20/2008)	2.5416	(9/28/1995)	(1.74572 - 2.5416)/(24 - 3)	
-0.0378994					
1.64866	(6/11/2009)	2.5416	(9/28/1995)	(1.64866 - 2.5416)/(25 - 3)	
-0.0405883					
0.955511	(11/16/2009)	2.5416	(9/28/1995)	(0.955511 - 2.5416)/(26 - 3)	
-0.0689605					
1.90211 H	(6/30/2010)	2.5416	(9/28/1995)	(1.90211 - 2.5416)/(27 - 3)	
-0.0266456					
2.04122	(11/12/2010)	2.5416	(9/28/1995)	(2.04122 - 2.5416)/(28 - 3)	
-0.0200153					
1.38629	(7/5/2011)	2.5416	(9/28/1995)	(1.38629 - 2.5416)/(29 - 3)	
-0.0444349					
1.60944	(11/22/2011)	2.5416	(9/28/1995)	(1.60944 - 2.5416)/(30 - 3)	
-0.0345246					

ND<0	(11/19/1996)	ND<0	(10/26/1995)	(0 - 0)/(5 - 4)	0	
2.45959	(12/19/1996)	ND<0	(10/26/1995)	(2.45959 - 0)/(6 - 4)		1.22979
ND<0	(3/24/1997)	ND<0	(10/26/1995)	(0 - 0)/(7 - 4)	0	
ND<0	(9/24/1997)	ND<0	(10/26/1995)	(0 - 0)/(8 - 4)	0	
ND<0	(4/7/1998)	ND<0	(10/26/1995)	(0 - 0)/(9 - 4)	0	
ND<0	(9/23/1998)	ND<0	(10/26/1995)	(0 - 0)/(10 - 4)	0	
1.60944	(3/16/1999)	ND<0	(10/26/1995)	(1.60944 - 0)/(11 - 4)		0.22992
ND<0	(9/23/1999)	ND<0	(10/26/1995)	(0 - 0)/(12 - 4)	0	
ND<0	(3/15/2000)	ND<0	(10/26/1995)	(0 - 0)/(13 - 4)	0	
ND<0	(9/24/2003)	ND<0	(10/26/1995)	(0 - 0)/(14 - 4)	0	
ND<0	(3/11/2004)	ND<0	(10/26/1995)	(0 - 0)/(15 - 4)	0	
ND<0	(10/12/2004)	ND<0	(10/26/1995)	(0 - 0)/(16 - 4)	0	
1.75094	(4/1/2005)	ND<0	(10/26/1995)	(1.75094 - 0)/(17 - 4)		
0.134687						
2.13298	(10/25/2005)	ND<0	(10/26/1995)	(2.13298 - 0)/(18 - 4)		
0.152356						
2.24177	(4/29/2006)	ND<0	(10/26/1995)	(2.24177 - 0)/(19 - 4)		
0.149452						
1.57691	(11/18/2006)	ND<0	(10/26/1995)	(1.57691 - 0)/(20 - 4)		
0.0985572						
2.24601	(5/23/2007)	ND<0	(10/26/1995)	(2.24601 - 0)/(21 - 4)		
0.132119						
2.5096	(11/28/2007)	ND<0	(10/26/1995)	(2.5096 - 0)/(22 - 4)		
0.139422						
2.17475	(6/5/2008)	ND<0	(10/26/1995)	(2.17475 - 0)/(23 - 4)		
0.114461						
1.74572	(11/20/2008)	ND<0	(10/26/1995)	(1.74572 - 0)/(24 - 4)		
0.0872858						
1.64866	(6/11/2009)	ND<0	(10/26/1995)	(1.64866 - 0)/(25 - 4)		
0.0785076						
0.955511	(11/16/2009)	ND<0	(10/26/1995)	(0.955511 - 0)/(26 - 4)		
0.0434323						
1.90211 H	(6/30/2010)	ND<0	(10/26/1995)	(1.90211 - 0)/(27 - 4)		
0.0827003						
2.04122	(11/12/2010)	ND<0	(10/26/1995)	(2.04122 - 0)/(28 - 4)		
0.0850508						
1.38629	(7/5/2011)	ND<0	(10/26/1995)	(1.38629 - 0)/(29 - 4)		
0.0554518						

1.60944 (11/22/2011)	ND<0 (10/26/1995)	(1.60944 - 0)/(30 - 4)		
0.0619015				
2.45959 (12/19/1996)	ND<0 (11/19/1996)	(2.45959 - 0)/(6 - 5)		2.45959
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
1.60944 (3/16/1999)	ND<0 (11/19/1996)	(1.60944 - 0)/(11 - 5)		0.26824
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
1.75094 (4/1/2005)	ND<0 (11/19/1996)	(1.75094 - 0)/(17 - 5)		
0.145911				
2.13298 (10/25/2005)	ND<0 (11/19/1996)	(2.13298 - 0)/(18 - 5)		
0.164076				
2.24177 (4/29/2006)	ND<0 (11/19/1996)	(2.24177 - 0)/(19 - 5)		
0.160127				
1.57691 (11/18/2006)	ND<0 (11/19/1996)	(1.57691 - 0)/(20 - 5)		
0.105128				
2.24601 (5/23/2007)	ND<0 (11/19/1996)	(2.24601 - 0)/(21 - 5)		
0.140376				
2.5096 (11/28/2007)	ND<0 (11/19/1996)	(2.5096 - 0)/(22 - 5)		
0.147623				
2.17475 (6/5/2008)	ND<0 (11/19/1996)	(2.17475 - 0)/(23 - 5)		0.12082
1.74572 (11/20/2008)	ND<0 (11/19/1996)	(1.74572 - 0)/(24 - 5)		
0.0918798				
1.64866 (6/11/2009)	ND<0 (11/19/1996)	(1.64866 - 0)/(25 - 5)		
0.0824329				
0.955511 (11/16/2009)	ND<0 (11/19/1996)	(0.955511 - 0)/(26 - 5)		
0.0455005				
1.90211 H (6/30/2010)	ND<0 (11/19/1996)	(1.90211 - 0)/(27 - 5)		
0.0864594				
2.04122 (11/12/2010)	ND<0 (11/19/1996)	(2.04122 - 0)/(28 - 5)		
0.0887487				
1.38629 (7/5/2011)	ND<0 (11/19/1996)	(1.38629 - 0)/(29 - 5)		
0.0577623				
1.60944 (11/22/2011)	ND<0 (11/19/1996)	(1.60944 - 0)/(30 - 5)		
0.0643775				
ND<0 (3/24/1997)	2.45959 (12/19/1996)	(0 - 2.45959)/(7 - 6)		-2.45959
ND<0 (9/24/1997)	2.45959 (12/19/1996)	(0 - 2.45959)/(8 - 6)		-1.22979
ND<0 (4/7/1998)	2.45959 (12/19/1996)	(0 - 2.45959)/(9 - 6)		
-0.819863				
ND<0 (9/23/1998)	2.45959 (12/19/1996)	(0 - 2.45959)/(10 - 6)		
-0.614897				
1.60944 (3/16/1999)	2.45959 (12/19/1996)	(1.60944 - 2.45959)/(11 - 6)		
-0.17003				
ND<0 (9/23/1999)	2.45959 (12/19/1996)	(0 - 2.45959)/(12 - 6)		
-0.409931				
ND<0 (3/15/2000)	2.45959 (12/19/1996)	(0 - 2.45959)/(13 - 6)		-0.35137
ND<0 (9/24/2003)	2.45959 (12/19/1996)	(0 - 2.45959)/(14 - 6)		
-0.307449				
ND<0 (3/11/2004)	2.45959 (12/19/1996)	(0 - 2.45959)/(15 - 6)		
-0.273288				
ND<0 (10/12/2004)	2.45959 (12/19/1996)	(0 - 2.45959)/(16 - 6)		
-0.245959				
1.75094 (4/1/2005)	2.45959 (12/19/1996)	(1.75094 - 2.45959)/(17 - 6)		
-0.0644229				

2.13298	(10/25/2005)	2.45959	(12/19/1996)	(2.13298 - 2.45959)/(18 - 6)	
-0.0272172					
2.24177	(4/29/2006)	2.45959	(12/19/1996)	(2.24177 - 2.45959)/(19 - 6)	
-0.0167551					
1.57691	(11/18/2006)	2.45959	(12/19/1996)	(1.57691 - 2.45959)/(20 - 6)	
-0.0630482					
2.24601	(5/23/2007)	2.45959	(12/19/1996)	(2.24601 - 2.45959)/(21 - 6)	
-0.0142383					
2.5096	(11/28/2007)	2.45959	(12/19/1996)	(2.5096 - 2.45959)/(22 - 6)	
0.00312565					
2.17475	(6/5/2008)	2.45959	(12/19/1996)	(2.17475 - 2.45959)/(23 - 6)	
-0.0167551					
1.74572	(11/20/2008)	2.45959	(12/19/1996)	(1.74572 - 2.45959)/(24 - 6)	
-0.0396596					
1.64866	(6/11/2009)	2.45959	(12/19/1996)	(1.64866 - 2.45959)/(25 - 6)	
-0.0426805					
0.955511	(11/16/2009)	2.45959	(12/19/1996)	(0.955511 - 2.45959)/(26 - 6)	
-0.0752039					
1.90211 H	(6/30/2010)	2.45959	(12/19/1996)	(1.90211 - 2.45959)/(27 - 6)	
-0.0265467					
2.04122	(11/12/2010)	2.45959	(12/19/1996)	(2.04122 - 2.45959)/(28 - 6)	
-0.0190168					
1.38629	(7/5/2011)	2.45959	(12/19/1996)	(1.38629 - 2.45959)/(29 - 6)	
-0.046665					
1.60944	(11/22/2011)	2.45959	(12/19/1996)	(1.60944 - 2.45959)/(30 - 6)	
-0.035423					
ND<0	(9/24/1997)	ND<0	(3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0	(4/7/1998)	ND<0	(3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0	(9/23/1998)	ND<0	(3/24/1997)	(0 - 0)/(10 - 7)	0
1.60944	(3/16/1999)	ND<0	(3/24/1997)	(1.60944 - 0)/(11 - 7)	
0.402359					
ND<0	(9/23/1999)	ND<0	(3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0	(3/15/2000)	ND<0	(3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0	(9/24/2003)	ND<0	(3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0	(3/11/2004)	ND<0	(3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0	(10/12/2004)	ND<0	(3/24/1997)	(0 - 0)/(16 - 7)	0
1.75094	(4/1/2005)	ND<0	(3/24/1997)	(1.75094 - 0)/(17 - 7)	
0.175094					
2.13298	(10/25/2005)	ND<0	(3/24/1997)	(2.13298 - 0)/(18 - 7)	
0.193907					
2.24177	(4/29/2006)	ND<0	(3/24/1997)	(2.24177 - 0)/(19 - 7)	
0.186814					
1.57691	(11/18/2006)	ND<0	(3/24/1997)	(1.57691 - 0)/(20 - 7)	
0.121301					
2.24601	(5/23/2007)	ND<0	(3/24/1997)	(2.24601 - 0)/(21 - 7)	0.16043
2.5096	(11/28/2007)	ND<0	(3/24/1997)	(2.5096 - 0)/(22 - 7)	
0.167307					
2.17475	(6/5/2008)	ND<0	(3/24/1997)	(2.17475 - 0)/(23 - 7)	
0.135922					
1.74572	(11/20/2008)	ND<0	(3/24/1997)	(1.74572 - 0)/(24 - 7)	
0.102689					
1.64866	(6/11/2009)	ND<0	(3/24/1997)	(1.64866 - 0)/(25 - 7)	
0.0915921					
0.955511	(11/16/2009)	ND<0	(3/24/1997)	(0.955511 - 0)/(26 - 7)	
0.0502901					
1.90211 H	(6/30/2010)	ND<0	(3/24/1997)	(1.90211 - 0)/(27 - 7)	
0.0951054					
2.04122	(11/12/2010)	ND<0	(3/24/1997)	(2.04122 - 0)/(28 - 7)	
0.097201					
1.38629	(7/5/2011)	ND<0	(3/24/1997)	(1.38629 - 0)/(29 - 7)	
0.0630134					

1.60944 (11/22/2011)	ND<0 (3/24/1997)	(1.60944 - 0)/(30 - 7)			
0.0699756					
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0		
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0		
1.60944 (3/16/1999)	ND<0 (9/24/1997)	(1.60944 - 0)/(11 - 8)			
0.536479					
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0		
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0		
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0		
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0		
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0		
1.75094 (4/1/2005)	ND<0 (9/24/1997)	(1.75094 - 0)/(17 - 8)			
0.194549					
2.13298 (10/25/2005)	ND<0 (9/24/1997)	(2.13298 - 0)/(18 - 8)			
0.213298					
2.24177 (4/29/2006)	ND<0 (9/24/1997)	(2.24177 - 0)/(19 - 8)			
0.203798					
1.57691 (11/18/2006)	ND<0 (9/24/1997)	(1.57691 - 0)/(20 - 8)		0.13141	
2.24601 (5/23/2007)	ND<0 (9/24/1997)	(2.24601 - 0)/(21 - 8)		0.17277	
2.5096 (11/28/2007)	ND<0 (9/24/1997)	(2.5096 - 0)/(22 - 8)			
0.179257					
2.17475 (6/5/2008)	ND<0 (9/24/1997)	(2.17475 - 0)/(23 - 8)			
0.144983					
1.74572 (11/20/2008)	ND<0 (9/24/1997)	(1.74572 - 0)/(24 - 8)			
0.109107					
1.64866 (6/11/2009)	ND<0 (9/24/1997)	(1.64866 - 0)/(25 - 8)			
0.0969799					
0.955511 (11/16/2009)	ND<0 (9/24/1997)	(0.955511 - 0)/(26 - 8)			
0.053084					
1.90211 H (6/30/2010)	ND<0 (9/24/1997)	(1.90211 - 0)/(27 - 8)			
0.100111					
2.04122 (11/12/2010)	ND<0 (9/24/1997)	(2.04122 - 0)/(28 - 8)			
0.102061					
1.38629 (7/5/2011)	ND<0 (9/24/1997)	(1.38629 - 0)/(29 - 8)			
0.066014					
1.60944 (11/22/2011)	ND<0 (9/24/1997)	(1.60944 - 0)/(30 - 8)			
0.0731563					
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0		
1.60944 (3/16/1999)	ND<0 (4/7/1998)	(1.60944 - 0)/(11 - 9)			
0.804719					
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0		
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0		
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0		
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0		
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0		
1.75094 (4/1/2005)	ND<0 (4/7/1998)	(1.75094 - 0)/(17 - 9)			
0.218867					
2.13298 (10/25/2005)	ND<0 (4/7/1998)	(2.13298 - 0)/(18 - 9)			
0.236998					
2.24177 (4/29/2006)	ND<0 (4/7/1998)	(2.24177 - 0)/(19 - 9)			
0.224177					
1.57691 (11/18/2006)	ND<0 (4/7/1998)	(1.57691 - 0)/(20 - 9)			
0.143356					
2.24601 (5/23/2007)	ND<0 (4/7/1998)	(2.24601 - 0)/(21 - 9)			
0.187168					
2.5096 (11/28/2007)	ND<0 (4/7/1998)	(2.5096 - 0)/(22 - 9)			
0.193046					
2.17475 (6/5/2008)	ND<0 (4/7/1998)	(2.17475 - 0)/(23 - 9)			
0.155339					

1.74572	(11/20/2008)	ND<0	(4/7/1998)	(1.74572 - 0)/(24 - 9)	
0.116381					
1.64866	(6/11/2009)	ND<0	(4/7/1998)	(1.64866 - 0)/(25 - 9)	
0.103041					
0.955511	(11/16/2009)	ND<0	(4/7/1998)	(0.955511 - 0)/(26 - 9)	
0.0562066					
1.90211 H	(6/30/2010)	ND<0	(4/7/1998)	(1.90211 - 0)/(27 - 9)	
0.105673					
2.04122	(11/12/2010)	ND<0	(4/7/1998)	(2.04122 - 0)/(28 - 9)	
0.107433					
1.38629	(7/5/2011)	ND<0	(4/7/1998)	(1.38629 - 0)/(29 - 9)	
0.0693147					
1.60944	(11/22/2011)	ND<0	(4/7/1998)	(1.60944 - 0)/(30 - 9)	
0.0766399					
1.60944	(3/16/1999)	ND<0	(9/23/1998)	(1.60944 - 0)/(11 - 10)	1.60944
ND<0	(9/23/1999)	ND<0	(9/23/1998)	(0 - 0)/(12 - 10)	0
ND<0	(3/15/2000)	ND<0	(9/23/1998)	(0 - 0)/(13 - 10)	0
ND<0	(9/24/2003)	ND<0	(9/23/1998)	(0 - 0)/(14 - 10)	0
ND<0	(3/11/2004)	ND<0	(9/23/1998)	(0 - 0)/(15 - 10)	0
ND<0	(10/12/2004)	ND<0	(9/23/1998)	(0 - 0)/(16 - 10)	0
1.75094	(4/1/2005)	ND<0	(9/23/1998)	(1.75094 - 0)/(17 - 10)	
0.250134					
2.13298	(10/25/2005)	ND<0	(9/23/1998)	(2.13298 - 0)/(18 - 10)	
0.266623					
2.24177	(4/29/2006)	ND<0	(9/23/1998)	(2.24177 - 0)/(19 - 10)	
0.249086					
1.57691	(11/18/2006)	ND<0	(9/23/1998)	(1.57691 - 0)/(20 - 10)	
0.157691					
2.24601	(5/23/2007)	ND<0	(9/23/1998)	(2.24601 - 0)/(21 - 10)	
0.204183					
2.5096	(11/28/2007)	ND<0	(9/23/1998)	(2.5096 - 0)/(22 - 10)	
0.209133					
2.17475	(6/5/2008)	ND<0	(9/23/1998)	(2.17475 - 0)/(23 - 10)	
0.167289					
1.74572	(11/20/2008)	ND<0	(9/23/1998)	(1.74572 - 0)/(24 - 10)	
0.124694					
1.64866	(6/11/2009)	ND<0	(9/23/1998)	(1.64866 - 0)/(25 - 10)	
0.109911					
0.955511	(11/16/2009)	ND<0	(9/23/1998)	(0.955511 - 0)/(26 - 10)	
0.0597195					
1.90211 H	(6/30/2010)	ND<0	(9/23/1998)	(1.90211 - 0)/(27 - 10)	
0.111889					
2.04122	(11/12/2010)	ND<0	(9/23/1998)	(2.04122 - 0)/(28 - 10)	
0.113401					
1.38629	(7/5/2011)	ND<0	(9/23/1998)	(1.38629 - 0)/(29 - 10)	
0.0729629					
1.60944	(11/22/2011)	ND<0	(9/23/1998)	(1.60944 - 0)/(30 - 10)	
0.0804719					
ND<0	(9/23/1999)	1.60944	(3/16/1999)	(0 - 1.60944)/(12 - 11)	-1.60944
ND<0	(3/15/2000)	1.60944	(3/16/1999)	(0 - 1.60944)/(13 - 11)	
-0.804719					
ND<0	(9/24/2003)	1.60944	(3/16/1999)	(0 - 1.60944)/(14 - 11)	
-0.536479					
ND<0	(3/11/2004)	1.60944	(3/16/1999)	(0 - 1.60944)/(15 - 11)	
-0.402359					
ND<0	(10/12/2004)	1.60944	(3/16/1999)	(0 - 1.60944)/(16 - 11)	
-0.321888					
1.75094	(4/1/2005)	1.60944	(3/16/1999)	(1.75094 - 1.60944)/(17 - 11)	
0.0235833					

2.13298	(10/25/2005)	1.60944	(3/16/1999)	(2.13298 - 1.60944)/(18 - 11)	
0.0747921					
2.24177	(4/29/2006)	1.60944	(3/16/1999)	(2.24177 - 1.60944)/(19 - 11)	
0.0790419					
1.57691	(11/18/2006)	1.60944	(3/16/1999)	(1.57691 - 1.60944)/(20 - 11)	
-0.00361369					
2.24601	(5/23/2007)	1.60944	(3/16/1999)	(2.24601 - 1.60944)/(21 - 11)	
0.0636577					
2.5096	(11/28/2007)	1.60944	(3/16/1999)	(2.5096 - 1.60944)/(22 - 11)	
0.0818328					
2.17475	(6/5/2008)	1.60944	(3/16/1999)	(2.17475 - 1.60944)/(23 - 11)	
0.0471095					
1.74572	(11/20/2008)	1.60944	(3/16/1999)	(1.74572 - 1.60944)/(24 - 11)	
0.0104829					
1.64866	(6/11/2009)	1.60944	(3/16/1999)	(1.64866 - 1.60944)/(25 - 11)	
0.00280148					
0.955511	(11/16/2009)	1.60944	(3/16/1999)	(0.955511 - 1.60944)/(26 - 11)	
-0.0435951					
1.90211 H	(6/30/2010)	1.60944	(3/16/1999)	(1.90211 - 1.60944)/(27 - 11)	
0.0182919					
2.04122	(11/12/2010)	1.60944	(3/16/1999)	(2.04122 - 1.60944)/(28 - 11)	
0.025399					
1.38629	(7/5/2011)	1.60944	(3/16/1999)	(1.38629 - 1.60944)/(29 - 11)	
-0.0123969					
1.60944	(11/22/2011)	1.60944	(3/16/1999)	(1.60944 - 1.60944)/(30 - 11)	
0					
ND<0	(3/15/2000)	ND<0	(9/23/1999)	(0 - 0)/(13 - 12)	0
ND<0	(9/24/2003)	ND<0	(9/23/1999)	(0 - 0)/(14 - 12)	0
ND<0	(3/11/2004)	ND<0	(9/23/1999)	(0 - 0)/(15 - 12)	0
ND<0	(10/12/2004)	ND<0	(9/23/1999)	(0 - 0)/(16 - 12)	0
1.75094	(4/1/2005)	ND<0	(9/23/1999)	(1.75094 - 0)/(17 - 12)	
0.350187					
2.13298	(10/25/2005)	ND<0	(9/23/1999)	(2.13298 - 0)/(18 - 12)	
0.355497					
2.24177	(4/29/2006)	ND<0	(9/23/1999)	(2.24177 - 0)/(19 - 12)	
0.320253					
1.57691	(11/18/2006)	ND<0	(9/23/1999)	(1.57691 - 0)/(20 - 12)	
0.197114					
2.24601	(5/23/2007)	ND<0	(9/23/1999)	(2.24601 - 0)/(21 - 12)	
0.249557					
2.5096	(11/28/2007)	ND<0	(9/23/1999)	(2.5096 - 0)/(22 - 12)	0.25096
2.17475	(6/5/2008)	ND<0	(9/23/1999)	(2.17475 - 0)/(23 - 12)	
0.197705					
1.74572	(11/20/2008)	ND<0	(9/23/1999)	(1.74572 - 0)/(24 - 12)	
0.145476					
1.64866	(6/11/2009)	ND<0	(9/23/1999)	(1.64866 - 0)/(25 - 12)	0.12682
0.955511	(11/16/2009)	ND<0	(9/23/1999)	(0.955511 - 0)/(26 - 12)	
0.0682508					
1.90211 H	(6/30/2010)	ND<0	(9/23/1999)	(1.90211 - 0)/(27 - 12)	
0.126807					
2.04122	(11/12/2010)	ND<0	(9/23/1999)	(2.04122 - 0)/(28 - 12)	
0.127576					
1.38629	(7/5/2011)	ND<0	(9/23/1999)	(1.38629 - 0)/(29 - 12)	
0.0815467					
1.60944	(11/22/2011)	ND<0	(9/23/1999)	(1.60944 - 0)/(30 - 12)	
0.0894132					
ND<0	(9/24/2003)	ND<0	(3/15/2000)	(0 - 0)/(14 - 13)	0
ND<0	(3/11/2004)	ND<0	(3/15/2000)	(0 - 0)/(15 - 13)	0
ND<0	(10/12/2004)	ND<0	(3/15/2000)	(0 - 0)/(16 - 13)	0

1.75094 (4/1/2005)	ND<0 (3/15/2000)	(1.75094 - 0)/(17 - 13)			
0.437734					
2.13298 (10/25/2005)	ND<0 (3/15/2000)	(2.13298 - 0)/(18 - 13)			
0.426596					
2.24177 (4/29/2006)	ND<0 (3/15/2000)	(2.24177 - 0)/(19 - 13)			
0.373629					
1.57691 (11/18/2006)	ND<0 (3/15/2000)	(1.57691 - 0)/(20 - 13)			
0.225274					
2.24601 (5/23/2007)	ND<0 (3/15/2000)	(2.24601 - 0)/(21 - 13)			
0.280752					
2.5096 (11/28/2007)	ND<0 (3/15/2000)	(2.5096 - 0)/(22 - 13)			
0.278844					
2.17475 (6/5/2008)	ND<0 (3/15/2000)	(2.17475 - 0)/(23 - 13)			
0.217475					
1.74572 (11/20/2008)	ND<0 (3/15/2000)	(1.74572 - 0)/(24 - 13)			
0.158701					
1.64866 (6/11/2009)	ND<0 (3/15/2000)	(1.64866 - 0)/(25 - 13)			
0.137388					
0.955511 (11/16/2009)	ND<0 (3/15/2000)	(0.955511 - 0)/(26 - 13)			
0.0735009					
1.90211 H (6/30/2010)	ND<0 (3/15/2000)	(1.90211 - 0)/(27 - 13)			
0.135865					
2.04122 (11/12/2010)	ND<0 (3/15/2000)	(2.04122 - 0)/(28 - 13)			
0.136081					
1.38629 (7/5/2011)	ND<0 (3/15/2000)	(1.38629 - 0)/(29 - 13)			
0.0866434					
1.60944 (11/22/2011)	ND<0 (3/15/2000)	(1.60944 - 0)/(30 - 13)			
0.0946728					
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0		
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0		
1.75094 (4/1/2005)	ND<0 (9/24/2003)	(1.75094 - 0)/(17 - 14)			
0.583646					
2.13298 (10/25/2005)	ND<0 (9/24/2003)	(2.13298 - 0)/(18 - 14)			
0.533246					
2.24177 (4/29/2006)	ND<0 (9/24/2003)	(2.24177 - 0)/(19 - 14)			
0.448355					
1.57691 (11/18/2006)	ND<0 (9/24/2003)	(1.57691 - 0)/(20 - 14)			
0.262819					
2.24601 (5/23/2007)	ND<0 (9/24/2003)	(2.24601 - 0)/(21 - 14)			
0.320859					
2.5096 (11/28/2007)	ND<0 (9/24/2003)	(2.5096 - 0)/(22 - 14)		0.3137	
2.17475 (6/5/2008)	ND<0 (9/24/2003)	(2.17475 - 0)/(23 - 14)			
0.241639					
1.74572 (11/20/2008)	ND<0 (9/24/2003)	(1.74572 - 0)/(24 - 14)			
0.174572					
1.64866 (6/11/2009)	ND<0 (9/24/2003)	(1.64866 - 0)/(25 - 14)			
0.149878					
0.955511 (11/16/2009)	ND<0 (9/24/2003)	(0.955511 - 0)/(26 - 14)			
0.079626					
1.90211 H (6/30/2010)	ND<0 (9/24/2003)	(1.90211 - 0)/(27 - 14)			
0.146316					
2.04122 (11/12/2010)	ND<0 (9/24/2003)	(2.04122 - 0)/(28 - 14)			
0.145801					
1.38629 (7/5/2011)	ND<0 (9/24/2003)	(1.38629 - 0)/(29 - 14)			
0.0924196					
1.60944 (11/22/2011)	ND<0 (9/24/2003)	(1.60944 - 0)/(30 - 14)		0.10059	
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0		
1.75094 (4/1/2005)	ND<0 (3/11/2004)	(1.75094 - 0)/(17 - 15)			
0.875469					

2.13298	(10/25/2005)	ND<0	(3/11/2004)	(2.13298 - 0)/(18 - 15)	
0.710994					
2.24177	(4/29/2006)	ND<0	(3/11/2004)	(2.24177 - 0)/(19 - 15)	
0.560443					
1.57691	(11/18/2006)	ND<0	(3/11/2004)	(1.57691 - 0)/(20 - 15)	
0.315383					
2.24601	(5/23/2007)	ND<0	(3/11/2004)	(2.24601 - 0)/(21 - 15)	
0.374336					
2.5096	(11/28/2007)	ND<0	(3/11/2004)	(2.5096 - 0)/(22 - 15)	
0.358514					
2.17475	(6/5/2008)	ND<0	(3/11/2004)	(2.17475 - 0)/(23 - 15)	
0.271844					
1.74572	(11/20/2008)	ND<0	(3/11/2004)	(1.74572 - 0)/(24 - 15)	
0.193968					
1.64866	(6/11/2009)	ND<0	(3/11/2004)	(1.64866 - 0)/(25 - 15)	
0.164866					
0.955511	(11/16/2009)	ND<0	(3/11/2004)	(0.955511 - 0)/(26 - 15)	
0.0868647					
1.90211 H	(6/30/2010)	ND<0	(3/11/2004)	(1.90211 - 0)/(27 - 15)	
0.158509					
2.04122	(11/12/2010)	ND<0	(3/11/2004)	(2.04122 - 0)/(28 - 15)	
0.157017					
1.38629	(7/5/2011)	ND<0	(3/11/2004)	(1.38629 - 0)/(29 - 15)	
0.099021					
1.60944	(11/22/2011)	ND<0	(3/11/2004)	(1.60944 - 0)/(30 - 15)	
0.107296					
1.75094	(4/1/2005)	ND<0	(10/12/2004)	(1.75094 - 0)/(17 - 16)	1.75094
2.13298	(10/25/2005)	ND<0	(10/12/2004)	(2.13298 - 0)/(18 - 16)	1.06649
2.24177	(4/29/2006)	ND<0	(10/12/2004)	(2.24177 - 0)/(19 - 16)	
0.747258					
1.57691	(11/18/2006)	ND<0	(10/12/2004)	(1.57691 - 0)/(20 - 16)	
0.394229					
2.24601	(5/23/2007)	ND<0	(10/12/2004)	(2.24601 - 0)/(21 - 16)	
0.449203					
2.5096	(11/28/2007)	ND<0	(10/12/2004)	(2.5096 - 0)/(22 - 16)	
0.418267					
2.17475	(6/5/2008)	ND<0	(10/12/2004)	(2.17475 - 0)/(23 - 16)	
0.310679					
1.74572	(11/20/2008)	ND<0	(10/12/2004)	(1.74572 - 0)/(24 - 16)	
0.218214					
1.64866	(6/11/2009)	ND<0	(10/12/2004)	(1.64866 - 0)/(25 - 16)	
0.183184					
0.955511	(11/16/2009)	ND<0	(10/12/2004)	(0.955511 - 0)/(26 - 16)	
0.0955511					
1.90211 H	(6/30/2010)	ND<0	(10/12/2004)	(1.90211 - 0)/(27 - 16)	
0.172919					
2.04122	(11/12/2010)	ND<0	(10/12/2004)	(2.04122 - 0)/(28 - 16)	
0.170102					
1.38629	(7/5/2011)	ND<0	(10/12/2004)	(1.38629 - 0)/(29 - 16)	
0.106638					
1.60944	(11/22/2011)	ND<0	(10/12/2004)	(1.60944 - 0)/(30 - 16)	0.11496
2.13298	(10/25/2005)	1.75094	(4/1/2005)	(2.13298 - 1.75094)/(18 - 17)	
0.382045					
2.24177	(4/29/2006)	1.75094	(4/1/2005)	(2.24177 - 1.75094)/(19 - 17)	
0.245418					
1.57691	(11/18/2006)	1.75094	(4/1/2005)	(1.57691 - 1.75094)/(20 - 17)	
-0.0580076					
2.24601	(5/23/2007)	1.75094	(4/1/2005)	(2.24601 - 1.75094)/(21 - 17)	
0.123769					

2.5096	(11/28/2007)	1.75094	(4/1/2005)	(2.5096 - 1.75094)/(22 - 17)	0.151732
2.17475	(6/5/2008)	1.75094	(4/1/2005)	(2.17475 - 1.75094)/(23 - 17)	0.0706357
1.74572	(11/20/2008)	1.75094	(4/1/2005)	(1.74572 - 1.75094)/(24 - 17)	-0.000745992
1.64866	(6/11/2009)	1.75094	(4/1/2005)	(1.64866 - 1.75094)/(25 - 17)	-0.0127849
0.955511	(11/16/2009)	1.75094	(4/1/2005)	(0.955511 - 1.75094)/(26 - 17)	-0.0883807
1.90211 H	(6/30/2010)	1.75094	(4/1/2005)	(1.90211 - 1.75094)/(27 - 17)	0.015117
2.04122	(11/12/2010)	1.75094	(4/1/2005)	(2.04122 - 1.75094)/(28 - 17)	0.0263894
1.38629	(7/5/2011)	1.75094	(4/1/2005)	(1.38629 - 1.75094)/(29 - 17)	-0.0303869
1.60944	(11/22/2011)	1.75094	(4/1/2005)	(1.60944 - 1.75094)/(30 - 17)	-0.0108846
2.24177	(4/29/2006)	2.13298	(10/25/2005)	(2.24177 - 2.13298)/(19 - 18)	0.108791
1.57691	(11/18/2006)	2.13298	(10/25/2005)	(1.57691 - 2.13298)/(20 - 18)	-0.278034
2.24601	(5/23/2007)	2.13298	(10/25/2005)	(2.24601 - 2.13298)/(21 - 18)	0.0376775
2.5096	(11/28/2007)	2.13298	(10/25/2005)	(2.5096 - 2.13298)/(22 - 18)	0.0941542
2.17475	(6/5/2008)	2.13298	(10/25/2005)	(2.17475 - 2.13298)/(23 - 18)	0.00835388
1.74572	(11/20/2008)	2.13298	(10/25/2005)	(1.74572 - 2.13298)/(24 - 18)	-0.0645445
1.64866	(6/11/2009)	2.13298	(10/25/2005)	(1.64866 - 2.13298)/(25 - 18)	-0.0691891
0.955511	(11/16/2009)	2.13298	(10/25/2005)	(0.955511 - 2.13298)/(26 - 18)	-0.147184
1.90211 H	(6/30/2010)	2.13298	(10/25/2005)	(1.90211 - 2.13298)/(27 - 18)	-0.0256528
2.04122	(11/12/2010)	2.13298	(10/25/2005)	(2.04122 - 2.13298)/(28 - 18)	-0.0091762
1.38629	(7/5/2011)	2.13298	(10/25/2005)	(1.38629 - 2.13298)/(29 - 18)	-0.0678807
1.60944	(11/22/2011)	2.13298	(10/25/2005)	(1.60944 - 2.13298)/(30 - 18)	-0.0436287
1.57691	(11/18/2006)	2.24177	(4/29/2006)	(1.57691 - 2.24177)/(20 - 19)	-0.664858
2.24601	(5/23/2007)	2.24177	(4/29/2006)	(2.24601 - 2.24177)/(21 - 19)	0.00212089
2.5096	(11/28/2007)	2.24177	(4/29/2006)	(2.5096 - 2.24177)/(22 - 19)	0.0892754
2.17475	(6/5/2008)	2.24177	(4/29/2006)	(2.17475 - 2.24177)/(23 - 19)	-0.0167553
1.74572	(11/20/2008)	2.24177	(4/29/2006)	(1.74572 - 2.24177)/(24 - 19)	-0.0992115
1.64866	(6/11/2009)	2.24177	(4/29/2006)	(1.64866 - 2.24177)/(25 - 19)	-0.0988524
0.955511	(11/16/2009)	2.24177	(4/29/2006)	(0.955511 - 2.24177)/(26 - 19)	-0.183752
1.90211 H	(6/30/2010)	2.24177	(4/29/2006)	(1.90211 - 2.24177)/(27 - 19)	-0.0424582
2.04122	(11/12/2010)	2.24177	(4/29/2006)	(2.04122 - 2.24177)/(28 - 19)	-0.0222836

1.38629 (7/5/2011)	2.24177 (4/29/2006)	(1.38629 - 2.24177)/(29 - 19)
-0.0855479		
1.60944 (11/22/2011)	2.24177 (4/29/2006)	(1.60944 - 2.24177)/(30 - 19)
-0.057485		
2.24601 (5/23/2007)	1.57691 (11/18/2006)	(2.24601 - 1.57691)/(21 - 20)
0.6691		
2.5096 (11/28/2007)	1.57691 (11/18/2006)	(2.5096 - 1.57691)/(22 - 20)
0.466342		
2.17475 (6/5/2008)	1.57691 (11/18/2006)	(2.17475 - 1.57691)/(23 - 20)
0.199279		
1.74572 (11/20/2008)	1.57691 (11/18/2006)	(1.74572 - 1.57691)/(24 - 20)
0.0422002		
1.64866 (6/11/2009)	1.57691 (11/18/2006)	(1.64866 - 1.57691)/(25 - 20)
0.0143488		
0.955511 (11/16/2009)	1.57691 (11/18/2006)	(0.955511 - 1.57691)/(26 - 20)
-0.103567		
1.90211 H (6/30/2010)	1.57691 (11/18/2006)	(1.90211 - 1.57691)/(27 - 20)
0.0464561		
2.04122 (11/12/2010)	1.57691 (11/18/2006)	(2.04122 - 1.57691)/(28 - 20)
0.0580382		
1.38629 (7/5/2011)	1.57691 (11/18/2006)	(1.38629 - 1.57691)/(29 - 20)
-0.02118		
1.60944 (11/22/2011)	1.57691 (11/18/2006)	(1.60944 - 1.57691)/(30 - 20)
0.00325232		
2.5096 (11/28/2007)	2.24601 (5/23/2007)	(2.5096 - 2.24601)/(22 - 21)
0.263585		
2.17475 (6/5/2008)	2.24601 (5/23/2007)	(2.17475 - 2.24601)/(23 - 21)
-0.0356315		
1.74572 (11/20/2008)	2.24601 (5/23/2007)	(1.74572 - 2.24601)/(24 - 21)
-0.166766		
1.64866 (6/11/2009)	2.24601 (5/23/2007)	(1.64866 - 2.24601)/(25 - 21)
-0.149339		
0.955511 (11/16/2009)	2.24601 (5/23/2007)	(0.955511 - 2.24601)/(26 - 21)
-0.258101		
1.90211 H (6/30/2010)	2.24601 (5/23/2007)	(1.90211 - 2.24601)/(27 - 21)
-0.0573179		
2.04122 (11/12/2010)	2.24601 (5/23/2007)	(2.04122 - 2.24601)/(28 - 21)
-0.0292563		
1.38629 (7/5/2011)	2.24601 (5/23/2007)	(1.38629 - 2.24601)/(29 - 21)
-0.107465		
1.60944 (11/22/2011)	2.24601 (5/23/2007)	(1.60944 - 2.24601)/(30 - 21)
-0.0707308		
2.17475 (6/5/2008)	2.5096 (11/28/2007)	(2.17475 - 2.5096)/(23 - 22)
-0.334848		
1.74572 (11/20/2008)	2.5096 (11/28/2007)	(1.74572 - 2.5096)/(24 - 22)
-0.381942		
1.64866 (6/11/2009)	2.5096 (11/28/2007)	(1.64866 - 2.5096)/(25 - 22)
-0.28698		
0.955511 (11/16/2009)	2.5096 (11/28/2007)	(0.955511 - 2.5096)/(26 - 22)
-0.388522		
1.90211 H (6/30/2010)	2.5096 (11/28/2007)	(1.90211 - 2.5096)/(27 - 22)
-0.121498		
2.04122 (11/12/2010)	2.5096 (11/28/2007)	(2.04122 - 2.5096)/(28 - 22)
-0.0780632		
1.38629 (7/5/2011)	2.5096 (11/28/2007)	(1.38629 - 2.5096)/(29 - 22)
-0.160472		
1.60944 (11/22/2011)	2.5096 (11/28/2007)	(1.60944 - 2.5096)/(30 - 22)
-0.11252		

1.74572 (11/20/2008)	2.17475 (6/5/2008)	(1.74572 - 2.17475)/(24 - 23)
-0.429036		
1.64866 (6/11/2009)	2.17475 (6/5/2008)	(1.64866 - 2.17475)/(25 - 23)
-0.263047		
0.955511 (11/16/2009)	2.17475 (6/5/2008)	(0.955511 - 2.17475)/(26 - 23)
-0.406413		
1.90211 H (6/30/2010)	2.17475 (6/5/2008)	(1.90211 - 2.17475)/(27 - 23)
-0.068161		
2.04122 (11/12/2010)	2.17475 (6/5/2008)	(2.04122 - 2.17475)/(28 - 23)
-0.0267063		
1.38629 (7/5/2011)	2.17475 (6/5/2008)	(1.38629 - 2.17475)/(29 - 23)
-0.13141		
1.60944 (11/22/2011)	2.17475 (6/5/2008)	(1.60944 - 2.17475)/(30 - 23)
-0.0807591		
1.64866 (6/11/2009)	1.74572 (11/20/2008)	(1.64866 - 1.74572)/(25 - 24)
-0.0970569		
0.955511 (11/16/2009)	1.74572 (11/20/2008)	(0.955511 - 1.74572)/(26 - 24)
-0.395102		
1.90211 H (6/30/2010)	1.74572 (11/20/2008)	(1.90211 - 1.74572)/(27 - 24)
0.0521307		
2.04122 (11/12/2010)	1.74572 (11/20/2008)	(2.04122 - 1.74572)/(28 - 24)
0.0738762		
1.38629 (7/5/2011)	1.74572 (11/20/2008)	(1.38629 - 1.74572)/(29 - 24)
-0.0718842		
1.60944 (11/22/2011)	1.74572 (11/20/2008)	(1.60944 - 1.74572)/(30 - 24)
-0.0227129		
0.955511 (11/16/2009)	1.64866 (6/11/2009)	(0.955511 - 1.64866)/(26 - 25)
-0.693147		
1.90211 H (6/30/2010)	1.64866 (6/11/2009)	(1.90211 - 1.64866)/(27 - 25)
0.126724		
2.04122 (11/12/2010)	1.64866 (6/11/2009)	(2.04122 - 1.64866)/(28 - 25)
0.130854		
1.38629 (7/5/2011)	1.64866 (6/11/2009)	(1.38629 - 1.64866)/(29 - 25)
-0.0655911		
1.60944 (11/22/2011)	1.64866 (6/11/2009)	(1.60944 - 1.64866)/(30 - 25)
-0.00784414		
1.90211 H (6/30/2010)	0.955511 (11/16/2009)	(1.90211 - 0.955511)/(27 - 26)
0.946596		
2.04122 (11/12/2010)	0.955511 (11/16/2009)	(2.04122 - 0.955511)/(28 - 26)
0.542854		
1.38629 (7/5/2011)	0.955511 (11/16/2009)	(1.38629 - 0.955511)/(29 - 26)
0.143594		
1.60944 (11/22/2011)	0.955511 (11/16/2009)	(1.60944 - 0.955511)/(30 - 26)
0.163482		
2.04122 (11/12/2010)	1.90211 H (6/30/2010)	(2.04122 - 1.90211)/(28 - 27)
0.139113		
1.38629 (7/5/2011)	1.90211 H (6/30/2010)	(1.38629 - 1.90211)/(29 - 27)
-0.257907		
1.60944 (11/22/2011)	1.90211 H (6/30/2010)	(1.60944 - 1.90211)/(30 - 27)
-0.0975565		
1.38629 (7/5/2011)	2.04122 (11/12/2010)	(1.38629 - 2.04122)/(29 - 28)
-0.654926		
1.60944 (11/22/2011)	2.04122 (11/12/2010)	(1.60944 - 2.04122)/(30 - 28)
-0.215891		

1.60944 (11/22/2011) 1.38629 (7/5/2011) (1.60944 - 1.38629)/(30 - 29)
0.223144

Number of Q values = 435

Ordered Q Values

n	Q
1	-2.5416
2	-2.45959
3	-1.60944
4	-1.2708
5	-1.22979
6	-0.819863
7	-0.804719
8	-0.693147
9	-0.664858
10	-0.654926
11	-0.6354
12	-0.614897
13	-0.536479
14	-0.50832
15	-0.429036
16	-0.4236
17	-0.409931
18	-0.406413
19	-0.402359
20	-0.395102
21	-0.388522
22	-0.381942
23	-0.363086
24	-0.35137
25	-0.334848
26	-0.321888
27	-0.307449
28	-0.28698
29	-0.2824
30	-0.278034
31	-0.273288
32	-0.263047
33	-0.258101
34	-0.257907
35	-0.25416
36	-0.245959
37	-0.231055
38	-0.215891
39	-0.2118
40	-0.195508
41	-0.183752
42	-0.17003
43	-0.166766
44	-0.160472
45	-0.149339
46	-0.147184
47	-0.13141
48	-0.121498
49	-0.116521
50	-0.11252
51	-0.107465
52	-0.103567
53	-0.0992115

54	-0.0988524
55	-0.0975565
56	-0.0970569
57	-0.0883807
58	-0.0855479
59	-0.0807591
60	-0.0780632
61	-0.0752039
62	-0.0718842
63	-0.0707308
64	-0.0691891
65	-0.0689605
66	-0.068161
67	-0.0678807
68	-0.0655911
69	-0.0645445
70	-0.0644229
71	-0.0630482
72	-0.0580076
73	-0.057485
74	-0.0573179
75	-0.0567463
76	-0.056476
77	-0.046665
78	-0.0444349
79	-0.0436287
80	-0.0435951
81	-0.0426805
82	-0.0424582
83	-0.0405883
84	-0.0396596
85	-0.0378994
86	-0.0356315
87	-0.035423
88	-0.0345246
89	-0.0303869
90	-0.0292563
91	-0.0273377
92	-0.0272413
93	-0.0272172
94	-0.0267063
95	-0.0266456
96	-0.0265467
97	-0.0256528
98	-0.0227129
99	-0.0222836
100	-0.02118
101	-0.0200153
102	-0.0190168
103	-0.0187393
104	-0.0183425
105	-0.0167553
106	-0.0167551
107	-0.0167551
108	-0.0164215
109	-0.0142383
110	-0.0127849
111	-0.0123969
112	-0.0108846
113	-0.0091762
114	-0.00784414
115	-0.00361369

116	-0.00168435
117	-0.000745992
118	0
119	0
120	0
121	0
122	0
123	0
124	0
125	0
126	0
127	0
128	0
129	0
130	0
131	0
132	0
133	0
134	0
135	0
136	0
137	0
138	0
139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0
154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0

178	0
179	0
180	0
181	0
182	0
183	0
184	0
185	0
186	0
187	0
188	0
189	0
190	0
191	0
192	0
193	0
194	0
195	0
196	0
197	0.00212089
198	0.00280148
199	0.00312565
200	0.00325232
201	0.00835388
202	0.0104829
203	0.0143488
204	0.015117
205	0.0182919
206	0.0235833
207	0.025399
208	0.0263894
209	0.0376775
210	0.0382205
211	0.039813
212	0.0422002
213	0.0434323
214	0.0455005
215	0.0464561
216	0.0471095
217	0.0495105
218	0.0502901
219	0.0513442
220	0.0521307
221	0.053084
222	0.0554518
223	0.0554979
224	0.0562066
225	0.0574799
226	0.0577623
227	0.0580382
228	0.0597195
229	0.0619015
230	0.0630134
231	0.0636577
232	0.0643775
233	0.066014
234	0.0682508
235	0.0686941
236	0.0693147
237	0.0699756
238	0.0706357
239	0.0716808

240	0.0729629
241	0.0731563
242	0.073158
243	0.0735009
244	0.0738762
245	0.0747921
246	0.0756008
247	0.0759007
248	0.0760843
249	0.0766399
250	0.0785076
251	0.0785085
252	0.0790419
253	0.0793507
254	0.079626
255	0.0804719
256	0.0815467
257	0.0818328
258	0.0824329
259	0.0827003
260	0.0829955
261	0.0850508
262	0.0864594
263	0.0866434
264	0.0868647
265	0.0872858
266	0.0876064
267	0.0887487
268	0.0892754
269	0.0894132
270	0.0915921
271	0.0918798
272	0.0924196
273	0.0941542
274	0.0946728
275	0.0951054
276	0.0955511
277	0.0969799
278	0.097201
279	0.0985572
280	0.0988524
281	0.099021
282	0.100111
283	0.10059
284	0.102061
285	0.102689
286	0.103041
287	0.10356
288	0.105128
289	0.105673
290	0.106638
291	0.107296
292	0.107433
293	0.108791
294	0.109107
295	0.109434
296	0.109911
297	0.111889
298	0.112301
299	0.113401
300	0.114461
301	0.11496

302	0.116381
303	0.116729
304	0.118211
305	0.119505
306	0.12082
307	0.121301
308	0.123769
309	0.124543
310	0.124694
311	0.12547
312	0.12548
313	0.126724
314	0.126807
315	0.12682
316	0.127576
317	0.130854
318	0.13141
319	0.131869
320	0.132119
321	0.133311
322	0.134687
323	0.135865
324	0.135922
325	0.136081
326	0.137388
327	0.139113
328	0.139422
329	0.140376
330	0.143356
331	0.143594
332	0.144983
333	0.145476
334	0.145801
335	0.145911
336	0.146316
337	0.147623
338	0.149452
339	0.149878
340	0.151732
341	0.152356
342	0.155339
343	0.157017
344	0.157691
345	0.158509
346	0.158701
347	0.160127
348	0.16043
349	0.160944
350	0.163482
351	0.164076
352	0.164866
353	0.167289
354	0.167307
355	0.170102
356	0.17277
357	0.172919
358	0.174572
359	0.175094
360	0.178826
361	0.179257
362	0.183184
363	0.186814

364	0.187168
365	0.193046
366	0.193907
367	0.193968
368	0.194549
369	0.197114
370	0.197705
371	0.199279
372	0.203798
373	0.204183
374	0.209133
375	0.213298
376	0.217475
377	0.218214
378	0.218867
379	0.223144
380	0.224177
381	0.225274
382	0.22992
383	0.236998
384	0.241639
385	0.245418
386	0.249086
387	0.249557
388	0.250134
389	0.25096
390	0.262819
391	0.263585
392	0.266623
393	0.26824
394	0.271844
395	0.278844
396	0.280752
397	0.310679
398	0.3137
399	0.315383
400	0.320253
401	0.320859
402	0.350187
403	0.355497
404	0.358514
405	0.373629
406	0.374336
407	0.382045
408	0.394229
409	0.402359
410	0.418267
411	0.426596
412	0.437734
413	0.448355
414	0.449203
415	0.466342
416	0.491918
417	0.533246
418	0.536479
419	0.542854
420	0.560443
421	0.583646
422	0.614897
423	0.6691
424	0.710994
425	0.747258

426	0.804719
427	0.875469
428	0.946596
429	1.06649
430	1.22979
431	1.2708
432	1.60944
433	1.75094
434	2.45959
435	2.5416

Sen's Estimator (Median Q) is 0.0502901

Tied Group	Value	Members
1	0	13
2	1.60944	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		1

There are 0 time periods with multiple data

A = 4854
B = 0
C = 1716
D = 0
E = 158
F = 0
a = 56550
b = 219240
c = 1740
Group Variance = 2872
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 88.1494

M1 = (435 - 88.1494)/2.0 = 173.425
M2 = (435 + 88.1494)/2.0 + 1 = 262.575
Lower limit is 0 = Q(173)
Upper limit is 0.0866434 = Q(263)
0 < 0 < 0.0866434 indicating no trend in data.

Concentrations (ppb)

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 99
Percent Non-Detects: 41.25%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	5 (26.3158%)	3/16/1999	50	50
			9/23/1999	28	28
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005 8.7 J	8.7 J	
			10/25/2005	ND<10	ND<10
			4/29/2006	5 J	5 J
			11/18/2006	5.43 J	5.43 J
			5/23/2007	10.9	10.9
			11/28/2007	7 J	7 J
			6/5/2008 5.97 J	5.97 J	
			11/20/2008	8 J	8 J
			6/11/2009	9	9
			11/16/2009	6.9	6.9
			6/30/2010	9.9 H	9.9 H
			11/12/2010	9	9
			7/5/2011 6.6	6.6	

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	30	15 (50%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10
			12/19/1996	ND<10	ND<10
			3/24/1997	ND<10	ND<10
			9/24/1997	ND<10	ND<10
			4/7/1998 ND<10	ND<10	
			9/23/1998	ND<10	ND<10
			3/16/1999	20	20
			9/23/1999	7 J	7 J
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005 5.7 J	5.7 J	
			10/25/2005	5.5 J	5.5 J
			4/29/2006	ND<10	ND<10
			11/18/2006	6.07 J	6.07 J
			5/23/2007	7.22	7.22
			11/28/2007	6.22 J	6.22 J
			6/5/2008 6.44 J	6.44 J	
			11/20/2008	8 J	8 J

			6/11/2009	7	7	
			11/16/2009	6.9	6.9	
			6/30/2010	7.9 H	7.9 H	
			11/12/2010	9.8	9.8	
			7/5/2011 9.2	9.2		
			11/22/2011	12	12	
MW-7	30	14 (46.6667%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	60	60	
			9/23/1999	74	74	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 46.8	46.8		
			10/25/2005	47.5	47.5	
			4/29/2006	50	50	
			11/18/2006	37.7	37.7	
			5/23/2007	63.2	63.2	
			11/28/2007	8.3 J	8.3 J	
			6/5/2008 43.8	43.8		
			11/20/2008	60	60	
			6/11/2009	47	47	
			11/16/2009	42	42	
			6/30/2010	45 H	45 H	
			11/12/2010	34	34	
			7/5/2011 64	64		
			11/22/2011	66	66	
MW-12AR	20	4 (20%)	3/16/1999		40	40
			9/23/1999	40	40	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 36	36		
			10/25/2005	27.7	27.7	
			4/29/2006	30	30	
			11/18/2006	33.2	33.2	
			5/23/2007	34.1	34.1	
			11/28/2007	42	42	
			6/5/2008 34.8	34.8		
			11/20/2008	45	45	
			6/11/2009	38	38	
			11/16/2009	41	41	
			6/30/2010	36	36	
			11/12/2010	41	41	
			7/5/2011 32	32		
			11/22/2011	31	31	
MW-12BR	20	4 (20%)	3/16/1999		30	30
			9/23/1999	33	33	
			3/15/2000	ND<10	ND<10	

			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	40.1	40.1	
			10/25/2005	35	35	
			4/29/2006	30	30	
			11/18/2006	34.5	34.5	
			5/23/2007	41.5	41.5	
			11/28/2007	40	40	
			6/5/2008	36.8	36.8	
			11/20/2008	43	43	
			6/11/2009	42	42	
			11/16/2009	37	37	
			6/30/2010	40	40	
			11/12/2010	43	43	
			7/5/2011	41	41	
			11/22/2011	42	42	
MW-11R	31	15 (48.3871%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	40	40	
			9/23/1999	21	21	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	28.8	28.8	
			10/25/2005	19.1	19.1	
			4/29/2006	30	30	
			11/18/2006	116	116	
			5/23/2007	50	50	
			11/28/2007	34	34	
			6/5/2008	ND<10	ND<10	
			11/20/2008	10	10	
			6/11/2009	11	11	
			11/16/2009	7.2	7.2	
			6/30/2010	18 H	18 H	
			11/12/2010	8.7	8.7	
			7/5/2011	8	8	
			11/22/2011	9.8	9.8	
			11/22/2011	9.8	9.8	
MW-10	30	14 (46.6667%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	90	90	
			9/23/1999	72	72	

			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 77.9	77.9		
			10/25/2005	76.8	76.8	
			4/29/2006	11	11	
			11/18/2006	123	123	
			5/23/2007	139	139	
			11/28/2007	118	118	
			6/5/2008 150	150		
			11/20/2008	150	150	
			6/11/2009	170	170	
			11/16/2009	130	130	
			6/30/2010	160 H	160 H	
			11/12/2010	150	150	
			7/5/2011 130 J	130 J		
			11/22/2011	160	160	
MW-8	29	14 (48.2759%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	60	60	
			9/23/1999	41	41	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 95.7	95.7		
			10/25/2005	65.2	65.2	
			4/29/2006	70	70	
			11/18/2006	85.5	85.5	
			5/23/2007	76.3	76.3	
			11/28/2007	100	100	
			6/5/2008 88.4	88.4		
			11/20/2008	64	64	
			6/11/2009	55	55	
			6/30/2010	67 H	67 H	
			11/12/2010	70	70	
			7/5/2011 51	51		
			11/22/2011	48	48	
MW-9	31	14 (45.1613%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	20	20	
			9/23/1999	52	52	
			3/15/2000	ND<10	ND<10	

9/24/2003	ND<10	ND<10
3/11/2004	ND<10	ND<10
10/12/2004	ND<10	ND<10
4/1/2005	40.7	40.7
10/25/2005	39	39
4/29/2006	40	40
11/18/2006	49.3	49.3
5/23/2007	70.4	70.4
11/28/2007	47	47
6/5/2008	44.8	44.8
11/20/2008	49	49
6/11/2009	46	46
11/16/2009	41	41
6/30/2010	45 H	45 H
11/12/2010	41	41
7/5/2011	35	35
11/22/2011	32	32
11/22/2011	32	32

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Barium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	5	-2.65209	7.03356	-13.2604
2	5	-2.40892	12.8365	-25.3051
3	5	-2.25713	17.9311	-36.5907
4	5	-2.14441	22.5296	-47.3127
5	5	-2.05375	26.7475	-57.5815
6	5	-1.97737	30.6575	-67.4683
7	5	-1.8957	34.2511	-76.9468
8	5	-1.83843	37.6309	-86.1389
9	5	-1.78661	40.8229	-95.072
10	5	-1.7392	43.8477	-103.768
11	5	-1.6954	46.7221	-112.245
12	5	-1.65463	49.4599	-120.518
13	5	-1.61644	52.0728	-128.6
14	5	-1.57179	54.5433	-136.459
15	5	-1.5382	56.9093	-144.15
16	5	-1.50626	59.1782	-151.682
17	5	-1.47579	61.3561	-159.06
18	5	-1.44663	63.4489	-166.294
19	5	-1.41865	65.4614	-173.387
20	5	-1.39175	67.3984	-180.346
21	5	-1.35946	69.2465	-187.143
22	5	-1.33462	71.0278	-193.816
23	5	-1.31058	72.7454	-200.369
24	5	-1.28727	74.4024	-206.805
25	5	-1.26464	76.0018	-213.129
26	5	-1.24264	77.5459	-219.342
27	5	-1.21596	79.0245	-225.422
28	5	-1.19522	80.453	-231.398
29	5	-1.17499	81.8336	-237.273
30	5	-1.15522	83.1682	-243.049
31	5	-1.1359	84.4584	-248.728
32	5	-1.11699	85.7061	-254.313
33	5	-1.09847	86.9127	-259.805
34	5	-1.07584	88.0701	-265.185
35	5	-1.05812	89.1898	-270.475
36	5	-1.04073	90.2729	-275.679
37	5	-1.02365	91.3208	-280.797
38	5	-1.00687	92.3345	-285.832
39	5	-0.990356	93.3153	-290.783
40	5	-0.974114	94.2642	-295.654
41	5	-0.954165	95.1747	-300.425
42	5	-0.938476	96.0554	-305.117
43	5	-0.923014	96.9074	-309.732
44	5	-0.907769	97.7314	-314.271
45	5	-0.892733	98.5284	-318.735
46	5	-0.877897	99.2991	-323.124
47	5	-0.859618	100.038	-327.422
48	5	-0.845198	100.752	-331.648
49	5	-0.830953	101.443	-335.803
50	5	-0.816874	102.11	-339.887
51	5	-0.802956	102.755	-343.902

52	5	-0.789191	103.378	-347.848
53	5	-0.775574	103.979	-351.726
54	5	-0.758753	104.555	-355.52
55	5	-0.745449	105.111	-359.247
56	5	-0.732275	105.647	-362.908
57	5	-0.719228	106.164	-366.504
58	5	-0.706302	106.663	-370.036
59	5	-0.693493	107.144	-373.503
60	5	-0.680797	107.607	-376.907
61	5	-0.665079	108.05	-380.233
62	5	-0.652622	108.476	-383.496
63	5	-0.640266	108.886	-386.697
64	5	-0.628006	109.28	-389.837
65	5	-0.615839	109.659	-392.916
66	5	-0.603765	110.024	-395.935
67	5	-0.588793	110.37	-398.879
68	5	-0.576911	110.703	-401.764
69	5	-0.565108	111.023	-404.589
70	5	-0.553384	111.329	-407.356
71	5	-0.541736	111.622	-410.065
72	5	-0.530162	111.903	-412.716
73	5	-0.518658	112.172	-415.309
74	5	-0.504372	112.427	-417.831
75	5	-0.493018	112.67	-420.296
76	5	-0.481728	112.902	-422.705
77	5	-0.470498	113.123	-425.057
78	5	-0.459327	113.334	-427.354
79	5	-0.448213	113.535	-429.595
80	5	-0.437153	113.726	-431.781
81	5	-0.423405	113.906	-433.898
82	5	-0.412463	114.076	-435.96
83	5	-0.401571	114.237	-437.968
84	5	-0.390726	114.39	-439.921
85	5	-0.379927	114.534	-441.821
86	5	-0.369171	114.67	-443.667
87	5	-0.358459	114.799	-445.459
88	5	-0.345126	114.918	-447.185
89	5	-0.334503	115.03	-448.857
90	5	-0.323919	115.135	-450.477
91	5	-0.31337	115.233	-452.044
92	5	-0.302855	115.325	-453.558
93	5	-0.292375	115.41	-455.02
94	5	-0.279319	115.488	-456.417
95	5	-0.268908	115.56	-457.761
96	5	-0.258527	115.627	-459.054
97	5	-0.248174	115.689	-460.295
98	5	-0.237847	115.745	-461.484
99	5	-0.227545	115.797	-462.622
100	5	-0.217267	115.844	-463.708
101	5.43	-0.204452	115.886	-464.818
102	5.5	-0.194225	115.924	-465.886
103	5.7	-0.184017	115.958	-466.935
104	5.97	-0.173829	115.988	-467.973
105	6.07	-0.163659	116.015	-468.966
106	6.22	-0.153505	116.038	-469.921
107	6.44	-0.143367	116.059	-470.844
108	6.6	-0.130716	116.076	-471.707
109	6.9	-0.12061	116.091	-472.539
110	6.9	-0.110516	116.103	-473.302
111	7	-0.100433	116.113	-474.005
112	7	-0.0903606	116.121	-474.638
113	7	-0.0802981	116.127	-475.2

114	7.2	-0.0677301	116.132	-475.687
115	7.22	-0.0576847	116.135	-476.104
116	7.9	-0.0476439	116.138	-476.48
117	8	-0.0376076	116.139	-476.781
118	8	-0.0275759	116.14	-477.002
119	8	-0.0175476	116.14	-477.142
120	8.3	-0.00751925	116.14	-477.204
121	8.7	0.00751925	116.14	-477.139
122	8.7	0.0175476	116.141	-476.986
123	9	0.0275759	116.141	-476.738
124	9	0.0376076	116.143	-476.4
125	9.2	0.0476439	116.145	-475.961
126	9.8	0.0576847	116.148	-475.396
127	9.8	0.0677301	116.153	-474.732
128	9.8	0.0802981	116.159	-473.945
129	9.9	0.0903606	116.167	-473.051
130	10	0.100433	116.178	-472.046
131	10.9	0.110516	116.19	-470.842
132	11	0.12061	116.204	-469.515
133	11	0.130716	116.221	-468.077
134	12	0.143367	116.242	-466.357
135	18	0.153505	116.266	-463.594
136	19.1	0.163659	116.292	-460.468
137	20	0.173829	116.323	-456.991
138	20	0.184017	116.356	-453.311
139	21	0.194225	116.394	-449.232
140	27.7	0.204452	116.436	-443.569
141	28	0.217267	116.483	-437.485
142	28.8	0.227545	116.535	-430.932
143	30	0.237847	116.591	-423.797
144	30	0.248174	116.653	-416.351
145	30	0.258527	116.72	-408.596
146	30	0.268908	116.792	-400.528
147	31	0.279319	116.87	-391.87
148	32	0.292375	116.956	-382.514
149	32	0.302855	117.047	-372.822
150	32	0.31337	117.146	-362.794
151	33	0.323919	117.251	-352.105
152	33.2	0.334503	117.362	-340.999
153	34	0.345126	117.482	-329.265
154	34	0.358459	117.61	-317.078
155	34.1	0.369171	117.746	-304.489
156	34.5	0.379927	117.891	-291.381
157	34.8	0.390726	118.043	-277.784
158	35	0.401571	118.205	-263.729
159	35	0.412463	118.375	-249.293
160	36	0.423405	118.554	-234.05
161	36	0.437153	118.745	-218.313
162	36.8	0.448213	118.946	-201.819
163	37	0.459327	119.157	-184.824
164	37.7	0.470498	119.378	-167.086
165	38	0.481728	119.61	-148.78
166	39	0.493018	119.853	-129.552
167	40	0.504372	120.108	-109.378
168	40	0.518658	120.377	-88.6313
169	40	0.530162	120.658	-67.4248
170	40	0.541736	120.951	-45.7554
171	40	0.553384	121.258	-23.62
172	40	0.565108	121.577	-1.01571
173	40.1	0.576911	121.91	22.1184
174	40.7	0.588793	122.257	46.0823
175	41	0.603765	122.621	70.8366

176	41	0.615839		123	96.0861
177	41	0.628006		123.395	121.834
178	41	0.640266		123.805	148.085
179	41	0.652622		124.231	174.843
180	41	0.665079		124.673	202.111
181	41.5	0.680797		125.136	230.364
182	42	0.693493		125.617	259.491
183	42	0.706302		126.116	289.155
184	42	0.719228		126.633	319.363
185	42	0.732275		127.17	350.119
186	43	0.745449		127.725	382.173
187	43	0.758753		128.301	414.799
188	43.8	0.775574		128.903	448.769
189	44.8	0.789191		129.525	484.125
190	45	0.802956		130.17	520.258
191	45	0.816874		130.837	557.018
192	45	0.830953		131.528	594.41
193	46	0.845198		132.242	633.29
194	46.8	0.859618		132.981	673.52
195	47	0.877897		133.752	714.781
196	47	0.892733		134.549	756.739
197	47.5	0.907769		135.373	799.858
198	48	0.923014		136.225	844.163
199	49	0.938476		137.106	890.148
200	49.3	0.954165		138.016	937.189
201	50	0.974114		138.965	985.894
202	50	0.990356		139.946	1035.41
203	50	1.00687	140.96	1085.76	
204	51	1.02365	142.007	1137.96	
205	52	1.04073	143.091	1192.08	
206	55	1.05812	144.21	1250.28	
207	60	1.07584	145.368	1314.83	
208	60	1.09847	146.574	1380.73	
209	60	1.11699	147.822	1447.75	
210	63.2	1.1359	149.112	1519.54	
211	64	1.15522	150.447	1593.48	
212	64	1.17499	151.827	1668.68	
213	65.2	1.19522	153.256	1746.6	
214	66	1.21596	154.734	1826.86	
215	67	1.24264	156.279	1910.11	
216	70	1.26464	157.878	1998.64	
217	70	1.28727	159.535	2088.75	
218	70.4	1.31058	161.253	2181.01	
219	72	1.33462	163.034	2277.11	
220	74	1.35946	164.882	2377.71	
221	76.3	1.39175	166.819	2483.9	
222	76.8	1.41865	168.831	2592.85	
223	77.9	1.44663	170.924	2705.54	
224	85.5	1.47579	173.102	2831.72	
225	88.4	1.50626	175.371	2964.88	
226	90	1.5382	177.737	3103.31	
227	95.7	1.57179	180.208	3253.73	
228	100	1.61644	182.82	3415.38	
229	116	1.65463	185.558	3607.31	
230	118	1.6954	188.433	3807.37	
231	123	1.7392	191.457	4021.29	
232	130	1.78661	194.649	4253.55	
233	130	1.83843	198.029	4492.55	
234	139	1.8957	201.623	4756.05	
235	150	1.97737	205.533	5052.65	
236	150	2.05375	209.751	5360.72	
237	150	2.14441	214.349	5682.38	

238	160	2.25713	219.444	6043.52
239	160	2.40892	225.247	6428.95
240	170	2.65209	232.28	6879.8

Data Set Standard Deviation = 34.5417
Numerator = 4.73317e+007
Denominator = 6.62366e+007
W Statistic = 0.714585 = 4.73317e+007 / 6.62366e+007

5% Critical value of 0.976 exceeds 0.714585
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.714585
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Barium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.845791
0.845791 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	5	0.00414938	-2.65209	52.375	344.01	
2	5	0.00829876	-2.40892	52.375	332.136	
3	5	0.0124481	-2.25713	52.375	324.723	
4	5	0.0165975	-2.14441	52.375	319.219	
5	5	0.0207469	-2.05375	52.375	314.791	
6	5	0.0248963	-1.97737	52.375	311.062	
7	5	0.0290456	-1.8957	52.375	307.073	
8	5	0.033195	-1.83843	52.375	304.276	
9	5	0.0373444	-1.78661	52.375	301.746	
10	5	0.0414938	-1.7392	52.375	299.431	
11	5	0.0456432	-1.6954	52.375	297.292	
12	5	0.0497925	-1.65463	52.375	295.301	
13	5	0.0539419	-1.61644	52.375	293.436	
14	5	0.0580913	-1.57179	52.375	291.256	
15	5	0.0622407	-1.5382	52.375	289.615	
16	5	0.06639	-1.50626	52.375	288.056	
17	5	0.0705394	-1.47579	52.375	286.568	
18	5	0.0746888	-1.44663	52.375	285.144	
19	5	0.0788382	-1.41865	52.375	283.778	
20	5	0.0829876	-1.39175	52.375	282.464	
21	5	0.0871369	-1.35946	52.375	280.887	
22	5	0.0912863	-1.33462	52.375	279.674	
23	5	0.0954357	-1.31058	52.375	278.5	
24	5	0.0995851	-1.28727	52.375	277.362	
25	5	0.103734	-1.26464	52.375	276.257	
26	5	0.107884	-1.24264	52.375	275.182	
27	5	0.112033	-1.21596	52.375	273.879	
28	5	0.116183	-1.19522	52.375	272.867	
29	5	0.120332	-1.17499	52.375	271.879	
30	5	0.124481	-1.15522	52.375	270.913	
31	5	0.128631	-1.1359	52.375	269.97	
32	5	0.13278	-1.11699	52.375	269.046	
33	5	0.136929	-1.09847	52.375	268.142	
34	5	0.141079	-1.07584	52.375	267.037	
35	5	0.145228	-1.05812	52.375	266.172	
36	5	0.149378	-1.04073	52.375	265.322	
37	5	0.153527	-1.02365	52.375	264.488	
38	5	0.157676	-1.00687	52.375	263.669	
39	5	0.161826	-0.990356	52.375	262.862	
40	5	0.165975	-0.974114	52.375	262.069	
41	5	0.170124	-0.954165	52.375	261.095	
42	5	0.174274	-0.938476	52.375	260.329	
43	5	0.178423	-0.923014	52.375	259.574	
44	5	0.182573	-0.907769	52.375	258.829	
45	5	0.186722	-0.892733	52.375	258.095	
46	5	0.190871	-0.877897	52.375	257.371	
47	5	0.195021	-0.859618	52.375	256.478	
48	5	0.19917	-0.845198	52.375	255.774	

49	5	0.20332	-0.830953	52.375	255.078
50	5	0.207469	-0.816874	52.375	254.391
51	5	0.211618	-0.802956	52.375	253.711
52	5	0.215768	-0.789191	52.375	253.039
53	5	0.219917	-0.775574	52.375	252.374
54	5	0.224066	-0.758753	52.375	251.552
55	5	0.228216	-0.745449	52.375	250.903
56	5	0.232365	-0.732275	52.375	250.259
57	5	0.236515	-0.719228	52.375	249.622
58	5	0.240664	-0.706302	52.375	248.991
59	5	0.244813	-0.693493	52.375	248.366
60	5	0.248963	-0.680797	52.375	247.746
61	5	0.253112	-0.665079	52.375	246.978
62	5	0.257261	-0.652622	52.375	246.37
63	5	0.261411	-0.640266	52.375	245.766
64	5	0.26556	-0.628006	52.375	245.168
65	5	0.26971	-0.615839	52.375	244.573
66	5	0.273859	-0.603765	52.375	243.984
67	5	0.278008	-0.588793	52.375	243.253
68	5	0.282158	-0.576911	52.375	242.672
69	5	0.286307	-0.565108	52.375	242.096
70	5	0.290456	-0.553384	52.375	241.524
71	5	0.294606	-0.541736	52.375	240.955
72	5	0.298755	-0.530162	52.375	240.39
73	5	0.302905	-0.518658	52.375	239.828
74	5	0.307054	-0.504372	52.375	239.13
75	5	0.311203	-0.493018	52.375	238.576
76	5	0.315353	-0.481728	52.375	238.024
77	5	0.319502	-0.470498	52.375	237.476
78	5	0.323651	-0.459327	52.375	236.93
79	5	0.327801	-0.448213	52.375	236.388
80	5	0.33195	-0.437153	52.375	235.848
81	5	0.3361	-0.423405	52.375	235.176
82	5	0.340249	-0.412463	52.375	234.642
83	5	0.344398	-0.401571	52.375	234.11
84	5	0.348548	-0.390726	52.375	233.58
85	5	0.352697	-0.379927	52.375	233.053
86	5	0.356846	-0.369171	52.375	232.528
87	5	0.360996	-0.358459	52.375	232.005
88	5	0.365145	-0.345126	52.375	231.354
89	5	0.369295	-0.334503	52.375	230.835
90	5	0.373444	-0.323919	52.375	230.318
91	5	0.377593	-0.31337	52.375	229.803
92	5	0.381743	-0.302855	52.375	229.289
93	5	0.385892	-0.292375	52.375	228.778
94	5	0.390041	-0.279319	52.375	228.14
95	5	0.394191	-0.268908	52.375	227.632
96	5	0.39834	-0.258527	52.375	227.125
97	5	0.40249	-0.248174	52.375	226.619
98	5	0.406639	-0.237847	52.375	226.115
99	5	0.410788	-0.227545	52.375	225.612
100	5	0.414938	-0.217267	52.375	225.11
101	5.43	0.419087	-0.204452	53.5253	224.484
102	5.5	0.423237	-0.194225	53.7125	223.985
103	5.7	0.427386	-0.184017	54.2475	223.486
104	5.97	0.431535	-0.173829	54.9697	222.989
105	6.07	0.435685	-0.163659	55.2373	222.492
106	6.22	0.439834	-0.153505	55.6385	221.996
107	6.44	0.443983	-0.143367	56.227	221.501
108	6.6	0.448133	-0.130716	56.655	220.883
109	6.9	0.452282	-0.12061	57.4575	220.39
110	6.9	0.456432	-0.110516	57.4575	219.897

111	7	0.460581	-0.100433	57.725	219.404
112	7	0.46473	-0.0903606	57.725	218.913
113	7	0.46888	-0.0802981	57.725	218.421
114	7.2	0.473029	-0.0677301	58.26	217.807
115	7.22	0.477178	-0.0576847	58.3135	217.317
116	7.9	0.481328	-0.0476439	60.1325	216.827
117	8	0.485477	-0.0376076	60.4	216.337
118	8	0.489627	-0.0275759	60.4	215.847
119	8	0.493776	-0.0175476	60.4	215.357
120	8.3	0.497925	-0.00751925	61.2025	214.867
121	8.7	0.502075	0.00751925	62.2725	214.133
122	8.7	0.506224	0.0175476	62.2725	213.643
123	9	0.510373	0.0275759	63.075	213.153
124	9	0.514523	0.0376076	63.075	212.663
125	9.2	0.518672	0.0476439	63.61	212.173
126	9.8	0.522822	0.0576847	65.215	211.683
127	9.8	0.526971	0.0677301	65.215	211.193
128	9.8	0.53112	0.0802981	65.215	210.579
129	9.9	0.53527	0.0903606	65.4825	210.087
130	10	0.539419	0.100433	65.75	209.596
131	10.9	0.543568	0.110516	68.1575	209.103
132	11	0.547718	0.12061	68.425	208.61
133	11	0.551867	0.130716	68.425	208.117
134	12	0.556017	0.143367	71.1	207.499
135	18	0.560166	0.153505	87.15	207.004
136	19.1	0.564315	0.163659	90.0925	206.508
137	20	0.568465	0.173829	92.5	206.011
138	20	0.572614	0.184017	92.5	205.514
139	21	0.576763	0.194225	95.175	205.015
140	27.7	0.580913	0.204452	113.098	204.516
141	28	0.585062	0.217267	113.9	203.89
142	28.8	0.589212	0.227545	116.04	203.388
143	30	0.593361	0.237847	119.25	202.885
144	30	0.59751	0.248174	119.25	202.381
145	30	0.60166	0.258527	119.25	201.875
146	30	0.605809	0.268908	119.25	201.368
147	31	0.609959	0.279319	121.925	200.86
148	32	0.614108	0.292375	124.6	200.222
149	32	0.618257	0.302855	124.6	199.711
150	32	0.622407	0.31337	124.6	199.197
151	33	0.626556	0.323919	127.275	198.682
152	33.2	0.630705	0.334503	127.81	198.165
153	34	0.634855	0.345126	129.95	197.646
154	34	0.639004	0.358459	129.95	196.995
155	34.1	0.643154	0.369171	130.218	196.472
156	34.5	0.647303	0.379927	131.287	195.947
157	34.8	0.651452	0.390726	132.09	195.42
158	35	0.655602	0.401571	132.625	194.89
159	35	0.659751	0.412463	132.625	194.358
160	36	0.6639	0.423405	135.3	193.824
161	36	0.66805	0.437153	135.3	193.152
162	36.8	0.672199	0.448213	137.44	192.612
163	37	0.676349	0.459327	137.975	192.07
164	37.7	0.680498	0.470498	139.848	191.524
165	38	0.684647	0.481728	140.65	190.976
166	39	0.688797	0.493018	143.325	190.424
167	40	0.692946	0.504372	146	189.87
168	40	0.697095	0.518658	146	189.172
169	40	0.701245	0.530162	146	188.61
170	40	0.705394	0.541736	146	188.045
171	40	0.709544	0.553384	146	187.476
172	40	0.713693	0.565108	146	186.904

173	40.1	0.717842	0.576911		146.268	186.328
174	40.7	0.721992	0.588793		147.873	185.747
175	41	0.726141	0.603765		148.675	185.016
176	41	0.73029	0.615839	148.675	184.427	
177	41	0.73444	0.628006	148.675	183.832	
178	41	0.738589	0.640266		148.675	183.234
179	41	0.742739	0.652622		148.675	182.63
180	41	0.746888	0.665079		148.675	182.022
181	41.5	0.751037	0.680797		150.012	181.254
182	42	0.755187	0.693493		151.35	180.634
183	42	0.759336	0.706302		151.35	180.009
184	42	0.763485	0.719228		151.35	179.378
185	42	0.767635	0.732275		151.35	178.741
186	43	0.771784	0.745449		154.025	178.097
187	43	0.775934	0.758753		154.025	177.448
188	43.8	0.780083	0.775574		156.165	176.626
189	44.8	0.784232	0.789191		158.84	175.961
190	45	0.788382	0.802956		159.375	175.289
191	45	0.792531	0.816874		159.375	174.609
192	45	0.79668	0.830953	159.375	173.922	
193	46	0.80083	0.845198	162.05	173.226	
194	46.8	0.804979	0.859618		164.19	172.522
195	47	0.809129	0.877897		164.725	171.629
196	47	0.813278	0.892733		164.725	170.905
197	47.5	0.817427	0.907769		166.063	170.171
198	48	0.821577	0.923014		167.4	169.426
199	49	0.825726	0.938476		170.075	168.671
200	49.3	0.829876	0.954165		170.878	167.905
201	50	0.834025	0.974114		172.75	166.931
202	50	0.838174	0.990356		172.75	166.138
203	50	0.842324	1.00687	172.75	165.331	
204	51	0.846473	1.02365	175.425	164.512	
205	52	0.850622	1.04073	178.1	163.678	
206	55	0.854772	1.05812	186.125	162.828	
207	60	0.858921	1.07584	199.5	161.963	
208	60	0.863071	1.09847	199.5	160.858	
209	60	0.86722	1.11699	199.5	159.954	
210	63.2	0.871369	1.1359	208.06	159.03	
211	64	0.875519	1.15522	210.2	158.087	
212	64	0.879668	1.17499	210.2	157.121	
213	65.2	0.883817	1.19522	213.41	156.133	
214	66	0.887967	1.21596	215.55	155.121	
215	67	0.892116	1.24264	218.225	153.818	
216	70	0.896266	1.26464	226.25	152.743	
217	70	0.900415	1.28727	226.25	151.638	
218	70.4	0.904564	1.31058	227.32	150.5	
219	72	0.908714	1.33462	231.6	149.326	
220	74	0.912863	1.35946	236.95	148.113	
221	76.3	0.917012	1.39175	243.102	146.536	
222	76.8	0.921162	1.41865	244.44	145.222	
223	77.9	0.925311	1.44663	247.382	143.856	
224	85.5	0.929461	1.47579	267.712	142.432	
225	88.4	0.93361	1.50626	275.47	140.944	
226	90	0.937759	1.5382	279.75	139.385	
227	95.7	0.941909	1.57179	294.998	137.744	
228	100	0.946058	1.61644	306.5	135.564	
229	116	0.950207	1.65463	349.3	133.699	
230	118	0.954357	1.6954	354.65	131.708	
231	123	0.958506	1.7392	368.025	129.569	
232	130	0.962656	1.78661	386.75	127.254	
233	130	0.966805	1.83843	386.75	124.724	
234	139	0.970954	1.8957	410.825	121.927	

235	150	0.975104	1.97737	440.25	117.938
236	150	0.979253	2.05375	440.25	114.209
237	150	0.983402	2.14441	440.25	109.781
238	160	0.987552	2.25713	467	104.277
239	160	0.991701	2.40892	467	96.8642
240	170	0.995851	2.65209	493.75	84.9898

Shapiro-Francia Test of Normality

Parameter: Barium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.60944	-2.65209	7.03356	-4.26837
2	1.60944	-2.40892	12.8365	-8.14538
3	1.60944	-2.25713	17.9311	-11.7781
4	1.60944	-2.14441	22.5296	-15.2294
5	1.60944	-2.05375	26.7475	-18.5348
6	1.60944	-1.97737	30.6575	-21.7172
7	1.60944	-1.8957	34.2511	-24.7682
8	1.60944	-1.83843	37.6309	-27.7271
9	1.60944	-1.78661	40.8229	-30.6025
10	1.60944	-1.7392	43.8477	-33.4016
11	1.60944	-1.6954	46.7221	-36.1303
12	1.60944	-1.65463	49.4599	-38.7933
13	1.60944	-1.61644	52.0728	-41.3948
14	1.60944	-1.57179	54.5433	-43.9245
15	1.60944	-1.5382	56.9093	-46.4002
16	1.60944	-1.50626	59.1782	-48.8244
17	1.60944	-1.47579	61.3561	-51.1996
18	1.60944	-1.44663	63.4489	-53.5279
19	1.60944	-1.41865	65.4614	-55.8111
20	1.60944	-1.39175	67.3984	-58.051
21	1.60944	-1.35946	69.2465	-60.239
22	1.60944	-1.33462	71.0278	-62.387
23	1.60944	-1.31058	72.7454	-64.4963
24	1.60944	-1.28727	74.4024	-66.5681
25	1.60944	-1.26464	76.0018	-68.6034
26	1.60944	-1.24264	77.5459	-70.6034
27	1.60944	-1.21596	79.0245	-72.5604
28	1.60944	-1.19522	80.453	-74.484
29	1.60944	-1.17499	81.8336	-76.3751
30	1.60944	-1.15522	83.1682	-78.2344
31	1.60944	-1.1359	84.4584	-80.0625
32	1.60944	-1.11699	85.7061	-81.8602
33	1.60944	-1.09847	86.9127	-83.6282
34	1.60944	-1.07584	88.0701	-85.3596
35	1.60944	-1.05812	89.1898	-87.0626
36	1.60944	-1.04073	90.2729	-88.7376
37	1.60944	-1.02365	91.3208	-90.3851
38	1.60944	-1.00687	92.3345	-92.0056
39	1.60944	-0.990356	93.3153	-93.5995
40	1.60944	-0.974114	94.2642	-95.1673
41	1.60944	-0.954165	95.1747	-96.703
42	1.60944	-0.938476	96.0554	-98.2134
43	1.60944	-0.923014	96.9074	-99.6989
44	1.60944	-0.907769	97.7314	-101.16
45	1.60944	-0.892733	98.5284	-102.597
46	1.60944	-0.877897	99.2991	-104.01
47	1.60944	-0.859618	100.038	-105.393
48	1.60944	-0.845198	100.752	-106.753
49	1.60944	-0.830953	101.443	-108.091
50	1.60944	-0.816874	102.11	-109.406
51	1.60944	-0.802956	102.755	-110.698

52	1.60944	-0.789191	103.378	-111.968
53	1.60944	-0.775574	103.979	-113.216
54	1.60944	-0.758753	104.555	-114.437
55	1.60944	-0.745449	105.111	-115.637
56	1.60944	-0.732275	105.647	-116.816
57	1.60944	-0.719228	106.164	-117.973
58	1.60944	-0.706302	106.663	-119.11
59	1.60944	-0.693493	107.144	-120.226
60	1.60944	-0.680797	107.607	-121.322
61	1.60944	-0.665079	108.05	-122.392
62	1.60944	-0.652622	108.476	-123.443
63	1.60944	-0.640266	108.886	-124.473
64	1.60944	-0.628006	109.28	-125.484
65	1.60944	-0.615839	109.659	-126.475
66	1.60944	-0.603765	110.024	-127.447
67	1.60944	-0.588793	110.37	-128.394
68	1.60944	-0.576911	110.703	-129.323
69	1.60944	-0.565108	111.023	-130.232
70	1.60944	-0.553384	111.329	-131.123
71	1.60944	-0.541736	111.622	-131.995
72	1.60944	-0.530162	111.903	-132.848
73	1.60944	-0.518658	112.172	-133.683
74	1.60944	-0.504372	112.427	-134.495
75	1.60944	-0.493018	112.67	-135.288
76	1.60944	-0.481728	112.902	-136.063
77	1.60944	-0.470498	113.123	-136.821
78	1.60944	-0.459327	113.334	-137.56
79	1.60944	-0.448213	113.535	-138.281
80	1.60944	-0.437153	113.726	-138.985
81	1.60944	-0.423405	113.906	-139.666
82	1.60944	-0.412463	114.076	-140.33
83	1.60944	-0.401571	114.237	-140.976
84	1.60944	-0.390726	114.39	-141.605
85	1.60944	-0.379927	114.534	-142.217
86	1.60944	-0.369171	114.67	-142.811
87	1.60944	-0.358459	114.799	-143.388
88	1.60944	-0.345126	114.918	-143.943
89	1.60944	-0.334503	115.03	-144.482
90	1.60944	-0.323919	115.135	-145.003
91	1.60944	-0.31337	115.233	-145.507
92	1.60944	-0.302855	115.325	-145.995
93	1.60944	-0.292375	115.41	-146.465
94	1.60944	-0.279319	115.488	-146.915
95	1.60944	-0.268908	115.56	-147.348
96	1.60944	-0.258527	115.627	-147.764
97	1.60944	-0.248174	115.689	-148.163
98	1.60944	-0.237847	115.745	-148.546
99	1.60944	-0.227545	115.797	-148.912
100	1.60944	-0.217267	115.844	-149.262
101	1.69194	-0.204452	115.886	-149.608
102	1.70475	-0.194225	115.924	-149.939
103	1.74047	-0.184017	115.958	-150.259
104	1.78675	-0.173829	115.988	-150.57
105	1.80336	-0.163659	116.015	-150.865
106	1.82777	-0.153505	116.038	-151.145
107	1.86253	-0.143367	116.059	-151.412
108	1.88707	-0.130716	116.076	-151.659
109	1.93152	-0.12061	116.091	-151.892
110	1.93152	-0.110516	116.103	-152.106
111	1.94591	-0.100433	116.113	-152.301
112	1.94591	-0.0903606	116.121	-152.477
113	1.94591	-0.0802981	116.127	-152.633

114	1.97408	-0.0677301	116.132	-152.767
115	1.97685	-0.0576847	116.135	-152.881
116	2.06686	-0.0476439	116.138	-152.979
117	2.07944	-0.0376076	116.139	-153.057
118	2.07944	-0.0275759	116.14	-153.115
119	2.07944	-0.0175476	116.14	-153.151
120	2.11626	-0.00751925	116.14	-153.167
121	2.16332	0.00751925	116.14	-153.151
122	2.16332	0.0175476	116.141	-153.113
123	2.19722	0.0275759	116.141	-153.052
124	2.19722	0.0376076	116.143	-152.97
125	2.2192	0.0476439	116.145	-152.864
126	2.28238	0.0576847	116.148	-152.732
127	2.28238	0.0677301	116.153	-152.578
128	2.28238	0.0802981	116.159	-152.395
129	2.29253	0.0903606	116.167	-152.187
130	2.30259	0.100433	116.178	-151.956
131	2.38876	0.110516	116.19	-151.692
132	2.3979	0.12061	116.204	-151.403
133	2.3979	0.130716	116.221	-151.089
134	2.48491	0.143367	116.242	-150.733
135	2.89037	0.153505	116.266	-150.29
136	2.94969	0.163659	116.292	-149.807
137	2.99573	0.173829	116.323	-149.286
138	2.99573	0.184017	116.356	-148.735
139	3.04452	0.194225	116.394	-148.143
140	3.32143	0.204452	116.436	-147.464
141	3.3322	0.217267	116.483	-146.74
142	3.36038	0.227545	116.535	-145.976
143	3.4012	0.237847	116.591	-145.167
144	3.4012	0.248174	116.653	-144.323
145	3.4012	0.258527	116.72	-143.443
146	3.4012	0.268908	116.792	-142.529
147	3.43399	0.279319	116.87	-141.57
148	3.46574	0.292375	116.956	-140.556
149	3.46574	0.302855	117.047	-139.507
150	3.46574	0.31337	117.146	-138.421
151	3.49651	0.323919	117.251	-137.288
152	3.50255	0.334503	117.362	-136.116
153	3.52636	0.345126	117.482	-134.899
154	3.52636	0.358459	117.61	-133.635
155	3.5293	0.369171	117.746	-132.332
156	3.54096	0.379927	117.891	-130.987
157	3.54962	0.390726	118.043	-129.6
158	3.55535	0.401571	118.205	-128.172
159	3.55535	0.412463	118.375	-126.706
160	3.58352	0.423405	118.554	-125.189
161	3.58352	0.437153	118.745	-123.622
162	3.6055	0.448213	118.946	-122.006
163	3.61092	0.459327	119.157	-120.348
164	3.62966	0.470498	119.378	-118.64
165	3.63759	0.481728	119.61	-116.888
166	3.66356	0.493018	119.853	-115.081
167	3.68888	0.504372	120.108	-113.221
168	3.68888	0.518658	120.377	-111.307
169	3.68888	0.530162	120.658	-109.352
170	3.68888	0.541736	120.951	-107.353
171	3.68888	0.553384	121.258	-105.312
172	3.68888	0.565108	121.577	-103.227
173	3.69138	0.576911	121.91	-101.098
174	3.70623	0.588793	122.257	-98.9156
175	3.71357	0.603765	122.621	-96.6735

176	3.71357	0.615839		123	-94.3865
177	3.71357	0.628006		123.395	-92.0544
178	3.71357	0.640266		123.805	-89.6767
179	3.71357	0.652622		124.231	-87.2531
180	3.71357	0.665079		124.673	-84.7833
181	3.72569	0.680797		125.136	-82.2469
182	3.73767	0.693493		125.617	-79.6548
183	3.73767	0.706302		126.116	-77.0149
184	3.73767	0.719228		126.633	-74.3267
185	3.73767	0.732275		127.17	-71.5897
186	3.7612	0.745449		127.725	-68.7859
187	3.7612	0.758753		128.301	-65.932
188	3.77963	0.775574		128.903	-63.0007
189	3.80221	0.789191		129.525	-60
190	3.80666	0.802956		130.17	-56.9434
191	3.80666	0.816874		130.837	-53.8338
192	3.80666	0.830953		131.528	-50.6707
193	3.82864	0.845198		132.242	-47.4347
194	3.84588	0.859618		132.981	-44.1287
195	3.85015	0.877897		133.752	-40.7487
196	3.85015	0.892733		134.549	-37.3116
197	3.86073	0.907769		135.373	-33.8069
198	3.8712	0.923014		136.225	-30.2337
199	3.89182	0.938476		137.106	-26.5814
200	3.89792	0.954165		138.016	-22.8621
201	3.91202	0.974114		138.965	-19.0513
202	3.91202	0.990356		139.946	-15.177
203	3.91202	1.00687	140.96	-11.2382	
204	3.93183	1.02365	142.007	-7.21334	
205	3.95124	1.04073	143.091	-3.10115	
206	4.00733	1.05812	144.21	1.1391	
207	4.09434	1.07584	145.368	5.54395	
208	4.09434	1.09847	146.574	10.0415	
209	4.09434	1.11699	147.822	14.6148	
210	4.1463	1.1359	149.112	19.3246	
211	4.15888	1.15522	150.447	24.129	
212	4.15888	1.17499	151.827	29.0156	
213	4.17746	1.19522	153.256	34.0086	
214	4.18965	1.21596	154.734	39.1031	
215	4.20469	1.24264	156.279	44.328	
216	4.2485	1.26464	157.878	49.7008	
217	4.2485	1.28727	159.535	55.1698	
218	4.25419	1.31058	161.253	60.7452	
219	4.27667	1.33462	163.034	66.453	
220	4.30407	1.35946	164.882	72.3042	
221	4.33467	1.39175	166.819	78.337	
222	4.3412	1.41865	168.831	84.4956	
223	4.35543	1.44663	170.924	90.7963	
224	4.44852	1.47579	173.102	97.3614	
225	4.48187	1.50626	175.371	104.112	
226	4.49981	1.5382	177.737	111.034	
227	4.56122	1.57179	180.208	118.203	
228	4.60517	1.61644	182.82	125.647	
229	4.75359	1.65463	185.558	133.513	
230	4.77068	1.6954	188.433	141.601	
231	4.81218	1.7392	191.457	149.97	
232	4.86753	1.78661	194.649	158.666	
233	4.86753	1.83843	198.029	167.615	
234	4.93447	1.8957	201.623	176.969	
235	5.01064	1.97737	205.533	186.877	
236	5.01064	2.05375	209.751	197.168	
237	5.01064	2.14441	214.349	207.913	

238	5.07517	2.25713	219.444	219.368
239	5.07517	2.40892	225.247	231.594
240	5.1358	2.65209	232.28	245.214

Data Set Standard Deviation = 1.14983
Numerator = 60130
Denominator = 73397
W Statistic = 0.819244 = 60130 / 73397

5% Critical value of 0.976 exceeds 0.819244
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.819244
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.90224
0.90224 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	1.60944	0.00414938	-2.65209	182.508	344.01
2	1.60944	0.00829876	-2.40892	182.508	332.136
3	1.60944	0.0124481	-2.25713	182.508	324.723
4	1.60944	0.0165975	-2.14441	182.508	319.219
5	1.60944	0.0207469	-2.05375	182.508	314.791
6	1.60944	0.0248963	-1.97737	182.508	311.062
7	1.60944	0.0290456	-1.8957	182.508	307.073
8	1.60944	0.033195	-1.83843	182.508	304.276
9	1.60944	0.0373444	-1.78661	182.508	301.746
10	1.60944	0.0414938	-1.7392	182.508	299.431
11	1.60944	0.0456432	-1.6954	182.508	297.292
12	1.60944	0.0497925	-1.65463	182.508	295.301
13	1.60944	0.0539419	-1.61644	182.508	293.436
14	1.60944	0.0580913	-1.57179	182.508	291.256
15	1.60944	0.0622407	-1.5382	182.508	289.615
16	1.60944	0.06639	-1.50626	182.508	288.056
17	1.60944	0.0705394	-1.47579	182.508	286.568
18	1.60944	0.0746888	-1.44663	182.508	285.144
19	1.60944	0.0788382	-1.41865	182.508	283.778
20	1.60944	0.0829876	-1.39175	182.508	282.464
21	1.60944	0.0871369	-1.35946	182.508	280.887
22	1.60944	0.0912863	-1.33462	182.508	279.674
23	1.60944	0.0954357	-1.31058	182.508	278.5
24	1.60944	0.0995851	-1.28727	182.508	277.362
25	1.60944	0.103734	-1.26464	182.508	276.257
26	1.60944	0.107884	-1.24264	182.508	275.182
27	1.60944	0.112033	-1.21596	182.508	273.879
28	1.60944	0.116183	-1.19522	182.508	272.867
29	1.60944	0.120332	-1.17499	182.508	271.879
30	1.60944	0.124481	-1.15522	182.508	270.913
31	1.60944	0.128631	-1.1359	182.508	269.97
32	1.60944	0.13278	-1.11699	182.508	269.046
33	1.60944	0.136929	-1.09847	182.508	268.142
34	1.60944	0.141079	-1.07584	182.508	267.037
35	1.60944	0.145228	-1.05812	182.508	266.172
36	1.60944	0.149378	-1.04073	182.508	265.322
37	1.60944	0.153527	-1.02365	182.508	264.488
38	1.60944	0.157676	-1.00687	182.508	263.669
39	1.60944	0.161826	-0.990356	182.508	262.862
40	1.60944	0.165975	-0.974114	182.508	262.069
41	1.60944	0.170124	-0.954165	182.508	261.095
42	1.60944	0.174274	-0.938476	182.508	260.329
43	1.60944	0.178423	-0.923014	182.508	259.574
44	1.60944	0.182573	-0.907769	182.508	258.829
45	1.60944	0.186722	-0.892733	182.508	258.095
46	1.60944	0.190871	-0.877897	182.508	257.371
47	1.60944	0.195021	-0.859618	182.508	256.478
48	1.60944	0.19917	-0.845198	182.508	255.774

49	1.60944	0.20332	-0.830953	182.508	255.078
50	1.60944	0.207469	-0.816874	182.508	254.391
51	1.60944	0.211618	-0.802956	182.508	253.711
52	1.60944	0.215768	-0.789191	182.508	253.039
53	1.60944	0.219917	-0.775574	182.508	252.374
54	1.60944	0.224066	-0.758753	182.508	251.552
55	1.60944	0.228216	-0.745449	182.508	250.903
56	1.60944	0.232365	-0.732275	182.508	250.259
57	1.60944	0.236515	-0.719228	182.508	249.622
58	1.60944	0.240664	-0.706302	182.508	248.991
59	1.60944	0.244813	-0.693493	182.508	248.366
60	1.60944	0.248963	-0.680797	182.508	247.746
61	1.60944	0.253112	-0.665079	182.508	246.978
62	1.60944	0.257261	-0.652622	182.508	246.37
63	1.60944	0.261411	-0.640266	182.508	245.766
64	1.60944	0.26556	-0.628006	182.508	245.168
65	1.60944	0.26971	-0.615839	182.508	244.573
66	1.60944	0.273859	-0.603765	182.508	243.984
67	1.60944	0.278008	-0.588793	182.508	243.253
68	1.60944	0.282158	-0.576911	182.508	242.672
69	1.60944	0.286307	-0.565108	182.508	242.096
70	1.60944	0.290456	-0.553384	182.508	241.524
71	1.60944	0.294606	-0.541736	182.508	240.955
72	1.60944	0.298755	-0.530162	182.508	240.39
73	1.60944	0.302905	-0.518658	182.508	239.828
74	1.60944	0.307054	-0.504372	182.508	239.13
75	1.60944	0.311203	-0.493018	182.508	238.576
76	1.60944	0.315353	-0.481728	182.508	238.024
77	1.60944	0.319502	-0.470498	182.508	237.476
78	1.60944	0.323651	-0.459327	182.508	236.93
79	1.60944	0.327801	-0.448213	182.508	236.388
80	1.60944	0.33195	-0.437153	182.508	235.848
81	1.60944	0.3361	-0.423405	182.508	235.176
82	1.60944	0.340249	-0.412463	182.508	234.642
83	1.60944	0.344398	-0.401571	182.508	234.11
84	1.60944	0.348548	-0.390726	182.508	233.58
85	1.60944	0.352697	-0.379927	182.508	233.053
86	1.60944	0.356846	-0.369171	182.508	232.528
87	1.60944	0.360996	-0.358459	182.508	232.005
88	1.60944	0.365145	-0.345126	182.508	231.354
89	1.60944	0.369295	-0.334503	182.508	230.835
90	1.60944	0.373444	-0.323919	182.508	230.318
91	1.60944	0.377593	-0.31337	182.508	229.803
92	1.60944	0.381743	-0.302855	182.508	229.289
93	1.60944	0.385892	-0.292375	182.508	228.778
94	1.60944	0.390041	-0.279319	182.508	228.14
95	1.60944	0.394191	-0.268908	182.508	227.632
96	1.60944	0.39834	-0.258527	182.508	227.125
97	1.60944	0.40249	-0.248174	182.508	226.619
98	1.60944	0.406639	-0.237847	182.508	226.115
99	1.60944	0.410788	-0.227545	182.508	225.612
100	1.60944	0.414938	-0.217267	182.508	225.11
101	1.69194	0.419087	-0.204452	189.865	224.484
102	1.70475	0.423237	-0.194225	191.007	223.985
103	1.74047	0.427386	-0.184017	194.192	223.486
104	1.78675	0.431535	-0.173829	198.318	222.989
105	1.80336	0.435685	-0.163659	199.799	222.492
106	1.82777	0.439834	-0.153505	201.976	221.996
107	1.86253	0.443983	-0.143367	205.075	221.501
108	1.88707	0.448133	-0.130716	207.264	220.883
109	1.93152	0.452282	-0.12061	211.227	220.39
110	1.93152	0.456432	-0.110516	211.227	219.897

111	1.94591	0.460581	-0.100433		212.51	219.404
112	1.94591	0.46473	-0.0903606	212.51	218.913	
113	1.94591	0.46888	-0.0802981	212.51	218.421	
114	1.97408	0.473029	-0.0677301		215.022	217.807
115	1.97685	0.477178	-0.0576847		215.27	217.317
116	2.06686	0.481328	-0.0476439		223.295	216.827
117	2.07944	0.485477	-0.0376076		224.417	216.337
118	2.07944	0.489627	-0.0275759		224.417	215.847
119	2.07944	0.493776	-0.0175476		224.417	215.357
120	2.11626	0.497925	-0.00751925		227.699	214.867
121	2.16332	0.502075	0.00751925		231.896	214.133
122	2.16332	0.506224	0.0175476		231.896	213.643
123	2.19722	0.510373	0.0275759		234.919	213.153
124	2.19722	0.514523	0.0376076		234.919	212.663
125	2.2192	0.518672	0.0476439		236.879	212.173
126	2.28238	0.522822	0.0576847		242.512	211.683
127	2.28238	0.526971	0.0677301		242.512	211.193
128	2.28238	0.53112	0.0802981	242.512	210.579	
129	2.29253	0.53527	0.0903606	243.418	210.087	
130	2.30259	0.539419	0.100433		244.314	209.596
131	2.38876	0.543568	0.110516		251.998	209.103
132	2.3979	0.547718	0.12061	252.812	208.61	
133	2.3979	0.551867	0.130716		252.812	208.117
134	2.48491	0.556017	0.143367		260.571	207.499
135	2.89037	0.560166	0.153505		296.725	207.004
136	2.94969	0.564315	0.163659		302.014	206.508
137	2.99573	0.568465	0.173829		306.119	206.011
138	2.99573	0.572614	0.184017		306.119	205.514
139	3.04452	0.576763	0.194225		310.47	205.015
140	3.32143	0.580913	0.204452		335.161	204.516
141	3.3322	0.585062	0.217267		336.122	203.89
142	3.36038	0.589212	0.227545		338.633	203.388
143	3.4012	0.593361	0.237847		342.273	202.885
144	3.4012	0.59751	0.248174	342.273	202.381	
145	3.4012	0.60166	0.258527	342.273	201.875	
146	3.4012	0.605809	0.268908		342.273	201.368
147	3.43399	0.609959	0.279319		345.197	200.86
148	3.46574	0.614108	0.292375		348.028	200.222
149	3.46574	0.618257	0.302855		348.028	199.711
150	3.46574	0.622407	0.31337	348.028	199.197	
151	3.49651	0.626556	0.323919		350.772	198.682
152	3.50255	0.630705	0.334503		351.311	198.165
153	3.52636	0.634855	0.345126		353.434	197.646
154	3.52636	0.639004	0.358459		353.434	196.995
155	3.5293	0.643154	0.369171		353.696	196.472
156	3.54096	0.647303	0.379927		354.736	195.947
157	3.54962	0.651452	0.390726		355.508	195.42
158	3.55535	0.655602	0.401571		356.019	194.89
159	3.55535	0.659751	0.412463		356.019	194.358
160	3.58352	0.6639	0.423405	358.53	193.824	
161	3.58352	0.66805	0.437153	358.53	193.152	
162	3.6055	0.672199	0.448213		360.49	192.612
163	3.61092	0.676349	0.459327		360.974	192.07
164	3.62966	0.680498	0.470498		362.645	191.524
165	3.63759	0.684647	0.481728		363.351	190.976
166	3.66356	0.688797	0.493018		365.668	190.424
167	3.68888	0.692946	0.504372		367.925	189.87
168	3.68888	0.697095	0.518658		367.925	189.172
169	3.68888	0.701245	0.530162		367.925	188.61
170	3.68888	0.705394	0.541736		367.925	188.045
171	3.68888	0.709544	0.553384		367.925	187.476
172	3.68888	0.713693	0.565108		367.925	186.904

173	3.69138	0.717842		0.576911	368.148	186.328
174	3.70623	0.721992		0.588793	369.472	185.747
175	3.71357	0.726141		0.603765	370.127	185.016
176	3.71357	0.73029	0.615839		370.127	184.427
177	3.71357	0.73444	0.628006		370.127	183.832
178	3.71357	0.738589		0.640266	370.127	183.234
179	3.71357	0.742739		0.652622	370.127	182.63
180	3.71357	0.746888		0.665079	370.127	182.022
181	3.72569	0.751037		0.680797	371.208	181.254
182	3.73767	0.755187		0.693493	372.276	180.634
183	3.73767	0.759336		0.706302	372.276	180.009
184	3.73767	0.763485		0.719228	372.276	179.378
185	3.73767	0.767635		0.732275	372.276	178.741
186	3.7612	0.771784		0.745449	374.374	178.097
187	3.7612	0.775934		0.758753	374.374	177.448
188	3.77963	0.780083		0.775574	376.017	176.626
189	3.80221	0.784232		0.789191	378.03	175.961
190	3.80666	0.788382		0.802956	378.427	175.289
191	3.80666	0.792531		0.816874	378.427	174.609
192	3.80666	0.79668	0.830953		378.427	173.922
193	3.82864	0.80083	0.845198		380.387	173.226
194	3.84588	0.804979		0.859618	381.925	172.522
195	3.85015	0.809129		0.877897	382.305	171.629
196	3.85015	0.813278		0.892733	382.305	170.905
197	3.86073	0.817427		0.907769	383.248	170.171
198	3.8712	0.821577		0.923014	384.182	169.426
199	3.89182	0.825726		0.938476	386.021	168.671
200	3.89792	0.829876		0.954165	386.565	167.905
201	3.91202	0.834025		0.974114	387.822	166.931
202	3.91202	0.838174		0.990356	387.822	166.138
203	3.91202	0.842324		1.00687	387.822	165.331
204	3.93183	0.846473		1.02365	389.588	164.512
205	3.95124	0.850622		1.04073	391.319	163.678
206	4.00733	0.854772		1.05812	396.321	162.828
207	4.09434	0.858921		1.07584	404.079	161.963
208	4.09434	0.863071		1.09847	404.079	160.858
209	4.09434	0.86722	1.11699		404.079	159.954
210	4.1463	0.871369		1.1359	408.712	159.03
211	4.15888	0.875519		1.15522	409.834	158.087
212	4.15888	0.879668		1.17499	409.834	157.121
213	4.17746	0.883817		1.19522	411.49	156.133
214	4.18965	0.887967		1.21596	412.578	155.121
215	4.20469	0.892116		1.24264	413.918	153.818
216	4.2485	0.896266		1.26464	417.824	152.743
217	4.2485	0.900415		1.28727	417.824	151.638
218	4.25419	0.904564		1.31058	418.332	150.5
219	4.27667	0.908714		1.33462	420.336	149.326
220	4.30407	0.912863		1.35946	422.779	148.113
221	4.33467	0.917012		1.39175	425.508	146.536
222	4.3412	0.921162		1.41865	426.091	145.222
223	4.35543	0.925311		1.44663	427.359	143.856
224	4.44852	0.929461		1.47579	435.659	142.432
225	4.48187	0.93361	1.50626	438.634	140.944	
226	4.49981	0.937759		1.5382	440.233	139.385
227	4.56122	0.941909		1.57179	445.709	137.744
228	4.60517	0.946058		1.61644	449.628	135.564
229	4.75359	0.950207		1.65463	462.862	133.699
230	4.77068	0.954357		1.6954	464.386	131.708
231	4.81218	0.958506		1.7392	468.086	129.569
232	4.86753	0.962656		1.78661	473.022	127.254
233	4.86753	0.966805		1.83843	473.022	124.724
234	4.93447	0.970954		1.8957	478.991	121.927

235	5.01064	0.975104	1.97737	485.782	117.938
236	5.01064	0.979253	2.05375	485.782	114.209
237	5.01064	0.983402	2.14441	485.782	109.781
238	5.07517	0.987552	2.25713	491.536	104.277
239	5.07517	0.991701	2.40892	491.536	96.8642
240	5.1358	0.995851	2.65209	496.942	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value		Rank
MW-13	3/16/1999	3.91202		201
	9/23/1999	3.3322		141
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	2.16332	J	121
	10/25/2005	ND<1.60944		50
	4/29/2006	1.60944	J	100
	11/18/2006	1.69194	J	101
	5/23/2007	2.38876		131
	11/28/2007	1.94591	J	111
	6/5/2008	1.78675	J	104
	11/20/2008	2.07944	J	117
	6/11/2009	2.19722		123
	11/16/2009	1.93152		109
	6/30/2010	2.29253	H	129
	11/12/2010	2.19722		124
	7/5/2011	1.88707		108

Rank Sum = 1970
Rank Mean = 103.684

Background Rank Sum = 1970
Background Rank Mean = 103.684

Compliance Locations

Loc. ID	Date	Value		Rank
MW-6	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944		50
	9/23/1998	ND<1.60944		50
	3/16/1999	2.99573		137
	9/23/1999	1.94591	J	112
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	1.74047	J	103
	10/25/2005	1.70475	J	102
	4/29/2006	ND<1.60944		50
	11/18/2006	1.80336	J	105
	5/23/2007	1.97685		115

	11/28/2007	1.82777	J	106
	6/5/2008	1.86253	J	107
	11/20/2008	2.07944	J	118
	6/11/2009	1.94591		113
	11/16/2009	1.93152		110
	6/30/2010	2.06686	H	116
	11/12/2010	2.28238		126
	7/5/2011	2.2192		125
	11/22/2011	2.48491		134

Rank Sum = 2479
Rank Mean = 82.6333

MW-7	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944		50
	9/23/1998	ND<1.60944		50
	3/16/1999	4.09434		207
	9/23/1999	4.30407		220
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	3.84588		194
	10/25/2005	3.86073		197
	4/29/2006	3.91202		202
	11/18/2006	3.62966		164
	5/23/2007	4.1463		210
	11/28/2007	2.11626	J	120
	6/5/2008	3.77963		188
	11/20/2008	4.09434		208
	6/11/2009	3.85015		195
	11/16/2009	3.73767		182
	6/30/2010	3.80666	H	190
	11/12/2010	3.52636		153
	7/5/2011	4.15888		211
	11/22/2011	4.18965		214

Rank Sum = 3755
Rank Mean = 125.167

MW-12A	R	3/16/1999	3.68888	167
	9/23/1999	3.68888		168
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	3.58352		160
	10/25/2005	3.32143		140
	4/29/2006	3.4012		143
	11/18/2006	3.50255		152
	5/23/2007	3.5293		155
	11/28/2007	3.73767		183
	6/5/2008	3.54962		157
	11/20/2008	3.80666		191
	6/11/2009	3.63759		165
	11/16/2009	3.71357		175
	6/30/2010	3.58352		161

	11/12/2010	3.71357		176
	7/5/2011	3.46574	148	
	11/22/2011	3.43399		147

Rank Sum = 2788
Rank Mean = 139.4

MW-12BR	3/16/1999	3.4012		144
	9/23/1999	3.49651		151
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	3.69138	173	
	10/25/2005	3.55535		158
	4/29/2006	3.4012	145	
	11/18/2006	3.54096		156
	5/23/2007	3.72569		181
	11/28/2007	3.68888		169
	6/5/2008	3.6055	162	
	11/20/2008	3.7612	186	
	6/11/2009	3.73767		184
	11/16/2009	3.61092		163
	6/30/2010	3.68888		170
	11/12/2010	3.7612	187	
	7/5/2011	3.71357	177	
	11/22/2011	3.73767		185

Rank Sum = 2891
Rank Mean = 144.55

MW-11R	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944	50	
	9/23/1998	ND<1.60944		50
	3/16/1999	3.68888		171
	9/23/1999	3.04452		139
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	3.36038	142	
	10/25/2005	2.94969		136
	4/29/2006	3.4012	146	
	11/18/2006	4.75359		229
	5/23/2007	3.91202		203
	11/28/2007	3.52636		154
	6/5/2008	ND<1.60944	50	
	11/20/2008	2.30259		130
	6/11/2009	2.3979	132	
	11/16/2009	1.97408		114
	6/30/2010	2.89037	H	135
	11/12/2010	2.16332		122
	7/5/2011	2.07944	119	
	11/22/2011	2.28238		127
	11/22/2011	2.28238		128

Rank Sum = 3077
Rank Mean = 99.2581

MW-10	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944		50
	9/23/1998	ND<1.60944		50
	3/16/1999	4.49981		226
	9/23/1999	4.27667		219
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	4.35543		223
	10/25/2005	4.3412		222
	4/29/2006	2.3979		133
	11/18/2006	4.81218		231
	5/23/2007	4.93447		234
	11/28/2007	4.77068		230
	6/5/2008	5.01064		235
	11/20/2008	5.01064		236
	6/11/2009	5.1358		240
	11/16/2009	4.86753		232
	6/30/2010	5.07517	H	238
	11/12/2010	5.01064		237
	7/5/2011	4.86753	J	233
	11/22/2011	5.07517		239

Rank Sum = 4308
Rank Mean = 143.6

MW-8	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944		50
	9/23/1998	ND<1.60944		50
	3/16/1999	4.09434		209
	9/23/1999	3.71357		178
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	4.56122		227
	10/25/2005	4.17746		213
	4/29/2006	4.2485		216
	11/18/2006	4.44852		224
	5/23/2007	4.33467		221
	11/28/2007	4.60517		228
	6/5/2008	4.48187		225
	11/20/2008	4.15888		212
	6/11/2009	4.00733		206
	6/30/2010	4.20469	H	215
	11/12/2010	4.2485		217
	7/5/2011	3.93183		204

	11/22/2011	3.8712	198	

Rank Sum = 3893
Rank Mean = 134.241

MW-9	7/20/1995	ND<1.60944		50
	8/24/1995	ND<1.60944		50
	9/28/1995	ND<1.60944		50
	10/26/1995	ND<1.60944		50
	11/19/1996	ND<1.60944		50
	12/19/1996	ND<1.60944		50
	3/24/1997	ND<1.60944		50
	9/24/1997	ND<1.60944		50
	4/7/1998	ND<1.60944	50	
	9/23/1998	ND<1.60944		50
	3/16/1999	2.99573		138
	9/23/1999	3.95124		205
	3/15/2000	ND<1.60944		50
	9/24/2003	ND<1.60944		50
	3/11/2004	ND<1.60944		50
	10/12/2004	ND<1.60944		50
	4/1/2005	3.70623	174	
	10/25/2005	3.66356		166
	4/29/2006	3.68888		172
	11/18/2006	3.89792		200
	5/23/2007	4.25419		218
	11/28/2007	3.85015		196
	6/5/2008	3.80221	189	
	11/20/2008	3.89182		199
	6/11/2009	3.82864		193
	11/16/2009	3.71357		179
	6/30/2010	3.80666	H	192
	11/12/2010	3.71357		180
	7/5/2011	3.55535	159	
	11/22/2011	3.46574		149
	11/22/2011	3.46574		150

Rank Sum = 3759
Rank Mean = 121.258

Calculation Results:

Kruskal-Wallis H Statistic = 21.42
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 23.0369
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
21.42 > 15.5073 indicating a significant group difference at 5% significance level
23.0369 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 103.684

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**82.6333**	**-21.0509**	**47.3541**
MW-7	**125.167**	**21.4825**	**47.3541**
MW-12AR	**139.4**	**35.7158**	**51.7413**
MW-12BR	**144.55**	**40.8658**	**51.7413**
MW-11R	**99.2581**	**-4.42615**	**47.057**
MW-10	**143.6**	**39.9158**	**47.3541**
MW-8	**134.241**	**30.5572**	**47.6696**
MW-9	**121.258**	**17.5739**	**47.057**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 103.684

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**82.6333**	**-21.0509**	**51.136**
MW-7	**125.167**	**21.4825**	**51.136**
MW-12AR	**139.4**	**35.7158**	**55.8736**
MW-12BR	**144.55**	**40.8658**	**55.8736**
MW-11R	**99.2581**	**-4.42615**	**50.8152**
MW-10	**143.6**	**39.9158**	**51.136**
MW-8	**134.241**	**30.5572**	**51.4767**
MW-9	**121.258**	**17.5739**	**50.8152**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 41.25%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 3.91202
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-6	11/22/2011	1	2.48491	FALSE
MW-7	11/22/2011	1	4.18965	TRUE
MW-12AR	11/22/2011	1	3.43399	FALSE
MW-12BR	11/22/2011	1	3.73767	FALSE
MW-11R	11/22/2011	2	2.28238	FALSE
MW-10	11/22/2011	1	5.07517	TRUE
MW-8	11/22/2011	1	3.8712	FALSE
MW-9	11/22/2011	2	3.46574	FALSE

Shewhart-CUSUM Control Chart

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.60944
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	1.60944	0	0
3/24/1997	1.60944	0	0
9/24/1997	1.60944	0	0
9/24/1997	1.60944	0	0
4/7/1998	1.60944	0	0
4/7/1998	1.60944	0	0
9/23/1998	1.60944	0	0
9/23/1998	1.60944	0	0
3/16/1999	4.09434	0	0
3/16/1999	4.09434	0	0
9/23/1999	4.30407	0	0
9/23/1999	4.30407	0	0
3/15/2000	1.60944	0	0
3/15/2000	1.60944	0	0
9/24/2003	1.60944	0	0
9/24/2003	1.60944	0	0
3/11/2004	1.60944	0	0
3/11/2004	1.60944	0	0
10/12/2004	1.60944	0	0
10/12/2004	1.60944	0	0
4/1/2005	3.84588	0	0
4/1/2005	3.84588	0	0
10/25/2005	3.86073	0	0
10/25/2005	3.86073	0	0
4/29/2006	3.91202	0	0
4/29/2006	3.91202	0	0
11/18/2006	3.62966	0	0
11/18/2006	3.62966	0	0
5/23/2007	4.1463	0	0
5/23/2007	4.1463	0	0
11/28/2007	2.11626	0	0
11/28/2007	2.11626	0	0
6/5/2008	3.77963	0	0
6/5/2008	3.77963	0	0
11/20/2008	4.09434	0	0
11/20/2008	4.09434	0	0
6/11/2009	3.85015	0	0
6/11/2009	3.85015	0	0
11/16/2009	3.73767	0	0
11/16/2009	3.73767	0	0
6/30/2010	3.80666	0	0
6/30/2010	3.80666	0	0
11/12/2010	3.52636	0	0
11/12/2010	3.52636	0	0
7/5/2011	4.15888	0	0

7/5/2011	4.15888	0	0	
11/22/2011	4.18965	0	0	
11/22/2011	4.18965	0	0	

Shewhart-CUSUM Control Chart

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.60944
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	1.60944	0	0
3/24/1997	1.60944	0	0
9/24/1997	1.60944	0	0
9/24/1997	1.60944	0	0
4/7/1998	1.60944	0	0
4/7/1998	1.60944	0	0
9/23/1998	1.60944	0	0
9/23/1998	1.60944	0	0
3/16/1999	4.49981	0	0
3/16/1999	4.49981	0	0
9/23/1999	4.27667	0	0
9/23/1999	4.27667	0	0
3/15/2000	1.60944	0	0
3/15/2000	1.60944	0	0
9/24/2003	1.60944	0	0
9/24/2003	1.60944	0	0
3/11/2004	1.60944	0	0
3/11/2004	1.60944	0	0
10/12/2004	1.60944	0	0
10/12/2004	1.60944	0	0
4/1/2005	4.35543	0	0
4/1/2005	4.35543	0	0
10/25/2005	4.3412	0	0
10/25/2005	4.3412	0	0
4/29/2006	2.3979	0	0
4/29/2006	2.3979	0	0
11/18/2006	4.81218	0	0
11/18/2006	4.81218	0	0
5/23/2007	4.93447	0	0
5/23/2007	4.93447	0	0
11/28/2007	4.77068	0	0
11/28/2007	4.77068	0	0
6/5/2008	5.01064	0	0
6/5/2008	5.01064	0	0
11/20/2008	5.01064	0	0
11/20/2008	5.01064	0	0
6/11/2009	5.1358	0	0
6/11/2009	5.1358	0	0
11/16/2009	4.86753	0	0
11/16/2009	4.86753	0	0
6/30/2010	5.07517	0	0
6/30/2010	5.07517	0	0
11/12/2010	5.01064	0	0
11/12/2010	5.01064	0	0
7/5/2011	4.86753	0	0

7/5/2011	4.86753	0	0	
11/22/2011		5.07517	0	0
11/22/2011		5.07517	0	0

Sen's Slope Analysis
Parameter: Barium
Location: MW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<1.60944	(8/24/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(2 - 1) 0
ND<1.60944	(9/28/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(3 - 1) 0
ND<1.60944	(10/26/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(4 - 1) 0
ND<1.60944	(11/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(5 - 1) 0
ND<1.60944	(12/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(6 - 1) 0
ND<1.60944	(3/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(7 - 1) 0
ND<1.60944	(9/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(8 - 1) 0
ND<1.60944	(4/7/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(9 - 1) 0
ND<1.60944	(9/23/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(10 - 1) 0
4.09434	(3/16/1999)	ND<1.60944 (7/20/1995)	(4.09434 - 1.60944)/(11 - 1) 0.248491
4.30407	(9/23/1999)	ND<1.60944 (7/20/1995)	(4.30407 - 1.60944)/(12 - 1) 0.244966
ND<1.60944	(3/15/2000)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(13 - 1) 0
ND<1.60944	(9/24/2003)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(14 - 1) 0
ND<1.60944	(3/11/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(15 - 1) 0
ND<1.60944	(10/12/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(16 - 1) 0
3.84588	(4/1/2005)	ND<1.60944 (7/20/1995)	(3.84588 - 1.60944)/(17 - 1) 0.139778
3.86073	(10/25/2005)	ND<1.60944 (7/20/1995)	(3.86073 - 1.60944)/(18 - 1) 0.132429
3.91202	(4/29/2006)	ND<1.60944 (7/20/1995)	(3.91202 - 1.60944)/(19 - 1) 0.127921
3.62966	(11/18/2006)	ND<1.60944 (7/20/1995)	(3.62966 - 1.60944)/(20 - 1) 0.106327
4.1463	(5/23/2007)	ND<1.60944 (7/20/1995)	(4.1463 - 1.60944)/(21 - 1) 0.126843
2.11626 J	(11/28/2007)	ND<1.60944 (7/20/1995)	(2.11626 - 1.60944)/(22 - 1) 0.0241342
3.77963	(6/5/2008)	ND<1.60944 (7/20/1995)	(3.77963 - 1.60944)/(23 - 1) 0.0986453
4.09434	(11/20/2008)	ND<1.60944 (7/20/1995)	(4.09434 - 1.60944)/(24 - 1) 0.108039
3.85015	(6/11/2009)	ND<1.60944 (7/20/1995)	(3.85015 - 1.60944)/(25 - 1) 0.0933629
3.73767	(11/16/2009)	ND<1.60944 (7/20/1995)	(3.73767 - 1.60944)/(26 - 1) 0.0851293
3.80666 H	(6/30/2010)	ND<1.60944 (7/20/1995)	(3.80666 - 1.60944)/(27 - 1) 0.0845086
3.52636	(11/12/2010)	ND<1.60944 (7/20/1995)	(3.52636 - 1.60944)/(28 - 1) 0.0709971
4.15888	(7/5/2011)	ND<1.60944 (7/20/1995)	(4.15888 - 1.60944)/(29 - 1) 0.0910516

4.18965 (11/22/2011) ND<1.60944 (7/20/1995) (4.18965 - 1.60944)/(30 - 1)
0.088973

ND<1.60944 (9/28/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(3 - 2) 0
ND<1.60944 (10/26/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(4 - 2)
0
ND<1.60944 (11/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(5 - 2)
0
ND<1.60944 (12/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(6 - 2)
0
ND<1.60944 (3/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(7 - 2) 0
ND<1.60944 (9/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(8 - 2) 0
ND<1.60944 (4/7/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(9 - 2) 0
ND<1.60944 (9/23/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(10 - 2)
0
4.09434 (3/16/1999) ND<1.60944 (8/24/1995) (4.09434 - 1.60944)/(11 - 2)
0.276101
4.30407 (9/23/1999) ND<1.60944 (8/24/1995) (4.30407 - 1.60944)/(12 - 2)
0.269463
ND<1.60944 (3/15/2000) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(13 - 2)
0
ND<1.60944 (9/24/2003) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(14 - 2)
0
ND<1.60944 (3/11/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(15 - 2)
0
ND<1.60944 (10/12/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(16 - 2)
0
3.84588 (4/1/2005) ND<1.60944 (8/24/1995) (3.84588 - 1.60944)/(17 - 2)
0.149096
3.86073 (10/25/2005) ND<1.60944 (8/24/1995) (3.86073 - 1.60944)/(18 - 2)
0.140706
3.91202 (4/29/2006) ND<1.60944 (8/24/1995) (3.91202 - 1.60944)/(19 - 2)
0.135446
3.62966 (11/18/2006) ND<1.60944 (8/24/1995) (3.62966 - 1.60944)/(20 - 2)
0.112235
4.1463 (5/23/2007) ND<1.60944 (8/24/1995) (4.1463 - 1.60944)/(21 - 2)
0.133519
2.11626 J (11/28/2007) ND<1.60944 (8/24/1995) (2.11626 - 1.60944)/(22 - 2)
0.0253409
3.77963 (6/5/2008) ND<1.60944 (8/24/1995) (3.77963 - 1.60944)/(23 - 2)
0.103343
4.09434 (11/20/2008) ND<1.60944 (8/24/1995) (4.09434 - 1.60944)/(24 - 2)
0.11295
3.85015 (6/11/2009) ND<1.60944 (8/24/1995) (3.85015 - 1.60944)/(25 - 2)
0.0974222
3.73767 (11/16/2009) ND<1.60944 (8/24/1995) (3.73767 - 1.60944)/(26 - 2)
0.0886763
3.80666 H (6/30/2010) ND<1.60944 (8/24/1995) (3.80666 - 1.60944)/(27 - 2)
0.087889
3.52636 (11/12/2010) ND<1.60944 (8/24/1995) (3.52636 - 1.60944)/(28 - 2)
0.0737278
4.15888 (7/5/2011) ND<1.60944 (8/24/1995) (4.15888 - 1.60944)/(29 - 2)
0.0944239
4.18965 (11/22/2011) ND<1.60944 (8/24/1995) (4.18965 - 1.60944)/(30 - 2)
0.0921506

ND<1.60944 (10/26/1995) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(4 - 3)
0
ND<1.60944 (11/19/1996) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(5 - 3)
0
ND<1.60944 (12/19/1996) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(6 - 3)
0

ND<1.60944 (3/24/1997) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(7 - 3) 0
ND<1.60944 (9/24/1997) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(8 - 3) 0
ND<1.60944 (4/7/1998) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(9 - 3) 0
ND<1.60944 (9/23/1998) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(10 - 3)
0
4.09434 (3/16/1999) ND<1.60944 (9/28/1995) (4.09434 - 1.60944)/(11 - 3)
0.310613
4.30407 (9/23/1999) ND<1.60944 (9/28/1995) (4.30407 - 1.60944)/(12 - 3)
0.299403
ND<1.60944 (3/15/2000) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(13 - 3)
0
ND<1.60944 (9/24/2003) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(14 - 3)
0
ND<1.60944 (3/11/2004) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(15 - 3)
0
ND<1.60944 (10/12/2004) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(16 - 3)
0
3.84588 (4/1/2005) ND<1.60944 (9/28/1995) (3.84588 - 1.60944)/(17 - 3)
0.159746
3.86073 (10/25/2005) ND<1.60944 (9/28/1995) (3.86073 - 1.60944)/(18 - 3)
0.150086
3.91202 (4/29/2006) ND<1.60944 (9/28/1995) (3.91202 - 1.60944)/(19 - 3)
0.143912
3.62966 (11/18/2006) ND<1.60944 (9/28/1995) (3.62966 - 1.60944)/(20 - 3)
0.118837
4.1463 (5/23/2007) ND<1.60944 (9/28/1995) (4.1463 - 1.60944)/(21 - 3)
0.140937
2.11626 J (11/28/2007) ND<1.60944 (9/28/1995) (2.11626 - 1.60944)/(22 - 3)
0.0266746
3.77963 (6/5/2008) ND<1.60944 (9/28/1995) (3.77963 - 1.60944)/(23 - 3)
0.10851
4.09434 (11/20/2008) ND<1.60944 (9/28/1995) (4.09434 - 1.60944)/(24 - 3)
0.118329
3.85015 (6/11/2009) ND<1.60944 (9/28/1995) (3.85015 - 1.60944)/(25 - 3)
0.10185
3.73767 (11/16/2009) ND<1.60944 (9/28/1995) (3.73767 - 1.60944)/(26 - 3)
0.0925318
3.80666 H (6/30/2010) ND<1.60944 (9/28/1995) (3.80666 - 1.60944)/(27 - 3)
0.091551
3.52636 (11/12/2010) ND<1.60944 (9/28/1995) (3.52636 - 1.60944)/(28 - 3)
0.0766769
4.15888 (7/5/2011) ND<1.60944 (9/28/1995) (4.15888 - 1.60944)/(29 - 3)
0.0980556
4.18965 (11/22/2011) ND<1.60944 (9/28/1995) (4.18965 - 1.60944)/(30 - 3)
0.0955636

ND<1.60944 (11/19/1996) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(5 - 4)
0
ND<1.60944 (12/19/1996) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(6 - 4)
0
ND<1.60944 (3/24/1997) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(7 - 4)
0
ND<1.60944 (9/24/1997) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(8 - 4)
0
ND<1.60944 (4/7/1998) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(9 - 4)
0
ND<1.60944 (9/23/1998) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(10 - 4)
0
4.09434 (3/16/1999) ND<1.60944 (10/26/1995) (4.09434 - 1.60944)/(11 - 4)
0.354987
4.30407 (9/23/1999) ND<1.60944 (10/26/1995) (4.30407 - 1.60944)/(12 - 4)
0.336828

ND<1.60944 (3/15/2000) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(13 - 4)
0
ND<1.60944 (9/24/2003) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(14 - 4)
0
ND<1.60944 (3/11/2004) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(15 - 4)
0
ND<1.60944 (10/12/2004) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(16 -
4) 0
3.84588 (4/1/2005) ND<1.60944 (10/26/1995) (3.84588 - 1.60944)/(17 - 4)
0.172034
3.86073 (10/25/2005) ND<1.60944 (10/26/1995) (3.86073 - 1.60944)/(18 - 4)
0.160807
3.91202 (4/29/2006) ND<1.60944 (10/26/1995) (3.91202 - 1.60944)/(19 - 4)
0.153506
3.62966 (11/18/2006) ND<1.60944 (10/26/1995) (3.62966 - 1.60944)/(20 - 4)
0.126264
4.1463 (5/23/2007) ND<1.60944 (10/26/1995) (4.1463 - 1.60944)/(21 - 4)
0.149227
2.11626 J (11/28/2007) ND<1.60944 (10/26/1995) (2.11626 - 1.60944)/(22 - 4)
0.0281565
3.77963 (6/5/2008) ND<1.60944 (10/26/1995) (3.77963 - 1.60944)/(23 - 4)
0.114221
4.09434 (11/20/2008) ND<1.60944 (10/26/1995) (4.09434 - 1.60944)/(24 - 4)
0.124245
3.85015 (6/11/2009) ND<1.60944 (10/26/1995) (3.85015 - 1.60944)/(25 - 4)
0.1067
3.73767 (11/16/2009) ND<1.60944 (10/26/1995) (3.73767 - 1.60944)/(26 - 4)
0.0967378
3.80666 H (6/30/2010) ND<1.60944 (10/26/1995) (3.80666 - 1.60944)/(27 - 4)
0.0955315
3.52636 (11/12/2010) ND<1.60944 (10/26/1995) (3.52636 - 1.60944)/(28 - 4)
0.0798718
4.15888 (7/5/2011) ND<1.60944 (10/26/1995) (4.15888 - 1.60944)/(29 - 4)
0.101978
4.18965 (11/22/2011) ND<1.60944 (10/26/1995) (4.18965 - 1.60944)/(30 - 4)
0.0992391

ND<1.60944 (12/19/1996) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(6 - 5)
0
ND<1.60944 (3/24/1997) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(7 - 5)
0
ND<1.60944 (9/24/1997) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(8 - 5)
0
ND<1.60944 (4/7/1998) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(9 - 5)
0
ND<1.60944 (9/23/1998) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(10 - 5)
0
4.09434 (3/16/1999) ND<1.60944 (11/19/1996) (4.09434 - 1.60944)/(11 - 5)
0.414151
4.30407 (9/23/1999) ND<1.60944 (11/19/1996) (4.30407 - 1.60944)/(12 - 5)
0.384947
ND<1.60944 (3/15/2000) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(13 - 5)
0
ND<1.60944 (9/24/2003) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(14 - 5)
0
ND<1.60944 (3/11/2004) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(15 - 5)
0
ND<1.60944 (10/12/2004) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(16 -
5) 0
3.84588 (4/1/2005) ND<1.60944 (11/19/1996) (3.84588 - 1.60944)/(17 - 5)
0.18637

3.86073 (10/25/2005) ND<1.60944 (11/19/1996) (3.86073 - 1.60944)/(18 - 5)
0.173176
3.91202 (4/29/2006) ND<1.60944 (11/19/1996) (3.91202 - 1.60944)/(19 - 5)
0.16447
3.62966 (11/18/2006) ND<1.60944 (11/19/1996) (3.62966 - 1.60944)/(20 - 5)
0.134681
4.1463 (5/23/2007) ND<1.60944 (11/19/1996) (4.1463 - 1.60944)/(21 - 5)
0.158554
2.11626 J (11/28/2007) ND<1.60944 (11/19/1996) (2.11626 - 1.60944)/(22 - 5)
0.0298128
3.77963 (6/5/2008) ND<1.60944 (11/19/1996) (3.77963 - 1.60944)/(23 - 5)
0.120566
4.09434 (11/20/2008) ND<1.60944 (11/19/1996) (4.09434 - 1.60944)/(24 - 5)
0.130785
3.85015 (6/11/2009) ND<1.60944 (11/19/1996) (3.85015 - 1.60944)/(25 - 5)
0.112035
3.73767 (11/16/2009) ND<1.60944 (11/19/1996) (3.73767 - 1.60944)/(26 - 5)
0.101344
3.80666 H (6/30/2010) ND<1.60944 (11/19/1996) (3.80666 - 1.60944)/(27 - 5)
0.0998738
3.52636 (11/12/2010) ND<1.60944 (11/19/1996) (3.52636 - 1.60944)/(28 - 5)
0.0833445
4.15888 (7/5/2011) ND<1.60944 (11/19/1996) (4.15888 - 1.60944)/(29 - 5)
0.106227
4.18965 (11/22/2011) ND<1.60944 (11/19/1996) (4.18965 - 1.60944)/(30 - 5)
0.103209

ND<1.60944 (3/24/1997) ND<1.60944 (12/19/1996) (1.60944 - 1.60944)/(7 - 6)
0
ND<1.60944 (9/24/1997) ND<1.60944 (12/19/1996) (1.60944 - 1.60944)/(8 - 6)
0
ND<1.60944 (4/7/1998) ND<1.60944 (12/19/1996) (1.60944 - 1.60944)/(9 - 6)
0
ND<1.60944 (9/23/1998) ND<1.60944 (12/19/1996) (1.60944 - 1.60944)/(10 - 6)
0
4.09434 (3/16/1999) ND<1.60944 (12/19/1996) (4.09434 - 1.60944)/(11 - 6)
0.496981
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3.80666 H (6/30/2010) ND<1.60944 (9/24/2003) (3.80666 - 1.60944)/(27 - 14)
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3.52636 (11/12/2010) ND<1.60944 (9/24/2003) (3.52636 - 1.60944)/(28 - 14)
0.136923
4.15888 (7/5/2011) ND<1.60944 (9/24/2003) (4.15888 - 1.60944)/(29 - 14)
0.169963
4.18965 (11/22/2011) ND<1.60944 (9/24/2003) (4.18965 - 1.60944)/(30 - 14)
0.161264

ND<1.60944 (10/12/2004) ND<1.60944 (3/11/2004) (1.60944 - 1.60944)/(16 - 15)
0
3.84588 (4/1/2005) ND<1.60944 (3/11/2004) (3.84588 - 1.60944)/(17 - 15)
1.11822
3.86073 (10/25/2005) ND<1.60944 (3/11/2004) (3.86073 - 1.60944)/(18 - 15)
0.750431
3.91202 (4/29/2006) ND<1.60944 (3/11/2004) (3.91202 - 1.60944)/(19 - 15)
0.575646
3.62966 (11/18/2006) ND<1.60944 (3/11/2004) (3.62966 - 1.60944)/(20 - 15)
0.404044
4.1463 (5/23/2007) ND<1.60944 (3/11/2004) (4.1463 - 1.60944)/(21 - 15)
0.422811
2.11626 J (11/28/2007) ND<1.60944 (3/11/2004) (2.11626 - 1.60944)/(22 - 15)
0.0724025
3.77963 (6/5/2008) ND<1.60944 (3/11/2004) (3.77963 - 1.60944)/(23 - 15)
0.271274
4.09434 (11/20/2008) ND<1.60944 (3/11/2004) (4.09434 - 1.60944)/(24 - 15)
0.276101
3.85015 (6/11/2009) ND<1.60944 (3/11/2004) (3.85015 - 1.60944)/(25 - 15)
0.224071
3.73767 (11/16/2009) ND<1.60944 (3/11/2004) (3.73767 - 1.60944)/(26 - 15)
0.193476
3.80666 H (6/30/2010) ND<1.60944 (3/11/2004) (3.80666 - 1.60944)/(27 - 15)
0.183102
3.52636 (11/12/2010) ND<1.60944 (3/11/2004) (3.52636 - 1.60944)/(28 - 15)
0.147456
4.15888 (7/5/2011) ND<1.60944 (3/11/2004) (4.15888 - 1.60944)/(29 - 15)
0.182103
4.18965 (11/22/2011) ND<1.60944 (3/11/2004) (4.18965 - 1.60944)/(30 - 15)
0.172014

3.84588 (4/1/2005) ND<1.60944 (10/12/2004) (3.84588 - 1.60944)/(17 - 16)
2.23645
3.86073 (10/25/2005) ND<1.60944 (10/12/2004) (3.86073 - 1.60944)/(18 - 16)
1.12565
3.91202 (4/29/2006) ND<1.60944 (10/12/2004) (3.91202 - 1.60944)/(19 - 16)
0.767528

3.62966 (11/18/2006)	ND<1.60944 (10/12/2004)	(3.62966 - 1.60944)/(20 - 16)	
0.505056			
4.1463 (5/23/2007)	ND<1.60944 (10/12/2004)	(4.1463 - 1.60944)/(21 - 16)	
0.507373			
2.11626 J (11/28/2007)	ND<1.60944 (10/12/2004)	(2.11626 - 1.60944)/(22 - 16)	
0.0844696			
3.77963 (6/5/2008)	ND<1.60944 (10/12/2004)	(3.77963 - 1.60944)/(23 - 16)	
0.310028			
4.09434 (11/20/2008)	ND<1.60944 (10/12/2004)	(4.09434 - 1.60944)/(24 - 16)	
0.310613			
3.85015 (6/11/2009)	ND<1.60944 (10/12/2004)	(3.85015 - 1.60944)/(25 - 16)	
0.248968			
3.73767 (11/16/2009)	ND<1.60944 (10/12/2004)	(3.73767 - 1.60944)/(26 - 16)	
0.212823			
3.80666 H (6/30/2010)	ND<1.60944 (10/12/2004)	(3.80666 - 1.60944)/(27 - 16)	
0.199748			
3.52636 (11/12/2010)	ND<1.60944 (10/12/2004)	(3.52636 - 1.60944)/(28 - 16)	
0.159744			
4.15888 (7/5/2011)	ND<1.60944 (10/12/2004)	(4.15888 - 1.60944)/(29 - 16)	
0.196111			
4.18965 (11/22/2011)	ND<1.60944 (10/12/2004)	(4.18965 - 1.60944)/(30 - 16)	
0.184301			
3.86073 (10/25/2005)	3.84588 (4/1/2005)	(3.86073 - 3.84588)/(18 - 17)	
0.0148465			
3.91202 (4/29/2006)	3.84588 (4/1/2005)	(3.91202 - 3.84588)/(19 - 17)	
0.0330699			
3.62966 (11/18/2006)	3.84588 (4/1/2005)	(3.62966 - 3.84588)/(20 - 17)	
-0.0720744			
4.1463 (5/23/2007)	3.84588 (4/1/2005)	(4.1463 - 3.84588)/(21 - 17)	
0.0751053			
2.11626 J (11/28/2007)	3.84588 (4/1/2005)	(2.11626 - 3.84588)/(22 - 17)	
-0.345926			
3.77963 (6/5/2008)	3.84588 (4/1/2005)	(3.77963 - 3.84588)/(23 - 17)	
-0.0110416			
4.09434 (11/20/2008)	3.84588 (4/1/2005)	(4.09434 - 3.84588)/(24 - 17)	
0.0354945			
3.85015 (6/11/2009)	3.84588 (4/1/2005)	(3.85015 - 3.84588)/(25 - 17)	
0.00053305			
3.73767 (11/16/2009)	3.84588 (4/1/2005)	(3.73767 - 3.84588)/(26 - 17)	
-0.0120237			
3.80666 H (6/30/2010)	3.84588 (4/1/2005)	(3.80666 - 3.84588)/(27 - 17)	
-0.00392207			
3.52636 (11/12/2010)	3.84588 (4/1/2005)	(3.52636 - 3.84588)/(28 - 17)	
-0.0290475			
4.15888 (7/5/2011)	3.84588 (4/1/2005)	(4.15888 - 3.84588)/(29 - 17)	
0.0260833			
4.18965 (11/22/2011)	3.84588 (4/1/2005)	(4.18965 - 3.84588)/(30 - 17)	
0.026444			
3.91202 (4/29/2006)	3.86073 (10/25/2005)	(3.91202 - 3.86073)/(19 - 18)	
0.0512933			
3.62966 (11/18/2006)	3.86073 (10/25/2005)	(3.62966 - 3.86073)/(20 - 18)	
-0.115535			
4.1463 (5/23/2007)	3.86073 (10/25/2005)	(4.1463 - 3.86073)/(21 - 18)	
0.0951915			
2.11626 J (11/28/2007)	3.86073 (10/25/2005)	(2.11626 - 3.86073)/(22 - 18)	
-0.436119			
3.77963 (6/5/2008)	3.86073 (10/25/2005)	(3.77963 - 3.86073)/(23 - 18)	
-0.0162192			
4.09434 (11/20/2008)	3.86073 (10/25/2005)	(4.09434 - 3.86073)/(24 - 18)	
0.0389358			

3.85015 (6/11/2009)	3.86073 (10/25/2005)	(3.85015 - 3.86073)/(25 - 18)
-0.00151173		
3.73767 (11/16/2009)	3.86073 (10/25/2005)	(3.73767 - 3.86073)/(26 - 18)
-0.0153825		
3.80666 H (6/30/2010)	3.86073 (10/25/2005)	(3.80666 - 3.86073)/(27 - 18)
-0.00600747		
3.52636 (11/12/2010)	3.86073 (10/25/2005)	(3.52636 - 3.86073)/(28 - 18)
-0.0334369		
4.15888 (7/5/2011)	3.86073 (10/25/2005)	(4.15888 - 3.86073)/(29 - 18)
0.0271049		
4.18965 (11/22/2011)	3.86073 (10/25/2005)	(4.18965 - 3.86073)/(30 - 18)
0.0274104		
3.62966 (11/18/2006)	3.91202 (4/29/2006)	(3.62966 - 3.91202)/(20 - 19)
-0.282363		
4.1463 (5/23/2007)	3.91202 (4/29/2006)	(4.1463 - 3.91202)/(21 - 19)
0.117141		
2.11626 J (11/28/2007)	3.91202 (4/29/2006)	(2.11626 - 3.91202)/(22 - 19)
-0.598589		
3.77963 (6/5/2008)	3.91202 (4/29/2006)	(3.77963 - 3.91202)/(23 - 19)
-0.0330973		
4.09434 (11/20/2008)	3.91202 (4/29/2006)	(4.09434 - 3.91202)/(24 - 19)
0.0364643		
3.85015 (6/11/2009)	3.91202 (4/29/2006)	(3.85015 - 3.91202)/(25 - 19)
-0.0103126		
3.73767 (11/16/2009)	3.91202 (4/29/2006)	(3.73767 - 3.91202)/(26 - 19)
-0.0249076		
3.80666 H (6/30/2010)	3.91202 (4/29/2006)	(3.80666 - 3.91202)/(27 - 19)
-0.0131701		
3.52636 (11/12/2010)	3.91202 (4/29/2006)	(3.52636 - 3.91202)/(28 - 19)
-0.0428514		
4.15888 (7/5/2011)	3.91202 (4/29/2006)	(4.15888 - 3.91202)/(29 - 19)
0.024686		
4.18965 (11/22/2011)	3.91202 (4/29/2006)	(4.18965 - 3.91202)/(30 - 19)
0.0252392		
4.1463 (5/23/2007)	3.62966 (11/18/2006)	(4.1463 - 3.62966)/(21 - 20)
0.516644		
2.11626 J (11/28/2007)	3.62966 (11/18/2006)	(2.11626 - 3.62966)/(22 - 20)
-0.756702		
3.77963 (6/5/2008)	3.62966 (11/18/2006)	(3.77963 - 3.62966)/(23 - 20)
0.0499912		
4.09434 (11/20/2008)	3.62966 (11/18/2006)	(4.09434 - 3.62966)/(24 - 20)
0.116171		
3.85015 (6/11/2009)	3.62966 (11/18/2006)	(3.85015 - 3.62966)/(25 - 20)
0.0440975		
3.73767 (11/16/2009)	3.62966 (11/18/2006)	(3.73767 - 3.62966)/(26 - 20)
0.0180016		
3.80666 H (6/30/2010)	3.62966 (11/18/2006)	(3.80666 - 3.62966)/(27 - 20)
0.0252861		
3.52636 (11/12/2010)	3.62966 (11/18/2006)	(3.52636 - 3.62966)/(28 - 20)
-0.0129124		
4.15888 (7/5/2011)	3.62966 (11/18/2006)	(4.15888 - 3.62966)/(29 - 20)
0.0588026		
4.18965 (11/22/2011)	3.62966 (11/18/2006)	(4.18965 - 3.62966)/(30 - 20)
0.0559995		
2.11626 J (11/28/2007)	4.1463 (5/23/2007)	(2.11626 - 4.1463)/(22 - 21)
-2.03005		
3.77963 (6/5/2008)	4.1463 (5/23/2007)	(3.77963 - 4.1463)/(23 - 21)
-0.183335		

4.09434 (11/20/2008)	4.1463 (5/23/2007)	(4.09434 - 4.1463)/(24 - 21)
-0.0173199		
3.85015 (6/11/2009)	4.1463 (5/23/2007)	(3.85015 - 4.1463)/(25 - 21)
-0.0740392		
3.73767 (11/16/2009)	4.1463 (5/23/2007)	(3.73767 - 4.1463)/(26 - 21)
-0.0817269		
3.80666 H (6/30/2010)	4.1463 (5/23/2007)	(3.80666 - 4.1463)/(27 - 21)
-0.056607		
3.52636 (11/12/2010)	4.1463 (5/23/2007)	(3.52636 - 4.1463)/(28 - 21)
-0.0885634		
4.15888 (7/5/2011)	4.1463 (5/23/2007)	(4.15888 - 4.1463)/(29 - 21)
0.00157235		
4.18965 (11/22/2011)	4.1463 (5/23/2007)	(4.18965 - 4.1463)/(30 - 21)
0.00481672		
3.77963 (6/5/2008)	2.11626 J (11/28/2007)	(3.77963 - 2.11626)/(23 - 22)
1.66338		
4.09434 (11/20/2008)	2.11626 J (11/28/2007)	(4.09434 - 2.11626)/(24 - 22)
0.989045		
3.85015 (6/11/2009)	2.11626 J (11/28/2007)	(3.85015 - 2.11626)/(25 - 22)
0.577964		
3.73767 (11/16/2009)	2.11626 J (11/28/2007)	(3.73767 - 2.11626)/(26 - 22)
0.405354		
3.80666 H (6/30/2010)	2.11626 J (11/28/2007)	(3.80666 - 2.11626)/(27 - 22)
0.338081		
3.52636 (11/12/2010)	2.11626 J (11/28/2007)	(3.52636 - 2.11626)/(28 - 22)
0.235018		
4.15888 (7/5/2011)	2.11626 J (11/28/2007)	(4.15888 - 2.11626)/(29 - 22)
0.291804		
4.18965 (11/22/2011)	2.11626 J (11/28/2007)	(4.18965 - 2.11626)/(30 - 22)
0.259175		
4.09434 (11/20/2008)	3.77963 (6/5/2008)	(4.09434 - 3.77963)/(24 - 23)
0.314711		
3.85015 (6/11/2009)	3.77963 (6/5/2008)	(3.85015 - 3.77963)/(25 - 23)
0.0352569		
3.73767 (11/16/2009)	3.77963 (6/5/2008)	(3.73767 - 3.77963)/(26 - 23)
-0.0139881		
3.80666 H (6/30/2010)	3.77963 (6/5/2008)	(3.80666 - 3.77963)/(27 - 23)
0.00675717		
3.52636 (11/12/2010)	3.77963 (6/5/2008)	(3.52636 - 3.77963)/(28 - 23)
-0.0506547		
4.15888 (7/5/2011)	3.77963 (6/5/2008)	(4.15888 - 3.77963)/(29 - 23)
0.0632082		
4.18965 (11/22/2011)	3.77963 (6/5/2008)	(4.18965 - 3.77963)/(30 - 23)
0.0585744		
3.85015 (6/11/2009)	4.09434 (11/20/2008)	(3.85015 - 4.09434)/(25 - 24)
-0.244197		
3.73767 (11/16/2009)	4.09434 (11/20/2008)	(3.73767 - 4.09434)/(26 - 24)
-0.178337		
3.80666 H (6/30/2010)	4.09434 (11/20/2008)	(3.80666 - 4.09434)/(27 - 24)
-0.095894		
3.52636 (11/12/2010)	4.09434 (11/20/2008)	(3.52636 - 4.09434)/(28 - 24)
-0.141996		
4.15888 (7/5/2011)	4.09434 (11/20/2008)	(4.15888 - 4.09434)/(29 - 24)
0.0129077		
4.18965 (11/22/2011)	4.09434 (11/20/2008)	(4.18965 - 4.09434)/(30 - 24)
0.015885		
3.73767 (11/16/2009)	3.85015 (6/11/2009)	(3.73767 - 3.85015)/(26 - 25)
-0.112478		

3.80666	H (6/30/2010)	3.85015 (6/11/2009)	(3.80666 - 3.85015)/(27 - 25)
	-0.0217426		
3.52636	(11/12/2010)	3.85015 (6/11/2009)	(3.52636 - 3.85015)/(28 - 25)
	-0.107929		
4.15888	(7/5/2011)	3.85015 (6/11/2009)	(4.15888 - 3.85015)/(29 - 25)
	0.0771839		
4.18965	(11/22/2011)	3.85015 (6/11/2009)	(4.18965 - 3.85015)/(30 - 25)
	0.0679014		
3.80666	H (6/30/2010)	3.73767 (11/16/2009)	(3.80666 - 3.73767)/(27 - 26)
	0.0689929		
3.52636	(11/12/2010)	3.73767 (11/16/2009)	(3.52636 - 3.73767)/(28 - 26)
	-0.105655		
4.15888	(7/5/2011)	3.73767 (11/16/2009)	(4.15888 - 3.73767)/(29 - 26)
	0.140404		
4.18965	(11/22/2011)	3.73767 (11/16/2009)	(4.18965 - 3.73767)/(30 - 26)
	0.112996		
3.52636	(11/12/2010)	3.80666 H (6/30/2010)	(3.52636 - 3.80666)/(28 - 27)
	-0.280302		
4.15888	(7/5/2011)	3.80666 H (6/30/2010)	(4.15888 - 3.80666)/(29 - 27)
	0.17611		
4.18965	(11/22/2011)	3.80666 H (6/30/2010)	(4.18965 - 3.80666)/(30 - 27)
	0.127664		
4.15888	(7/5/2011)	3.52636 (11/12/2010)	(4.15888 - 3.52636)/(29 - 28)
	0.632523		
4.18965	(11/22/2011)	3.52636 (11/12/2010)	(4.18965 - 3.52636)/(30 - 28)
	0.331647		
4.18965	(11/22/2011)	4.15888 (7/5/2011)	(4.18965 - 4.15888)/(30 - 29)
	0.0307717		

Number of Q values = 435

Ordered Q Values

n	Q
1	-2.69463
2	-2.03005
3	-1.34731
4	-1.24245
5	-0.898209
6	-0.828302
7	-0.756702
8	-0.673657
9	-0.621227
10	-0.598589
11	-0.496981
12	-0.436119
13	-0.345926
14	-0.282363
15	-0.280302
16	-0.244197
17	-0.218781
18	-0.183335
19	-0.179826
20	-0.178337
21	-0.141996
22	-0.115535
23	-0.112478

24	-0.107929
25	-0.105655
26	-0.095894
27	-0.0916364
28	-0.0885634
29	-0.0843006
30	-0.0817269
31	-0.0740392
32	-0.0738892
33	-0.0720744
34	-0.056607
35	-0.056006
36	-0.0516316
37	-0.0506547
38	-0.0486065
39	-0.0476756
40	-0.0428514
41	-0.0414102
42	-0.0404568
43	-0.0349167
44	-0.0334369
45	-0.0334108
46	-0.0333736
47	-0.0331602
48	-0.0330973
49	-0.0290475
50	-0.0262259
51	-0.0249076
52	-0.0237783
53	-0.0227902
54	-0.0217426
55	-0.0179801
56	-0.017529
57	-0.0174767
58	-0.0174426
59	-0.0173199
60	-0.0162192
61	-0.0153825
62	-0.0139881
63	-0.0131701
64	-0.0129124
65	-0.0120237
66	-0.0110416
67	-0.0103126
68	-0.00854012
69	-0.00635613
70	-0.00600747
71	-0.00392207
72	-0.00151173
73	0
74	0
75	0
76	0
77	0
78	0
79	0
80	0
81	0
82	0
83	0
84	0
85	0

86	0
87	0
88	0
89	0
90	0
91	0
92	0
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94	0
95	0
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97	0
98	0
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105	0
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117	0
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122	0
123	0
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125	0
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127	0
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129	0
130	0
131	0
132	0
133	0
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135	0
136	0
137	0
138	0
139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
147	0

148	0
149	0
150	0
151	0
152	0
153	0
154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0.00053305
166	0.00157235
167	0.00358547
168	0.00481672
169	0.00501633
170	0.00519597
171	0.00675717
172	0.0129077
173	0.0148465
174	0.015885
175	0.0180016
176	0.0241342
177	0.024686
178	0.0252392
179	0.0252861
180	0.0253409
181	0.0260833
182	0.026444
183	0.0266746
184	0.0271049
185	0.0274104
186	0.0281565
187	0.0298128
188	0.0307717
189	0.0316761
190	0.0330699
191	0.0337878
192	0.0352569
193	0.0354945
194	0.0362013
195	0.0364643
196	0.0389358
197	0.038986
198	0.0422348
199	0.0440975
200	0.0499912
201	0.0512933
202	0.0559995
203	0.0563131
204	0.0585744
205	0.0588026
206	0.0632082
207	0.0633522
208	0.0679014
209	0.0689929

210	0.0709971
211	0.0724025
212	0.0737278
213	0.0751053
214	0.0766769
215	0.0771839
216	0.0798718
217	0.0833445
218	0.0844696
219	0.0845086
220	0.0851293
221	0.0871328
222	0.087889
223	0.0886763
224	0.088973
225	0.0910516
226	0.091282
227	0.091551
228	0.0921506
229	0.0925318
230	0.0933629
231	0.0944239
232	0.0951915
233	0.0955315
234	0.0955636
235	0.0958461
236	0.0967378
237	0.0974222
238	0.0980556
239	0.0986453
240	0.0992391
241	0.0998738
242	0.100891
243	0.101344
244	0.10185
245	0.101978
246	0.103209
247	0.103343
248	0.10463
249	0.106227
250	0.106327
251	0.106412
252	0.106496
253	0.1067
254	0.107509
255	0.108039
256	0.10851
257	0.109861
258	0.110845
259	0.112012
260	0.112035
261	0.112183
262	0.112235
263	0.11295
264	0.112996
265	0.114221
266	0.115643
267	0.115884
268	0.116171
269	0.117141
270	0.117283
271	0.117932

272	0.118235
273	0.118329
274	0.118837
275	0.120566
276	0.121402
277	0.122068
278	0.122867
279	0.124245
280	0.124484
281	0.12519
282	0.126264
283	0.126843
284	0.127472
285	0.127659
286	0.127664
287	0.127795
288	0.127921
289	0.129011
290	0.129249
291	0.130785
292	0.131806
293	0.132429
294	0.133014
295	0.133519
296	0.134181
297	0.134681
298	0.135446
299	0.135637
300	0.136923
301	0.13805
302	0.139778
303	0.140044
304	0.140404
305	0.140706
306	0.140937
307	0.143912
308	0.144302
309	0.14468
310	0.146171
311	0.147456
312	0.149096
313	0.149227
314	0.149381
315	0.150086
316	0.151777
317	0.153506
318	0.155014
319	0.155307
320	0.155402
321	0.156945
322	0.158554
323	0.15934
324	0.159744
325	0.159746
326	0.160807
327	0.161264
328	0.16371
329	0.16447
330	0.16566
331	0.166938
332	0.168352
333	0.169017

334	0.169124
335	0.169963
336	0.172014
337	0.172034
338	0.173176
339	0.17611
340	0.177122
341	0.177353
342	0.177493
343	0.181205
344	0.182103
345	0.183102
346	0.183657
347	0.184301
348	0.18637
349	0.186726
350	0.187608
351	0.191882
352	0.193476
353	0.195144
354	0.196111
355	0.199748
356	0.202022
357	0.203313
358	0.203701
359	0.204663
360	0.209326
361	0.209721
362	0.211406
363	0.212823
364	0.21702
365	0.223645
366	0.224071
367	0.225129
368	0.225901
369	0.230259
370	0.230624
371	0.235018
372	0.241133
373	0.244966
374	0.248491
375	0.248491
376	0.248494
377	0.248968
378	0.250144
379	0.255843
380	0.259175
381	0.269463
382	0.271274
383	0.276101
384	0.276101
385	0.279556
386	0.281411
387	0.288603
388	0.291804
389	0.299403
390	0.310028
391	0.310613
392	0.310613
393	0.314711
394	0.317108
395	0.319492

396	0.331647
397	0.336704
398	0.336828
399	0.338081
400	0.354987
401	0.362409
402	0.383764
403	0.384947
404	0.404044
405	0.405354
406	0.414151
407	0.422811
408	0.449105
409	0.450258
410	0.460517
411	0.496981
412	0.505056
413	0.507373
414	0.516644
415	0.538925
416	0.559111
417	0.562823
418	0.575646
419	0.577964
420	0.621227
421	0.632523
422	0.673657
423	0.745482
424	0.750431
425	0.767528
426	0.828302
427	0.898209
428	0.989045
429	1.11822
430	1.12565
431	1.24245
432	1.34731
433	1.66338
434	2.23645
435	2.48491

Sen's Estimator (Median Q) is 0.0844696

Tied Group	Value	Members
1	1.60944	14
2	4.09434	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1

3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		1

There are 0 time periods with multiple data

A = 6024
B = 0
C = 2184
D = 0
E = 184
F = 0
a = 56550
b = 219240
c = 1740
Group Variance = 2807
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 87.1462
M1 = (435 - 87.1462)/2.0 = 173.927
M2 = (435 + 87.1462)/2.0 + 1 = 262.073
Lower limit is 0.015885 = Q(174)
Upper limit is 0.112235 = Q(262)
0.015885 > 0 indicating an upward trend in data.

Sen's Slope Analysis
Parameter: Barium
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<1.60944	(8/24/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(2 - 1) 0
ND<1.60944	(9/28/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(3 - 1) 0
ND<1.60944	(10/26/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(4 - 1) 0
ND<1.60944	(11/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(5 - 1) 0
ND<1.60944	(12/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(6 - 1) 0
ND<1.60944	(3/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(7 - 1) 0
ND<1.60944	(9/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(8 - 1) 0
ND<1.60944	(4/7/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(9 - 1) 0
ND<1.60944	(9/23/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(10 - 1) 0
4.49981	(3/16/1999)	ND<1.60944 (7/20/1995)	(4.49981 - 1.60944)/(11 - 1) 0.289037
4.27667	(9/23/1999)	ND<1.60944 (7/20/1995)	(4.27667 - 1.60944)/(12 - 1) 0.242475
ND<1.60944	(3/15/2000)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(13 - 1) 0
ND<1.60944	(9/24/2003)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(14 - 1) 0
ND<1.60944	(3/11/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(15 - 1) 0
ND<1.60944	(10/12/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(16 - 1) 0
4.35543	(4/1/2005)	ND<1.60944 (7/20/1995)	(4.35543 - 1.60944)/(17 - 1) 0.171624
4.3412	(10/25/2005)	ND<1.60944 (7/20/1995)	(4.3412 - 1.60944)/(18 - 1) 0.160692
2.3979	(4/29/2006)	ND<1.60944 (7/20/1995)	(2.3979 - 1.60944)/(19 - 1) 0.0438032
4.81218	(11/18/2006)	ND<1.60944 (7/20/1995)	(4.81218 - 1.60944)/(20 - 1) 0.168566
4.93447	(5/23/2007)	ND<1.60944 (7/20/1995)	(4.93447 - 1.60944)/(21 - 1) 0.166252
4.77068	(11/28/2007)	ND<1.60944 (7/20/1995)	(4.77068 - 1.60944)/(22 - 1) 0.150536
5.01064	(6/5/2008)	ND<1.60944 (7/20/1995)	(5.01064 - 1.60944)/(23 - 1) 0.1546
5.01064	(11/20/2008)	ND<1.60944 (7/20/1995)	(5.01064 - 1.60944)/(24 - 1) 0.147878
5.1358	(6/11/2009)	ND<1.60944 (7/20/1995)	(5.1358 - 1.60944)/(25 - 1) 0.146932
4.86753	(11/16/2009)	ND<1.60944 (7/20/1995)	(4.86753 - 1.60944)/(26 - 1) 0.130324
5.07517 H	(6/30/2010)	ND<1.60944 (7/20/1995)	(5.07517 - 1.60944)/(27 - 1) 0.133298
5.01064	(11/12/2010)	ND<1.60944 (7/20/1995)	(5.01064 - 1.60944)/(28 - 1) 0.12597
4.86753 J	(7/5/2011)	ND<1.60944 (7/20/1995)	(4.86753 - 1.60944)/(29 - 1) 0.116361

5.07517 (11/22/2011) ND<1.60944 (7/20/1995) (5.07517 - 1.60944)/(30 - 1)
0.119508

ND<1.60944 (9/28/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(3 - 2) 0
ND<1.60944 (10/26/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(4 - 2)
0
ND<1.60944 (11/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(5 - 2)
0
ND<1.60944 (12/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(6 - 2)
0
ND<1.60944 (3/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(7 - 2) 0
ND<1.60944 (9/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(8 - 2) 0
ND<1.60944 (4/7/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(9 - 2) 0
ND<1.60944 (9/23/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(10 - 2)
0
4.49981 (3/16/1999) ND<1.60944 (8/24/1995) (4.49981 - 1.60944)/(11 - 2)
0.321152
4.27667 (9/23/1999) ND<1.60944 (8/24/1995) (4.27667 - 1.60944)/(12 - 2)
0.266723
ND<1.60944 (3/15/2000) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(13 - 2)
0
ND<1.60944 (9/24/2003) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(14 - 2)
0
ND<1.60944 (3/11/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(15 - 2)
0
ND<1.60944 (10/12/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(16 - 2)
0
4.35543 (4/1/2005) ND<1.60944 (8/24/1995) (4.35543 - 1.60944)/(17 - 2)
0.183066
4.3412 (10/25/2005) ND<1.60944 (8/24/1995) (4.3412 - 1.60944)/(18 - 2)
0.170735
2.3979 (4/29/2006) ND<1.60944 (8/24/1995) (2.3979 - 1.60944)/(19 - 2)
0.0463798
4.81218 (11/18/2006) ND<1.60944 (8/24/1995) (4.81218 - 1.60944)/(20 - 2)
0.17793
4.93447 (5/23/2007) ND<1.60944 (8/24/1995) (4.93447 - 1.60944)/(21 - 2)
0.175002
4.77068 (11/28/2007) ND<1.60944 (8/24/1995) (4.77068 - 1.60944)/(22 - 2)
0.158062
5.01064 (6/5/2008) ND<1.60944 (8/24/1995) (5.01064 - 1.60944)/(23 - 2)
0.161962
5.01064 (11/20/2008) ND<1.60944 (8/24/1995) (5.01064 - 1.60944)/(24 - 2)
0.1546
5.1358 (6/11/2009) ND<1.60944 (8/24/1995) (5.1358 - 1.60944)/(25 - 2) 0.15332
4.86753 (11/16/2009) ND<1.60944 (8/24/1995) (4.86753 - 1.60944)/(26 - 2)
0.135754
5.07517 H (6/30/2010) ND<1.60944 (8/24/1995) (5.07517 - 1.60944)/(27 - 2)
0.138629
5.01064 (11/12/2010) ND<1.60944 (8/24/1995) (5.01064 - 1.60944)/(28 - 2)
0.130815
4.86753 J (7/5/2011) ND<1.60944 (8/24/1995) (4.86753 - 1.60944)/(29 - 2)
0.12067
5.07517 (11/22/2011) ND<1.60944 (8/24/1995) (5.07517 - 1.60944)/(30 - 2)
0.123776

ND<1.60944 (10/26/1995) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(4 - 3)
0
ND<1.60944 (11/19/1996) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(5 - 3)
0
ND<1.60944 (12/19/1996) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(6 - 3)
0
ND<1.60944 (3/24/1997) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(7 - 3) 0

ND<1.60944 (9/24/1997) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(8 - 3) 0
ND<1.60944 (4/7/1998) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(9 - 3) 0
ND<1.60944 (9/23/1998) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(10 - 3)
0
4.49981 (3/16/1999) ND<1.60944 (9/28/1995) (4.49981 - 1.60944)/(11 - 3)
0.361296
4.27667 (9/23/1999) ND<1.60944 (9/28/1995) (4.27667 - 1.60944)/(12 - 3)
0.296359
ND<1.60944 (3/15/2000) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(13 - 3)
0
ND<1.60944 (9/24/2003) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(14 - 3)
0
ND<1.60944 (3/11/2004) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(15 - 3)
0
ND<1.60944 (10/12/2004) ND<1.60944 (9/28/1995) (1.60944 - 1.60944)/(16 - 3)
0
4.35543 (4/1/2005) ND<1.60944 (9/28/1995) (4.35543 - 1.60944)/(17 - 3)
0.196142
4.3412 (10/25/2005) ND<1.60944 (9/28/1995) (4.3412 - 1.60944)/(18 - 3)
0.182118
2.3979 (4/29/2006) ND<1.60944 (9/28/1995) (2.3979 - 1.60944)/(19 - 3)
0.0492786
4.81218 (11/18/2006) ND<1.60944 (9/28/1995) (4.81218 - 1.60944)/(20 - 3)
0.188397
4.93447 (5/23/2007) ND<1.60944 (9/28/1995) (4.93447 - 1.60944)/(21 - 3)
0.184724
4.77068 (11/28/2007) ND<1.60944 (9/28/1995) (4.77068 - 1.60944)/(22 - 3)
0.166381
5.01064 (6/5/2008) ND<1.60944 (9/28/1995) (5.01064 - 1.60944)/(23 - 3)
0.17006
5.01064 (11/20/2008) ND<1.60944 (9/28/1995) (5.01064 - 1.60944)/(24 - 3)
0.161962
5.1358 (6/11/2009) ND<1.60944 (9/28/1995) (5.1358 - 1.60944)/(25 - 3)
0.160289
4.86753 (11/16/2009) ND<1.60944 (9/28/1995) (4.86753 - 1.60944)/(26 - 3)
0.141656
5.07517 H (6/30/2010) ND<1.60944 (9/28/1995) (5.07517 - 1.60944)/(27 - 3)
0.144406
5.01064 (11/12/2010) ND<1.60944 (9/28/1995) (5.01064 - 1.60944)/(28 - 3)
0.136048
4.86753 J (7/5/2011) ND<1.60944 (9/28/1995) (4.86753 - 1.60944)/(29 - 3)
0.125311
5.07517 (11/22/2011) ND<1.60944 (9/28/1995) (5.07517 - 1.60944)/(30 - 3)
0.128361

ND<1.60944 (11/19/1996) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(5 - 4)
0
ND<1.60944 (12/19/1996) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(6 - 4)
0
ND<1.60944 (3/24/1997) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(7 - 4)
0
ND<1.60944 (9/24/1997) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(8 - 4)
0
ND<1.60944 (4/7/1998) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(9 - 4)
0
ND<1.60944 (9/23/1998) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(10 - 4)
0
4.49981 (3/16/1999) ND<1.60944 (10/26/1995) (4.49981 - 1.60944)/(11 - 4)
0.41291
4.27667 (9/23/1999) ND<1.60944 (10/26/1995) (4.27667 - 1.60944)/(12 - 4)
0.333404

ND<1.60944 (3/15/2000) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(13 - 4)
0
ND<1.60944 (9/24/2003) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(14 - 4)
0
ND<1.60944 (3/11/2004) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(15 - 4)
0
ND<1.60944 (10/12/2004) ND<1.60944 (10/26/1995) (1.60944 - 1.60944)/(16 -
4) 0
4.35543 (4/1/2005) ND<1.60944 (10/26/1995) (4.35543 - 1.60944)/(17 - 4)
0.21123
4.3412 (10/25/2005) ND<1.60944 (10/26/1995) (4.3412 - 1.60944)/(18 - 4)
0.195126
2.3979 (4/29/2006) ND<1.60944 (10/26/1995) (2.3979 - 1.60944)/(19 - 4)
0.0525638
4.81218 (11/18/2006) ND<1.60944 (10/26/1995) (4.81218 - 1.60944)/(20 - 4)
0.200172
4.93447 (5/23/2007) ND<1.60944 (10/26/1995) (4.93447 - 1.60944)/(21 - 4)
0.19559
4.77068 (11/28/2007) ND<1.60944 (10/26/1995) (4.77068 - 1.60944)/(22 - 4)
0.175625
5.01064 (6/5/2008) ND<1.60944 (10/26/1995) (5.01064 - 1.60944)/(23 - 4)
0.17901
5.01064 (11/20/2008) ND<1.60944 (10/26/1995) (5.01064 - 1.60944)/(24 - 4)
0.17006
5.1358 (6/11/2009) ND<1.60944 (10/26/1995) (5.1358 - 1.60944)/(25 - 4)
0.167922
4.86753 (11/16/2009) ND<1.60944 (10/26/1995) (4.86753 - 1.60944)/(26 - 4)
0.148095
5.07517 H (6/30/2010) ND<1.60944 (10/26/1995) (5.07517 - 1.60944)/(27 - 4)
0.150684
5.01064 (11/12/2010) ND<1.60944 (10/26/1995) (5.01064 - 1.60944)/(28 - 4)
0.141717
4.86753 J (7/5/2011) ND<1.60944 (10/26/1995) (4.86753 - 1.60944)/(29 - 4)
0.130324
5.07517 (11/22/2011) ND<1.60944 (10/26/1995) (5.07517 - 1.60944)/(30 - 4)
0.133298

ND<1.60944 (12/19/1996) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(6 - 5)
0
ND<1.60944 (3/24/1997) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(7 - 5)
0
ND<1.60944 (9/24/1997) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(8 - 5)
0
ND<1.60944 (4/7/1998) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(9 - 5)
0
ND<1.60944 (9/23/1998) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(10 - 5)
0
4.49981 (3/16/1999) ND<1.60944 (11/19/1996) (4.49981 - 1.60944)/(11 - 5)
0.481729
4.27667 (9/23/1999) ND<1.60944 (11/19/1996) (4.27667 - 1.60944)/(12 - 5)
0.381033
ND<1.60944 (3/15/2000) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(13 - 5)
0
ND<1.60944 (9/24/2003) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(14 - 5)
0
ND<1.60944 (3/11/2004) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(15 - 5)
0
ND<1.60944 (10/12/2004) ND<1.60944 (11/19/1996) (1.60944 - 1.60944)/(16 -
5) 0
4.35543 (4/1/2005) ND<1.60944 (11/19/1996) (4.35543 - 1.60944)/(17 - 5)
0.228832

4.3412 (10/25/2005) ND<1.60944 (11/19/1996) (4.3412 - 1.60944)/(18 - 5)
0.210136
2.3979 (4/29/2006) ND<1.60944 (11/19/1996) (2.3979 - 1.60944)/(19 - 5)
0.0563184
4.81218 (11/18/2006) ND<1.60944 (11/19/1996) (4.81218 - 1.60944)/(20 - 5)
0.213516
4.93447 (5/23/2007) ND<1.60944 (11/19/1996) (4.93447 - 1.60944)/(21 - 5)
0.207815
4.77068 (11/28/2007) ND<1.60944 (11/19/1996) (4.77068 - 1.60944)/(22 - 5)
0.185956
5.01064 (6/5/2008) ND<1.60944 (11/19/1996) (5.01064 - 1.60944)/(23 - 5)
0.188955
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ND<1.60944 (3/11/2004) ND<1.60944 (9/24/2003) (1.60944 - 1.60944)/(15 - 14)
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ND<1.60944 (10/12/2004) ND<1.60944 (9/24/2003) (1.60944 - 1.60944)/(16 - 14)
0
4.35543 (4/1/2005) ND<1.60944 (9/24/2003) (4.35543 - 1.60944)/(17 - 14)
0.915329
4.3412 (10/25/2005) ND<1.60944 (9/24/2003) (4.3412 - 1.60944)/(18 - 14)
0.682942
2.3979 (4/29/2006) ND<1.60944 (9/24/2003) (2.3979 - 1.60944)/(19 - 14)
0.157691

4.81218 (11/18/2006) ND<1.60944 (9/24/2003) (4.81218 - 1.60944)/(20 - 14)
0.533791
4.93447 (5/23/2007) ND<1.60944 (9/24/2003) (4.93447 - 1.60944)/(21 - 14)
0.475005
4.77068 (11/28/2007) ND<1.60944 (9/24/2003) (4.77068 - 1.60944)/(22 - 14)
0.395156
5.01064 (6/5/2008) ND<1.60944 (9/24/2003) (5.01064 - 1.60944)/(23 - 14)
0.377911
5.01064 (11/20/2008) ND<1.60944 (9/24/2003) (5.01064 - 1.60944)/(24 - 14)
0.34012
5.1358 (6/11/2009) ND<1.60944 (9/24/2003) (5.1358 - 1.60944)/(25 - 14)
0.320578
4.86753 (11/16/2009) ND<1.60944 (9/24/2003) (4.86753 - 1.60944)/(26 - 14)
0.271508
5.07517 H (6/30/2010) ND<1.60944 (9/24/2003) (5.07517 - 1.60944)/(27 - 14)
0.266595
5.01064 (11/12/2010) ND<1.60944 (9/24/2003) (5.01064 - 1.60944)/(28 - 14)
0.242943
4.86753 J (7/5/2011) ND<1.60944 (9/24/2003) (4.86753 - 1.60944)/(29 - 14)
0.217206
5.07517 (11/22/2011) ND<1.60944 (9/24/2003) (5.07517 - 1.60944)/(30 - 14)
0.216608

ND<1.60944 (10/12/2004) ND<1.60944 (3/11/2004) (1.60944 - 1.60944)/(16 - 15)
0
4.35543 (4/1/2005) ND<1.60944 (3/11/2004) (4.35543 - 1.60944)/(17 - 15)
1.37299
4.3412 (10/25/2005) ND<1.60944 (3/11/2004) (4.3412 - 1.60944)/(18 - 15)
0.910589
2.3979 (4/29/2006) ND<1.60944 (3/11/2004) (2.3979 - 1.60944)/(19 - 15)
0.197114
4.81218 (11/18/2006) ND<1.60944 (3/11/2004) (4.81218 - 1.60944)/(20 - 15)
0.640549
4.93447 (5/23/2007) ND<1.60944 (3/11/2004) (4.93447 - 1.60944)/(21 - 15)
0.554173
4.77068 (11/28/2007) ND<1.60944 (3/11/2004) (4.77068 - 1.60944)/(22 - 15)
0.451607
5.01064 (6/5/2008) ND<1.60944 (3/11/2004) (5.01064 - 1.60944)/(23 - 15)
0.42515
5.01064 (11/20/2008) ND<1.60944 (3/11/2004) (5.01064 - 1.60944)/(24 - 15)
0.377911
5.1358 (6/11/2009) ND<1.60944 (3/11/2004) (5.1358 - 1.60944)/(25 - 15)
0.352636
4.86753 (11/16/2009) ND<1.60944 (3/11/2004) (4.86753 - 1.60944)/(26 - 15)
0.296191
5.07517 H (6/30/2010) ND<1.60944 (3/11/2004) (5.07517 - 1.60944)/(27 - 15)
0.288811
5.01064 (11/12/2010) ND<1.60944 (3/11/2004) (5.01064 - 1.60944)/(28 - 15)
0.261631
4.86753 J (7/5/2011) ND<1.60944 (3/11/2004) (4.86753 - 1.60944)/(29 - 15)
0.232721
5.07517 (11/22/2011) ND<1.60944 (3/11/2004) (5.07517 - 1.60944)/(30 - 15)
0.231049

4.35543 (4/1/2005) ND<1.60944 (10/12/2004) (4.35543 - 1.60944)/(17 - 16)
2.74599
4.3412 (10/25/2005) ND<1.60944 (10/12/2004) (4.3412 - 1.60944)/(18 - 16)
1.36588
2.3979 (4/29/2006) ND<1.60944 (10/12/2004) (2.3979 - 1.60944)/(19 - 16)
0.262819
4.81218 (11/18/2006) ND<1.60944 (10/12/2004) (4.81218 - 1.60944)/(20 - 16)
0.800687

4.93447	(5/23/2007)	ND<1.60944	(10/12/2004)	(4.93447 - 1.60944)/(21 - 16)	
0.665007					
4.77068	(11/28/2007)	ND<1.60944	(10/12/2004)	(4.77068 - 1.60944)/(22 - 16)	
0.526874					
5.01064	(6/5/2008)	ND<1.60944	(10/12/2004)	(5.01064 - 1.60944)/(23 - 16)	
0.485885					
5.01064	(11/20/2008)	ND<1.60944	(10/12/2004)	(5.01064 - 1.60944)/(24 - 16)	
0.42515					
5.1358	(6/11/2009)	ND<1.60944	(10/12/2004)	(5.1358 - 1.60944)/(25 - 16)	
0.391818					
4.86753	(11/16/2009)	ND<1.60944	(10/12/2004)	(4.86753 - 1.60944)/(26 - 16)	
0.32581					
5.07517 H	(6/30/2010)	ND<1.60944	(10/12/2004)	(5.07517 - 1.60944)/(27 - 16)	
0.315067					
5.01064	(11/12/2010)	ND<1.60944	(10/12/2004)	(5.01064 - 1.60944)/(28 - 16)	
0.283433					
4.86753 J	(7/5/2011)	ND<1.60944	(10/12/2004)	(4.86753 - 1.60944)/(29 - 16)	
0.250623					
5.07517	(11/22/2011)	ND<1.60944	(10/12/2004)	(5.07517 - 1.60944)/(30 - 16)	
0.247553					
4.3412	(10/25/2005)	4.35543	(4/1/2005)	(4.3412 - 4.35543)/(18 - 17)	
-0.0142213					
2.3979	(4/29/2006)	4.35543	(4/1/2005)	(2.3979 - 4.35543)/(19 - 17)	
-0.978765					
4.81218	(11/18/2006)	4.35543	(4/1/2005)	(4.81218 - 4.35543)/(20 - 17)	
0.152253					
4.93447	(5/23/2007)	4.35543	(4/1/2005)	(4.93447 - 4.35543)/(21 - 17)	
0.144762					
4.77068	(11/28/2007)	4.35543	(4/1/2005)	(4.77068 - 4.35543)/(22 - 17)	
0.0830517					
5.01064	(6/5/2008)	4.35543	(4/1/2005)	(5.01064 - 4.35543)/(23 - 17)	
0.109202					
5.01064	(11/20/2008)	4.35543	(4/1/2005)	(5.01064 - 4.35543)/(24 - 17)	
0.0936013					
5.1358	(6/11/2009)	4.35543	(4/1/2005)	(5.1358 - 4.35543)/(25 - 17)	
0.0975466					
4.86753	(11/16/2009)	4.35543	(4/1/2005)	(4.86753 - 4.35543)/(26 - 17)	
0.0569009					
5.07517 H	(6/30/2010)	4.35543	(4/1/2005)	(5.07517 - 4.35543)/(27 - 17)	
0.0719748					
5.01064	(11/12/2010)	4.35543	(4/1/2005)	(5.01064 - 4.35543)/(28 - 17)	
0.0595645					
4.86753 J	(7/5/2011)	4.35543	(4/1/2005)	(4.86753 - 4.35543)/(29 - 17)	
0.0426757					
5.07517	(11/22/2011)	4.35543	(4/1/2005)	(5.07517 - 4.35543)/(30 - 17)	
0.0553652					
2.3979	(4/29/2006)	4.3412	(10/25/2005)	(2.3979 - 4.3412)/(19 - 18)	-1.94331
4.81218	(11/18/2006)	4.3412	(10/25/2005)	(4.81218 - 4.3412)/(20 - 18)	
0.23549					
4.93447	(5/23/2007)	4.3412	(10/25/2005)	(4.93447 - 4.3412)/(21 - 18)	
0.197756					
4.77068	(11/28/2007)	4.3412	(10/25/2005)	(4.77068 - 4.3412)/(22 - 18)	
0.10737					
5.01064	(6/5/2008)	4.3412	(10/25/2005)	(5.01064 - 4.3412)/(23 - 18)	
0.133886					
5.01064	(11/20/2008)	4.3412	(10/25/2005)	(5.01064 - 4.3412)/(24 - 18)	
0.111572					
5.1358	(6/11/2009)	4.3412	(10/25/2005)	(5.1358 - 4.3412)/(25 - 18)	
0.113513					

4.86753 (11/16/2009)	4.3412 (10/25/2005)	(4.86753 - 4.3412)/(26 - 18)
0.0657912		
5.07517 H (6/30/2010)	4.3412 (10/25/2005)	(5.07517 - 4.3412)/(27 - 18)
0.0815521		
5.01064 (11/12/2010)	4.3412 (10/25/2005)	(5.01064 - 4.3412)/(28 - 18)
0.0669431		
4.86753 J (7/5/2011)	4.3412 (10/25/2005)	(4.86753 - 4.3412)/(29 - 18)
0.0478482		
5.07517 (11/22/2011)	4.3412 (10/25/2005)	(5.07517 - 4.3412)/(30 - 18)
0.0611641		
4.81218 (11/18/2006)	2.3979 (4/29/2006)	(4.81218 - 2.3979)/(20 - 19)
2.41429		
4.93447 (5/23/2007)	2.3979 (4/29/2006)	(4.93447 - 2.3979)/(21 - 19)
1.26829		
4.77068 (11/28/2007)	2.3979 (4/29/2006)	(4.77068 - 2.3979)/(22 - 19)
0.79093		
5.01064 (6/5/2008)	2.3979 (4/29/2006)	(5.01064 - 2.3979)/(23 - 19)
0.653185		
5.01064 (11/20/2008)	2.3979 (4/29/2006)	(5.01064 - 2.3979)/(24 - 19)
0.522548		
5.1358 (6/11/2009)	2.3979 (4/29/2006)	(5.1358 - 2.3979)/(25 - 19)
0.456317		
4.86753 (11/16/2009)	2.3979 (4/29/2006)	(4.86753 - 2.3979)/(26 - 19)
0.352806		
5.07517 H (6/30/2010)	2.3979 (4/29/2006)	(5.07517 - 2.3979)/(27 - 19)
0.33466		
5.01064 (11/12/2010)	2.3979 (4/29/2006)	(5.01064 - 2.3979)/(28 - 19)
0.290304		
4.86753 J (7/5/2011)	2.3979 (4/29/2006)	(4.86753 - 2.3979)/(29 - 19)
0.246964		
5.07517 (11/22/2011)	2.3979 (4/29/2006)	(5.07517 - 2.3979)/(30 - 19)
0.243389		
4.93447 (5/23/2007)	4.81218 (11/18/2006)	(4.93447 - 4.81218)/(21 - 20)
0.12229		
4.77068 (11/28/2007)	4.81218 (11/18/2006)	(4.77068 - 4.81218)/(22 - 20)
-0.0207499		
5.01064 (6/5/2008)	4.81218 (11/18/2006)	(5.01064 - 4.81218)/(23 - 20)
0.0661503		
5.01064 (11/20/2008)	4.81218 (11/18/2006)	(5.01064 - 4.81218)/(24 - 20)
0.0496127		
5.1358 (6/11/2009)	4.81218 (11/18/2006)	(5.1358 - 4.81218)/(25 - 20)
0.0647228		
4.86753 (11/16/2009)	4.81218 (11/18/2006)	(4.86753 - 4.81218)/(26 - 20)
0.00922502		
5.07517 H (6/30/2010)	4.81218 (11/18/2006)	(5.07517 - 4.81218)/(27 - 20)
0.0375699		
5.01064 (11/12/2010)	4.81218 (11/18/2006)	(5.01064 - 4.81218)/(28 - 20)
0.0248064		
4.86753 J (7/5/2011)	4.81218 (11/18/2006)	(4.86753 - 4.81218)/(29 - 20)
0.00615001		
5.07517 (11/22/2011)	4.81218 (11/18/2006)	(5.07517 - 4.81218)/(30 - 20)
0.0262989		
4.77068 (11/28/2007)	4.93447 (5/23/2007)	(4.77068 - 4.93447)/(22 - 21)
-0.163789		
5.01064 (6/5/2008)	4.93447 (5/23/2007)	(5.01064 - 4.93447)/(23 - 21)
0.0380807		
5.01064 (11/20/2008)	4.93447 (5/23/2007)	(5.01064 - 4.93447)/(24 - 21)
0.0253871		

5.1358 (6/11/2009)	4.93447 (5/23/2007)	(5.1358 - 4.93447)/(25 - 21)
0.0503311		
4.86753 (11/16/2009)	4.93447 (5/23/2007)	(4.86753 - 4.93447)/(26 - 21)
-0.0133879		
5.07517 H (6/30/2010)	4.93447 (5/23/2007)	(5.07517 - 4.93447)/(27 - 21)
0.02345		
5.01064 (11/12/2010)	4.93447 (5/23/2007)	(5.01064 - 4.93447)/(28 - 21)
0.0108802		
4.86753 J (7/5/2011)	4.93447 (5/23/2007)	(4.86753 - 4.93447)/(29 - 21)
-0.00836744		
5.07517 (11/22/2011)	4.93447 (5/23/2007)	(5.07517 - 4.93447)/(30 - 21)
0.0156333		
5.01064 (6/5/2008)	4.77068 (11/28/2007)	(5.01064 - 4.77068)/(23 - 22)
0.239951		
5.01064 (11/20/2008)	4.77068 (11/28/2007)	(5.01064 - 4.77068)/(24 - 22)
0.119975		
5.1358 (6/11/2009)	4.77068 (11/28/2007)	(5.1358 - 4.77068)/(25 - 22)
0.121705		
4.86753 (11/16/2009)	4.77068 (11/28/2007)	(4.86753 - 4.77068)/(26 - 22)
0.0242125		
5.07517 H (6/30/2010)	4.77068 (11/28/2007)	(5.07517 - 4.77068)/(27 - 22)
0.0608978		
5.01064 (11/12/2010)	4.77068 (11/28/2007)	(5.01064 - 4.77068)/(28 - 22)
0.0399918		
4.86753 J (7/5/2011)	4.77068 (11/28/2007)	(4.86753 - 4.77068)/(29 - 22)
0.0138357		
5.07517 (11/22/2011)	4.77068 (11/28/2007)	(5.07517 - 4.77068)/(30 - 22)
0.0380611		
5.01064 (11/20/2008)	5.01064 (6/5/2008)	(5.01064 - 5.01064)/(24 - 23)
0		
5.1358 (6/11/2009)	5.01064 (6/5/2008)	(5.1358 - 5.01064)/(25 - 23)
0.0625816		
4.86753 (11/16/2009)	5.01064 (6/5/2008)	(4.86753 - 5.01064)/(26 - 23)
-0.0477003		
5.07517 H (6/30/2010)	5.01064 (6/5/2008)	(5.07517 - 5.01064)/(27 - 23)
0.0161346		
5.01064 (11/12/2010)	5.01064 (6/5/2008)	(5.01064 - 5.01064)/(28 - 23)
0		
4.86753 J (7/5/2011)	5.01064 (6/5/2008)	(4.86753 - 5.01064)/(29 - 23)
-0.0238501		
5.07517 (11/22/2011)	5.01064 (6/5/2008)	(5.07517 - 5.01064)/(30 - 23)
0.00921979		
5.1358 (6/11/2009)	5.01064 (11/20/2008)	(5.1358 - 5.01064)/(25 - 24)
0.125163		
4.86753 (11/16/2009)	5.01064 (11/20/2008)	(4.86753 - 5.01064)/(26 - 24)
-0.0715504		
5.07517 H (6/30/2010)	5.01064 (11/20/2008)	(5.07517 - 5.01064)/(27 - 24)
0.0215128		
5.01064 (11/12/2010)	5.01064 (11/20/2008)	(5.01064 - 5.01064)/(28 - 24)
0		
4.86753 J (7/5/2011)	5.01064 (11/20/2008)	(4.86753 - 5.01064)/(29 - 24)
-0.0286202		
5.07517 (11/22/2011)	5.01064 (11/20/2008)	(5.07517 - 5.01064)/(30 - 24)
0.0107564		
4.86753 (11/16/2009)	5.1358 (6/11/2009)	(4.86753 - 5.1358)/(26 - 25)
-0.268264		
5.07517 H (6/30/2010)	5.1358 (6/11/2009)	(5.07517 - 5.1358)/(27 - 25)
-0.0303123		

5.01064 (11/12/2010)	5.1358 (6/11/2009)	(5.01064 - 5.1358)/(28 - 25)
-0.041721		
4.86753 J (7/5/2011)	5.1358 (6/11/2009)	(4.86753 - 5.1358)/(29 - 25)
-0.067066		
5.07517 (11/22/2011)	5.1358 (6/11/2009)	(5.07517 - 5.1358)/(30 - 25)
-0.0121249		
5.07517 H (6/30/2010)	4.86753 (11/16/2009)	(5.07517 - 4.86753)/(27 - 26)
0.207639		
5.01064 (11/12/2010)	4.86753 (11/16/2009)	(5.01064 - 4.86753)/(28 - 26)
0.0715504		
4.86753 J (7/5/2011)	4.86753 (11/16/2009)	(4.86753 - 4.86753)/(29 - 26)
0		
5.07517 (11/22/2011)	4.86753 (11/16/2009)	(5.07517 - 4.86753)/(30 - 26)
0.0519098		
5.01064 (11/12/2010)	5.07517 H (6/30/2010)	(5.01064 - 5.07517)/(28 - 27)
-0.0645385		
4.86753 J (7/5/2011)	5.07517 H (6/30/2010)	(4.86753 - 5.07517)/(29 - 27)
-0.10382		
5.07517 (11/22/2011)	5.07517 H (6/30/2010)	(5.07517 - 5.07517)/(30 - 27)
0		
4.86753 J (7/5/2011)	5.01064 (11/12/2010)	(4.86753 - 5.01064)/(29 - 28)
-0.143101		
5.07517 (11/22/2011)	5.01064 (11/12/2010)	(5.07517 - 5.01064)/(30 - 28)
0.0322693		
5.07517 (11/22/2011)	4.86753 J (7/5/2011)	(5.07517 - 4.86753)/(30 - 29)
0.207639		

Number of Q values = 435

Ordered Q Values

n	Q
1	-2.66723
2	-1.94331
3	-1.44519
4	-1.33361
5	-0.978765
6	-0.963457
7	-0.889076
8	-0.722593
9	-0.666807
10	-0.578074
11	-0.268396
12	-0.268264
13	-0.262739
14	-0.223144
15	-0.163789
16	-0.143101
17	-0.10382
18	-0.0715504
19	-0.067066
20	-0.0645385
21	-0.0477003
22	-0.041721
23	-0.0303123
24	-0.0286202
25	-0.024064

26	-0.0238501
27	-0.0226579
28	-0.0207499
29	-0.0142213
30	-0.0133879
31	-0.0121249
32	-0.00836744
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	0
56	0
57	0
58	0
59	0
60	0
61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0
75	0
76	0
77	0
78	0
79	0
80	0
81	0
82	0
83	0
84	0
85	0
86	0
87	0

88	0
89	0
90	0
91	0
92	0
93	0
94	0
95	0
96	0
97	0
98	0
99	0
100	0
101	0
102	0
103	0
104	0
105	0
106	0
107	0
108	0
109	0
110	0
111	0
112	0
113	0
114	0
115	0
116	0
117	0
118	0
119	0
120	0
121	0
122	0
123	0
124	0
125	0
126	0
127	0
128	0
129	0.00615001
130	0.00921979
131	0.00922502
132	0.0107564
133	0.0107564
134	0.0108802
135	0.0138357
136	0.0156333
137	0.015752
138	0.0161346
139	0.0204292
140	0.0215128
141	0.02345
142	0.0242125
143	0.024515
144	0.024625
145	0.0248064
146	0.0253871
147	0.0262989
148	0.0300486
149	0.0302823

150	0.0322693
151	0.0347083
152	0.034757
153	0.0359603
154	0.0375699
155	0.0380611
156	0.0380807
157	0.0392943
158	0.0399918
159	0.0422049
160	0.0425688
161	0.0426757
162	0.0434664
163	0.0438032
164	0.0443615
165	0.0454278
166	0.0458731
167	0.0463798
168	0.0478482
169	0.0492786
170	0.0494019
171	0.0496127
172	0.0503311
173	0.0519098
174	0.0525638
175	0.0532338
176	0.0553652
177	0.0563184
178	0.0569009
179	0.0595645
180	0.0606506
181	0.0608978
182	0.0611641
183	0.0611641
184	0.0625816
185	0.0647228
186	0.0657048
187	0.0657912
188	0.0660871
189	0.0661503
190	0.0667245
191	0.0669398
192	0.0669431
193	0.0715504
194	0.0716779
195	0.0719748
196	0.0730898
197	0.0788457
198	0.0815521
199	0.0830517
200	0.0876064
201	0.0936013
202	0.0975466
203	0.10737
204	0.109202
205	0.111572
206	0.113513
207	0.116361
208	0.119508
209	0.119975
210	0.12067
211	0.121705

212	0.12229
213	0.123776
214	0.125163
215	0.125311
216	0.12597
217	0.128361
218	0.130324
219	0.130324
220	0.130815
221	0.13141
222	0.133298
223	0.133298
224	0.133886
225	0.135754
226	0.135754
227	0.136048
228	0.138629
229	0.138629
230	0.141656
231	0.141656
232	0.141717
233	0.144406
234	0.144406
235	0.144762
236	0.146932
237	0.147878
238	0.147878
239	0.148095
240	0.148095
241	0.150536
242	0.150684
243	0.150684
244	0.152253
245	0.15332
246	0.1546
247	0.1546
248	0.1546
249	0.155147
250	0.155147
251	0.157533
252	0.157533
253	0.157691
254	0.158062
255	0.160289
256	0.160692
257	0.161962
258	0.161962
259	0.161962
260	0.162905
261	0.162905
262	0.165035
263	0.165035
264	0.166252
265	0.166381
266	0.167922
267	0.168566
268	0.17006
269	0.17006
270	0.17006
271	0.170735
272	0.171479
273	0.171479

274	0.171624
275	0.173287
276	0.173287
277	0.175002
278	0.175625
279	0.176318
280	0.17793
281	0.17901
282	0.17901
283	0.17901
284	0.181005
285	0.182118
286	0.182407
287	0.183066
288	0.184724
289	0.185598
290	0.185956
291	0.188397
292	0.188955
293	0.188955
294	0.188955
295	0.191653
296	0.192541
297	0.195126
298	0.19559
299	0.195909
300	0.196142
301	0.197114
302	0.197578
303	0.197756
304	0.20007
305	0.20007
306	0.200172
307	0.203631
308	0.203631
309	0.203867
310	0.203867
311	0.207433
312	0.207639
313	0.207639
314	0.207815
315	0.210136
316	0.21075
317	0.21123
318	0.212575
319	0.212575
320	0.213516
321	0.216608
322	0.217206
323	0.220398
324	0.221669
325	0.225803
326	0.226746
327	0.226746
328	0.226746
329	0.227647
330	0.228768
331	0.228832
332	0.231049
333	0.232721
334	0.235091
335	0.23549

336	0.237503
337	0.239951
338	0.242475
339	0.242943
340	0.242943
341	0.242943
342	0.243173
343	0.243389
344	0.246365
345	0.246964
346	0.247553
347	0.247553
348	0.248342
349	0.249635
350	0.250623
351	0.250623
352	0.255772
353	0.261631
354	0.261631
355	0.262819
356	0.263437
357	0.266595
358	0.266723
359	0.266896
360	0.271508
361	0.273177
362	0.274599
363	0.277086
364	0.283433
365	0.288811
366	0.289037
367	0.290304
368	0.291159
369	0.293863
370	0.296191
371	0.296359
372	0.302276
373	0.30353
374	0.30511
375	0.3092
376	0.315067
377	0.320275
378	0.320578
379	0.321152
380	0.32581
381	0.333404
382	0.33466
383	0.34012
384	0.34012
385	0.341471
386	0.343249
387	0.35125
388	0.352636
389	0.352806
390	0.361296
391	0.377911
392	0.377911
393	0.381033
394	0.391818
395	0.392284
396	0.395156
397	0.41291

398	0.41563
399	0.42515
400	0.42515
401	0.444538
402	0.451607
403	0.456317
404	0.457535
405	0.475005
406	0.481729
407	0.485885
408	0.522548
409	0.526874
410	0.533446
411	0.533791
412	0.546353
413	0.554173
414	0.578074
415	0.640549
416	0.653185
417	0.665007
418	0.666807
419	0.682942
420	0.686497
421	0.722593
422	0.79093
423	0.800687
424	0.889076
425	0.910589
426	0.915329
427	0.963457
428	1.26829
429	1.33361
430	1.36588
431	1.37299
432	1.44519
433	2.41429
434	2.74599
435	2.89037

Sen's Estimator (Median Q) is 0.130324

Tied Group	Value	Members
1	1.60944	14
2	5.01064	3
3	4.86753	2
4	5.07517	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1

3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		1

There are 0 time periods with multiple data

A = 6108
B = 0
C = 2190
D = 0
E = 192
F = 0
a = 56550
b = 219240
c = 1740
Group Variance = 2802.33
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 87.0737
M1 = (435 - 87.0737)/2.0 = 173.963
M2 = (435 + 87.0737)/2.0 + 1 = 262.037
Lower limit is 0.0525638 = Q(174)
Upper limit is 0.165035 = Q(262)
0.0525638 > 0 indicating an upward trend in data.

Concentrations (ppb)

Parameter: Benzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 155
Percent Non-Detects: 63.0081%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12A R	21	14 (66.6667%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	1.03 J	1.03 J
			4/29/2006	1.04 J	1.04 J
			11/18/2006	0.76 J	0.76 J
			5/23/2007	ND<2	ND<2
			11/28/2007	0.84 J	0.84 J
			6/5/2008	ND<2	ND<2
			11/20/2008	0.53 J	0.53 J
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	0.26 J	0.26 J
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	0.73 J	0.73 J
			7/5/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
MW-10	31	14 (45.1613%)	7/20/1995	ND<2	ND<2
			8/24/1995	1.2 J	1.2 J

		9/28/1995	2	2	
		10/26/1995	2	2	
		11/19/1996	ND<2	ND<2	
		12/19/1996	ND<2	ND<2	
		3/24/1997	ND<2	ND<2	
		9/24/1997	ND<2	ND<2	
		4/7/1998	ND<2	ND<2	
		9/23/1998	ND<2	ND<2	
		3/16/1999	2.2	2.2	
		9/23/1999	ND<2	ND<2	
		3/15/2000	ND<2	ND<2	
		9/24/2003	ND<2	ND<2	
		3/11/2004	ND<2	ND<2	
		10/12/2004	ND<2	ND<2	
		4/1/2005	1.8 J	1.8 J	
		10/25/2005	1.32 J	1.32 J	
		4/29/2006	1.31 J	1.31 J	
		11/18/2006	0.96 J	0.96 J	
		5/23/2007	ND<2	ND<2	
		11/28/2007	1.38	1.38	
		6/5/2008	ND<2	ND<2	
		11/20/2008	1 J	1 J	
		6/11/2009	1	1	
		11/16/2009	1.3	1.3	
		6/30/2010	0.94 J	0.94 J	
		11/12/2010	1.3	1.3	
		7/5/2011	1.5	1.5	
		11/22/2011	1.3	1.3	
		11/22/2011	1.3	1.3	
MW-11R	31	16 (51.6129%)	7/20/1995	2.1	2.1
		8/24/1995	6.3	6.3	
		9/28/1995	6	6	
		10/26/1995	8	8	
		11/19/1996	ND<2	ND<2	
		12/19/1996	9	9	
		3/24/1997	ND<2	ND<2	
		9/24/1997	ND<2	ND<2	
		4/7/1998	ND<2	ND<2	
		9/23/1998	5	5	
		3/16/1999	5	5	
		9/23/1999	ND<2	ND<2	
		3/15/2000	ND<2	ND<2	
		9/24/2003	ND<2	ND<2	
		3/11/2004	ND<2	ND<2	
		10/12/2004	ND<2	ND<2	
		4/1/2005	4.58	4.58	
		10/25/2005	1.54 J	1.54 J	
		4/29/2006	0.83 J	0.83 J	
		11/18/2006	0.93 J	0.93 J	
		5/23/2007	2.1	2.1	
		11/28/2007	1.3 J	1.3 J	
		6/5/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	0.59 J	0.59 J	
		11/16/2009	ND<0.25	ND<0.25	
		6/30/2010	0.81 J	0.81 J	
		11/12/2010	ND<0.25 U	ND<0.25 U	
		7/5/2011	ND<0.25 U	ND<0.25 U	
		11/22/2011	ND<0.25 U	ND<0.25 U	
		11/22/2011	ND<0.25 U	ND<0.25 U	

MW-7	31	19 (61.2903%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	0.51 J	0.51 J
			4/29/2006	0.68 J	0.68 J
			11/18/2006	0.36 J	0.36 J
			5/23/2007	1.2	1.2
			11/28/2007	0.5 J	0.5 J
			6/5/2008	ND<2	ND<2
			11/20/2008	1.02 J	1.02 J
			6/11/2009	0.73 J	0.73 J
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	0.72 J	0.72 J
			11/12/2010	0.6 J	0.6 J
			7/5/2011	1	1
			11/22/2011	1.1	1.1
			11/22/2011	1.1	1.1
MW-6	31	30 (96.7742%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	1.2	1.2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U

			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-9	31	12 (38.7097%)	7/20/1995	2.5	2.5	
			8/24/1995	2.6	2.6	
			9/28/1995	3	3	
			10/26/1995	3	3	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	2.2	2.2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.92 J	1.92 J	
			10/25/2005	1.09 J	1.09 J	
			4/29/2006	0.71 J	0.71 J	
			11/18/2006	0.8 J	0.8 J	
			5/23/2007	2.2	2.2	
			11/28/2007	1.54 J	1.54 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	1.35 J	1.35 J	
			6/11/2009	1.9	1.9	
			11/16/2009	1.4	1.4	
			6/30/2010	1.8	1.8	
			11/12/2010	1.2	1.2	
			7/5/2011	0.76 J	0.76 J	
			11/22/2011	0.82 J	0.82 J	
			11/22/2011	0.82 J	0.82 J	
MW-12BR	21	19 (90.4762%)	3/16/1999	3.8	3.8	
			9/23/1999	3	3	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25	ND<0.25	
			11/16/2009	ND<0.25	ND<0.25	
			6/30/2010	ND<0.25	ND<0.25	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-8	30	12 (40%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	

3/24/1997		ND<2	ND<2
9/24/1997		5.4	5.4
4/7/1998	ND<2	ND<2	
9/23/1998		5.6	5.6
3/16/1999		3.5	3.5
9/23/1999		3.6	3.6
3/15/2000		ND<2	ND<2
9/24/2003		ND<2	ND<2
3/11/2004		ND<2	ND<2
10/12/2004		ND<2	ND<2
4/1/2005	3.22	3.22	
10/25/2005		4.99	4.99
4/29/2006		2.54	2.54
11/18/2006		4.03	4.03
5/23/2007		3.2	3.2
11/28/2007		4.5	4.5
6/5/2008	4.07	4.07	
11/20/2008		2.72	2.72
6/11/2009		3.6	3.6
6/30/2010		2.1	2.1
11/12/2010		2.9	2.9
7/5/2011	3.5	3.5	
11/22/2011		2.9	2.9
11/22/2011		2.9	2.9

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Benzene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.65209	7.03356	-0.331511
2	0.125	-2.40892	12.8365	-0.632626
3	0.125	-2.25713	17.9311	-0.914767
4	0.125	-2.14441	22.5296	-1.18282
5	0.125	-2.05375	26.7475	-1.43954
6	0.125	-1.97737	30.6575	-1.68671
7	0.125	-1.91103	34.3095	-1.92559
8	0.125	-1.85218	37.7401	-2.15711
9	0.125	-1.79912	40.9769	-2.382
10	0.125	-1.75069	44.0418	-2.60083
11	0.125	-1.70604	46.9524	-2.81409
12	0.125	-1.66456	49.7231	-3.02216
13	0.125	-1.62576	52.3662	-3.22538
14	0.125	-1.58927	54.892	-3.42404
15	0.125	-1.55477	57.3093	-3.61839
16	0.125	-1.52203	59.6259	-3.80864
17	0.125	-1.49085	61.8486	-3.995
18	0.125	-1.46106	63.9833	-4.17763
19	0.125	-1.4325	66.0353	-4.35669
20	0.125	-1.40507	68.0096	-4.53233
21	0.125	-1.3722	69.8925	-4.70385
22	0.125	-1.34694	71.7067	-4.87222
23	0.125	-1.32251	73.4558	-5.03753
24	0.125	-1.29884	75.1427	-5.19989
25	0.125	-1.27588	76.7706	-5.35937
26	0.125	-1.25357	78.342	-5.51607
27	0.125	-1.23187	79.8595	-5.67005
28	0.125	-1.21073	81.3254	-5.82139
29	0.125	-1.19012	82.7418	-5.97016
30	0.125	-1.17	84.1107	-6.11641
31	0.26	-1.15035	85.434	-6.4155
32	0.36	-1.13113	86.7134	-6.8227
33	0.5	-1.11232	87.9507	-7.37886
34	0.51	-1.0939	89.1473	-7.93675
35	0.53	-1.07584	90.3047	-8.50695
36	0.59	-1.05812	91.4243	-9.13124
37	0.6	-1.04073	92.5075	-9.75568
38	0.68	-1.02365	93.5553	-10.4518
39	0.71	-1.00687	94.5691	-11.1666
40	0.72	-0.990356	95.5499	-11.8797
41	0.73	-0.974114	96.4988	-12.5908
42	0.73	-0.954165	97.4092	-13.2873
43	0.76	-0.938476	98.29	-14.0006
44	0.76	-0.923014	99.1419	-14.7021
45	0.8	-0.907769	99.966	-15.4283
46	0.81	-0.892733	100.763	-16.1514
47	0.82	-0.877897	101.534	-16.8713
48	0.82	-0.863249	102.279	-17.5791
49	0.83	-0.848786	102.999	-18.2836
50	0.84	-0.834498	103.696	-18.9846
51	0.93	-0.820379	104.369	-19.7476

52	0.94	-0.806422	105.019	-20.5056
53	0.96	-0.792618	105.647	-21.2665
54	1	-0.778966	106.254	-22.0455
55	1	-0.765456	106.84	-22.8109
56	1	-0.752084	107.406	-23.563
57	1	-0.738846	107.951	-24.3019
58	1	-0.725736	108.478	-25.0276
59	1	-0.712751	108.986	-25.7403
60	1	-0.699883	109.476	-26.4402
61	1	-0.687131	109.948	-27.1274
62	1	-0.671346	110.399	-27.7987
63	1	-0.658838	110.833	-28.4575
64	1	-0.646431	111.251	-29.104
65	1	-0.634124	111.653	-29.7381
66	1	-0.621911	112.04	-30.36
67	1	-0.609791	112.412	-30.9698
68	1	-0.597761	112.769	-31.5676
69	1	-0.585815	113.112	-32.1534
70	1	-0.573953	113.441	-32.7273
71	1	-0.56217	113.758	-33.2895
72	1	-0.550465	114.061	-33.84
73	1	-0.538836	114.351	-34.3788
74	1	-0.52728	114.629	-34.9061
75	1	-0.515791	114.895	-35.4219
76	1	-0.504372	115.149	-35.9262
77	1	-0.493018	115.392	-36.4193
78	1	-0.481728	115.624	-36.901
79	1	-0.470498	115.846	-37.3715
80	1	-0.459327	116.057	-37.8308
81	1	-0.448213	116.258	-38.279
82	1	-0.437153	116.449	-38.7162
83	1	-0.423405	116.628	-39.1396
84	1	-0.412463	116.798	-39.552
85	1	-0.401571	116.959	-39.9536
86	1	-0.390726	117.112	-40.3443
87	1	-0.379927	117.256	-40.7243
88	1	-0.369171	117.393	-41.0934
89	1	-0.358459	117.521	-41.4519
90	1	-0.347787	117.642	-41.7997
91	1	-0.337155	117.756	-42.1368
92	1	-0.326561	117.863	-42.4634
93	1	-0.316004	117.962	-42.7794
94	1	-0.305481	118.056	-43.0849
95	1	-0.294992	118.143	-43.3799
96	1	-0.284535	118.224	-43.6644
97	1	-0.27411	118.299	-43.9385
98	1	-0.263715	118.368	-44.2022
99	1	-0.253347	118.433	-44.4556
100	1	-0.243007	118.492	-44.6986
101	1	-0.232693	118.546	-44.9313
102	1	-0.222403	118.595	-45.1537
103	1	-0.209575	118.639	-45.3633
104	1	-0.199336	118.679	-45.5626
105	1	-0.189118	118.715	-45.7517
106	1	-0.17892	118.747	-45.9306
107	1	-0.168741	118.775	-46.0994
108	1	-0.158579	118.8	-46.258
109	1	-0.148434	118.822	-46.4064
110	1	-0.138305	118.841	-46.5447
111	1	-0.128189	118.858	-46.6729
112	1	-0.118085	118.872	-46.791
113	1	-0.107995	118.883	-46.899

114	1	-0.0979139	118.893	-46.9969
115	1	-0.0878447	118.901	-47.0847
116	1	-0.0777834	118.907	-47.1625
117	1	-0.0677301	118.911	-47.2302
118	1	-0.0576847	118.915	-47.2879
119	1	-0.0476439	118.917	-47.3356
120	1	-0.0376076	118.918	-47.3732
121	1	-0.0275759	118.919	-47.4008
122	1	-0.0175476	118.919	-47.4183
123	1	-0.00751925	118.92	-47.4258
124	1	0.00751925	118.92	-47.4183
125	1	0.0175476	118.92	-47.4008
126	1	0.0275759	118.921	-47.3732
127	1	0.0376076	118.922	-47.3356
128	1	0.0476439	118.924	-47.2879
129	1	0.0576847	118.928	-47.2302
130	1	0.0677301	118.932	-47.1625
131	1	0.0777834	118.938	-47.0847
132	1	0.0878447	118.946	-46.9969
133	1	0.0979139	118.956	-46.899
134	1	0.107995	118.967	-46.791
135	1	0.118085	118.981	-46.6729
136	1	0.128189	118.998	-46.5447
137	1	0.138305	119.017	-46.4064
138	1	0.148434	119.039	-46.258
139	1	0.158579	119.064	-46.0994
140	1	0.168741	119.092	-45.9306
141	1	0.17892	119.124	-45.7517
142	1	0.189118	119.16	-45.5626
143	1	0.199336	119.2	-45.3633
144	1	0.209575	119.244	-45.1537
145	1	0.222403	119.293	-44.9313
146	1	0.232693	119.347	-44.6986
147	1	0.243007	119.407	-44.4556
148	1	0.253347	119.471	-44.2022
149	1	0.263715	119.54	-43.9385
150	1	0.27411	119.615	-43.6644
151	1	0.284535	119.696	-43.3799
152	1	0.294992	119.783	-43.0849
153	1	0.305481	119.877	-42.7794
154	1	0.316004	119.977	-42.4634
155	1	0.326561	120.083	-42.1368
156	1	0.337155	120.197	-41.7997
157	1	0.347787	120.318	-41.4519
158	1	0.358459	120.446	-41.0934
159	1	0.369171	120.583	-40.7243
160	1	0.379927	120.727	-40.3443
161	1	0.390726	120.88	-39.9536
162	1	0.401571	121.041	-39.552
163	1	0.412463	121.211	-39.1396
164	1	0.423405	121.39	-38.7162
165	1	0.437153	121.581	-38.279
166	1	0.448213	121.782	-37.8308
167	1	0.459327	121.993	-37.3715
168	1	0.470498	122.215	-36.901
169	1	0.481728	122.447	-36.4193
170	1	0.493018	122.69	-35.9262
171	1	0.504372	122.944	-35.4219
172	1	0.515791	123.21	-34.9061
173	1	0.52728	123.488	-34.3788
174	1	0.538836	123.779	-33.84
175	1	0.550465	124.082	-33.2895

176	1	0.56217	124.398	-32.7273	
177	1	0.573953		124.727	-32.1534
178	1	0.585815		125.07	-31.5676
179	1	0.597761		125.428	-30.9698
180	1	0.609791		125.799	-30.36
181	1	0.621911		126.186	-29.7381
182	1.02	0.634124		126.588	-29.0913
183	1.03	0.646431		127.006	-28.4255
184	1.04	0.658838		127.44	-27.7403
185	1.09	0.671346		127.891	-27.0085
186	1.1	0.687131		128.363	-26.2527
187	1.1	0.699883		128.853	-25.4828
188	1.2	0.712751		129.361	-24.6275
189	1.2	0.725736		129.888	-23.7566
190	1.2	0.738846		130.433	-22.87
191	1.2	0.752084		130.999	-21.9675
192	1.3	0.765456		131.585	-20.9724
193	1.3	0.778966		132.192	-19.9597
194	1.3	0.792618		132.82	-18.9293
195	1.3	0.806422		133.47	-17.881
196	1.3	0.820379		134.143	-16.8145
197	1.31	0.834498		134.84	-15.7213
198	1.32	0.848786		135.56	-14.6009
199	1.35	0.863249		136.305	-13.4355
200	1.38	0.877897		137.076	-12.224
201	1.4	0.892733		137.873	-10.9742
202	1.5	0.907769		138.697	-9.61255
203	1.54	0.923014		139.549	-8.19111
204	1.54	0.938476		140.43	-6.74585
205	1.8	0.954165		141.34	-5.02836
206	1.8	0.974114		142.289	-3.27495
207	1.9	0.990356		143.27	-1.39328
208	1.92	1.00687	144.284	0.539904	
209	2	1.02365	145.332	2.58721	
210	2	1.04073	146.415	4.66867	
211	2.1	1.05812	147.534	6.89073	
212	2.1	1.07584	148.692	9.14999	
213	2.1	1.0939	149.888	11.4472	
214	2.2	1.11232	151.126	13.8943	
215	2.2	1.13113	152.405	16.3828	
216	2.2	1.15035	153.728	18.9135	
217	2.5	1.17	155.097	21.8385	
218	2.54	1.19012	156.514	24.8614	
219	2.6	1.21073	157.98	28.0093	
220	2.72	1.23187	159.497	31.36	
221	2.9	1.25357	161.068	34.9953	
222	2.9	1.27588	162.696	38.6954	
223	2.9	1.29884	164.383	42.462	
224	3	1.32251	166.132	46.4295	
225	3	1.34694	167.947	50.4703	
226	3	1.3722	169.83	54.587	
227	3.2	1.40507	171.804	59.0832	
228	3.22	1.4325	173.856	63.6959	
229	3.5	1.46106	175.991	68.8096	
230	3.5	1.49085	178.213	74.0275	
231	3.6	1.52203	180.53	79.5069	
232	3.6	1.55477	182.947	85.1041	
233	3.8	1.58927	185.473	91.1433	
234	4.03	1.62576	188.116	97.6951	
235	4.07	1.66456	190.887	104.47	
236	4.5	1.70604	193.797	112.147	
237	4.58	1.75069	196.862	120.165	

238	4.99	1.79912	200.099	129.143
239	5	1.85218	203.53	138.404
240	5	1.91103	207.182	147.959
241	5.4	1.97737	211.092	158.637
242	5.6	2.05375	215.309	170.138
243	6	2.14441	219.908	183.004
244	6.3	2.25713	225.003	197.224
245	8	2.40892	230.806	216.495
246	9	2.65209	237.839	240.364

Data Set Standard Deviation = 1.26057
Numerator = 57774.9
Denominator = 92594.8
W Statistic = 0.623954 = 57774.9 / 92594.8

5% Critical value of 0.976 exceeds 0.623954
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.623954
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Benzene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.794006
0.794006 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00404858	-2.65209	46.4306	344.01	
2	0.125	0.00809717	-2.40892	46.4306	332.136	
3	0.125	0.0121457	-2.25713	46.4306	324.723	
4	0.125	0.0161943	-2.14441	46.4306	319.219	
5	0.125	0.0202429	-2.05375	46.4306	314.791	
6	0.125	0.0242915	-1.97737	46.4306	311.062	
7	0.125	0.0283401	-1.91103	46.4306	307.822	
8	0.125	0.0323887	-1.85218	46.4306	304.948	
9	0.125	0.0364372	-1.79912	46.4306	302.357	
10	0.125	0.0404858	-1.75069	46.4306	299.992	
11	0.125	0.0445344	-1.70604	46.4306	297.812	
12	0.125	0.048583	-1.66456	46.4306	295.786	
13	0.125	0.0526316	-1.62576	46.4306	293.891	
14	0.125	0.0566802	-1.58927	46.4306	292.109	
15	0.125	0.0607287	-1.55477	46.4306	290.425	
16	0.125	0.0647773	-1.52203	46.4306	288.826	
17	0.125	0.0688259	-1.49085	46.4306	287.303	
18	0.125	0.0728745	-1.46106	46.4306	285.848	
19	0.125	0.0769231	-1.4325	46.4306	284.454	
20	0.125	0.0809717	-1.40507	46.4306	283.114	
21	0.125	0.0850202	-1.3722	46.4306	281.509	
22	0.125	0.0890688	-1.34694	46.4306	280.276	
23	0.125	0.0931174	-1.32251	46.4306	279.082	
24	0.125	0.097166	-1.29884	46.4306	277.926	
25	0.125	0.101215	-1.27588	46.4306	276.805	
26	0.125	0.105263	-1.25357	46.4306	275.716	
27	0.125	0.109312	-1.23187	46.4306	274.656	
28	0.125	0.11336	-1.21073	46.4306	273.624	
29	0.125	0.117409	-1.19012	46.4306	272.617	
30	0.125	0.121457	-1.17	46.4306	271.635	
31	0.26	0.125506	-1.15035	54.4556	270.675	
32	0.36	0.129555	-1.13113	60.4	269.737	
33	0.5	0.133603	-1.11232	68.7222	268.818	
34	0.51	0.137652	-1.0939	69.3167	267.919	
35	0.53	0.1417	-1.07584	70.5056	267.037	
36	0.59	0.145749	-1.05812	74.0722	266.172	
37	0.6	0.149798	-1.04073	74.6667	265.322	
38	0.68	0.153846	-1.02365	79.4222	264.488	
39	0.71	0.157895	-1.00687	81.2056	263.669	
40	0.72	0.161943	-0.990356	81.8	262.862	
41	0.73	0.165992	-0.974114	82.3944	262.069	
42	0.73	0.17004	-0.954165	82.3944	261.095	
43	0.76	0.174089	-0.938476	84.1778	260.329	
44	0.76	0.178138	-0.923014	84.1778	259.574	
45	0.8	0.182186	-0.907769	86.5556	258.829	
46	0.81	0.186235	-0.892733	87.15	258.095	
47	0.82	0.190283	-0.877897	87.7444	257.371	
48	0.82	0.194332	-0.863249	87.7444	256.655	

49	0.83	0.198381	-0.848786	88.3389	255.949
50	0.84	0.202429	-0.834498	88.9333	255.251
51	0.93	0.206478	-0.820379	94.2833	254.562
52	0.94	0.210526	-0.806422	94.8778	253.88
53	0.96	0.214575	-0.792618	96.0667	253.206
54	1	0.218623	-0.778966	98.4444	252.54
55	1	0.222672	-0.765456	98.4444	251.88
56	1	0.226721	-0.752084	98.4444	251.227
57	1	0.230769	-0.738846	98.4444	250.58
58	1	0.234818	-0.725736	98.4444	249.94
59	1	0.238866	-0.712751	98.4444	249.306
60	1	0.242915	-0.699883	98.4444	248.678
61	1	0.246964	-0.687131	98.4444	248.055
62	1	0.251012	-0.671346	98.4444	247.284
63	1	0.255061	-0.658838	98.4444	246.673
64	1	0.259109	-0.646431	98.4444	246.067
65	1	0.263158	-0.634124	98.4444	245.466
66	1	0.267206	-0.621911	98.4444	244.87
67	1	0.271255	-0.609791	98.4444	244.278
68	1	0.275304	-0.597761	98.4444	243.691
69	1	0.279352	-0.585815	98.4444	243.107
70	1	0.283401	-0.573953	98.4444	242.528
71	1	0.287449	-0.56217	98.4444	241.953
72	1	0.291498	-0.550465	98.4444	241.381
73	1	0.295547	-0.538836	98.4444	240.813
74	1	0.299595	-0.52728	98.4444	240.249
75	1	0.303644	-0.515791	98.4444	239.688
76	1	0.307692	-0.504372	98.4444	239.13
77	1	0.311741	-0.493018	98.4444	238.576
78	1	0.315789	-0.481728	98.4444	238.024
79	1	0.319838	-0.470498	98.4444	237.476
80	1	0.323887	-0.459327	98.4444	236.93
81	1	0.327935	-0.448213	98.4444	236.388
82	1	0.331984	-0.437153	98.4444	235.848
83	1	0.336032	-0.423405	98.4444	235.176
84	1	0.340081	-0.412463	98.4444	234.642
85	1	0.34413	-0.401571	98.4444	234.11
86	1	0.348178	-0.390726	98.4444	233.58
87	1	0.352227	-0.379927	98.4444	233.053
88	1	0.356275	-0.369171	98.4444	232.528
89	1	0.360324	-0.358459	98.4444	232.005
90	1	0.364372	-0.347787	98.4444	231.484
91	1	0.368421	-0.337155	98.4444	230.964
92	1	0.37247	-0.326561	98.4444	230.447
93	1	0.376518	-0.316004	98.4444	229.932
94	1	0.380567	-0.305481	98.4444	229.418
95	1	0.384615	-0.294992	98.4444	228.905
96	1	0.388664	-0.284535	98.4444	228.395
97	1	0.392713	-0.27411	98.4444	227.886
98	1	0.396761	-0.263715	98.4444	227.378
99	1	0.40081	-0.253347	98.4444	226.872
100	1	0.404858	-0.243007	98.4444	226.367
101	1	0.408907	-0.232693	98.4444	225.863
102	1	0.412955	-0.222403	98.4444	225.361
103	1	0.417004	-0.209575	98.4444	224.734
104	1	0.421053	-0.199336	98.4444	224.234
105	1	0.425101	-0.189118	98.4444	223.735
106	1	0.42915	-0.17892	98.4444	223.237
107	1	0.433198	-0.168741	98.4444	222.74
108	1	0.437247	-0.158579	98.4444	222.244
109	1	0.441296	-0.148434	98.4444	221.749
110	1	0.445344	-0.138305	98.4444	221.254

111	1	0.449393	-0.128189	98.4444	220.76
112	1	0.453441	-0.118085	98.4444	220.267
113	1	0.45749	-0.107995	98.4444	219.774
114	1	0.461538	-0.0979139	98.4444	219.281
115	1	0.465587	-0.0878447	98.4444	218.79
116	1	0.469636	-0.0777834	98.4444	218.298
117	1	0.473684	-0.0677301	98.4444	217.807
118	1	0.477733	-0.0576847	98.4444	217.317
119	1	0.481781	-0.0476439	98.4444	216.827
120	1	0.48583	-0.0376076	98.4444	216.337
121	1	0.489879	-0.0275759	98.4444	215.847
122	1	0.493927	-0.0175476	98.4444	215.357
123	1	0.497976	-0.00751925	98.4444	214.867
124	1	0.502024	0.00751925	98.4444	214.133
125	1	0.506073	0.0175476	98.4444	213.643
126	1	0.510121	0.0275759	98.4444	213.153
127	1	0.51417	0.0376076	98.4444	212.663
128	1	0.518219	0.0476439	98.4444	212.173
129	1	0.522267	0.0576847	98.4444	211.683
130	1	0.526316	0.0677301	98.4444	211.193
131	1	0.530364	0.0777834	98.4444	210.702
132	1	0.534413	0.0878447	98.4444	210.21
133	1	0.538462	0.0979139	98.4444	209.719
134	1	0.54251	0.107995	98.4444	209.226
135	1	0.546559	0.118085	98.4444	208.733
136	1	0.550607	0.128189	98.4444	208.24
137	1	0.554656	0.138305	98.4444	207.746
138	1	0.558704	0.148434	98.4444	207.251
139	1	0.562753	0.158579	98.4444	206.756
140	1	0.566802	0.168741	98.4444	206.26
141	1	0.57085	0.17892	98.4444	205.763
142	1	0.574899	0.189118	98.4444	205.265
143	1	0.578947	0.199336	98.4444	204.766
144	1	0.582996	0.209575	98.4444	204.266
145	1	0.587045	0.222403	98.4444	203.639
146	1	0.591093	0.232693	98.4444	203.137
147	1	0.595142	0.243007	98.4444	202.633
148	1	0.59919	0.253347	98.4444	202.128
149	1	0.603239	0.263715	98.4444	201.622
150	1	0.607287	0.27411	98.4444	201.114
151	1	0.611336	0.284535	98.4444	200.605
152	1	0.615385	0.294992	98.4444	200.095
153	1	0.619433	0.305481	98.4444	199.582
154	1	0.623482	0.316004	98.4444	199.068
155	1	0.62753	0.326561	98.4444	198.553
156	1	0.631579	0.337155	98.4444	198.036
157	1	0.635628	0.347787	98.4444	197.516
158	1	0.639676	0.358459	98.4444	196.995
159	1	0.643725	0.369171	98.4444	196.472
160	1	0.647773	0.379927	98.4444	195.947
161	1	0.651822	0.390726	98.4444	195.42
162	1	0.65587	0.401571	98.4444	194.89
163	1	0.659919	0.412463	98.4444	194.358
164	1	0.663968	0.423405	98.4444	193.824
165	1	0.668016	0.437153	98.4444	193.152
166	1	0.672065	0.448213	98.4444	192.612
167	1	0.676113	0.459327	98.4444	192.07
168	1	0.680162	0.470498	98.4444	191.524
169	1	0.684211	0.481728	98.4444	190.976
170	1	0.688259	0.493018	98.4444	190.424
171	1	0.692308	0.504372	98.4444	189.87
172	1	0.696356	0.515791	98.4444	189.312

173	1	0.700405	0.52728	98.4444	188.751	
174	1	0.704453	0.538836		98.4444	188.187
175	1	0.708502	0.550465		98.4444	187.619
176	1	0.712551	0.56217	98.4444	187.047	
177	1	0.716599	0.573953		98.4444	186.472
178	1	0.720648	0.585815		98.4444	185.893
179	1	0.724696	0.597761		98.4444	185.309
180	1	0.728745	0.609791		98.4444	184.722
181	1	0.732794	0.621911		98.4444	184.13
182	1.02	0.736842	0.634124		99.6333	183.534
183	1.03	0.740891	0.646431		100.228	182.933
184	1.04	0.744939	0.658838		100.822	182.327
185	1.09	0.748988	0.671346		103.794	181.716
186	1.1	0.753036	0.687131		104.389	180.945
187	1.1	0.757085	0.699883		104.389	180.322
188	1.2	0.761134	0.712751		110.333	179.694
189	1.2	0.765182	0.725736		110.333	179.06
190	1.2	0.769231	0.738846		110.333	178.42
191	1.2	0.773279	0.752084		110.333	177.773
192	1.3	0.777328	0.765456		116.278	177.12
193	1.3	0.781377	0.778966		116.278	176.46
194	1.3	0.785425	0.792618		116.278	175.794
195	1.3	0.789474	0.806422		116.278	175.12
196	1.3	0.793522	0.820379		116.278	174.438
197	1.31	0.797571	0.834498		116.872	173.749
198	1.32	0.801619	0.848786		117.467	173.051
199	1.35	0.805668	0.863249		119.25	172.345
200	1.38	0.809717	0.877897		121.033	171.629
201	1.4	0.813765	0.892733		122.222	170.905
202	1.5	0.817814	0.907769		128.167	170.171
203	1.54	0.821862	0.923014		130.544	169.426
204	1.54	0.825911	0.938476		130.544	168.671
205	1.8	0.82996	0.954165	146	167.905	
206	1.8	0.834008	0.974114		146	166.931
207	1.9	0.838057	0.990356		151.944	166.138
208	1.92	0.842105	1.00687	153.133	165.331	
209	2	0.846154	1.02365	157.889	164.512	
210	2	0.850202	1.04073	157.889	163.678	
211	2.1	0.854251	1.05812	163.833	162.828	
212	2.1	0.8583	1.07584	163.833	161.963	
213	2.1	0.862348	1.0939	163.833	161.081	
214	2.2	0.866397	1.11232	169.778	160.182	
215	2.2	0.870445	1.13113	169.778	159.263	
216	2.2	0.874494	1.15035	169.778	158.325	
217	2.5	0.878543	1.17	187.611	157.365	
218	2.54	0.882591	1.19012	189.989	156.383	
219	2.6	0.88664	1.21073	193.556	155.376	
220	2.72	0.890688	1.23187	200.689	154.344	
221	2.9	0.894737	1.25357	211.389	153.284	
222	2.9	0.898785	1.27588	211.389	152.195	
223	2.9	0.902834	1.29884	211.389	151.074	
224	3	0.906883	1.32251	217.333	149.918	
225	3	0.910931	1.34694	217.333	148.724	
226	3	0.91498	1.3722	217.333	147.491	
227	3.2	0.919028	1.40507	229.222	145.886	
228	3.22	0.923077	1.4325	230.411	144.546	
229	3.5	0.927126	1.46106	247.056	143.152	
230	3.5	0.931174	1.49085	247.056	141.697	
231	3.6	0.935223	1.52203	253	140.174	
232	3.6	0.939271	1.55477	253	138.575	
233	3.8	0.94332	1.58927	264.889	136.891	
234	4.03	0.947368	1.62576	278.561	135.109	

235	4.07	0.951417	1.66456	280.939	133.214
236	4.5	0.955466	1.70604	306.5	131.188
237	4.58	0.959514	1.75069	311.256	129.008
238	4.99	0.963563	1.79912	335.628	126.643
239	5	0.967611	1.85218	336.222	124.052
240	5	0.97166	1.91103	336.222	121.178
241	5.4	0.975709	1.97737	360	117.938
242	5.6	0.979757	2.05375	371.889	114.209
243	6	0.983806	2.14441	395.667	109.781
244	6.3	0.987854	2.25713	413.5	104.277
245	8	0.991903	2.40892	514.556	96.8642
246	9	0.995951	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: Benzene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.07944	-2.65209	7.03356	5.51486	
2	-2.07944	-2.40892	12.8365	10.5241	
3	-2.07944	-2.25713	17.9311	15.2176	
4	-2.07944	-2.14441	22.5296	19.6768	
5	-2.07944	-2.05375	26.7475	23.9475	
6	-2.07944	-1.97737	30.6575	28.0593	
7	-2.07944	-1.91103	34.3095	32.0332	
8	-2.07944	-1.85218	37.7401	35.8847	
9	-2.07944	-1.79912	40.9769	39.6258	
10	-2.07944	-1.75069	44.0418	43.2663	
11	-2.07944	-1.70604	46.9524	46.8139	
12	-2.07944	-1.66456	49.7231	50.2752	
13	-2.07944	-1.62576	52.3662	53.6559	
14	-2.07944	-1.58927	54.892	56.9607	
15	-2.07944	-1.55477	57.3093	60.1938	
16	-2.07944	-1.52203	59.6259	63.3588	
17	-2.07944	-1.49085	61.8486	66.4589	
18	-2.07944	-1.46106	63.9833	69.4971	
19	-2.07944	-1.4325	66.0353	72.4759	
20	-2.07944	-1.40507	68.0096	75.3977	
21	-2.07944	-1.3722	69.8925	78.2511	
22	-2.07944	-1.34694	71.7067	81.052	
23	-2.07944	-1.32251	73.4558	83.802	
24	-2.07944	-1.29884	75.1427	86.5029	
25	-2.07944	-1.27588	76.7706	89.156	
26	-2.07944	-1.25357	78.342	91.7627	
27	-2.07944	-1.23187	79.8595	94.3243	
28	-2.07944	-1.21073	81.3254	96.8419	
29	-2.07944	-1.19012	82.7418	99.3167	
30	-2.07944	-1.17	84.1107	101.75	
31	-1.34707	-1.15035	85.434	103.299	
32	-1.02165	-1.13113	86.7134	104.455	
33	-0.693147	-1.11232	87.9507	105.226	
34	-0.673345	-1.0939	89.1473	105.962	
35	-0.634878	-1.07584	90.3047	106.645	
36	-0.527633	-1.05812	91.4243	107.204	
37	-0.510826	-1.04073	92.5075	107.735	
38	-0.385662	-1.02365	93.5553	108.13	
39	-0.34249	-1.00687	94.5691	108.475	
40	-0.328504	-0.990356	95.5499	108.8	
41	-0.314711	-0.974114	96.4988	109.107	
42	-0.314711	-0.954165	97.4092	109.407	
43	-0.274437	-0.938476	98.29	109.665	
44	-0.274437	-0.923014	99.1419	109.918	
45	-0.223144	-0.907769	99.966	110.121	
46	-0.210721	-0.892733	100.763	110.309	
47	-0.198451	-0.877897	101.534	110.483	
48	-0.198451	-0.863249	102.279	110.654	
49	-0.18633	-0.848786	102.999	110.812	
50	-0.174353	-0.834498	103.696	110.958	
51	-0.0725707	-0.820379	104.369	111.017	

52	-0.061875	-0.806422	105.019	111.067
53	-0.040822	-0.792618	105.647	111.1
54	0	-0.778966	106.254	111.1
55	0	-0.765456	106.84	111.1
56	0	-0.752084	107.406	111.1
57	0	-0.738846	107.951	111.1
58	0	-0.725736	108.478	111.1
59	0	-0.712751	108.986	111.1
60	0	-0.699883	109.476	111.1
61	0	-0.687131	109.948	111.1
62	0	-0.671346	110.399	111.1
63	0	-0.658838	110.833	111.1
64	0	-0.646431	111.251	111.1
65	0	-0.634124	111.653	111.1
66	0	-0.621911	112.04	111.1
67	0	-0.609791	112.412	111.1
68	0	-0.597761	112.769	111.1
69	0	-0.585815	113.112	111.1
70	0	-0.573953	113.441	111.1
71	0	-0.56217	113.758	111.1
72	0	-0.550465	114.061	111.1
73	0	-0.538836	114.351	111.1
74	0	-0.52728	114.629	111.1
75	0	-0.515791	114.895	111.1
76	0	-0.504372	115.149	111.1
77	0	-0.493018	115.392	111.1
78	0	-0.481728	115.624	111.1
79	0	-0.470498	115.846	111.1
80	0	-0.459327	116.057	111.1
81	0	-0.448213	116.258	111.1
82	0	-0.437153	116.449	111.1
83	0	-0.423405	116.628	111.1
84	0	-0.412463	116.798	111.1
85	0	-0.401571	116.959	111.1
86	0	-0.390726	117.112	111.1
87	0	-0.379927	117.256	111.1
88	0	-0.369171	117.393	111.1
89	0	-0.358459	117.521	111.1
90	0	-0.347787	117.642	111.1
91	0	-0.337155	117.756	111.1
92	0	-0.326561	117.863	111.1
93	0	-0.316004	117.962	111.1
94	0	-0.305481	118.056	111.1
95	0	-0.294992	118.143	111.1
96	0	-0.284535	118.224	111.1
97	0	-0.27411	118.299	111.1
98	0	-0.263715	118.368	111.1
99	0	-0.253347	118.433	111.1
100	0	-0.243007	118.492	111.1
101	0	-0.232693	118.546	111.1
102	0	-0.222403	118.595	111.1
103	0	-0.209575	118.639	111.1
104	0	-0.199336	118.679	111.1
105	0	-0.189118	118.715	111.1
106	0	-0.17892	118.747	111.1
107	0	-0.168741	118.775	111.1
108	0	-0.158579	118.8	111.1
109	0	-0.148434	118.822	111.1
110	0	-0.138305	118.841	111.1
111	0	-0.128189	118.858	111.1
112	0	-0.118085	118.872	111.1
113	0	-0.107995	118.883	111.1

114	0	-0.0979139	118.893	111.1
115	0	-0.0878447	118.901	111.1
116	0	-0.0777834	118.907	111.1
117	0	-0.0677301	118.911	111.1
118	0	-0.0576847	118.915	111.1
119	0	-0.0476439	118.917	111.1
120	0	-0.0376076	118.918	111.1
121	0	-0.0275759	118.919	111.1
122	0	-0.0175476	118.919	111.1
123	0	-0.00751925	118.92	111.1
124	0	0.00751925	118.92	111.1
125	0	0.0175476	118.92	111.1
126	0	0.0275759	118.921	111.1
127	0	0.0376076	118.922	111.1
128	0	0.0476439	118.924	111.1
129	0	0.0576847	118.928	111.1
130	0	0.0677301	118.932	111.1
131	0	0.0777834	118.938	111.1
132	0	0.0878447	118.946	111.1
133	0	0.0979139	118.956	111.1
134	0	0.107995	118.967	111.1
135	0	0.118085	118.981	111.1
136	0	0.128189	118.998	111.1
137	0	0.138305	119.017	111.1
138	0	0.148434	119.039	111.1
139	0	0.158579	119.064	111.1
140	0	0.168741	119.092	111.1
141	0	0.17892	119.124	111.1
142	0	0.189118	119.16	111.1
143	0	0.199336	119.2	111.1
144	0	0.209575	119.244	111.1
145	0	0.222403	119.293	111.1
146	0	0.232693	119.347	111.1
147	0	0.243007	119.407	111.1
148	0	0.253347	119.471	111.1
149	0	0.263715	119.54	111.1
150	0	0.27411	119.615	111.1
151	0	0.284535	119.696	111.1
152	0	0.294992	119.783	111.1
153	0	0.305481	119.877	111.1
154	0	0.316004	119.977	111.1
155	0	0.326561	120.083	111.1
156	0	0.337155	120.197	111.1
157	0	0.347787	120.318	111.1
158	0	0.358459	120.446	111.1
159	0	0.369171	120.583	111.1
160	0	0.379927	120.727	111.1
161	0	0.390726	120.88	111.1
162	0	0.401571	121.041	111.1
163	0	0.412463	121.211	111.1
164	0	0.423405	121.39	111.1
165	0	0.437153	121.581	111.1
166	0	0.448213	121.782	111.1
167	0	0.459327	121.993	111.1
168	0	0.470498	122.215	111.1
169	0	0.481728	122.447	111.1
170	0	0.493018	122.69	111.1
171	0	0.504372	122.944	111.1
172	0	0.515791	123.21	111.1
173	0	0.52728	123.488	111.1
174	0	0.538836	123.779	111.1
175	0	0.550465	124.082	111.1

176	0	0.56217	124.398	111.1		
177	0	0.573953		124.727	111.1	
178	0	0.585815		125.07	111.1	
179	0	0.597761		125.428	111.1	
180	0	0.609791		125.799	111.1	
181	0	0.621911		126.186	111.1	
182	0.0198026		0.634124		126.588	111.112
183	0.0295588		0.646431		127.006	111.131
184	0.0392207		0.658838		127.44	111.157
185	0.0861777		0.671346		127.891	111.215
186	0.0953102		0.687131		128.363	111.281
187	0.0953102		0.699883		128.853	111.347
188	0.182322		0.712751		129.361	111.477
189	0.182322		0.725736		129.888	111.61
190	0.182322		0.738846		130.433	111.744
191	0.182322		0.752084		130.999	111.881
192	0.262364		0.765456		131.585	112.082
193	0.262364		0.778966		132.192	112.287
194	0.262364		0.792618		132.82	112.495
195	0.262364		0.806422		133.47	112.706
196	0.262364		0.820379		134.143	112.921
197	0.270027		0.834498		134.84	113.147
198	0.277632		0.848786		135.56	113.382
199	0.300105		0.863249		136.305	113.641
200	0.322083		0.877897		137.076	113.924
201	0.336472		0.892733		137.873	114.225
202	0.405465		0.907769		138.697	114.593
203	0.431782		0.923014		139.549	114.991
204	0.431782		0.938476		140.43	115.396
205	0.587787		0.954165		141.34	115.957
206	0.587787		0.974114		142.289	116.53
207	0.641854		0.990356		143.27	117.165
208	0.652325		1.00687	144.284	117.822	
209	0.693147		1.02365	145.332	118.532	
210	0.693147		1.04073	146.415	119.253	
211	0.741937		1.05812	147.534	120.038	
212	0.741937		1.07584	148.692	120.836	
213	0.741937		1.0939	149.888	121.648	
214	0.788457		1.11232	151.126	122.525	
215	0.788457		1.13113	152.405	123.417	
216	0.788457		1.15035	153.728	124.324	
217	0.916291		1.17	155.097	125.396	
218	0.932164		1.19012	156.514	126.505	
219	0.955511		1.21073	157.98	127.662	
220	1.00063	1.23187	159.497	128.895		
221	1.06471	1.25357	161.068	130.23		
222	1.06471	1.27588	162.696	131.588		
223	1.06471	1.29884	164.383	132.971		
224	1.09861	1.32251	166.132	134.424		
225	1.09861	1.34694	167.947	135.904		
226	1.09861	1.3722	169.83	137.411		
227	1.16315	1.40507	171.804	139.045		
228	1.16938	1.4325	173.856	140.721		
229	1.25276	1.46106	175.991	142.551		
230	1.25276	1.49085	178.213	144.419		
231	1.28093	1.52203	180.53	146.368		
232	1.28093	1.55477	182.947	148.36		
233	1.335	1.58927	185.473	150.481		
234	1.39377	1.62576	188.116	152.747		
235	1.40364	1.66456	190.887	155.084		
236	1.50408	1.70604	193.797	157.65		
237	1.5217	1.75069	196.862	160.314		

238	1.60744	1.79912	200.099	163.206
239	1.60944	1.85218	203.53	166.187
240	1.60944	1.91103	207.182	169.262
241	1.6864	1.97737	211.092	172.597
242	1.72277	2.05375	215.309	176.135
243	1.79176	2.14441	219.908	179.978
244	1.84055	2.25713	225.003	184.132
245	2.07944	2.40892	230.806	189.141
246	2.19722	2.65209	237.839	194.968

Data Set Standard Deviation = 0.906159
Numerator = 38012.6
Denominator = 47847.4
W Statistic = 0.794456 = 38012.6 / 47847.4

5% Critical value of 0.976 exceeds 0.794456
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.794456
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.891698
0.891698 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00404858	-2.65209	121.083	344.01
2	-2.07944	0.00809717	-2.40892	121.083	332.136
3	-2.07944	0.0121457	-2.25713	121.083	324.723
4	-2.07944	0.0161943	-2.14441	121.083	319.219
5	-2.07944	0.0202429	-2.05375	121.083	314.791
6	-2.07944	0.0242915	-1.97737	121.083	311.062
7	-2.07944	0.0283401	-1.91103	121.083	307.822
8	-2.07944	0.0323887	-1.85218	121.083	304.948
9	-2.07944	0.0364372	-1.79912	121.083	302.357
10	-2.07944	0.0404858	-1.75069	121.083	299.992
11	-2.07944	0.0445344	-1.70604	121.083	297.812
12	-2.07944	0.048583	-1.66456	121.083	295.786
13	-2.07944	0.0526316	-1.62576	121.083	293.891
14	-2.07944	0.0566802	-1.58927	121.083	292.109
15	-2.07944	0.0607287	-1.55477	121.083	290.425
16	-2.07944	0.0647773	-1.52203	121.083	288.826
17	-2.07944	0.0688259	-1.49085	121.083	287.303
18	-2.07944	0.0728745	-1.46106	121.083	285.848
19	-2.07944	0.0769231	-1.4325	121.083	284.454
20	-2.07944	0.0809717	-1.40507	121.083	283.114
21	-2.07944	0.0850202	-1.3722	121.083	281.509
22	-2.07944	0.0890688	-1.34694	121.083	280.276
23	-2.07944	0.0931174	-1.32251	121.083	279.082
24	-2.07944	0.097166	-1.29884	121.083	277.926
25	-2.07944	0.101215	-1.27588	121.083	276.805
26	-2.07944	0.105263	-1.25357	121.083	275.716
27	-2.07944	0.109312	-1.23187	121.083	274.656
28	-2.07944	0.11336	-1.21073	121.083	273.624
29	-2.07944	0.117409	-1.19012	121.083	272.617
30	-2.07944	0.121457	-1.17	121.083	271.635
31	-1.34707	0.125506	-1.15035	186.386	270.675
32	-1.02165	0.129555	-1.13113	215.403	269.737
33	-0.693147	0.133603	-1.11232	244.694	268.818
34	-0.673345	0.137652	-1.0939	246.46	267.919
35	-0.634878	0.1417	-1.07584	249.89	267.037
36	-0.527633	0.145749	-1.05812	259.453	266.172
37	-0.510826	0.149798	-1.04073	260.951	265.322
38	-0.385662	0.153846	-1.02365	272.112	264.488
39	-0.34249	0.157895	-1.00687	275.961	263.669
40	-0.328504	0.161943	-0.990356	277.208	262.862
41	-0.314711	0.165992	-0.974114	278.438	262.069
42	-0.314711	0.17004	-0.954165	278.438	261.095
43	-0.274437	0.174089	-0.938476	282.029	260.329
44	-0.274437	0.178138	-0.923014	282.029	259.574
45	-0.223144	0.182186	-0.907769	286.603	258.829
46	-0.210721	0.186235	-0.892733	287.711	258.095
47	-0.198451	0.190283	-0.877897	288.805	257.371
48	-0.198451	0.194332	-0.863249	288.805	256.655

49	-0.18633	0.198381	-0.848786	289.886	255.949	
50	-0.174353	0.202429	-0.834498	290.953	255.251	
51	-0.072570 7	0.206478	-0.820379	300.029	254.562	
52	-0.061875 4	0.210526	-0.806422	300.983	253.88	
53	-0.040822	0.214575	-0.792618	302.86	253.206	
54	0	0.218623	-0.778966	306.5	252.54	
55	0	0.222672	-0.765456	306.5	251.88	
56	0	0.226721	-0.752084	306.5	251.227	
57	0	0.230769	-0.738846	306.5	250.58	
58	0	0.234818	-0.725736	306.5	249.94	
59	0	0.238866	-0.712751	306.5	249.306	
60	0	0.242915	-0.699883	306.5	248.678	
61	0	0.246964	-0.687131	306.5	248.055	
62	0	0.251012	-0.671346	306.5	247.284	
63	0	0.255061	-0.658838	306.5	246.673	
64	0	0.259109	-0.646431	306.5	246.067	
65	0	0.263158	-0.634124	306.5	245.466	
66	0	0.267206	-0.621911	306.5	244.87	
67	0	0.271255	-0.609791	306.5	244.278	
68	0	0.275304	-0.597761	306.5	243.691	
69	0	0.279352	-0.585815	306.5	243.107	
70	0	0.283401	-0.573953	306.5	242.528	
71	0	0.287449	-0.56217	306.5	241.953	
72	0	0.291498	-0.550465	306.5	241.381	
73	0	0.295547	-0.538836	306.5	240.813	
74	0	0.299595	-0.52728	306.5	240.249	
75	0	0.303644	-0.515791	306.5	239.688	
76	0	0.307692	-0.504372	306.5	239.13	
77	0	0.311741	-0.493018	306.5	238.576	
78	0	0.315789	-0.481728	306.5	238.024	
79	0	0.319838	-0.470498	306.5	237.476	
80	0	0.323887	-0.459327	306.5	236.93	
81	0	0.327935	-0.448213	306.5	236.388	
82	0	0.331984	-0.437153	306.5	235.848	
83	0	0.336032	-0.423405	306.5	235.176	
84	0	0.340081	-0.412463	306.5	234.642	
85	0	0.34413	-0.401571	306.5	234.11	
86	0	0.348178	-0.390726	306.5	233.58	
87	0	0.352227	-0.379927	306.5	233.053	
88	0	0.356275	-0.369171	306.5	232.528	
89	0	0.360324	-0.358459	306.5	232.005	
90	0	0.364372	-0.347787	306.5	231.484	
91	0	0.368421	-0.337155	306.5	230.964	
92	0	0.37247	-0.326561	306.5	230.447	
93	0	0.376518	-0.316004	306.5	229.932	
94	0	0.380567	-0.305481	306.5	229.418	
95	0	0.384615	-0.294992	306.5	228.905	
96	0	0.388664	-0.284535	306.5	228.395	
97	0	0.392713	-0.27411	306.5	227.886	
98	0	0.396761	-0.263715	306.5	227.378	
99	0	0.40081	-0.253347	306.5	226.872	
100	0	0.404858	-0.243007	306.5	226.367	
101	0	0.408907	-0.232693	306.5	225.863	
102	0	0.412955	-0.222403	306.5	225.361	
103	0	0.417004	-0.209575	306.5	224.734	
104	0	0.421053	-0.199336	306.5	224.234	
105	0	0.425101	-0.189118	306.5	223.735	
106	0	0.42915	-0.17892	306.5	223.237	
107	0	0.433198	-0.168741	306.5	222.74	
108	0	0.437247	-0.158579	306.5	222.244	
109	0	0.441296	-0.148434	306.5	221.749	
110	0	0.445344	-0.138305	306.5	221.254	

111	0	0.449393	-0.128189	306.5	220.76
112	0	0.453441	-0.118085	306.5	220.267
113	0	0.45749	-0.107995	306.5	219.774
114	0	0.461538	-0.0979139	306.5	219.281
115	0	0.465587	-0.0878447	306.5	218.79
116	0	0.469636	-0.0777834	306.5	218.298
117	0	0.473684	-0.0677301	306.5	217.807
118	0	0.477733	-0.0576847	306.5	217.317
119	0	0.481781	-0.0476439	306.5	216.827
120	0	0.48583	-0.0376076	306.5	216.337
121	0	0.489879	-0.0275759	306.5	215.847
122	0	0.493927	-0.0175476	306.5	215.357
123	0	0.497976	-0.00751925	306.5	214.867
124	0	0.502024	0.00751925	306.5	214.133
125	0	0.506073	0.0175476	306.5	213.643
126	0	0.510121	0.0275759	306.5	213.153
127	0	0.51417	0.0376076	306.5	212.663
128	0	0.518219	0.0476439	306.5	212.173
129	0	0.522267	0.0576847	306.5	211.683
130	0	0.526316	0.0677301	306.5	211.193
131	0	0.530364	0.0777834	306.5	210.702
132	0	0.534413	0.0878447	306.5	210.21
133	0	0.538462	0.0979139	306.5	209.719
134	0	0.54251	0.107995	306.5	209.226
135	0	0.546559	0.118085	306.5	208.733
136	0	0.550607	0.128189	306.5	208.24
137	0	0.554656	0.138305	306.5	207.746
138	0	0.558704	0.148434	306.5	207.251
139	0	0.562753	0.158579	306.5	206.756
140	0	0.566802	0.168741	306.5	206.26
141	0	0.57085	0.17892	306.5	205.763
142	0	0.574899	0.189118	306.5	205.265
143	0	0.578947	0.199336	306.5	204.766
144	0	0.582996	0.209575	306.5	204.266
145	0	0.587045	0.222403	306.5	203.639
146	0	0.591093	0.232693	306.5	203.137
147	0	0.595142	0.243007	306.5	202.633
148	0	0.59919	0.253347	306.5	202.128
149	0	0.603239	0.263715	306.5	201.622
150	0	0.607287	0.27411	306.5	201.114
151	0	0.611336	0.284535	306.5	200.605
152	0	0.615385	0.294992	306.5	200.095
153	0	0.619433	0.305481	306.5	199.582
154	0	0.623482	0.316004	306.5	199.068
155	0	0.62753	0.326561	306.5	198.553
156	0	0.631579	0.337155	306.5	198.036
157	0	0.635628	0.347787	306.5	197.516
158	0	0.639676	0.358459	306.5	196.995
159	0	0.643725	0.369171	306.5	196.472
160	0	0.647773	0.379927	306.5	195.947
161	0	0.651822	0.390726	306.5	195.42
162	0	0.65587	0.401571	306.5	194.89
163	0	0.659919	0.412463	306.5	194.358
164	0	0.663968	0.423405	306.5	193.824
165	0	0.668016	0.437153	306.5	193.152
166	0	0.672065	0.448213	306.5	192.612
167	0	0.676113	0.459327	306.5	192.07
168	0	0.680162	0.470498	306.5	191.524
169	0	0.684211	0.481728	306.5	190.976
170	0	0.688259	0.493018	306.5	190.424
171	0	0.692308	0.504372	306.5	189.87
172	0	0.696356	0.515791	306.5	189.312

173	0	0.700405	0.52728	306.5	188.751		
174	0	0.704453	0.538836	306.5	188.187		
175	0	0.708502	0.550465	306.5	187.619		
176	0	0.712551	0.56217	306.5	187.047		
177	0	0.716599	0.573953	306.5	186.472		
178	0	0.720648	0.585815	306.5	185.893		
179	0	0.724696	0.597761	306.5	185.309		
180	0	0.728745	0.609791	306.5	184.722		
181	0	0.732794	0.621911	306.5	184.13		
182	0.0198026	0.736842	0.634124	308.266	183.534		
183	0.0295588	0.740891	0.646431	309.136	182.933		
184	0.0392207	0.744939	0.658838	309.997	182.327		
185	0.0861777	0.748988	0.671346	314.184	181.716		
186	0.0953102	0.753036	0.687131	314.998	180.945		
187	0.0953102	0.757085	0.699883	314.998	180.322		
188	0.182322	0.761134	0.712751	322.757	179.694		
189	0.182322	0.765182	0.725736	322.757	179.06		
190	0.182322	0.769231	0.738846	322.757	178.42		
191	0.182322	0.773279	0.752084	322.757	177.773		
192	0.262364	0.777328	0.765456	329.894	177.12		
193	0.262364	0.781377	0.778966	329.894	176.46		
194	0.262364	0.785425	0.792618	329.894	175.794		
195	0.262364	0.789474	0.806422	329.894	175.12		
196	0.262364	0.793522	0.820379	329.894	174.438		
197	0.270027	0.797571	0.834498	330.577	173.749		
198	0.277632	0.801619	0.848786	331.255	173.051		
199	0.300105	0.805668	0.863249	333.259	172.345		
200	0.322083	0.809717	0.877897	335.219	171.629		
201	0.336472	0.813765	0.892733	336.502	170.905		
202	0.405465	0.817814	0.907769	342.654	170.171		
203	0.431782	0.821862	0.923014	345.001	169.426		
204	0.431782	0.825911	0.938476	345.001	168.671		
205	0.587787	0.82996	0.954165	358.911	167.905		
206	0.587787	0.834008	0.974114	358.911	166.931		
207	0.641854	0.838057	0.990356	363.732	166.138		
208	0.652325	0.842105	1.00687	364.666	165.331		
209	0.693147	0.846154	1.02365	368.306	164.512		
210	0.693147	0.850202	1.04073	368.306	163.678		
211	0.741937	0.854251	1.05812	372.656	162.828		
212	0.741937	0.8583	1.07584	372.656	161.963		
213	0.741937	0.862348	1.0939	372.656	161.081		
214	0.788457	0.866397	1.11232	376.804	160.182		
215	0.788457	0.870445	1.13113	376.804	159.263		
216	0.788457	0.874494	1.15035	376.804	158.325		
217	0.916291	0.878543	1.17	388.203	157.365		
218	0.932164	0.882591	1.19012	389.618	156.383		
219	0.955511	0.88664	1.21073	391.7	155.376		
220	1.00063	0.890688	1.23187	395.723	154.344		
221	1.06471	0.894737	1.25357	401.437	153.284		
222	1.06471	0.898785	1.27588	401.437	152.195		
223	1.06471	0.902834	1.29884	401.437	151.074		
224	1.09861	0.906883	1.32251	404.46	149.918		
225	1.09861	0.910931	1.34694	404.46	148.724		
226	1.09861	0.91498	1.3722	404.46	147.491		
227	1.16315	0.919028	1.40507	410.214	145.886		
228	1.16938	0.923077	1.4325	410.77	144.546		
229	1.25276	0.927126	1.46106	418.205	143.152		
230	1.25276	0.931174	1.49085	418.205	141.697		
231	1.28093	0.935223	1.52203	420.717	140.174		
232	1.28093	0.939271	1.55477	420.717	138.575		
233	1.335	0.94332	1.58927	425.538	136.891		
234	1.39377	0.947368	1.62576	430.778	135.109		

235	1.40364	0.951417		1.66456	431.658	133.214
236	1.50408	0.955466		1.70604	440.614	131.188
237	1.5217	0.959514		1.75069	442.185	129.008
238	1.60744	0.963563		1.79912	449.83	126.643
239	1.60944	0.967611		1.85218	450.008	124.052
240	1.60944	0.97166	1.91103	450.008	121.178	
241	1.6864	0.975709		1.97737	456.871	117.938
242	1.72277	0.979757		2.05375	460.113	114.209
243	1.79176	0.983806		2.14441	466.265	109.781
244	1.84055	0.987854		2.25713	470.616	104.277
245	2.07944	0.991903		2.40892	491.917	96.8642
246	2.19722	0.995951		2.65209	502.419	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	78
	9/23/1999	ND<0	78
	3/15/2000	ND<0	78
	9/24/2003	ND<0	78
	3/11/2004	ND<0	78
	10/12/2004	ND<0	78
	4/1/2005	ND<0	78
	10/25/2005	ND<0	78
	4/29/2006	ND<0	78
	11/18/2006	ND<0	78
	5/23/2007	ND<0	78
	11/28/2007	ND<0	78
	6/5/2008	ND<0	78
	11/20/2008	ND<0	78
	6/11/2009	ND<-2.07944	78
	11/16/2009	ND<-2.07944	78
	6/30/2010	ND<-2.07944	78
	11/12/2010	ND<-2.07944 U	78
	7/5/2011	ND<-2.07944 U	78

Rank Sum = 1482
Rank Mean = 78

Background Rank Sum = 1482
Background Rank Mean = 78

Compliance Locations

Loc. ID	Date	Value	Rank
MW-12A R	3/16/1999	ND<0	78
	9/23/1999	ND<0	78
	3/15/2000	ND<0	78
	9/24/2003	ND<0	78
	3/11/2004	ND<0	78
	10/12/2004	ND<0	78
	4/1/2005	ND<0	78
	10/25/2005	0.0295588 J	183
	4/29/2006	0.0392207 J	184
	11/18/2006	-0.274437 J	168
	5/23/2007	ND<0	78
	11/28/2007	-0.174353 J	175
	6/5/2008	ND<0	78
	11/20/2008	-0.634878 J	160
	6/11/2009	ND<-2.07944	78
	11/16/2009	-1.34707 J	156
	6/30/2010	ND<-2.07944	78
	11/12/2010	-0.314711 J	166
	7/5/2011	ND<-2.07944 U	78
	11/22/2011	ND<-2.07944 U	78
	11/22/2011	ND<-2.07944 U	78

Rank Sum = 2284
Rank Mean = 108.762

MW-10	7/20/1995	ND<0	78	
	8/24/1995	0.182322	J	188
	9/28/1995	0.693147		209
	10/26/1995	0.693147		210
	11/19/1996	ND<0	78	
	12/19/1996	ND<0	78	
	3/24/1997	ND<0	78	
	9/24/1997	ND<0	78	
	4/7/1998	ND<0	78	
	9/23/1998	ND<0	78	
	3/16/1999	0.788457		214
	9/23/1999	ND<0	78	
	3/15/2000	ND<0	78	
	9/24/2003	ND<0	78	
	3/11/2004	ND<0	78	
	10/12/2004	ND<0	78	
	4/1/2005	0.587787	J	205
	10/25/2005	0.277632	J	198
	4/29/2006	0.270027	J	197
	11/18/2006	-0.040822	J	178
	5/23/2007	ND<0	78	
	11/28/2007	0.322083		200
	6/5/2008	ND<0	78	
	11/20/2008	0	J	179
	6/11/2009	0	180	
	11/16/2009	0.262364		192
	6/30/2010	-0.061875	4 J	177
	11/12/2010	0.262364		193
	7/5/2011	0.405465	202	
	11/22/2011	0.262364		194
	11/22/2011	0.262364		195

Rank Sum = 4403
Rank Mean = 142.032

MW-11R	7/20/1995	0.741937		211
	8/24/1995	1.84055		244
	9/28/1995	1.79176		243
	10/26/1995	2.07944		245
	11/19/1996	ND<0	78	
	12/19/1996	2.19722		246
	3/24/1997	ND<0	78	
	9/24/1997	ND<0	78	
	4/7/1998	ND<0	78	
	9/23/1998	1.60944		239
	3/16/1999	1.60944		240
	9/23/1999	ND<0	78	
	3/15/2000	ND<0	78	
	9/24/2003	ND<0	78	
	3/11/2004	ND<0	78	
	10/12/2004	ND<0	78	
	4/1/2005	1.5217	237	
	10/25/2005	0.431782	J	203
	4/29/2006	-0.18633	J	174
	11/18/2006	-0.072570	7 J	176
	5/23/2007	0.741937		212
	11/28/2007	0.262364	J	196
	6/5/2008	ND<0	78	
	11/20/2008	ND<0	78	
	6/11/2009	-0.527633	J	161

	11/16/2009	ND<-2.07944	78
	6/30/2010	-0.210721 J	171
	11/12/2010	ND<-2.07944 U	78
	7/5/2011	ND<-2.07944 U	78
	11/22/2011	ND<-2.07944 U	78
	11/22/2011	ND<-2.07944 U	78

Rank Sum = 4446
Rank Mean = 143.419

MW-7	7/20/1995	ND<0	78
	8/24/1995	ND<0	78
	9/28/1995	ND<0	78
	10/26/1995	ND<0	78
	11/19/1996	ND<0	78
	12/19/1996	ND<0	78
	3/24/1997	ND<0	78
	9/24/1997	ND<0	78
	4/7/1998	ND<0	78
	9/23/1998	ND<0	78
	3/16/1999	ND<0	78
	9/23/1999	ND<0	78
	3/15/2000	ND<0	78
	9/24/2003	ND<0	78
	3/11/2004	ND<0	78
	10/12/2004	ND<0	78
	4/1/2005	ND<0	78
	10/25/2005	-0.673345 J	159
	4/29/2006	-0.385662 J	163
	11/18/2006	-1.02165 J	157
	5/23/2007	0.182322	189
	11/28/2007	-0.693147 J	158
	6/5/2008	ND<0	78
	11/20/2008	0.0198026 J	182
	6/11/2009	-0.314711 J	167
	11/16/2009	ND<-2.07944	78
	6/30/2010	-0.328504 J	165
	11/12/2010	-0.510826 J	162
	7/5/2011	0	181
	11/22/2011	0.0953102	186
	11/22/2011	0.0953102	187

Rank Sum = 3538
Rank Mean = 114.129

MW-6	7/20/1995	ND<0	78
	8/24/1995	ND<0	78
	9/28/1995	ND<0	78
	10/26/1995	ND<0	78
	11/19/1996	ND<0	78
	12/19/1996	ND<0	78
	3/24/1997	ND<0	78
	9/24/1997	ND<0	78
	4/7/1998	ND<0	78
	9/23/1998	ND<0	78
	3/16/1999	ND<0	78
	9/23/1999	ND<0	78
	3/15/2000	ND<0	78
	9/24/2003	ND<0	78
	3/11/2004	ND<0	78
	10/12/2004	ND<0	78
	4/1/2005	ND<0	78
	10/25/2005	ND<0	78
	4/29/2006	ND<0	78

	11/18/2006	ND<0	78	
	5/23/2007	0.182322		190
	11/28/2007	ND<0	78	
	6/5/2008	ND<0	78	
	11/20/2008	ND<0	78	
	6/11/2009	ND<-2.07944	78	
	11/16/2009	ND<-2.07944	78	
	6/30/2010	ND<-2.07944	78	
	11/12/2010	ND<-2.07944 U	78	
	7/5/2011	ND<-2.07944 U	78	
	11/22/2011	ND<-2.07944 U	78	
	11/22/2011	ND<-2.07944 U	78	

Rank Sum = 2530
Rank Mean = 81.6129

MW-9	7/20/1995	0.916291		217
	8/24/1995	0.955511		219
	9/28/1995	1.09861		224
	10/26/1995	1.09861		225
	11/19/1996	ND<0	78	
	12/19/1996	ND<0	78	
	3/24/1997	ND<0	78	
	9/24/1997	ND<0	78	
	4/7/1998	ND<0	78	
	9/23/1998	ND<0	78	
	3/16/1999	0.788457		215
	9/23/1999	ND<0	78	
	3/15/2000	ND<0	78	
	9/24/2003	ND<0	78	
	3/11/2004	ND<0	78	
	10/12/2004	ND<0	78	
	4/1/2005	0.652325 J	208	
	10/25/2005	0.0861777 J		185
	4/29/2006	-0.34249 J		164
	11/18/2006	-0.223144 J		170
	5/23/2007	0.788457		216
	11/28/2007	0.431782 J		204
	6/5/2008	ND<0	78	
	11/20/2008	0.300105 J		199
	6/11/2009	0.641854		207
	11/16/2009	0.336472		201
	6/30/2010	0.587787		206
	11/12/2010	0.182322		191
	7/5/2011	-0.274437 J	169	
	11/22/2011	-0.198451 J		172
	11/22/2011	-0.198451 J		173

Rank Sum = 4701
Rank Mean = 151.645

MW-12BR	3/16/1999	1.335		233
	9/23/1999	1.09861		226
	3/15/2000	ND<0	78	
	9/24/2003	ND<0	78	
	3/11/2004	ND<0	78	
	10/12/2004	ND<0	78	
	4/1/2005	ND<0	78	
	10/25/2005	ND<0	78	
	4/29/2006	ND<0	78	
	11/18/2006	ND<0	78	
	5/23/2007	ND<0	78	
	11/28/2007	ND<0	78	
	6/5/2008	ND<0	78	

	11/20/2008	ND<0	78	
	6/11/2009	ND<-2.07944		78
	11/16/2009	ND<-2.07944		78
	6/30/2010	ND<-2.07944		78
	11/12/2010	ND<-2.07944 U		78
	7/5/2011	ND<-2.07944 U	78	
	11/22/2011	ND<-2.07944 U		78
	11/22/2011	ND<-2.07944 U		78

Rank Sum = 1941
Rank Mean = 92.4286

MW-8	7/20/1995	ND<0	78	
	8/24/1995	ND<0	78	
	9/28/1995	ND<0	78	
	10/26/1995	ND<0	78	
	11/19/1996	ND<0	78	
	12/19/1996	ND<0	78	
	3/24/1997	ND<0	78	
	9/24/1997	1.6864	241	
	4/7/1998	ND<0	78	
	9/23/1998	1.72277		242
	3/16/1999	1.25276		229
	9/23/1999	1.28093		231
	3/15/2000	ND<0	78	
	9/24/2003	ND<0	78	
	3/11/2004	ND<0	78	
	10/12/2004	ND<0	78	
	4/1/2005	1.16938	228	
	10/25/2005	1.60744		238
	4/29/2006	0.932164		218
	11/18/2006	1.39377		234
	5/23/2007	1.16315		227
	11/28/2007	1.50408		236
	6/5/2008	1.40364	235	
	11/20/2008	1.00063		220
	6/11/2009	1.28093		232
	6/30/2010	0.741937		213
	11/12/2010	1.06471		221
	7/5/2011	1.25276	230	
	11/22/2011	1.06471		222
	11/22/2011	1.06471		223

Rank Sum = 5056
Rank Mean = 168.533

Calculation Results:

Kruskal-Wallis H Statistic = 45.3494
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 60.4769
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
45.3494 > 15.5073 indicating a significant group difference at 5% significance level
60.4769 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 78

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	**108.762**	**30.7619**	**52.4134**
MW-10	**142.032**	**64.0323**	**48.231**
MW-11R	**143.419**	**65.4194**	**48.231**
MW-7	**114.129**	**36.129**	**48.231**

MW-6	81.6129	3.6129	48.231	
MW-9	151.645	73.6452	48.231	
MW-12BR		92.4286	14.4286	52.4134
MW-8	168.533	90.5333	48.5355	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 78

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	108.762	30.7619	56.5994
MW-10	142.032	64.0323	52.0829
MW-11R	143.419	65.4194	52.0829
MW-7	114.129	36.129	52.0829
MW-6	81.6129	3.6129	52.0829
MW-9	151.645	73.6452	52.0829
MW-12BR		92.4286	14.4286	56.5994
MW-8	168.533	90.5333	52.4118

Shewhart-CUSUM Control Chart

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.261436
Baseline Std Dev = 0.341776
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	-0.764933	
3/24/1997	0	0	-0.764933	
9/24/1997	0	0	-0.764933	
9/24/1997	0	0	-0.764933	
4/7/1998	0	0	-0.764933	
4/7/1998	0	0	-0.764933	
9/23/1998	0	0	-0.764933	
9/23/1998	0	0	-0.764933	
3/16/1999	0.788457		0.542008	1.54201
3/16/1999	0.788457		0.542008	1.54201
9/23/1999	0	0	-0.764933	
9/23/1999	0	0	-0.764933	
3/15/2000	0	0	-0.764933	
3/15/2000	0	0	-0.764933	
9/24/2003	0	0	-0.764933	
9/24/2003	0	0	-0.764933	
3/11/2004	0	0	-0.764933	
3/11/2004	0	0	-0.764933	
10/12/2004	0	0	-0.764933	
10/12/2004	0	0	-0.764933	
4/1/2005	0.587787	0	0.954867	
4/1/2005	0.587787	0	0.954867	
10/25/2005	0.277632	0	0.047387	
10/25/2005	0.277632	0	0.047387	
4/29/2006	0.270027	0	0.0251368	
4/29/2006	0.270027	0	0.0251368	
11/18/2006	-0.040822	0	-0.884374	
11/18/2006	-0.040822	0	-0.884374	
5/23/2007	0	0	-0.764933	
5/23/2007	0	0	-0.764933	
11/28/2007	0.322083	0	0.177448	
11/28/2007	0.322083	0	0.177448	
6/5/2008	0	0	-0.764933	
6/5/2008	0	0	-0.764933	
11/20/2008	0	0	-0.764933	
11/20/2008	0	0	-0.764933	
6/11/2009	0	0	-0.764933	
6/11/2009	0	0	-0.764933	
11/16/2009	0.262364	0	0.00271604	
11/16/2009	0.262364	0	0.00271604	
6/30/2010	-0.0618754	0	-0.945974	
6/30/2010	-0.0618754	0	-0.945974	
11/12/2010	0.262364	0	0.00271604	
11/12/2010	0.262364	0	0.00271604	
7/5/2011	0.405465	0	0.421414	

7/5/2011	0.405465	0	0.421414	
11/22/2011	0.262364	0	0.00384106	
11/22/2011	0.262364	0	0.00384106	

Shewhart-CUSUM Control Chart

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.44182
Baseline Std Dev = 0.874908
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-1.64797
3/24/1997	0	0	-1.64797
9/24/1997	0	0	-1.64797
9/24/1997	0	0	-1.64797
4/7/1998	0	0	-1.64797
4/7/1998	0	0	-1.64797
9/23/1998	1.60944	0	0.191585
9/23/1998	1.60944	0	0.191585
3/16/1999	1.60944	0	0.191585
3/16/1999	1.60944	0	0.191585
9/23/1999	0	0	-1.64797
9/23/1999	0	0	-1.64797
3/15/2000	0	0	-1.64797
3/15/2000	0	0	-1.64797
9/24/2003	0	0	-1.64797
9/24/2003	0	0	-1.64797
3/11/2004	0	0	-1.64797
3/11/2004	0	0	-1.64797
10/12/2004	0	0	-1.64797
10/12/2004	0	0	-1.64797
4/1/2005	1.5217	0	0.0913013
4/1/2005	1.5217	0	0.0913013
10/25/2005	0.431782	0	-1.15445
10/25/2005	0.431782	0	-1.15445
4/29/2006	-0.186330	0	-1.86094
4/29/2006	-0.186330	0	-1.86094
11/18/2006	-0.0725707	0	-1.73091
11/18/2006	-0.0725707	0	-1.73091
5/23/2007	0.741937	0	-0.799948
5/23/2007	0.741937	0	-0.799948
11/28/2007	0.262364	0	-1.34809
11/28/2007	0.262364	0	-1.34809
6/5/2008	0	0	-1.64797
6/5/2008	0	0	-1.64797
11/20/2008	0	0	-1.64797
11/20/2008	0	0	-1.64797
6/11/2009	-0.527633	0	-2.25104
6/11/2009	-0.527633	0	-2.25104
11/16/2009	-2.07944	0	-4.02472
11/16/2009	-2.07944	0	-4.02472
6/30/2010	-0.210721	0	-1.88882
6/30/2010	-0.210721	0	-1.88882
11/12/2010	-2.07944	0	-4.02472
11/12/2010	-2.07944	0	-4.02472
7/5/2011	-2.07944	0	-4.02472

7/5/2011	-2.07944	0	-4.02472
11/22/2011	-2.07944	0	-5.69181
11/22/2011	-2.07944	0	-5.69181

Shewhart-CUSUM Control Chart

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.678171
Baseline Std Dev = 0.53047
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-1.27843
3/24/1997	0	0	-1.27843
9/24/1997	0	0	-1.27843
9/24/1997	0	0	-1.27843
4/7/1998	0	0	-1.27843
4/7/1998	0	0	-1.27843
9/23/1998	0	0	-1.27843
9/23/1998	0	0	-1.27843
3/16/1999	0.788457	0	0.207903
3/16/1999	0.788457	0	0.207903
9/23/1999	0	0	-1.27843
9/23/1999	0	0	-1.27843
3/15/2000	0	0	-1.27843
3/15/2000	0	0	-1.27843
9/24/2003	0	0	-1.27843
9/24/2003	0	0	-1.27843
3/11/2004	0	0	-1.27843
3/11/2004	0	0	-1.27843
10/12/2004	0	0	-1.27843
10/12/2004	0	0	-1.27843
4/1/2005	0.652325	0	-0.048722 7
4/1/2005	0.652325	0	-0.048722 7
10/25/2005	0.0861777	0	-1.11598
10/25/2005	0.0861777	0	-1.11598
4/29/2006	-0.342490	0	-1.92407
4/29/2006	-0.342490	0	-1.92407
11/18/2006	-0.223144	0	-1.69909
11/18/2006	-0.223144	0	-1.69909
5/23/2007	0.788457	0	0.207903
5/23/2007	0.788457	0	0.207903
11/28/2007	0.431782	0	-0.464472
11/28/2007	0.431782	0	-0.464472
6/5/2008	0	0	-1.27843
6/5/2008	0	0	-1.27843
11/20/2008	0.300105	0	-0.712701
11/20/2008	0.300105	0	-0.712701
6/11/2009	0.641854	0	-0.0684624
6/11/2009	0.641854	0	-0.0684624
11/16/2009	0.336472	0	-0.644144
11/16/2009	0.336472	0	-0.644144
6/30/2010	0.587787	0	-0.170386
6/30/2010	0.587787	0	-0.170386
11/12/2010	0.182322	0	-0.934736
11/12/2010	0.182322	0	-0.934736
7/5/2011	-0.274437	0	-1.79578

7/5/2011	-0.274437	0	-1.79578	
11/22/2011	-0.198451	0	-2.33704	
11/22/2011	-0.198451	0	-2.33704	

Shewhart-CUSUM Control Chart

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std Mean	
3/24/1997	0	0		0	
3/24/1997	0	0		0	
9/24/1997	1.6864	0		0	
9/24/1997	1.6864	0		0	
4/7/1998	0	0		0	
4/7/1998	0	0		0	
9/23/1998	1.72277	0		0	
9/23/1998	1.72277	0		0	
3/16/1999	1.25276	0		0	
3/16/1999	1.25276	0		0	
9/23/1999	1.28093	0		0	
9/23/1999	1.28093	0		0	
3/15/2000	0	0		0	
3/15/2000	0	0		0	
9/24/2003	0	0		0	
9/24/2003	0	0		0	
3/11/2004	0	0		0	
3/11/2004	0	0		0	
10/12/2004	0	0		0	
10/12/2004	0	0		0	
4/1/2005	1.16938	0		0	
4/1/2005	1.16938	0		0	
10/25/2005	1.60744	0		0	
10/25/2005	1.60744	0		0	
4/29/2006	0.932164			0	0
4/29/2006	0.932164			0	0
11/18/2006	1.39377	0		0	
11/18/2006	1.39377	0		0	
5/23/2007	1.16315	0		0	
5/23/2007	1.16315	0		0	
11/28/2007	1.50408	0		0	
11/28/2007	1.50408	0		0	
6/5/2008	1.40364	0		0	
6/5/2008	1.40364	0		0	
11/20/2008	1.00063	0		0	
11/20/2008	1.00063	0		0	
6/11/2009	1.28093	0		0	
6/11/2009	1.28093	0		0	
6/30/2010	0.741937			0	0
6/30/2010	0.741937			0	0
11/12/2010	1.06471	0		0	
11/12/2010	1.06471	0		0	
7/5/2011	1.25276	0		0	
7/5/2011	1.25276	0		0	
11/22/2011	1.06471	0		0	

11/22/2011	1.06471	0	0

Sen's Slope Analysis
Parameter: Benzene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
0.182322 J (8/24/1995)	ND<0 (7/20/1995)	(0.182322 - 0)/(2 - 1)	0.182322
0.693147 (9/28/1995)	ND<0 (7/20/1995)	(0.693147 - 0)/(3 - 1)	0.346574
0.693147 (10/26/1995)	ND<0 (7/20/1995)	(0.693147 - 0)/(4 - 1)	0.231049
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
0.788457 (3/16/1999)	ND<0 (7/20/1995)	(0.788457 - 0)/(11 - 1)	0.0788457
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
0.587787 J (4/1/2005)	ND<0 (7/20/1995)	(0.587787 - 0)/(17 - 1)	0.0367367
0.277632 J (10/25/2005)	ND<0 (7/20/1995)	(0.277632 - 0)/(18 - 1)	0.0163313
0.270027 J (4/29/2006)	ND<0 (7/20/1995)	(0.270027 - 0)/(19 - 1)	0.0150015
-0.040822 J (11/18/2006)	ND<0 (7/20/1995)	(-0.040822 - 0)/(20 - 1)	-0.00214853
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
0.322083 (11/28/2007)	ND<0 (7/20/1995)	(0.322083 - 0)/(22 - 1)	0.0153373
ND<0 (6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1)	0
0 J (11/20/2008)	ND<0 (7/20/1995)	(0 - 0)/(24 - 1)	0
0 (6/11/2009)	ND<0 (7/20/1995)	(0 - 0)/(25 - 1)	0
0.262364 (11/16/2009)	ND<0 (7/20/1995)	(0.262364 - 0)/(26 - 1)	0.0104946
-0.0618754 J (6/30/2010)	ND<0 (7/20/1995)	(-0.0618754 - 0)/(27 - 1)	-0.00237982
0.262364 (11/12/2010)	ND<0 (7/20/1995)	(0.262364 - 0)/(28 - 1)	0.00971719
0.405465 (7/5/2011)	ND<0 (7/20/1995)	(0.405465 - 0)/(29 - 1)	0.0144809
0.262364 (11/22/2011)	ND<0 (7/20/1995)	(0.262364 - 0)/(30 - 1)	0.00904704
0.262364 (11/22/2011)	ND<0 (7/20/1995)	(0.262364 - 0)/(30 - 1)	0.00904704
0.693147 (9/28/1995)	0.182322 J (8/24/1995)	(0.693147 - 0.182322)/(3 - 2)	0.510826
0.693147 (10/26/1995)	0.182322 J (8/24/1995)	(0.693147 - 0.182322)/(4 - 2)	0.255413

ND<0 (11/19/1996) 0.182322 J (8/24/1995) (0 - 0.182322)/(5 - 2)
-0.0607739
ND<0 (12/19/1996) 0.182322 J (8/24/1995) (0 - 0.182322)/(6 - 2)
-0.0455804
ND<0 (3/24/1997) 0.182322 J (8/24/1995) (0 - 0.182322)/(7 - 2)
-0.0364643
ND<0 (9/24/1997) 0.182322 J (8/24/1995) (0 - 0.182322)/(8 - 2)
-0.0303869
ND<0 (4/7/1998) 0.182322 J (8/24/1995) (0 - 0.182322)/(9 - 2)
-0.0260459
ND<0 (9/23/1998) 0.182322 J (8/24/1995) (0 - 0.182322)/(10 - 2)
-0.0227902
0.788457 (3/16/1999) 0.182322 J (8/24/1995) (0.788457 - 0.182322)/(11 - 2)
0.0673484
ND<0 (9/23/1999) 0.182322 J (8/24/1995) (0 - 0.182322)/(12 - 2)
-0.0182322
ND<0 (3/15/2000) 0.182322 J (8/24/1995) (0 - 0.182322)/(13 - 2)
-0.0165747
ND<0 (9/24/2003) 0.182322 J (8/24/1995) (0 - 0.182322)/(14 - 2)
-0.0151935
ND<0 (3/11/2004) 0.182322 J (8/24/1995) (0 - 0.182322)/(15 - 2)
-0.0140247
ND<0 (10/12/2004) 0.182322 J (8/24/1995) (0 - 0.182322)/(16 - 2)
-0.013023
0.587787 J (4/1/2005) 0.182322 J (8/24/1995) (0.587787 - 0.182322)/(17 - 2)
0.027031
0.277632 J (10/25/2005) 0.182322 J (8/24/1995) (0.277632 - 0.182322)/(18 - 2)
0.00595689
0.270027 J (4/29/2006) 0.182322 J (8/24/1995) (0.270027 - 0.182322)/(19 - 2)
0.00515915
-0.040822 J (11/18/2006) 0.182322 J (8/24/1995) (-0.040822 - 0.182322)/(20 - 2)
-0.0123969
ND<0 (5/23/2007) 0.182322 J (8/24/1995) (0 - 0.182322)/(21 - 2)
-0.00959587
0.322083 (11/28/2007) 0.182322 J (8/24/1995) (0.322083 - 0.182322)/(22 - 2)
0.0069881
ND<0 (6/5/2008) 0.182322 J (8/24/1995) (0 - 0.182322)/(23 - 2)
-0.00868198
0 J (11/20/2008) 0.182322 J (8/24/1995) (0 - 0.182322)/(24 - 2) -0.00828734
0 (6/11/2009) 0.182322 J (8/24/1995) (0 - 0.182322)/(25 - 2) -0.00792702
0.262364 (11/16/2009) 0.182322 J (8/24/1995) (0.262364 - 0.182322)/(26 - 2)
0.00333511
-0.0618754 J (6/30/2010) 0.182322 J (8/24/1995) (-0.0618754 - 0.182322)/(27 - 2)
-0.00976788
0.262364 (11/12/2010) 0.182322 J (8/24/1995) (0.262364 - 0.182322)/(28 - 2)
0.00307857
0.405465 (7/5/2011) 0.182322 J (8/24/1995) (0.405465 - 0.182322)/(29 - 2)
0.00826458
0.262364 (11/22/2011) 0.182322 J (8/24/1995) (0.262364 - 0.182322)/(30 - 2)
0.00285867
0.262364 (11/22/2011) 0.182322 J (8/24/1995) (0.262364 - 0.182322)/(30 - 2)
0.00285867

0.693147 (10/26/1995) 0.693147 (9/28/1995) (0.693147 - 0.693147)/(4 - 3)
0
ND<0 (11/19/1996) 0.693147 (9/28/1995) (0 - 0.693147)/(5 - 3)
-0.346574
ND<0 (12/19/1996) 0.693147 (9/28/1995) (0 - 0.693147)/(6 - 3)
-0.231049
ND<0 (3/24/1997) 0.693147 (9/28/1995) (0 - 0.693147)/(7 - 3)
-0.173287

ND<0 (9/24/1997) 0.693147 (9/28/1995) (0 - 0.693147)/(8 - 3)
-0.138629
ND<0 (4/7/1998) 0.693147 (9/28/1995) (0 - 0.693147)/(9 - 3)
-0.115525
ND<0 (9/23/1998) 0.693147 (9/28/1995) (0 - 0.693147)/(10 - 3)
-0.099021
0.788457 (3/16/1999) 0.693147 (9/28/1995) (0.788457 - 0.693147)/(11 - 3)
0.0119138
ND<0 (9/23/1999) 0.693147 (9/28/1995) (0 - 0.693147)/(12 - 3)
-0.0770164
ND<0 (3/15/2000) 0.693147 (9/28/1995) (0 - 0.693147)/(13 - 3)
-0.0693147
ND<0 (9/24/2003) 0.693147 (9/28/1995) (0 - 0.693147)/(14 - 3)
-0.0630134
ND<0 (3/11/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(15 - 3)
-0.0577623
ND<0 (10/12/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(16 - 3)
-0.053319
0.587787 J (4/1/2005) 0.693147 (9/28/1995) (0.587787 - 0.693147)/(17 - 3)
-0.00752575
0.277632 J (10/25/2005) 0.693147 (9/28/1995) (0.277632 - 0.693147)/(18 - 3)
-0.027701
0.270027 J (4/29/2006) 0.693147 (9/28/1995) (0.270027 - 0.693147)/(19 - 3)
-0.026445
-0.040822 J (11/18/2006) 0.693147 (9/28/1995) (-0.040822 - 0.693147)/(20 - 3)
-0.0431747
ND<0 (5/23/2007) 0.693147 (9/28/1995) (0 - 0.693147)/(21 - 3)
-0.0385082
0.322083 (11/28/2007) 0.693147 (9/28/1995) (0.322083 - 0.693147)/(22 - 3)
-0.0195297
ND<0 (6/5/2008) 0.693147 (9/28/1995) (0 - 0.693147)/(23 - 3)
-0.0346574
0 J (11/20/2008) 0.693147 (9/28/1995) (0 - 0.693147)/(24 - 3) -0.033007
0 (6/11/2009) 0.693147 (9/28/1995) (0 - 0.693147)/(25 - 3) -0.0315067
0.262364 (11/16/2009) 0.693147 (9/28/1995) (0.262364 - 0.693147)/(26 - 3)
-0.0187297
-0.0618754 J (6/30/2010) 0.693147 (9/28/1995) (-0.0618754 - 0.693147)/(27 - 3)
-0.0314593
0.262364 (11/12/2010) 0.693147 (9/28/1995) (0.262364 - 0.693147)/(28 - 3)
-0.0172313
0.405465 (7/5/2011) 0.693147 (9/28/1995) (0.405465 - 0.693147)/(29 - 3)
-0.0110647
0.262364 (11/22/2011) 0.693147 (9/28/1995) (0.262364 - 0.693147)/(30 - 3)
-0.0159549
0.262364 (11/22/2011) 0.693147 (9/28/1995) (0.262364 - 0.693147)/(30 - 3)
-0.0159549

ND<0 (11/19/1996) 0.693147 (10/26/1995) (0 - 0.693147)/(5 - 4)
-0.693147
ND<0 (12/19/1996) 0.693147 (10/26/1995) (0 - 0.693147)/(6 - 4)
-0.346574
ND<0 (3/24/1997) 0.693147 (10/26/1995) (0 - 0.693147)/(7 - 4)
-0.231049
ND<0 (9/24/1997) 0.693147 (10/26/1995) (0 - 0.693147)/(8 - 4)
-0.173287
ND<0 (4/7/1998) 0.693147 (10/26/1995) (0 - 0.693147)/(9 - 4)
-0.138629
ND<0 (9/23/1998) 0.693147 (10/26/1995) (0 - 0.693147)/(10 - 4)
-0.115525
0.788457 (3/16/1999) 0.693147 (10/26/1995) (0.788457 - 0.693147)/(11 - 4)
0.0136157

ND<0 (9/23/1999) 0.693147 (10/26/1995) (0 - 0.693147)/(12 - 4)
-0.0866434
ND<0 (3/15/2000) 0.693147 (10/26/1995) (0 - 0.693147)/(13 - 4)
-0.0770164
ND<0 (9/24/2003) 0.693147 (10/26/1995) (0 - 0.693147)/(14 - 4)
-0.0693147
ND<0 (3/11/2004) 0.693147 (10/26/1995) (0 - 0.693147)/(15 - 4)
-0.0630134
ND<0 (10/12/2004) 0.693147 (10/26/1995) (0 - 0.693147)/(16 - 4)
-0.0577623
0.587787 J (4/1/2005) 0.693147 (10/26/1995) (0.587787 - 0.693147)/(17 - 4)
-0.00810466
0.277632 J (10/25/2005) 0.693147 (10/26/1995) (0.277632 - 0.693147)/(18 - 4)
-0.0296797
0.270027 J (4/29/2006) 0.693147 (10/26/1995) (0.270027 - 0.693147)/(19 - 4)
-0.028208
-0.040822 J (11/18/2006) 0.693147 (10/26/1995) (-0.040822 - 0.693147)/(20 - 4)
-0.0458731
ND<0 (5/23/2007) 0.693147 (10/26/1995) (0 - 0.693147)/(21 - 4)
-0.0407734
0.322083 (11/28/2007) 0.693147 (10/26/1995) (0.322083 - 0.693147)/(22 - 4)
-0.0206146
ND<0 (6/5/2008) 0.693147 (10/26/1995) (0 - 0.693147)/(23 - 4)
-0.0364814
0 J (11/20/2008) 0.693147 (10/26/1995) (0 - 0.693147)/(24 - 4) -0.0346574
0 (6/11/2009) 0.693147 (10/26/1995) (0 - 0.693147)/(25 - 4) -0.033007
0.262364 (11/16/2009) 0.693147 (10/26/1995) (0.262364 - 0.693147)/(26 - 4)
-0.019581
-0.0618754 J (6/30/2010) 0.693147 (10/26/1995) (-0.0618754 - 0.693147)/(27 - 4)
-0.0328271
0.262364 (11/12/2010) 0.693147 (10/26/1995) (0.262364 - 0.693147)/(28 - 4)
-0.0179493
0.405465 (7/5/2011) 0.693147 (10/26/1995) (0.405465 - 0.693147)/(29 - 4)
-0.0115073
0.262364 (11/22/2011) 0.693147 (10/26/1995) (0.262364 - 0.693147)/(30 - 4)
-0.0165686
0.262364 (11/22/2011) 0.693147 (10/26/1995) (0.262364 - 0.693147)/(30 - 4)
-0.0165686

ND<0 (12/19/1996) ND<0 (11/19/1996) (0 - 0)/(6 - 5) 0
ND<0 (3/24/1997) ND<0 (11/19/1996) (0 - 0)/(7 - 5) 0
ND<0 (9/24/1997) ND<0 (11/19/1996) (0 - 0)/(8 - 5) 0
ND<0 (4/7/1998) ND<0 (11/19/1996) (0 - 0)/(9 - 5) 0
ND<0 (9/23/1998) ND<0 (11/19/1996) (0 - 0)/(10 - 5) 0
0.788457 (3/16/1999) ND<0 (11/19/1996) (0.788457 - 0)/(11 - 5) 0.13141
ND<0 (9/23/1999) ND<0 (11/19/1996) (0 - 0)/(12 - 5) 0
ND<0 (3/15/2000) ND<0 (11/19/1996) (0 - 0)/(13 - 5) 0
ND<0 (9/24/2003) ND<0 (11/19/1996) (0 - 0)/(14 - 5) 0
ND<0 (3/11/2004) ND<0 (11/19/1996) (0 - 0)/(15 - 5) 0
ND<0 (10/12/2004) ND<0 (11/19/1996) (0 - 0)/(16 - 5) 0
0.587787 J (4/1/2005) ND<0 (11/19/1996) (0.587787 - 0)/(17 - 5)
0.0489822
0.277632 J (10/25/2005) ND<0 (11/19/1996) (0.277632 - 0)/(18 - 5)
0.0213563
0.270027 J (4/29/2006) ND<0 (11/19/1996) (0.270027 - 0)/(19 - 5)
0.0192877
-0.040822 J (11/18/2006) ND<0 (11/19/1996) (-0.040822 - 0)/(20 - 5)
-0.00272147
ND<0 (5/23/2007) ND<0 (11/19/1996) (0 - 0)/(21 - 5) 0
0.322083 (11/28/2007) ND<0 (11/19/1996) (0.322083 - 0)/(22 - 5)
0.0189461
ND<0 (6/5/2008) ND<0 (11/19/1996) (0 - 0)/(23 - 5) 0

0 J (11/20/2008) ND<0 (11/19/1996) (0 - 0)/(24 - 5) 0
0 (6/11/2009) ND<0 (11/19/1996) (0 - 0)/(25 - 5) 0
0.262364 (11/16/2009) ND<0 (11/19/1996) (0.262364 - 0)/(26 - 5)
0.0124935
-0.0618754 J (6/30/2010) ND<0 (11/19/1996) (-0.0618754 - 0)/(27 - 5)
-0.00281252
0.262364 (11/12/2010) ND<0 (11/19/1996) (0.262364 - 0)/(28 - 5)
0.0114071
0.405465 (7/5/2011) ND<0 (11/19/1996) (0.405465 - 0)/(29 - 5)
0.0168944
0.262364 (11/22/2011) ND<0 (11/19/1996) (0.262364 - 0)/(30 - 5)
0.0104946
0.262364 (11/22/2011) ND<0 (11/19/1996) (0.262364 - 0)/(30 - 5)
0.0104946

ND<0 (3/24/1997) ND<0 (12/19/1996) (0 - 0)/(7 - 6) 0
ND<0 (9/24/1997) ND<0 (12/19/1996) (0 - 0)/(8 - 6) 0
ND<0 (4/7/1998) ND<0 (12/19/1996) (0 - 0)/(9 - 6) 0
ND<0 (9/23/1998) ND<0 (12/19/1996) (0 - 0)/(10 - 6) 0
0.788457 (3/16/1999) ND<0 (12/19/1996) (0.788457 - 0)/(11 - 6)
0.157691
ND<0 (9/23/1999) ND<0 (12/19/1996) (0 - 0)/(12 - 6) 0
ND<0 (3/15/2000) ND<0 (12/19/1996) (0 - 0)/(13 - 6) 0
ND<0 (9/24/2003) ND<0 (12/19/1996) (0 - 0)/(14 - 6) 0
ND<0 (3/11/2004) ND<0 (12/19/1996) (0 - 0)/(15 - 6) 0
ND<0 (10/12/2004) ND<0 (12/19/1996) (0 - 0)/(16 - 6) 0
0.587787 J (4/1/2005) ND<0 (12/19/1996) (0.587787 - 0)/(17 - 6)
0.0534352
0.277632 J (10/25/2005) ND<0 (12/19/1996) (0.277632 - 0)/(18 - 6)
0.023136
0.270027 J (4/29/2006) ND<0 (12/19/1996) (0.270027 - 0)/(19 - 6)
0.0207713
-0.040822 J (11/18/2006) ND<0 (12/19/1996) (-0.040822 - 0)/(20 - 6)
-0.00291586
ND<0 (5/23/2007) ND<0 (12/19/1996) (0 - 0)/(21 - 6) 0
0.322083 (11/28/2007) ND<0 (12/19/1996) (0.322083 - 0)/(22 - 6)
0.0201302
ND<0 (6/5/2008) ND<0 (12/19/1996) (0 - 0)/(23 - 6) 0
0 J (11/20/2008) ND<0 (12/19/1996) (0 - 0)/(24 - 6) 0
0 (6/11/2009) ND<0 (12/19/1996) (0 - 0)/(25 - 6) 0
0.262364 (11/16/2009) ND<0 (12/19/1996) (0.262364 - 0)/(26 - 6)
0.0131182
-0.0618754 J (6/30/2010) ND<0 (12/19/1996) (-0.0618754 - 0)/(27 - 6)
-0.00294645
0.262364 (11/12/2010) ND<0 (12/19/1996) (0.262364 - 0)/(28 - 6)
0.0119256
0.405465 (7/5/2011) ND<0 (12/19/1996) (0.405465 - 0)/(29 - 6)
0.0176289
0.262364 (11/22/2011) ND<0 (12/19/1996) (0.262364 - 0)/(30 - 6)
0.0109318
0.262364 (11/22/2011) ND<0 (12/19/1996) (0.262364 - 0)/(30 - 6)
0.0109318

ND<0 (9/24/1997) ND<0 (3/24/1997) (0 - 0)/(8 - 7) 0
ND<0 (4/7/1998) ND<0 (3/24/1997) (0 - 0)/(9 - 7) 0
ND<0 (9/23/1998) ND<0 (3/24/1997) (0 - 0)/(10 - 7) 0
0.788457 (3/16/1999) ND<0 (3/24/1997) (0.788457 - 0)/(11 - 7)
0.197114
ND<0 (9/23/1999) ND<0 (3/24/1997) (0 - 0)/(12 - 7) 0
ND<0 (3/15/2000) ND<0 (3/24/1997) (0 - 0)/(13 - 7) 0
ND<0 (9/24/2003) ND<0 (3/24/1997) (0 - 0)/(14 - 7) 0
ND<0 (3/11/2004) ND<0 (3/24/1997) (0 - 0)/(15 - 7) 0

ND<0 (10/12/2004) ND<0 (3/24/1997) (0 - 0)/(16 - 7) 0
0.587787 J (4/1/2005) ND<0 (3/24/1997) (0.587787 - 0)/(17 - 7)
0.0587787
0.277632 J (10/25/2005) ND<0 (3/24/1997) (0.277632 - 0)/(18 - 7)
0.0252392
0.270027 J (4/29/2006) ND<0 (3/24/1997) (0.270027 - 0)/(19 - 7)
0.0225023
-0.040822 J (11/18/2006) ND<0 (3/24/1997) (-0.040822 - 0)/(20 - 7)
-0.00314015
ND<0 (5/23/2007) ND<0 (3/24/1997) (0 - 0)/(21 - 7) 0
0.322083 (11/28/2007) ND<0 (3/24/1997) (0.322083 - 0)/(22 - 7)
0.0214722
ND<0 (6/5/2008) ND<0 (3/24/1997) (0 - 0)/(23 - 7) 0
0 J (11/20/2008) ND<0 (3/24/1997) (0 - 0)/(24 - 7) 0
0 (6/11/2009) ND<0 (3/24/1997) (0 - 0)/(25 - 7) 0
0.262364 (11/16/2009) ND<0 (3/24/1997) (0.262364 - 0)/(26 - 7)
0.0138086
-0.0618754 J (6/30/2010) ND<0 (3/24/1997) (-0.0618754 - 0)/(27 - 7)
-0.00309377
0.262364 (11/12/2010) ND<0 (3/24/1997) (0.262364 - 0)/(28 - 7)
0.0124935
0.405465 (7/5/2011) ND<0 (3/24/1997) (0.405465 - 0)/(29 - 7)
0.0184302
0.262364 (11/22/2011) ND<0 (3/24/1997) (0.262364 - 0)/(30 - 7)
0.0114071
0.262364 (11/22/2011) ND<0 (3/24/1997) (0.262364 - 0)/(30 - 7)
0.0114071

ND<0 (4/7/1998) ND<0 (9/24/1997) (0 - 0)/(9 - 8) 0
ND<0 (9/23/1998) ND<0 (9/24/1997) (0 - 0)/(10 - 8) 0
0.788457 (3/16/1999) ND<0 (9/24/1997) (0.788457 - 0)/(11 - 8)
0.262819
ND<0 (9/23/1999) ND<0 (9/24/1997) (0 - 0)/(12 - 8) 0
ND<0 (3/15/2000) ND<0 (9/24/1997) (0 - 0)/(13 - 8) 0
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-0.040822 J (11/18/2006) 0.270027 J (4/29/2006) (-0.040822 - 0.270027)/(20 - 19)
-0.310849
ND<0 (5/23/2007) 0.270027 J (4/29/2006) (0 - 0.270027)/(21 - 19)
-0.135014
0.322083 (11/28/2007) 0.270027 J (4/29/2006) (0.322083 - 0.270027)/(22 - 19)
0.0173521
ND<0 (6/5/2008) 0.270027 J (4/29/2006) (0 - 0.270027)/(23 - 19)
-0.0675068
0 J (11/20/2008) 0.270027 J (4/29/2006) (0 - 0.270027)/(24 - 19) -0.0540054
0 (6/11/2009) 0.270027 J (4/29/2006) (0 - 0.270027)/(25 - 19) -0.0450045
0.262364 (11/16/2009) 0.270027 J (4/29/2006) (0.262364 - 0.270027)/(26 - 19)
-0.0010947
-0.0618754 J (6/30/2010) 0.270027 J (4/29/2006) (-0.0618754 - 0.270027)/(27 - 19)
-0.0414878
0.262364 (11/12/2010) 0.270027 J (4/29/2006) (0.262364 - 0.270027)/(28 - 19)
-0.00085143
0.405465 (7/5/2011) 0.270027 J (4/29/2006) (0.405465 - 0.270027)/(29 - 19)
0.0135438
0.262364 (11/22/2011) 0.270027 J (4/29/2006) (0.262364 - 0.270027)/(30 - 19)
-0.000696625
0.262364 (11/22/2011) 0.270027 J (4/29/2006) (0.262364 - 0.270027)/(30 - 19)
-0.000696625

ND<0 (5/23/2007) -0.040822 J (11/18/2006) (0 - -0.040822)/(21 - 20)
0.040822
0.322083 (11/28/2007) -0.040822 J (11/18/2006) (0.322083 - -0.040822)/(22 - 20)
0.181453
ND<0 (6/5/2008) -0.040822 J (11/18/2006) (0 - -0.040822)/(23 - 20)
0.0136073
0 J (11/20/2008) -0.040822 J (11/18/2006) (0 - -0.040822)/(24 - 20) 0.0102055
0 (6/11/2009) -0.040822 J (11/18/2006) (0 - -0.040822)/(25 - 20) 0.0081644
0.262364 (11/16/2009) -0.040822 J (11/18/2006) (0.262364 - -0.040822)/(26 - 20)
0.050531
-0.0618754 J (6/30/2010) -0.040822 J (11/18/2006) (-0.0618754 - -0.040822)/(27 - 20)
-0.00300763
0.262364 (11/12/2010) -0.040822 J (11/18/2006) (0.262364 - -0.040822)/(28 - 20)
0.0378983
0.405465 (7/5/2011) -0.040822 J (11/18/2006) (0.405465 - -0.040822)/(29 - 20)
0.0495875
0.262364 (11/22/2011) -0.040822 J (11/18/2006) (0.262364 - -0.040822)/(30 - 20)
0.0303186
0.262364 (11/22/2011) -0.040822 J (11/18/2006) (0.262364 - -0.040822)/(30 - 20)
0.0303186

0.322083 (11/28/2007) ND<0 (5/23/2007) (0.322083 - 0)/(22 - 21)
0.322083
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
0 J (11/20/2008) ND<0 (5/23/2007) (0 - 0)/(24 - 21) 0
0 (6/11/2009) ND<0 (5/23/2007) (0 - 0)/(25 - 21) 0
0.262364 (11/16/2009) ND<0 (5/23/2007) (0.262364 - 0)/(26 - 21)
0.0524729
-0.0618754 J (6/30/2010) ND<0 (5/23/2007) (-0.0618754 - 0)/(27 - 21)
-0.0103126
0.262364 (11/12/2010) ND<0 (5/23/2007) (0.262364 - 0)/(28 - 21)
0.0374806
0.405465 (7/5/2011) ND<0 (5/23/2007) (0.405465 - 0)/(29 - 21)
0.0506831
0.262364 (11/22/2011) ND<0 (5/23/2007) (0.262364 - 0)/(30 - 21)
0.0291516
0.262364 (11/22/2011) ND<0 (5/23/2007) (0.262364 - 0)/(30 - 21)
0.0291516

ND<0 (6/5/2008) 0.322083 (11/28/2007) (0 - 0.322083)/(23 - 22)
-0.322083
0 J (11/20/2008) 0.322083 (11/28/2007) (0 - 0.322083)/(24 - 22) -0.161042
0 (6/11/2009) 0.322083 (11/28/2007) (0 - 0.322083)/(25 - 22) -0.107361
0.262364 (11/16/2009) 0.322083 (11/28/2007) (0.262364 - 0.322083)/(26 - 22)
-0.0149298
-0.0618754 J (6/30/2010) 0.322083 (11/28/2007) (-0.0618754 - 0.322083)/(27 - 22)
-0.0767918
0.262364 (11/12/2010) 0.322083 (11/28/2007) (0.262364 - 0.322083)/(28 - 22)
-0.00995321
0.405465 (7/5/2011) 0.322083 (11/28/2007) (0.405465 - 0.322083)/(29 - 22)
0.0119117
0.262364 (11/22/2011) 0.322083 (11/28/2007) (0.262364 - 0.322083)/(30 - 22)
-0.0074649
0.262364 (11/22/2011) 0.322083 (11/28/2007) (0.262364 - 0.322083)/(30 - 22)
-0.0074649

0 J (11/20/2008) ND<0 (6/5/2008) (0 - 0)/(24 - 23) 0
0 (6/11/2009) ND<0 (6/5/2008) (0 - 0)/(25 - 23) 0
0.262364 (11/16/2009) ND<0 (6/5/2008) (0.262364 - 0)/(26 - 23)
0.0874548
-0.0618754 J (6/30/2010) ND<0 (6/5/2008) (-0.0618754 - 0)/(27 - 23)
-0.0154689
0.262364 (11/12/2010) ND<0 (6/5/2008) (0.262364 - 0)/(28 - 23)
0.0524729
0.405465 (7/5/2011) ND<0 (6/5/2008) (0.405465 - 0)/(29 - 23)
0.0675775
0.262364 (11/22/2011) ND<0 (6/5/2008) (0.262364 - 0)/(30 - 23)
0.0374806
0.262364 (11/22/2011) ND<0 (6/5/2008) (0.262364 - 0)/(30 - 23)
0.0374806

0 (6/11/2009) 0 J (11/20/2008) (0 - 0)/(25 - 24) 0
0.262364 (11/16/2009) 0 J (11/20/2008) (0.262364 - 0)/(26 - 24) 0.131182
-0.0618754 J (6/30/2010) 0 J (11/20/2008) (-0.0618754 - 0)/(27 - 24) -0.0206251
0.262364 (11/12/2010) 0 J (11/20/2008) (0.262364 - 0)/(28 - 24) 0.0655911
0.405465 (7/5/2011) 0 J (11/20/2008) (0.405465 - 0)/(29 - 24) 0.081093
0.262364 (11/22/2011) 0 J (11/20/2008) (0.262364 - 0)/(30 - 24) 0.0437274
0.262364 (11/22/2011) 0 J (11/20/2008) (0.262364 - 0)/(30 - 24) 0.0437274

0.262364 (11/16/2009) 0 (6/11/2009) (0.262364 - 0)/(26 - 25) 0.262364
-0.0618754 J (6/30/2010) 0 (6/11/2009) (-0.0618754 - 0)/(27 - 25) -0.0309377
0.262364 (11/12/2010) 0 (6/11/2009) (0.262364 - 0)/(28 - 25) 0.0874548
0.405465 (7/5/2011) 0 (6/11/2009) (0.405465 - 0)/(29 - 25) 0.101366
0.262364 (11/22/2011) 0 (6/11/2009) (0.262364 - 0)/(30 - 25) 0.0524729
0.262364 (11/22/2011) 0 (6/11/2009) (0.262364 - 0)/(30 - 25) 0.0524729

-0.0618754 J (6/30/2010) 0.262364 (11/16/2009) (-0.0618754 - 0.262364)/(27 - 26)
-0.32424
0.262364 (11/12/2010) 0.262364 (11/16/2009) (0.262364 - 0.262364)/(28 - 26)
0
0.405465 (7/5/2011) 0.262364 (11/16/2009) (0.405465 - 0.262364)/(29 - 26)
0.0477003
0.262364 (11/22/2011) 0.262364 (11/16/2009) (0.262364 - 0.262364)/(30 - 26)
0
0.262364 (11/22/2011) 0.262364 (11/16/2009) (0.262364 - 0.262364)/(30 - 26)
0

0.262364 (11/12/2010) -0.0618754 J (6/30/2010) (0.262364 - -0.0618754)/(28 - 27)
0.32424
0.405465 (7/5/2011) -0.0618754 J (6/30/2010) (0.405465 - -0.0618754)/(29 - 27)
0.23367

0.262364 (11/22/2011)	-0.0618754 J (6/30/2010)	(0.262364 - -0.0618754)/(30 - 27)	0.10808
0.262364 (11/22/2011)	-0.0618754 J (6/30/2010)	(0.262364 - -0.0618754)/(30 - 27)	0.10808
0.405465 (7/5/2011)	0.262364 (11/12/2010)	(0.405465 - 0.262364)/(29 - 28)	0.143101
0.262364 (11/22/2011)	0.262364 (11/12/2010)	(0.262364 - 0.262364)/(30 - 28)	0
0.262364 (11/22/2011)	0.262364 (11/12/2010)	(0.262364 - 0.262364)/(30 - 28)	0
0.262364 (11/22/2011)	0.405465 (7/5/2011)	(0.262364 - 0.405465)/(30 - 29)	-0.143101
0.262364 (11/22/2011)	0.405465 (7/5/2011)	(0.262364 - 0.405465)/(30 - 29)	-0.143101
0.262364 (11/22/2011)	0.262364 (11/22/2011)	(0.262364 - 0.262364)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-0.788457
2	-0.693147
3	-0.394229
4	-0.346574
5	-0.346574
6	-0.32424
7	-0.322083
8	-0.310849
9	-0.310155
10	-0.262819
11	-0.231049
12	-0.231049
13	-0.209536
14	-0.197114
15	-0.173287
16	-0.173287
17	-0.161042
18	-0.159227
19	-0.15888
20	-0.157691
21	-0.146947
22	-0.143101
23	-0.143101
24	-0.138629
25	-0.138629
26	-0.135014
27	-0.115525
28	-0.115525
29	-0.107361
30	-0.099021
31	-0.0979644
32	-0.0925439
33	-0.0921422
34	-0.0866434
35	-0.0839695
36	-0.0788457

37	-0.0770164
38	-0.0770164
39	-0.0767918
40	-0.0734733
41	-0.0729751
42	-0.0693147
43	-0.0693147
44	-0.0675068
45	-0.0657048
46	-0.0649662
47	-0.0648038
48	-0.0630134
49	-0.0630134
50	-0.0607739
51	-0.0606506
52	-0.0577623
53	-0.0577623
54	-0.0563184
55	-0.0555263
56	-0.0540054
57	-0.053319
58	-0.0531458
59	-0.0531406
60	-0.046272
61	-0.0458731
62	-0.0455804
63	-0.0450045
64	-0.0431747
65	-0.0423976
66	-0.0414878
67	-0.0407734
68	-0.0396617
69	-0.0385082
70	-0.037723
71	-0.0364814
72	-0.0364643
73	-0.036158
74	-0.0350729
75	-0.0346574
76	-0.0346574
77	-0.0334451
78	-0.033007
79	-0.033007
80	-0.0328271
81	-0.0315067
82	-0.0314593
83	-0.0309467
84	-0.0309377
85	-0.0303869
86	-0.0296797
87	-0.0295839
88	-0.028208
89	-0.027701
90	-0.0276891
91	-0.0276891
92	-0.026445
93	-0.0260459
94	-0.0250325
95	-0.0250325
96	-0.0227902
97	-0.0212773
98	-0.0206251

99	-0.0206146
100	-0.019581
101	-0.0195297
102	-0.0187297
103	-0.0182322
104	-0.0179493
105	-0.0172313
106	-0.0165747
107	-0.0165686
108	-0.0165686
109	-0.0159549
110	-0.0159549
111	-0.0154689
112	-0.0151935
113	-0.0151935
114	-0.0149298
115	-0.0140247
116	-0.013023
117	-0.0123969
118	-0.0115073
119	-0.0110647
120	-0.0103126
121	-0.0102055
122	-0.00995321
123	-0.00976788
124	-0.00959587
125	-0.00868198
126	-0.00828734
127	-0.008164 4
128	-0.00810466
129	-0.00792702
130	-0.007604 6
131	-0.00752575
132	-0.007464 9
133	-0.007464 9
134	-0.00680367
135	-0.00583171
136	-0.00562504
137	-0.00515628
138	-0.00510275
139	-0.00475965
140	-0.00441967
141	-0.00412503
142	-0.0040822
143	-0.00371109
144	-0.00363973
145	-0.00343752
146	-0.00340183
147	-0.0032566
148	-0.00314015
149	-0.00309377
150	-0.00300763
151	-0.00294645
152	-0.00291586
153	-0.00281252
154	-0.00272147
155	-0.00237982
156	-0.00214853
157	-0.00190843
158	-0.00152675
159	-0.00127229
160	-0.00127229

161	-0.0010947
162	-0.00085143
163	-0.000696625
164	-0.000696625
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0
181	0
182	0
183	0
184	0
185	0
186	0
187	0
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190	0
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193	0
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211	0
212	0
213	0
214	0
215	0
216	0
217	0
218	0
219	0
220	0
221	0
222	0

223	0
224	0
225	0
226	0
227	0
228	0
229	0
230	0
231	0
232	0
233	0
234	0
235	0
236	0
237	0
238	0
239	0
240	0
241	0
242	0
243	0
244	0
245	0
246	0
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248	0
249	0
250	0
251	0
252	0
253	0
254	0
255	0
256	0
257	0
258	0
259	0
260	0
261	0
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264	0
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269	0
270	0
271	0
272	0
273	0
274	0
275	0
276	0
277	0
278	0
279	0
280	0
281	0
282	0
283	0
284	0

285	0
286	0
287	0
288	0
289	0
290	0
291	0.00285867
292	0.00285867
293	0.00307857
294	0.00333511
295	0.00515915
296	0.00595689
297	0.0069881
298	0.0081644
299	0.00826458
300	0.00904704
301	0.00904704
302	0.00971719
303	0.0102055
304	0.0104946
305	0.0104946
306	0.0104946
307	0.0109318
308	0.0109318
309	0.0111129
310	0.0114071
311	0.0114071
312	0.0114071
313	0.0116212
314	0.0119117
315	0.0119138
316	0.0119256
317	0.0119256
318	0.0119256
319	0.0124935
320	0.0124935
321	0.0124935
322	0.0124935
323	0.0131182
324	0.0131182
325	0.0131182
326	0.0131182
327	0.0135438
328	0.0136073
329	0.0136157
330	0.0138086
331	0.0138086
332	0.0144809
333	0.0145758
334	0.0145758
335	0.0145758
336	0.0145758
337	0.0150015
338	0.0153373
339	0.0154332
340	0.0154332
341	0.0154332
342	0.0163313
343	0.0163978
344	0.0163978
345	0.0163978
346	0.0163978

347	0.0168944
348	0.0173521
349	0.017491
350	0.017491
351	0.017491
352	0.0176289
353	0.0184302
354	0.0187403
355	0.0187403
356	0.0187403
357	0.0187403
358	0.0189461
359	0.0192877
360	0.0193079
361	0.0201302
362	0.0201819
363	0.0201819
364	0.0202733
365	0.0207713
366	0.0213403
367	0.0213563
368	0.0214722
369	0.0218637
370	0.0218637
371	0.0225023
372	0.023006
373	0.023136
374	0.0238509
375	0.0238513
376	0.0245479
377	0.0247757
378	0.0252392
379	0.0253416
380	0.0262364
381	0.0268403
382	0.0270027
383	0.027031
384	0.027031
385	0.0277632
386	0.0289618
387	0.0291516
388	0.0291516
389	0.030003
390	0.0303186
391	0.0303186
392	0.030848
393	0.0311896
394	0.0322083
395	0.034704
396	0.0357871
397	0.0367367
398	0.0374806
399	0.0374806
400	0.0374806
401	0.0378983
402	0.0385753
403	0.0402604
404	0.040822
405	0.0437274
406	0.0437274
407	0.0450045
408	0.0460119

409	0.046272
410	0.0477003
411	0.0489822
412	0.0495875
413	0.050531
414	0.0506831
415	0.0524729
416	0.0524729
417	0.0524729
418	0.0524729
419	0.0534352
420	0.0536806
421	0.0540054
422	0.0555263
423	0.0587787
424	0.0653096
425	0.0655911
426	0.0673484
427	0.0675068
428	0.0675775
429	0.0694079
430	0.0734733
431	0.0788457
432	0.081093
433	0.0839695
434	0.0874548
435	0.0874548
436	0.090009
437	0.0925439
438	0.101366
439	0.10808
440	0.10808
441	0.117557
442	0.131182
443	0.13141
444	0.138816
445	0.143101
446	0.146947
447	0.157691
448	0.181453
449	0.182322
450	0.195929
451	0.197114
452	0.231049
453	0.23367
454	0.255413
455	0.262364
456	0.262819
457	0.293893
458	0.322083
459	0.32424
460	0.346574
461	0.394229
462	0.510826
463	0.587787
464	0.788457

Sen's Estimator (Median Q) is 0

Tied Group Value Members

1	0	16	
2	0.693147		2
3	0.262364		4

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 9054
B = 18
C = 3384
D = 0
E = 254
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 2957.94
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 89.4585
M1 = (464 - 89.4585)/2.0 = 187.271
M2 = (464 + 89.4585)/2.0 + 1 = 277.729
Lower limit is 0 = Q(187)
Upper limit is 0 = Q(278)
0 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Benzene
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
1.84055	(8/24/1995)	0.741937 (7/20/1995)	(1.84055 - 0.741937)/(2 - 1)
1.09861			
1.79176	(9/28/1995)	0.741937 (7/20/1995)	(1.79176 - 0.741937)/(3 - 1)
0.524911			
2.07944	(10/26/1995)	0.741937 (7/20/1995)	(2.07944 - 0.741937)/(4 - 1)
0.445835			
ND<0	(11/19/1996)	0.741937 (7/20/1995)	(0 - 0.741937)/(5 - 1)
-0.185484			
2.19722	(12/19/1996)	0.741937 (7/20/1995)	(2.19722 - 0.741937)/(6 - 1)
0.291057			
ND<0	(3/24/1997)	0.741937 (7/20/1995)	(0 - 0.741937)/(7 - 1)
-0.123656			
ND<0	(9/24/1997)	0.741937 (7/20/1995)	(0 - 0.741937)/(8 - 1)
-0.105991			
ND<0	(4/7/1998)	0.741937 (7/20/1995)	(0 - 0.741937)/(9 - 1)
-0.0927422			
1.60944	(9/23/1998)	0.741937 (7/20/1995)	(1.60944 - 0.741937)/(10 - 1)
0.096389			
1.60944	(3/16/1999)	0.741937 (7/20/1995)	(1.60944 - 0.741937)/(11 - 1)
0.0867501			
ND<0	(9/23/1999)	0.741937 (7/20/1995)	(0 - 0.741937)/(12 - 1)
-0.0674488			
ND<0	(3/15/2000)	0.741937 (7/20/1995)	(0 - 0.741937)/(13 - 1)
-0.0618281			
ND<0	(9/24/2003)	0.741937 (7/20/1995)	(0 - 0.741937)/(14 - 1)
-0.0570721			
ND<0	(3/11/2004)	0.741937 (7/20/1995)	(0 - 0.741937)/(15 - 1)
-0.0529955			
ND<0	(10/12/2004)	0.741937 (7/20/1995)	(0 - 0.741937)/(16 - 1)
-0.0494625			
1.5217	(4/1/2005)	0.741937 (7/20/1995)	(1.5217 - 0.741937)/(17 - 1)
0.0487351			
0.431782 J	(10/25/2005)	0.741937 (7/20/1995)	(0.431782 - 0.741937)/(18 - 1)
-0.0182444			
-0.18633 J	(4/29/2006)	0.741937 (7/20/1995)	(-0.18633 - 0.741937)/(19 - 1)
-0.0515704			
-0.0725707 J	(11/18/2006)	0.741937 (7/20/1995)	(-0.0725707 - 0.741937)/(20 - 1)
-0.0428688			
0.741937	(5/23/2007)	0.741937 (7/20/1995)	(0.741937 - 0.741937)/(21 - 1)
0			
0.262364 J	(11/28/2007)	0.741937 (7/20/1995)	(0.262364 - 0.741937)/(22 - 1)
-0.0228368			
ND<0	(6/5/2008)	0.741937 (7/20/1995)	(0 - 0.741937)/(23 - 1)
-0.0337244			
ND<0	(11/20/2008)	0.741937 (7/20/1995)	(0 - 0.741937)/(24 - 1)
-0.0322581			
-0.527633 J	(6/11/2009)	0.741937 (7/20/1995)	(-0.527633 - 0.741937)/(25 - 1)
-0.0528988			
ND<-2.07944	(11/16/2009)	0.741937 (7/20/1995)	(-2.07944 - 0.741937)/(26 - 1)
-0.112855			

-0.210721 J (6/30/2010) 0.741937 (7/20/1995) (-0.210721 - 0.741937)/(27 - 1)
-0.0366407
ND<-2.07944 U (11/12/2010) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(28 - 1)
-0.104496
ND<-2.07944 U (7/5/2011) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(29 - 1)
-0.100764
ND<-2.07944 U (11/22/2011) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(30 - 1)
-0.0972889
ND<-2.07944 U (11/22/2011) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(30 - 1)
-0.0972889

1.79176 (9/28/1995) 1.84055 (8/24/1995) (1.79176 - 1.84055)/(3 - 2)
-0.0487902
2.07944 (10/26/1995) 1.84055 (8/24/1995) (2.07944 - 1.84055)/(4 - 2)
0.119446
ND<0 (11/19/1996) 1.84055 (8/24/1995) (0 - 1.84055)/(5 - 2)
-0.613517
2.19722 (12/19/1996) 1.84055 (8/24/1995) (2.19722 - 1.84055)/(6 - 2)
0.0891687
ND<0 (3/24/1997) 1.84055 (8/24/1995) (0 - 1.84055)/(7 - 2) -0.36811
ND<0 (9/24/1997) 1.84055 (8/24/1995) (0 - 1.84055)/(8 - 2)
-0.306758
ND<0 (4/7/1998) 1.84055 (8/24/1995) (0 - 1.84055)/(9 - 2)
-0.262936
1.60944 (9/23/1998) 1.84055 (8/24/1995) (1.60944 - 1.84055)/(10 - 2)
-0.028889
1.60944 (3/16/1999) 1.84055 (8/24/1995) (1.60944 - 1.84055)/(11 - 2)
-0.0256791
ND<0 (9/23/1999) 1.84055 (8/24/1995) (0 - 1.84055)/(12 - 2)
-0.184055
ND<0 (3/15/2000) 1.84055 (8/24/1995) (0 - 1.84055)/(13 - 2)
-0.167323
ND<0 (9/24/2003) 1.84055 (8/24/1995) (0 - 1.84055)/(14 - 2)
-0.153379
ND<0 (3/11/2004) 1.84055 (8/24/1995) (0 - 1.84055)/(15 - 2)
-0.141581
ND<0 (10/12/2004) 1.84055 (8/24/1995) (0 - 1.84055)/(16 - 2)
-0.131468
1.5217 (4/1/2005) 1.84055 (8/24/1995) (1.5217 - 1.84055)/(17 - 2)
-0.0212567
0.431782 J (10/25/2005) 1.84055 (8/24/1995) (0.431782 - 1.84055)/(18 - 2)
-0.088048
-0.18633 J (4/29/2006) 1.84055 (8/24/1995) (-0.18633 - 1.84055)/(19 - 2)
-0.119228
-0.0725707 J (11/18/2006) 1.84055 (8/24/1995) (-0.0725707 - 1.84055)/(20 - 2)
-0.106284
0.741937 (5/23/2007) 1.84055 (8/24/1995) (0.741937 - 1.84055)/(21 - 2)
-0.0578217
0.262364 J (11/28/2007) 1.84055 (8/24/1995) (0.262364 - 1.84055)/(22 - 2)
-0.0789093
ND<0 (6/5/2008) 1.84055 (8/24/1995) (0 - 1.84055)/(23 - 2)
-0.0876452
ND<0 (11/20/2008) 1.84055 (8/24/1995) (0 - 1.84055)/(24 - 2)
-0.0836613
-0.527633 J (6/11/2009) 1.84055 (8/24/1995) (-0.527633 - 1.84055)/(25 - 2)
-0.102964
ND<-2.07944 (11/16/2009) 1.84055 (8/24/1995) (-2.07944 - 1.84055)/(26 - 2)
-0.163333
-0.210721 J (6/30/2010) 1.84055 (8/24/1995) (-0.210721 - 1.84055)/(27 - 2)
-0.0820508
ND<-2.07944 U (11/12/2010) 1.84055 (8/24/1995) (-2.07944 - 1.84055)/(28 - 2)
-0.150769

ND<-2.07944 U (7/5/2011)	1.84055 (8/24/1995)	(-2.07944 - 1.84055)/(29 - 2)		-0.145185
ND<-2.07944 U (11/22/2011)	1.84055 (8/24/1995)	(-2.07944 - 1.84055)/(30 - 2)		-0.14
ND<-2.07944 U (11/22/2011)	1.84055 (8/24/1995)	(-2.07944 - 1.84055)/(30 - 2)		-0.14
2.07944 (10/26/1995)	1.79176 (9/28/1995)	(2.07944 - 1.79176)/(4 - 3)		0.287682
ND<0 (11/19/1996)	1.79176 (9/28/1995)	(0 - 1.79176)/(5 - 3)	-0.89588	
2.19722 (12/19/1996)	1.79176 (9/28/1995)	(2.19722 - 1.79176)/(6 - 3)		0.135155
ND<0 (3/24/1997)	1.79176 (9/28/1995)	(0 - 1.79176)/(7 - 3)	-0.44794	
ND<0 (9/24/1997)	1.79176 (9/28/1995)	(0 - 1.79176)/(8 - 3)		-0.358352
ND<0 (4/7/1998)	1.79176 (9/28/1995)	(0 - 1.79176)/(9 - 3)		-0.298627
1.60944 (9/23/1998)	1.79176 (9/28/1995)	(1.60944 - 1.79176)/(10 - 3)		-0.0260459
1.60944 (3/16/1999)	1.79176 (9/28/1995)	(1.60944 - 1.79176)/(11 - 3)		-0.0227902
ND<0 (9/23/1999)	1.79176 (9/28/1995)	(0 - 1.79176)/(12 - 3)		-0.199084
ND<0 (3/15/2000)	1.79176 (9/28/1995)	(0 - 1.79176)/(13 - 3)		-0.179176
ND<0 (9/24/2003)	1.79176 (9/28/1995)	(0 - 1.79176)/(14 - 3)		-0.162887
ND<0 (3/11/2004)	1.79176 (9/28/1995)	(0 - 1.79176)/(15 - 3)		-0.149313
ND<0 (10/12/2004)	1.79176 (9/28/1995)	(0 - 1.79176)/(16 - 3)		-0.137828
1.5217 (4/1/2005)	1.79176 (9/28/1995)	(1.5217 - 1.79176)/(17 - 3)	-0.01929	
0.431782 J (10/25/2005)	1.79176 (9/28/1995)	(0.431782 - 1.79176)/(18 - 3)		-0.0906651
-0.18633 J (4/29/2006)	1.79176 (9/28/1995)	(-0.18633 - 1.79176)/(19 - 3)		-0.123631
-0.0725707 J (11/18/2006)	1.79176 (9/28/1995)	(-0.0725707 - 1.79176)/(20 - 3)		-0.109666
0.741937 (5/23/2007)	1.79176 (9/28/1995)	(0.741937 - 1.79176)/(21 - 3)		-0.0583235
0.262364 J (11/28/2007)	1.79176 (9/28/1995)	(0.262364 - 1.79176)/(22 - 3)		-0.0804945
ND<0 (6/5/2008)	1.79176 (9/28/1995)	(0 - 1.79176)/(23 - 3)		-0.089588
ND<0 (11/20/2008)	1.79176 (9/28/1995)	(0 - 1.79176)/(24 - 3)		-0.0853219
-0.527633 J (6/11/2009)	1.79176 (9/28/1995)	(-0.527633 - 1.79176)/(25 - 3)		-0.105427
ND<-2.07944 (11/16/2009)	1.79176 (9/28/1995)	(-2.07944 - 1.79176)/(26 - 3)		-0.168313
-0.210721 J (6/30/2010)	1.79176 (9/28/1995)	(-0.210721 - 1.79176)/(27 - 3)		-0.0834367
ND<-2.07944 U (11/12/2010)	1.79176 (9/28/1995)	(-2.07944 - 1.79176)/(28 - 3)		-0.154848
ND<-2.07944 U (7/5/2011)	1.79176 (9/28/1995)	(-2.07944 - 1.79176)/(29 - 3)		-0.148892
ND<-2.07944 U (11/22/2011)	1.79176 (9/28/1995)	(-2.07944 - 1.79176)/(30 - 3)		-0.143378
ND<-2.07944 U (11/22/2011)	1.79176 (9/28/1995)	(-2.07944 - 1.79176)/(30 - 3)		-0.143378
ND<0 (11/19/1996)	2.07944 (10/26/1995)	(0 - 2.07944)/(5 - 4)	-2.07944	

2.19722 (12/19/1996)	2.07944 (10/26/1995)	(2.19722 - 2.07944)/(6 - 4)		
0.0588915				
ND<0 (3/24/1997)	2.07944 (10/26/1995)	(0 - 2.07944)/(7 - 4)		
-0.693147				
ND<0 (9/24/1997)	2.07944 (10/26/1995)	(0 - 2.07944)/(8 - 4)		-0.51986
ND<0 (4/7/1998)	2.07944 (10/26/1995)	(0 - 2.07944)/(9 - 4)		
-0.415888				
1.60944 (9/23/1998)	2.07944 (10/26/1995)	(1.60944 - 2.07944)/(10 - 4)		
-0.0783339				
1.60944 (3/16/1999)	2.07944 (10/26/1995)	(1.60944 - 2.07944)/(11 - 4)		
-0.0671434				
ND<0 (9/23/1999)	2.07944 (10/26/1995)	(0 - 2.07944)/(12 - 4)		-0.25993
ND<0 (3/15/2000)	2.07944 (10/26/1995)	(0 - 2.07944)/(13 - 4)		
-0.231049				
ND<0 (9/24/2003)	2.07944 (10/26/1995)	(0 - 2.07944)/(14 - 4)		
-0.207944				
ND<0 (3/11/2004)	2.07944 (10/26/1995)	(0 - 2.07944)/(15 - 4)		-0.18904
ND<0 (10/12/2004)	2.07944 (10/26/1995)	(0 - 2.07944)/(16 - 4)		
-0.173287				
1.5217 (4/1/2005)	2.07944 (10/26/1995)	(1.5217 - 2.07944)/(17 - 4)		
-0.0429033				
0.431782 J (10/25/2005)	2.07944 (10/26/1995)	(0.431782 - 2.07944)/(18 - 4)		
-0.11769				
-0.18633 J (4/29/2006)	2.07944 (10/26/1995)	(-0.18633 - 2.07944)/(19 - 4)		
-0.151051				
-0.0725707 J (11/18/2006)	2.07944 (10/26/1995)	(-0.0725707 - 2.07944)/(20 - 4)		
-0.134501				
0.741937 (5/23/2007)	2.07944 (10/26/1995)	(0.741937 - 2.07944)/(21 - 4)		
-0.0786767				
0.262364 J (11/28/2007)	2.07944 (10/26/1995)	(0.262364 - 2.07944)/(22 - 4)		
-0.100949				
ND<0 (6/5/2008)	2.07944 (10/26/1995)	(0 - 2.07944)/(23 - 4)		
-0.109444				
ND<0 (11/20/2008)	2.07944 (10/26/1995)	(0 - 2.07944)/(24 - 4)		
-0.103972				
-0.527633 J (6/11/2009)	2.07944 (10/26/1995)	(-0.527633 - 2.07944)/(25 - 4)		
-0.124146				
ND<-2.07944 (11/16/2009)	2.07944 (10/26/1995)	(-2.07944 - 2.07944)/(26 - 4)		
-0.18904				
-0.210721 J (6/30/2010)	2.07944 (10/26/1995)	(-0.210721 - 2.07944)/(27 - 4)		
-0.0995723				
ND<-2.07944 U (11/12/2010)	2.07944 (10/26/1995)	(-2.07944 - 2.07944)/(28 - 4)		
-0.173287				
ND<-2.07944 U (7/5/2011)	2.07944 (10/26/1995)	(-2.07944 - 2.07944)/(29 - 4)		
-0.166355				
ND<-2.07944 U (11/22/2011)	2.07944 (10/26/1995)	(-2.07944 - 2.07944)/(30 - 4)		
-0.159957				
ND<-2.07944 U (11/22/2011)	2.07944 (10/26/1995)	(-2.07944 - 2.07944)/(30 - 4)		
-0.159957				
2.19722 (12/19/1996)	ND<0 (11/19/1996)	(2.19722 - 0)/(6 - 5)		2.19722
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
1.60944 (9/23/1998)	ND<0 (11/19/1996)	(1.60944 - 0)/(10 - 5)		
0.321888				
1.60944 (3/16/1999)	ND<0 (11/19/1996)	(1.60944 - 0)/(11 - 5)		0.26824
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	

1.5217 (4/1/2005)	ND<0 (11/19/1996)	(1.5217 - 0)/(17 - 5)	
0.126808			
0.431782 J (10/25/2005)	ND<0 (11/19/1996)	(0.431782 - 0)/(18 - 5)	
0.033214			
-0.18633 J (4/29/2006)	ND<0 (11/19/1996)	(-0.18633 - 0)/(19 - 5)	
-0.0133093			
-0.0725707 J (11/18/2006)	ND<0 (11/19/1996)	(-0.0725707 - 0)/(20 - 5)	
-0.00483805			
0.741937 (5/23/2007)	ND<0 (11/19/1996)	(0.741937 - 0)/(21 - 5)	
0.0463711			
0.262364 J (11/28/2007)	ND<0 (11/19/1996)	(0.262364 - 0)/(22 - 5)	
0.0154332			
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
ND<0 (11/20/2008)	ND<0 (11/19/1996)	(0 - 0)/(24 - 5)	0
-0.527633 J (6/11/2009)	ND<0 (11/19/1996)	(-0.527633 - 0)/(25 - 5)	
-0.0263816			
ND<-2.07944 (11/16/2009)	ND<0 (11/19/1996)	(-2.07944 - 0)/(26 - 5)	
-0.099021			
-0.210721 J (6/30/2010)	ND<0 (11/19/1996)	(-0.210721 - 0)/(27 - 5)	
-0.00957823			
ND<-2.07944 U (11/12/2010)	ND<0 (11/19/1996)	(-2.07944 - 0)/(28 - 5)	
-0.0904105			
ND<-2.07944 U (7/5/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(29 - 5)	
-0.0866434			
ND<-2.07944 U (11/22/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(30 - 5)	
-0.0831777			
ND<-2.07944 U (11/22/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(30 - 5)	
-0.0831777			

ND<0 (3/24/1997)	2.19722 (12/19/1996)	(0 - 2.19722)/(7 - 6)	-2.19722
ND<0 (9/24/1997)	2.19722 (12/19/1996)	(0 - 2.19722)/(8 - 6)	-1.09861
ND<0 (4/7/1998)	2.19722 (12/19/1996)	(0 - 2.19722)/(9 - 6)	
-0.732408			
1.60944 (9/23/1998)	2.19722 (12/19/1996)	(1.60944 - 2.19722)/(10 - 6)	
-0.146947			
1.60944 (3/16/1999)	2.19722 (12/19/1996)	(1.60944 - 2.19722)/(11 - 6)	
-0.117557			
ND<0 (9/23/1999)	2.19722 (12/19/1996)	(0 - 2.19722)/(12 - 6)	
-0.366204			
ND<0 (3/15/2000)	2.19722 (12/19/1996)	(0 - 2.19722)/(13 - 6)	
-0.313889			
ND<0 (9/24/2003)	2.19722 (12/19/1996)	(0 - 2.19722)/(14 - 6)	
-0.274653			
ND<0 (3/11/2004)	2.19722 (12/19/1996)	(0 - 2.19722)/(15 - 6)	
-0.244136			
ND<0 (10/12/2004)	2.19722 (12/19/1996)	(0 - 2.19722)/(16 - 6)	
-0.219722			
1.5217 (4/1/2005)	2.19722 (12/19/1996)	(1.5217 - 2.19722)/(17 - 6)	
-0.0614114			
0.431782 J (10/25/2005)	2.19722 (12/19/1996)	(0.431782 - 2.19722)/(18 - 6)	
-0.14712			
-0.18633 J (4/29/2006)	2.19722 (12/19/1996)	(-0.18633 - 2.19722)/(19 - 6)	
-0.18335			
-0.0725707 J (11/18/2006)	2.19722 (12/19/1996)	(-0.0725707 - 2.19722)/(20 - 6)	
-0.162128			
0.741937 (5/23/2007)	2.19722 (12/19/1996)	(0.741937 - 2.19722)/(21 - 6)	
-0.0970191			
0.262364 J (11/28/2007)	2.19722 (12/19/1996)	(0.262364 - 2.19722)/(22 - 6)	
-0.120929			
ND<0 (6/5/2008)	2.19722 (12/19/1996)	(0 - 2.19722)/(23 - 6)	
-0.129249			

ND<0 (11/20/2008) 2.19722 (12/19/1996) (0 - 2.19722)/(24 - 6)
-0.122068
-0.527633 J (6/11/2009) 2.19722 (12/19/1996) (-0.527633 - 2.19722)/(25 - 6)
-0.143414
ND<-2.07944 (11/16/2009) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(26 - 6)
-0.213833
-0.210721 J (6/30/2010) 2.19722 (12/19/1996) (-0.210721 - 2.19722)/(27 - 6)
-0.114664
ND<-2.07944 U (11/12/2010) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(28 - 6)
-0.194394
ND<-2.07944 U (7/5/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(29 - 6)
-0.185942
ND<-2.07944 U (11/22/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(30 - 6)
-0.178194
ND<-2.07944 U (11/22/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(30 - 6)
-0.178194

ND<0 (9/24/1997) ND<0 (3/24/1997) (0 - 0)/(8 - 7) 0
ND<0 (4/7/1998) ND<0 (3/24/1997) (0 - 0)/(9 - 7) 0
1.60944 (9/23/1998) ND<0 (3/24/1997) (1.60944 - 0)/(10 - 7)
0.536479
1.60944 (3/16/1999) ND<0 (3/24/1997) (1.60944 - 0)/(11 - 7)
0.402359
ND<0 (9/23/1999) ND<0 (3/24/1997) (0 - 0)/(12 - 7) 0
ND<0 (3/15/2000) ND<0 (3/24/1997) (0 - 0)/(13 - 7) 0
ND<0 (9/24/2003) ND<0 (3/24/1997) (0 - 0)/(14 - 7) 0
ND<0 (3/11/2004) ND<0 (3/24/1997) (0 - 0)/(15 - 7) 0
ND<0 (10/12/2004) ND<0 (3/24/1997) (0 - 0)/(16 - 7) 0
1.5217 (4/1/2005) ND<0 (3/24/1997) (1.5217 - 0)/(17 - 7) 0.15217
0.431782 J (10/25/2005) ND<0 (3/24/1997) (0.431782 - 0)/(18 - 7)
0.0392529
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ND<-2.07944 U (7/5/2011) ND<0 (3/24/1997) (-2.07944 - 0)/(29 - 7)
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ND<-2.07944 U (11/22/2011) ND<0 (3/24/1997) (-2.07944 - 0)/(30 - 7)
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ND<0 (3/11/2004) ND<0 (9/24/1997) (0 - 0)/(15 - 8) 0
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ND<-2.07944 U (7/5/2011) ND<0 (9/24/1997) (-2.07944 - 0)/(29 - 8)
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ND<-2.07944 U (11/22/2011) ND<0 (9/24/1997) (-2.07944 - 0)/(30 - 8)
-0.0945201
ND<-2.07944 U (11/22/2011) ND<0 (9/24/1997) (-2.07944 - 0)/(30 - 8)
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ND<0 (9/23/1999) ND<0 (4/7/1998) (0 - 0)/(12 - 9) 0
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ND<-2.07944 U (11/12/2010) ND<0 (4/7/1998) (-2.07944 - 0)/(28 - 9)
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ND<-2.07944 U (7/5/2011) ND<0 (4/7/1998) (-2.07944 - 0)/(29 - 9)
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ND<-2.07944 U (11/22/2011) ND<0 (4/7/1998) (-2.07944 - 0)/(30 - 9)
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ND<-2.07944 U (11/22/2011) ND<0 (4/7/1998) (-2.07944 - 0)/(30 - 9)
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ND<-2.07944 (11/16/2009) 1.60944 (9/23/1998) (-2.07944 - 1.60944)/(26 - 10)
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ND<-2.07944 U (11/22/2011) 1.60944 (9/23/1998) (-2.07944 - 1.60944)/(30 - 10)
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ND<0 (9/23/1999) 1.60944 (3/16/1999) (0 - 1.60944)/(12 - 11) -1.60944
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0.741937 (5/23/2007)	1.60944 (3/16/1999)	(0.741937 - 1.60944)/(21 - 11)	-0.0867501
0.262364 J (11/28/2007)	1.60944 (3/16/1999)	(0.262364 - 1.60944)/(22 - 11)	-0.122461
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ND<0 (11/20/2008)	1.60944 (3/16/1999)	(0 - 1.60944)/(24 - 11)	-0.123803
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ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
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ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0	
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ND<-2.07944 U (7/5/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(29 - 12)		-0.12232
ND<-2.07944 U (11/22/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(30 - 12)		-0.115525
ND<-2.07944 U (11/22/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(30 - 12)		-0.115525

ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0
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ND<-2.07944 U (11/12/2010) ND<0 (3/15/2000) (-2.07944 - 0)/(28 - 13)
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ND<-2.07944 U (11/22/2011) ND<0 (3/15/2000) (-2.07944 - 0)/(30 - 13)
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ND<-2.07944 U (11/22/2011) ND<0 (3/15/2000) (-2.07944 - 0)/(30 - 13)
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ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
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ND<-2.07944 (11/16/2009) ND<0 (9/24/2003) (-2.07944 - 0)/(26 - 14)
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ND<-2.07944 U (11/12/2010) ND<0 (9/24/2003) (-2.07944 - 0)/(28 - 14)
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ND<-2.07944 U (7/5/2011) ND<0 (9/24/2003) (-2.07944 - 0)/(29 - 14)
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ND<-2.07944 U (11/22/2011) ND<0 (9/24/2003) (-2.07944 - 0)/(30 - 14)
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ND<-2.07944 U (11/22/2011) ND<0 (9/24/2003) (-2.07944 - 0)/(30 - 14)
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ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0

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0.431782 J (10/25/2005) ND<0 (3/11/2004) (0.431782 - 0)/(18 - 15)
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-0.0725707 J (11/18/2006) ND<0 (3/11/2004) (-0.0725707 - 0)/(20 - 15)
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0.741937 (5/23/2007) ND<0 (3/11/2004) (0.741937 - 0)/(21 - 15)
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ND<-2.07944 (11/16/2009) ND<0 (3/11/2004) (-2.07944 - 0)/(26 - 15)
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ND<-2.07944 U (11/12/2010) ND<0 (3/11/2004) (-2.07944 - 0)/(28 - 15)
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ND<-2.07944 U (7/5/2011) ND<0 (3/11/2004) (-2.07944 - 0)/(29 - 15)
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ND<-2.07944 U (11/22/2011) ND<0 (3/11/2004) (-2.07944 - 0)/(30 - 15)
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ND<-2.07944 U (11/22/2011) ND<0 (3/11/2004) (-2.07944 - 0)/(30 - 15)
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1.5217 (4/1/2005) ND<0 (10/12/2004) (1.5217 - 0)/(17 - 16) 1.5217
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ND<-2.07944 U (11/12/2010) ND<0 (10/12/2004) (-2.07944 - 0)/(28 - 16)
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ND<-2.07944 U (11/22/2011) ND<0 (10/12/2004) (-2.07944 - 0)/(30 - 16)
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0.262364 J (11/28/2007) 1.5217 (4/1/2005) (0.262364 - 1.5217)/(22 - 17)
-0.251867
ND<0 (6/5/2008) 1.5217 (4/1/2005) (0 - 1.5217)/(23 - 17)
-0.253616
ND<0 (11/20/2008) 1.5217 (4/1/2005) (0 - 1.5217)/(24 - 17)
-0.217386
-0.527633 J (6/11/2009) 1.5217 (4/1/2005) (-0.527633 - 1.5217)/(25 - 17)
-0.256166
ND<-2.07944 (11/16/2009) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(26 - 17)
-0.400127
-0.210721 J (6/30/2010) 1.5217 (4/1/2005) (-0.210721 - 1.5217)/(27 - 17)
-0.173242
ND<-2.07944 U (11/12/2010) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(28 - 17)
-0.327376
ND<-2.07944 U (7/5/2011) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(29 - 17)
-0.300095
ND<-2.07944 U (11/22/2011) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(30 - 17)
-0.277011
ND<-2.07944 U (11/22/2011) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(30 - 17)
-0.277011

-0.18633 J (4/29/2006) 0.431782 J (10/25/2005) (-0.18633 - 0.431782)/(19 - 18)
-0.618112
-0.0725707 J (11/18/2006) 0.431782 J (10/25/2005) (-0.0725707 - 0.431782)/(20 - 18)
-0.252177
0.741937 (5/23/2007) 0.431782 J (10/25/2005) (0.741937 - 0.431782)/(21 - 18)
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0.262364 J (11/28/2007) 0.431782 J (10/25/2005) (0.262364 - 0.431782)/(22 - 18)
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ND<0 (6/5/2008) 0.431782 J (10/25/2005) (0 - 0.431782)/(23 - 18)
-0.0863565
ND<0 (11/20/2008) 0.431782 J (10/25/2005) (0 - 0.431782)/(24 - 18)
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-0.527633 J (6/11/2009) 0.431782 J (10/25/2005) (-0.527633 - 0.431782)/(25 - 18)
-0.137059
ND<-2.07944 (11/16/2009) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(26 - 18)
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-0.210721 J (6/30/2010) 0.431782 J (10/25/2005) (-0.210721 - 0.431782)/(27 - 18)
-0.0713893
ND<-2.07944 U (11/12/2010) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(28 - 18)
-0.251122
ND<-2.07944 U (7/5/2011) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(29 - 18)
-0.228293
ND<-2.07944 U (11/22/2011) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(30 - 18)
-0.209269
ND<-2.07944 U (11/22/2011) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(30 - 18)
-0.209269

-0.0725707 J (11/18/2006) -0.18633 J (4/29/2006) (-0.0725707 - -0.18633)/(20 - 19)
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0.741937 (5/23/2007) -0.18633 J (4/29/2006) (0.741937 - -0.18633)/(21 - 19)
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0.262364 J (11/28/2007) -0.18633 J (4/29/2006) (0.262364 - -0.18633)/(22 - 19)
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ND<0 (11/20/2008) -0.18633 J (4/29/2006) (0 - -0.18633)/(24 - 19)
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-0.527633 J (6/11/2009) -0.18633 J (4/29/2006) (-0.527633 - -0.18633)/(25 - 19)
-0.0568839
ND<-2.07944 (11/16/2009) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(26 - 19)
-0.270445
-0.210721 J (6/30/2010) -0.18633 J (4/29/2006) (-0.210721 - -0.18633)/(27 - 19)
-0.00304893
ND<-2.07944 U (11/12/2010) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(28 - 19)
-0.210346
ND<-2.07944 U (7/5/2011) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(29 - 19)
-0.189311
ND<-2.07944 U (11/22/2011) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(30 - 19)
-0.172101
ND<-2.07944 U (11/22/2011) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(30 - 19)
-0.172101

0.741937 (5/23/2007) -0.0725707 J (11/18/2006) (0.741937 - -0.0725707)/(21 - 20)
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ND<0 (11/20/2008) -0.0725707 J (11/18/2006) (0 - -0.0725707)/(24 - 20)
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-0.527633 J (6/11/2009) -0.0725707 J (11/18/2006) (-0.527633 - -0.0725707)/(25 - 20)
-0.0910124
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-0.210721 J (6/30/2010) -0.0725707 J (11/18/2006) (-0.210721 - -0.0725707)/(27 - 20)
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ND<-2.07944 U (11/12/2010) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(28 - 20)
-0.250859
ND<-2.07944 U (7/5/2011) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(29 - 20)
-0.222986
ND<-2.07944 U (11/22/2011) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(30 - 20)
-0.200687
ND<-2.07944 U (11/22/2011) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(30 - 20)
-0.200687

0.262364 J (11/28/2007) 0.741937 (5/23/2007) (0.262364 - 0.741937)/(22 - 21)
-0.479573
ND<0 (6/5/2008) 0.741937 (5/23/2007) (0 - 0.741937)/(23 - 21)
-0.370969
ND<0 (11/20/2008) 0.741937 (5/23/2007) (0 - 0.741937)/(24 - 21)
-0.247312
-0.527633 J (6/11/2009) 0.741937 (5/23/2007) (-0.527633 - 0.741937)/(25 - 21)
-0.317393
ND<-2.07944 (11/16/2009) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(26 - 21)
-0.564276
-0.210721 J (6/30/2010) 0.741937 (5/23/2007) (-0.210721 - 0.741937)/(27 - 21)
-0.158776
ND<-2.07944 U (11/12/2010) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(28 - 21)
-0.403054
ND<-2.07944 U (7/5/2011) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(29 - 21)
-0.352672
ND<-2.07944 U (11/22/2011) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(30 - 21)
-0.313487
ND<-2.07944 U (11/22/2011) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(30 - 21)
-0.313487

ND<0 (6/5/2008) 0.262364 J (11/28/2007) (0 - 0.262364)/(23 - 22)
-0.262364

ND<0 (11/20/2008) 0.262364 J (11/28/2007) (0 - 0.262364)/(24 - 22)
-0.131182
-0.527633 J (6/11/2009) 0.262364 J (11/28/2007) (-0.527633 - 0.262364)/(25 - 22)
-0.263332
ND<-2.07944 (11/16/2009) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(26 - 22)
-0.585451
-0.210721 J (6/30/2010) 0.262364 J (11/28/2007) (-0.210721 - 0.262364)/(27 - 22)
-0.0946171
ND<-2.07944 U (11/12/2010) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(28 - 22)
-0.390301
ND<-2.07944 U (7/5/2011) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(29 - 22)
-0.334544
ND<-2.07944 U (11/22/2011) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(30 - 22)
-0.292726
ND<-2.07944 U (11/22/2011) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(30 - 22)
-0.292726

ND<0 (11/20/2008) ND<0 (6/5/2008) (0 - 0)/(24 - 23) 0
-0.527633 J (6/11/2009) ND<0 (6/5/2008) (-0.527633 - 0)/(25 - 23)
-0.263816
ND<-2.07944 (11/16/2009) ND<0 (6/5/2008) (-2.07944 - 0)/(26 - 23)
-0.693147
-0.210721 J (6/30/2010) ND<0 (6/5/2008) (-0.210721 - 0)/(27 - 23)
-0.0526803
ND<-2.07944 U (11/12/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(28 - 23)
-0.415888
ND<-2.07944 U (7/5/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(29 - 23)
-0.346574
ND<-2.07944 U (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063
ND<-2.07944 U (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063

-0.527633 J (6/11/2009) ND<0 (11/20/2008) (-0.527633 - 0)/(25 - 24)
-0.527633
ND<-2.07944 (11/16/2009) ND<0 (11/20/2008) (-2.07944 - 0)/(26 - 24)
-1.03972
-0.210721 J (6/30/2010) ND<0 (11/20/2008) (-0.210721 - 0)/(27 - 24)
-0.0702403
ND<-2.07944 U (11/12/2010) ND<0 (11/20/2008) (-2.07944 - 0)/(28 - 24)
-0.51986
ND<-2.07944 U (7/5/2011) ND<0 (11/20/2008) (-2.07944 - 0)/(29 - 24)
-0.415888
ND<-2.07944 U (11/22/2011) ND<0 (11/20/2008) (-2.07944 - 0)/(30 - 24)
-0.346574
ND<-2.07944 U (11/22/2011) ND<0 (11/20/2008) (-2.07944 - 0)/(30 - 24)
-0.346574

ND<-2.07944 (11/16/2009) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(26 - 25)
-1.55181
-0.210721 J (6/30/2010) -0.527633 J (6/11/2009) (-0.210721 - -0.527633)/(27 - 25)
0.158456
ND<-2.07944 U (11/12/2010) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(28 - 25)
-0.51727
ND<-2.07944 U (7/5/2011) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(29 - 25)
-0.387952
ND<-2.07944 U (11/22/2011) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(30 - 25)
-0.310362
ND<-2.07944 U (11/22/2011) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(30 - 25)
-0.310362

-0.210721 J (6/30/2010) ND<-2.07944 (11/16/2009) (-0.210721 - -2.07944)/(27 - 26)
1.86872
ND<-2.07944 U (11/12/2010) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(28 -
26) 0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(29 - 26)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(30 -
26) 0
ND<-2.07944 U (11/22/2011) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(30 -
26) 0

ND<-2.07944 U (11/12/2010) -0.210721 J (6/30/2010) (-2.07944 - -0.210721)/(28 - 27)
-1.86872
ND<-2.07944 U (7/5/2011) -0.210721 J (6/30/2010) (-2.07944 - -0.210721)/(29 - 27)
-0.93436
ND<-2.07944 U (11/22/2011) -0.210721 J (6/30/2010) (-2.07944 - -0.210721)/(30 - 27)
-0.622907
ND<-2.07944 U (11/22/2011) -0.210721 J (6/30/2010) (-2.07944 - -0.210721)/(30 - 27)
-0.622907

ND<-2.07944 U (7/5/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(29 - 28)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(30 - 29)
0
ND<-2.07944 U (11/22/2011) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(30 - 29)
0

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-2.19722
2	-2.07944
3	-1.86872
4	-1.60944
5	-1.55181
6	-1.09861
7	-1.08992
8	-1.03972
9	-0.93436
10	-0.89588
11	-0.854014
12	-0.804719
13	-0.804719
14	-0.732408
15	-0.693147
16	-0.693147
17	-0.622907
18	-0.622907
19	-0.618112
20	-0.613517
21	-0.585451

22	-0.564276
23	-0.536479
24	-0.536479
25	-0.531423
26	-0.527633
27	-0.51986
28	-0.51986
29	-0.51727
30	-0.479573
31	-0.44794
32	-0.415888
33	-0.415888
34	-0.415888
35	-0.403054
36	-0.402359
37	-0.402359
38	-0.400127
39	-0.390301
40	-0.387952
41	-0.370969
42	-0.36811
43	-0.366204
44	-0.358352
45	-0.352672
46	-0.346574
47	-0.346574
48	-0.346574
49	-0.334544
50	-0.334478
51	-0.327376
52	-0.321888
53	-0.321888
54	-0.317393
55	-0.313903
56	-0.313889
57	-0.313487
58	-0.313487
59	-0.310362
60	-0.310362
61	-0.306758
62	-0.300095
63	-0.298627
64	-0.297063
65	-0.297063
66	-0.292726
67	-0.292726
68	-0.277011
69	-0.277011
70	-0.274653
71	-0.270445
72	-0.26824
73	-0.263816
74	-0.263332
75	-0.262936
76	-0.262364
77	-0.25993
78	-0.256166
79	-0.253616
80	-0.252177
81	-0.251867
82	-0.251122
83	-0.250859

84	-0.247312
85	-0.245925
86	-0.244136
87	-0.231049
88	-0.230555
89	-0.228293
90	-0.224471
91	-0.222986
92	-0.219722
93	-0.217386
94	-0.216993
95	-0.213833
96	-0.210346
97	-0.209269
98	-0.209269
99	-0.207944
100	-0.207944
101	-0.204938
102	-0.204938
103	-0.200687
104	-0.200687
105	-0.19953
106	-0.199084
107	-0.19494
108	-0.194394
109	-0.194152
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111	-0.194152
112	-0.189311
113	-0.18904
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115	-0.18904
116	-0.18689
117	-0.185942
118	-0.185484
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122	-0.18335
123	-0.179176
124	-0.178194
125	-0.178194
126	-0.173287
127	-0.173287
128	-0.173287
129	-0.173287
130	-0.173242
131	-0.172101
132	-0.172101
133	-0.168313
134	-0.168236
135	-0.168201
136	-0.167323
137	-0.166355
138	-0.163333
139	-0.162887
140	-0.162128
141	-0.159957
142	-0.159957
143	-0.159957
144	-0.159957
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146	-0.158776
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148	-0.153379
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151	-0.150769
152	-0.149313
153	-0.148892
154	-0.148532
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156	-0.148532
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159	-0.147207
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161	-0.146947
162	-0.145185
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164	-0.143378
165	-0.143378
166	-0.142471
167	-0.141581
168	-0.14
169	-0.14
170	-0.138629
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172	-0.138629
173	-0.138629
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176	-0.134501
177	-0.13412
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186	-0.123803
187	-0.123803
188	-0.123656
189	-0.123631
190	-0.122461
191	-0.12232
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196	-0.120929
197	-0.119228
198	-0.11769
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233	-0.0945201
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235	-0.0945201
236	-0.0927422
237	-0.0910124
238	-0.0906651
239	-0.0904105
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242	-0.089588
243	-0.088048
244	-0.0876452
245	-0.0867501
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247	-0.0863565
248	-0.0853219
249	-0.0836613
250	-0.0834367
251	-0.0831777
252	-0.0831777
253	-0.0820508
254	-0.0804945
255	-0.0789093
256	-0.0788637
257	-0.0786767
258	-0.0783339
259	-0.0719637
260	-0.0713893
261	-0.0702403
262	-0.0674488
263	-0.0671434
264	-0.0621099
265	-0.0618281
266	-0.0614114
267	-0.0586259
268	-0.0583235
269	-0.0578217

270	-0.0570721
271	-0.0568839
272	-0.0529955
273	-0.0528988
274	-0.0527633
275	-0.0526803
276	-0.0515704
277	-0.0494625
278	-0.0487902
279	-0.0479666
280	-0.0465824
281	-0.0439694
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283	-0.0428688
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285	-0.0405871
286	-0.0372659
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289	-0.032977
290	-0.0322581
291	-0.0310549
292	-0.0310372
293	-0.0293129
294	-0.028889
295	-0.0266185
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299	-0.0228368
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302	-0.0197358
303	-0.01929
304	-0.0191565
305	-0.018633
306	-0.0182444
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309	-0.0169391
310	-0.0162093
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313	-0.0146232
314	-0.0145141
315	-0.0140481
316	-0.0133093
317	-0.0125341
318	-0.0120951
319	-0.0117067
320	-0.0110906
321	-0.0105361
322	-0.0103672
323	-0.00957823
324	-0.00907134
325	-0.00659734
326	-0.00604756
327	-0.00558236
328	-0.00483805
329	-0.00304893
330	0
331	0

332	0
333	0
334	0
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0
348	0
349	0
350	0
351	0
352	0
353	0
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0
364	0
365	0
366	0
367	0
368	0
369	0
370	0
371	0
372	0
373	0
374	0
375	0
376	0
377	0
378	0
379	0
380	0
381	0
382	0
383	0
384	0
385	0
386	0
387	0
388	0
389	0
390	0
391	0
392	0
393	0

394	0
395	0
396	0.0154332
397	0.017491
398	0.0181427
399	0.0187403
400	0.0201819
401	0.0241902
402	0.0262364
403	0.0291516
404	0.0327955
405	0.033214
406	0.0372659
407	0.0374806
408	0.0392529
409	0.0431782
410	0.0437274
411	0.0463711
412	0.0465824
413	0.0479758
414	0.0487351
415	0.0529955
416	0.0570721
417	0.0588915
418	0.0618281
419	0.0719637
420	0.0824375
421	0.0863565
422	0.0867501
423	0.0891687
424	0.0927422
425	0.096389
426	0.103385
427	0.105991
428	0.107946
429	0.113759
430	0.119446
431	0.123656
432	0.126808
433	0.135155
434	0.143927
435	0.148387
436	0.149565
437	0.15217
438	0.158456
439	0.167467
440	0.169078
441	0.190212
442	0.215891
443	0.26824
444	0.287682
445	0.291057
446	0.30434
447	0.321888
448	0.380425
449	0.402359
450	0.445835
451	0.464133
452	0.507233
453	0.524911
454	0.536479
455	0.536479

456	0.760849
457	0.804719
458	0.804719
459	0.814508
460	1.09861
461	1.5217
462	1.60944
463	1.86872
464	2.19722

Sen's Estimator (Median Q) is -0.0945686

Tied Group	Value	Members
1	0.741937	2
2	0	11
3	1.60944	2
4	-2.07944	5

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 3306
B = 18
C = 1050
D = 0
E = 134
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3277.14
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485

C = 94.1618
M1 = (464 - 94.1618)/2.0 = 184.919
M2 = (464 + 94.1618)/2.0 + 1 = 280.081
Lower limit is -0.124146 = Q(185)
Upper limit is -0.0465824 = Q(280)
-0.0465824 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: Benzene
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
0.955511	(8/24/1995)	0.916291 (7/20/1995)	(0.955511 - 0.916291)/(2 - 1)
0.0392207			
1.09861	(9/28/1995)	0.916291 (7/20/1995)	(1.09861 - 0.916291)/(3 - 1)
0.0911608			
1.09861	(10/26/1995)	0.916291 (7/20/1995)	(1.09861 - 0.916291)/(4 - 1)
0.0607739			
ND<0	(11/19/1996)	0.916291 (7/20/1995)	(0 - 0.916291)/(5 - 1)
-0.229073			
ND<0	(12/19/1996)	0.916291 (7/20/1995)	(0 - 0.916291)/(6 - 1)
-0.183258			
ND<0	(3/24/1997)	0.916291 (7/20/1995)	(0 - 0.916291)/(7 - 1)
-0.152715			
ND<0	(9/24/1997)	0.916291 (7/20/1995)	(0 - 0.916291)/(8 - 1)
-0.130899			
ND<0	(4/7/1998)	0.916291 (7/20/1995)	(0 - 0.916291)/(9 - 1)
-0.114536			
ND<0	(9/23/1998)	0.916291 (7/20/1995)	(0 - 0.916291)/(10 - 1) -0.10181
0.788457	(3/16/1999)	0.916291 (7/20/1995)	(0.788457 - 0.916291)/(11 - 1)
-0.0127833			
ND<0	(9/23/1999)	0.916291 (7/20/1995)	(0 - 0.916291)/(12 - 1)
-0.0832992			
ND<0	(3/15/2000)	0.916291 (7/20/1995)	(0 - 0.916291)/(13 - 1)
-0.0763576			
ND<0	(9/24/2003)	0.916291 (7/20/1995)	(0 - 0.916291)/(14 - 1)
-0.0704839			
ND<0	(3/11/2004)	0.916291 (7/20/1995)	(0 - 0.916291)/(15 - 1)
-0.0654493			
ND<0	(10/12/2004)	0.916291 (7/20/1995)	(0 - 0.916291)/(16 - 1)
-0.061086			
0.652325 J	(4/1/2005)	0.916291 (7/20/1995)	(0.652325 - 0.916291)/(17 - 1)
-0.0164978			
0.0861777 J	(10/25/2005)	0.916291 (7/20/1995)	(0.0861777 - 0.916291)/(18 - 1)
-0.0488302			
-0.34249 J	(4/29/2006)	0.916291 (7/20/1995)	(-0.34249 - 0.916291)/(19 - 1)
-0.0699323			
-0.223144 J	(11/18/2006)	0.916291 (7/20/1995)	(-0.223144 - 0.916291)/(20 - 1)
-0.0599702			
0.788457	(5/23/2007)	0.916291 (7/20/1995)	(0.788457 - 0.916291)/(21 - 1)
-0.00639167			
0.431782 J	(11/28/2007)	0.916291 (7/20/1995)	(0.431782 - 0.916291)/(22 - 1)
-0.0230718			
ND<0	(6/5/2008)	0.916291 (7/20/1995)	(0 - 0.916291)/(23 - 1)
-0.0416496			
0.300105 J	(11/20/2008)	0.916291 (7/20/1995)	(0.300105 - 0.916291)/(24 - 1)
-0.0267907			
0.641854	(6/11/2009)	0.916291 (7/20/1995)	(0.641854 - 0.916291)/(25 - 1)
-0.0114349			
0.336472	(11/16/2009)	0.916291 (7/20/1995)	(0.336472 - 0.916291)/(26 - 1)
-0.0231927			
0.587787	(6/30/2010)	0.916291 (7/20/1995)	(0.587787 - 0.916291)/(27 - 1)
-0.0126348			

0.182322 (11/12/2010)	0.916291 (7/20/1995)	(0.182322 - 0.916291)/(28 - 1)
-0.027184		
-0.274437 J (7/5/2011)	0.916291 (7/20/1995)	(-0.274437 - 0.916291)/(29 - 1)
-0.042526		
-0.198451 J (11/22/2011)	0.916291 (7/20/1995)	(-0.198451 - 0.916291)/(30 - 1)
-0.0384394		
-0.198451 J (11/22/2011)	0.916291 (7/20/1995)	(-0.198451 - 0.916291)/(30 - 1)
-0.0384394		
1.09861 (9/28/1995)	0.955511 (8/24/1995)	(1.09861 - 0.955511)/(3 - 2)
0.143101		
1.09861 (10/26/1995)	0.955511 (8/24/1995)	(1.09861 - 0.955511)/(4 - 2)
0.0715504		
ND<0 (11/19/1996)	0.955511 (8/24/1995)	(0 - 0.955511)/(5 - 2)
-0.318504		
ND<0 (12/19/1996)	0.955511 (8/24/1995)	(0 - 0.955511)/(6 - 2)
-0.238878		
ND<0 (3/24/1997)	0.955511 (8/24/1995)	(0 - 0.955511)/(7 - 2)
-0.191102		
ND<0 (9/24/1997)	0.955511 (8/24/1995)	(0 - 0.955511)/(8 - 2)
-0.159252		
ND<0 (4/7/1998)	0.955511 (8/24/1995)	(0 - 0.955511)/(9 - 2)
-0.136502		
ND<0 (9/23/1998)	0.955511 (8/24/1995)	(0 - 0.955511)/(10 - 2)
-0.119439		
0.788457 (3/16/1999)	0.955511 (8/24/1995)	(0.788457 - 0.955511)/(11 - 2)
-0.0185616		
ND<0 (9/23/1999)	0.955511 (8/24/1995)	(0 - 0.955511)/(12 - 2)
-0.0955511		
ND<0 (3/15/2000)	0.955511 (8/24/1995)	(0 - 0.955511)/(13 - 2)
-0.0868647		
ND<0 (9/24/2003)	0.955511 (8/24/1995)	(0 - 0.955511)/(14 - 2)
-0.079626		
ND<0 (3/11/2004)	0.955511 (8/24/1995)	(0 - 0.955511)/(15 - 2)
-0.0735009		
ND<0 (10/12/2004)	0.955511 (8/24/1995)	(0 - 0.955511)/(16 - 2)
-0.0682508		
0.652325 J (4/1/2005)	0.955511 (8/24/1995)	(0.652325 - 0.955511)/(17 - 2)
-0.0202124		
0.0861777 J (10/25/2005)	0.955511 (8/24/1995)	(0.0861777 - 0.955511)/(18 - 2)
-0.0543334		
-0.34249 J (4/29/2006)	0.955511 (8/24/1995)	(-0.34249 - 0.955511)/(19 - 2)
-0.076353		
-0.223144 J (11/18/2006)	0.955511 (8/24/1995)	(-0.223144 - 0.955511)/(20 - 2)
-0.0654808		
0.788457 (5/23/2007)	0.955511 (8/24/1995)	(0.788457 - 0.955511)/(21 - 2)
-0.00879232		
0.431782 J (11/28/2007)	0.955511 (8/24/1995)	(0.431782 - 0.955511)/(22 - 2)
-0.0261865		
ND<0 (6/5/2008)	0.955511 (8/24/1995)	(0 - 0.955511)/(23 - 2)
-0.0455005		
0.300105 J (11/20/2008)	0.955511 (8/24/1995)	(0.300105 - 0.955511)/(24 - 2)
-0.0297912		
0.641854 (6/11/2009)	0.955511 (8/24/1995)	(0.641854 - 0.955511)/(25 - 2)
-0.0136373		
0.336472 (11/16/2009)	0.955511 (8/24/1995)	(0.336472 - 0.955511)/(26 - 2)
-0.0257933		
0.587787 (6/30/2010)	0.955511 (8/24/1995)	(0.587787 - 0.955511)/(27 - 2)
-0.014709		
0.182322 (11/12/2010)	0.955511 (8/24/1995)	(0.182322 - 0.955511)/(28 - 2)
-0.0297381		

-0.274437 J (7/5/2011)	0.955511 (8/24/1995)	(-0.274437 - 0.955511)/(29 - 2)	
-0.0455536			
-0.198451 J (11/22/2011)	0.955511 (8/24/1995)	(-0.198451 - 0.955511)/(30 - 2)	
-0.0412129			
-0.198451 J (11/22/2011)	0.955511 (8/24/1995)	(-0.198451 - 0.955511)/(30 - 2)	
-0.0412129			
1.09861 (10/26/1995)	1.09861 (9/28/1995)	(1.09861 - 1.09861)/(4 - 3)	0
ND<0 (11/19/1996)	1.09861 (9/28/1995)	(0 - 1.09861)/(5 - 3)	
-0.549306			
ND<0 (12/19/1996)	1.09861 (9/28/1995)	(0 - 1.09861)/(6 - 3)	
-0.366204			
ND<0 (3/24/1997)	1.09861 (9/28/1995)	(0 - 1.09861)/(7 - 3)	
-0.274653			
ND<0 (9/24/1997)	1.09861 (9/28/1995)	(0 - 1.09861)/(8 - 3)	
-0.219722			
ND<0 (4/7/1998)	1.09861 (9/28/1995)	(0 - 1.09861)/(9 - 3)	
-0.183102			
ND<0 (9/23/1998)	1.09861 (9/28/1995)	(0 - 1.09861)/(10 - 3)	
-0.156945			
0.788457 (3/16/1999)	1.09861 (9/28/1995)	(0.788457 - 1.09861)/(11 - 3)	
-0.0387694			
ND<0 (9/23/1999)	1.09861 (9/28/1995)	(0 - 1.09861)/(12 - 3)	
-0.122068			
ND<0 (3/15/2000)	1.09861 (9/28/1995)	(0 - 1.09861)/(13 - 3)	
-0.109861			
ND<0 (9/24/2003)	1.09861 (9/28/1995)	(0 - 1.09861)/(14 - 3)	
-0.0998738			
ND<0 (3/11/2004)	1.09861 (9/28/1995)	(0 - 1.09861)/(15 - 3)	
-0.091551			
ND<0 (10/12/2004)	1.09861 (9/28/1995)	(0 - 1.09861)/(16 - 3)	
-0.0845086			
0.652325 J (4/1/2005)	1.09861 (9/28/1995)	(0.652325 - 1.09861)/(17 - 3)	
-0.0318777			
0.0861777 J (10/25/2005)	1.09861 (9/28/1995)	(0.0861777 - 1.09861)/(18 - 3)	
-0.0674956			
-0.34249 J (4/29/2006)	1.09861 (9/28/1995)	(-0.34249 - 1.09861)/(19 - 3)	
-0.0900689			
-0.223144 J (11/18/2006)	1.09861 (9/28/1995)	(-0.223144 - 1.09861)/(20 - 3)	
-0.0777503			
0.788457 (5/23/2007)	1.09861 (9/28/1995)	(0.788457 - 1.09861)/(21 - 3)	
-0.0172308			
0.431782 J (11/28/2007)	1.09861 (9/28/1995)	(0.431782 - 1.09861)/(22 - 3)	
-0.0350963			
ND<0 (6/5/2008)	1.09861 (9/28/1995)	(0 - 1.09861)/(23 - 3)	
-0.0549306			
0.300105 J (11/20/2008)	1.09861 (9/28/1995)	(0.300105 - 1.09861)/(24 - 3)	
-0.0380242			
0.641854 (6/11/2009)	1.09861 (9/28/1995)	(0.641854 - 1.09861)/(25 - 3)	
-0.0207617			
0.336472 (11/16/2009)	1.09861 (9/28/1995)	(0.336472 - 1.09861)/(26 - 3)	
-0.0331365			
0.587787 (6/30/2010)	1.09861 (9/28/1995)	(0.587787 - 1.09861)/(27 - 3)	
-0.0212844			
0.182322 (11/12/2010)	1.09861 (9/28/1995)	(0.182322 - 1.09861)/(28 - 3)	
-0.0366516			
-0.274437 J (7/5/2011)	1.09861 (9/28/1995)	(-0.274437 - 1.09861)/(29 - 3)	
-0.0528096			
-0.198451 J (11/22/2011)	1.09861 (9/28/1995)	(-0.198451 - 1.09861)/(30 - 3)	
-0.0480394			
-0.198451 J (11/22/2011)	1.09861 (9/28/1995)	(-0.198451 - 1.09861)/(30 - 3)	
-0.0480394			

ND<0 (11/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(5 - 4)		-1.09861
ND<0 (12/19/1996)	1.09861 (10/26/1995)	(0 - 1.09861)/(6 - 4)		
-0.549306				
ND<0 (3/24/1997)	1.09861 (10/26/1995)	(0 - 1.09861)/(7 - 4)		
-0.366204				
ND<0 (9/24/1997)	1.09861 (10/26/1995)	(0 - 1.09861)/(8 - 4)		
-0.274653				
ND<0 (4/7/1998)	1.09861 (10/26/1995)	(0 - 1.09861)/(9 - 4)		
-0.219722				
ND<0 (9/23/1998)	1.09861 (10/26/1995)	(0 - 1.09861)/(10 - 4)		
-0.183102				
0.788457 (3/16/1999)	1.09861 (10/26/1995)	(0.788457 - 1.09861)/(11 - 4)		
-0.0443078				
ND<0 (9/23/1999)	1.09861 (10/26/1995)	(0 - 1.09861)/(12 - 4)		
-0.137327				
ND<0 (3/15/2000)	1.09861 (10/26/1995)	(0 - 1.09861)/(13 - 4)		
-0.122068				
ND<0 (9/24/2003)	1.09861 (10/26/1995)	(0 - 1.09861)/(14 - 4)		
-0.109861				
ND<0 (3/11/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(15 - 4)		
-0.0998738				
ND<0 (10/12/2004)	1.09861 (10/26/1995)	(0 - 1.09861)/(16 - 4)		
-0.091551				
0.652325 J (4/1/2005)	1.09861 (10/26/1995)	(0.652325 - 1.09861)/(17 - 4)		
-0.0343298				
0.0861777 J (10/25/2005)	1.09861 (10/26/1995)	(0.0861777 - 1.09861)/(18 - 4)		
-0.0723168				
-0.34249 J (4/29/2006)	1.09861 (10/26/1995)	(-0.34249 - 1.09861)/(19 - 4)		
-0.0960735				
-0.223144 J (11/18/2006)	1.09861 (10/26/1995)	(-0.223144 - 1.09861)/(20 - 4)		
-0.0826097				
0.788457 (5/23/2007)	1.09861 (10/26/1995)	(0.788457 - 1.09861)/(21 - 4)		
-0.0182444				
0.431782 J (11/28/2007)	1.09861 (10/26/1995)	(0.431782 - 1.09861)/(22 - 4)		
-0.0370461				
ND<0 (6/5/2008)	1.09861 (10/26/1995)	(0 - 1.09861)/(23 - 4)		
-0.0578217				
0.300105 J (11/20/2008)	1.09861 (10/26/1995)	(0.300105 - 1.09861)/(24 - 4)		
-0.0399254				
0.641854 (6/11/2009)	1.09861 (10/26/1995)	(0.641854 - 1.09861)/(25 - 4)		
-0.0217504				
0.336472 (11/16/2009)	1.09861 (10/26/1995)	(0.336472 - 1.09861)/(26 - 4)		
-0.0346427				
0.587787 (6/30/2010)	1.09861 (10/26/1995)	(0.587787 - 1.09861)/(27 - 4)		
-0.0222098				
0.182322 (11/12/2010)	1.09861 (10/26/1995)	(0.182322 - 1.09861)/(28 - 4)		
-0.0381788				
-0.274437 J (7/5/2011)	1.09861 (10/26/1995)	(-0.274437 - 1.09861)/(29 - 4)		
-0.054922				
-0.198451 J (11/22/2011)	1.09861 (10/26/1995)	(-0.198451 - 1.09861)/(30 - 4)		
-0.049887				
-0.198451 J (11/22/2011)	1.09861 (10/26/1995)	(-0.198451 - 1.09861)/(30 - 4)		
-0.049887				
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
0.788457 (3/16/1999)	ND<0 (11/19/1996)	(0.788457 - 0)/(11 - 5)		0.13141
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	

ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
0.652325 J (4/1/2005)	ND<0 (11/19/1996)	(0.652325 - 0)/(17 - 5)	
0.0543604			
0.0861777 J (10/25/2005)	ND<0 (11/19/1996)	(0.0861777 - 0)/(18 - 5)	
0.00662905			
-0.34249 J (4/29/2006)	ND<0 (11/19/1996)	(-0.34249 - 0)/(19 - 5)	
-0.0244636			
-0.223144 J (11/18/2006)	ND<0 (11/19/1996)	(-0.223144 - 0)/(20 - 5)	
-0.0148762			
0.788457 (5/23/2007)	ND<0 (11/19/1996)	(0.788457 - 0)/(21 - 5)	
0.0492786			
0.431782 J (11/28/2007)	ND<0 (11/19/1996)	(0.431782 - 0)/(22 - 5)	
0.025399			
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
0.300105 J (11/20/2008)	ND<0 (11/19/1996)	(0.300105 - 0)/(24 - 5)	
0.015795			
0.641854 (6/11/2009)	ND<0 (11/19/1996)	(0.641854 - 0)/(25 - 5)	
0.0320927			
0.336472 (11/16/2009)	ND<0 (11/19/1996)	(0.336472 - 0)/(26 - 5)	
0.0160225			
0.587787 (6/30/2010)	ND<0 (11/19/1996)	(0.587787 - 0)/(27 - 5)	
0.0267176			
0.182322 (11/12/2010)	ND<0 (11/19/1996)	(0.182322 - 0)/(28 - 5)	
0.00792702			
-0.274437 J (7/5/2011)	ND<0 (11/19/1996)	(-0.274437 - 0)/(29 - 5)	
-0.0114349			
-0.198451 J (11/22/2011)	ND<0 (11/19/1996)	(-0.198451 - 0)/(30 - 5)	
-0.00793804			
-0.198451 J (11/22/2011)	ND<0 (11/19/1996)	(-0.198451 - 0)/(30 - 5)	
-0.00793804			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
0.788457 (3/16/1999)	ND<0 (12/19/1996)	(0.788457 - 0)/(11 - 6)	
0.157691			
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
0.652325 J (4/1/2005)	ND<0 (12/19/1996)	(0.652325 - 0)/(17 - 6)	
0.0593023			
0.0861777 J (10/25/2005)	ND<0 (12/19/1996)	(0.0861777 - 0)/(18 - 6)	
0.00718147			
-0.34249 J (4/29/2006)	ND<0 (12/19/1996)	(-0.34249 - 0)/(19 - 6)	
-0.0263454			
-0.223144 J (11/18/2006)	ND<0 (12/19/1996)	(-0.223144 - 0)/(20 - 6)	
-0.0159388			
0.788457 (5/23/2007)	ND<0 (12/19/1996)	(0.788457 - 0)/(21 - 6)	
0.0525638			
0.431782 J (11/28/2007)	ND<0 (12/19/1996)	(0.431782 - 0)/(22 - 6)	
0.0269864			
ND<0 (6/5/2008)	ND<0 (12/19/1996)	(0 - 0)/(23 - 6)	0
0.300105 J (11/20/2008)	ND<0 (12/19/1996)	(0.300105 - 0)/(24 - 6)	
0.0166725			
0.641854 (6/11/2009)	ND<0 (12/19/1996)	(0.641854 - 0)/(25 - 6)	
0.0337818			

0.336472 (11/16/2009)	ND<0 (12/19/1996)	(0.336472 - 0)/(26 - 6)	
0.0168236			
0.587787 (6/30/2010)	ND<0 (12/19/1996)	(0.587787 - 0)/(27 - 6)	
0.0279898			
0.182322 (11/12/2010)	ND<0 (12/19/1996)	(0.182322 - 0)/(28 - 6)	
0.00828734			
-0.274437 J (7/5/2011)	ND<0 (12/19/1996)	(-0.274437 - 0)/(29 - 6)	
-0.011932			
-0.198451 J (11/22/2011)	ND<0 (12/19/1996)	(-0.198451 - 0)/(30 - 6)	
-0.00826879			
-0.198451 J (11/22/2011)	ND<0 (12/19/1996)	(-0.198451 - 0)/(30 - 6)	
-0.00826879			
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
0.788457 (3/16/1999)	ND<0 (3/24/1997)	(0.788457 - 0)/(11 - 7)	
0.197114			
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
0.652325 J (4/1/2005)	ND<0 (3/24/1997)	(0.652325 - 0)/(17 - 7)	
0.0652325			
0.0861777 J (10/25/2005)	ND<0 (3/24/1997)	(0.0861777 - 0)/(18 - 7)	
0.00783434			
-0.34249 J (4/29/2006)	ND<0 (3/24/1997)	(-0.34249 - 0)/(19 - 7)	
-0.0285409			
-0.223144 J (11/18/2006)	ND<0 (3/24/1997)	(-0.223144 - 0)/(20 - 7)	
-0.0171649			
0.788457 (5/23/2007)	ND<0 (3/24/1997)	(0.788457 - 0)/(21 - 7)	
0.0563184			
0.431782 J (11/28/2007)	ND<0 (3/24/1997)	(0.431782 - 0)/(22 - 7)	
0.0287855			
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0
0.300105 J (11/20/2008)	ND<0 (3/24/1997)	(0.300105 - 0)/(24 - 7)	
0.0176532			
0.641854 (6/11/2009)	ND<0 (3/24/1997)	(0.641854 - 0)/(25 - 7)	
0.0356585			
0.336472 (11/16/2009)	ND<0 (3/24/1997)	(0.336472 - 0)/(26 - 7)	
0.0177091			
0.587787 (6/30/2010)	ND<0 (3/24/1997)	(0.587787 - 0)/(27 - 7)	
0.0293893			
0.182322 (11/12/2010)	ND<0 (3/24/1997)	(0.182322 - 0)/(28 - 7)	
0.00868198			
-0.274437 J (7/5/2011)	ND<0 (3/24/1997)	(-0.274437 - 0)/(29 - 7)	
-0.0124744			
-0.198451 J (11/22/2011)	ND<0 (3/24/1997)	(-0.198451 - 0)/(30 - 7)	
-0.0086283			
-0.198451 J (11/22/2011)	ND<0 (3/24/1997)	(-0.198451 - 0)/(30 - 7)	
-0.0086283			
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
0.788457 (3/16/1999)	ND<0 (9/24/1997)	(0.788457 - 0)/(11 - 8)	
0.262819			
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0

0.652325 J (4/1/2005)	ND<0 (9/24/1997)	(0.652325 - 0)/(17 - 8)	
0.0724806			
0.0861777 J (10/25/2005)	ND<0 (9/24/1997)	(0.0861777 - 0)/(18 - 8)	
0.00861777			
-0.34249 J (4/29/2006)	ND<0 (9/24/1997)	(-0.34249 - 0)/(19 - 8)	
-0.0311355			
-0.223144 J (11/18/2006)	ND<0 (9/24/1997)	(-0.223144 - 0)/(20 - 8)	
-0.0185953			
0.788457 (5/23/2007)	ND<0 (9/24/1997)	(0.788457 - 0)/(21 - 8)	
0.0606506			
0.431782 J (11/28/2007)	ND<0 (9/24/1997)	(0.431782 - 0)/(22 - 8)	
0.0308416			
ND<0 (6/5/2008)	ND<0 (9/24/1997)	(0 - 0)/(23 - 8)	0
0.300105 J (11/20/2008)	ND<0 (9/24/1997)	(0.300105 - 0)/(24 - 8)	
0.0187565			
0.641854 (6/11/2009)	ND<0 (9/24/1997)	(0.641854 - 0)/(25 - 8)	
0.0377561			
0.336472 (11/16/2009)	ND<0 (9/24/1997)	(0.336472 - 0)/(26 - 8)	
0.0186929			
0.587787 (6/30/2010)	ND<0 (9/24/1997)	(0.587787 - 0)/(27 - 8)	
0.0309361			
0.182322 (11/12/2010)	ND<0 (9/24/1997)	(0.182322 - 0)/(28 - 8)	
0.00911608			
-0.274437 J (7/5/2011)	ND<0 (9/24/1997)	(-0.274437 - 0)/(29 - 8)	
-0.0130684			
-0.198451 J (11/22/2011)	ND<0 (9/24/1997)	(-0.198451 - 0)/(30 - 8)	
-0.0090205			
-0.198451 J (11/22/2011)	ND<0 (9/24/1997)	(-0.198451 - 0)/(30 - 8)	
-0.0090205			
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
0.788457 (3/16/1999)	ND<0 (4/7/1998)	(0.788457 - 0)/(11 - 9)	
0.394229			
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
0.652325 J (4/1/2005)	ND<0 (4/7/1998)	(0.652325 - 0)/(17 - 9)	
0.0815406			
0.0861777 J (10/25/2005)	ND<0 (4/7/1998)	(0.0861777 - 0)/(18 - 9)	
0.0095753			
-0.34249 J (4/29/2006)	ND<0 (4/7/1998)	(-0.34249 - 0)/(19 - 9)	
-0.034249			
-0.223144 J (11/18/2006)	ND<0 (4/7/1998)	(-0.223144 - 0)/(20 - 9)	
-0.0202858			
0.788457 (5/23/2007)	ND<0 (4/7/1998)	(0.788457 - 0)/(21 - 9)	
0.0657048			
0.431782 J (11/28/2007)	ND<0 (4/7/1998)	(0.431782 - 0)/(22 - 9)	
0.033214			
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0
0.300105 J (11/20/2008)	ND<0 (4/7/1998)	(0.300105 - 0)/(24 - 9)	
0.020007			
0.641854 (6/11/2009)	ND<0 (4/7/1998)	(0.641854 - 0)/(25 - 9)	
0.0401159			
0.336472 (11/16/2009)	ND<0 (4/7/1998)	(0.336472 - 0)/(26 - 9)	
0.0197925			
0.587787 (6/30/2010)	ND<0 (4/7/1998)	(0.587787 - 0)/(27 - 9)	
0.0326548			
0.182322 (11/12/2010)	ND<0 (4/7/1998)	(0.182322 - 0)/(28 - 9)	
0.00959587			

-0.274437 J (7/5/2011)	ND<0 (4/7/1998)	(-0.274437 - 0)/(29 - 9)	
-0.0137218			
-0.198451 J (11/22/2011)	ND<0 (4/7/1998)	(-0.198451 - 0)/(30 - 9)	
-0.00945004			
-0.198451 J (11/22/2011)	ND<0 (4/7/1998)	(-0.198451 - 0)/(30 - 9)	
-0.00945004			
0.788457 (3/16/1999)	ND<0 (9/23/1998)	(0.788457 - 0)/(11 - 10)	
0.788457			
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0
0.652325 J (4/1/2005)	ND<0 (9/23/1998)	(0.652325 - 0)/(17 - 10)	
0.0931893			
0.0861777 J (10/25/2005)	ND<0 (9/23/1998)	(0.0861777 - 0)/(18 - 10)	
0.0107722			
-0.34249 J (4/29/2006)	ND<0 (9/23/1998)	(-0.34249 - 0)/(19 - 10)	
-0.0380545			
-0.223144 J (11/18/2006)	ND<0 (9/23/1998)	(-0.223144 - 0)/(20 - 10)	
-0.0223144			
0.788457 (5/23/2007)	ND<0 (9/23/1998)	(0.788457 - 0)/(21 - 10)	
0.0716779			
0.431782 J (11/28/2007)	ND<0 (9/23/1998)	(0.431782 - 0)/(22 - 10)	
0.0359819			
ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0
0.300105 J (11/20/2008)	ND<0 (9/23/1998)	(0.300105 - 0)/(24 - 10)	
0.021436			
0.641854 (6/11/2009)	ND<0 (9/23/1998)	(0.641854 - 0)/(25 - 10)	
0.0427903			
0.336472 (11/16/2009)	ND<0 (9/23/1998)	(0.336472 - 0)/(26 - 10)	
0.0210295			
0.587787 (6/30/2010)	ND<0 (9/23/1998)	(0.587787 - 0)/(27 - 10)	
0.0345757			
0.182322 (11/12/2010)	ND<0 (9/23/1998)	(0.182322 - 0)/(28 - 10)	
0.010129			
-0.274437 J (7/5/2011)	ND<0 (9/23/1998)	(-0.274437 - 0)/(29 - 10)	
-0.014444			
-0.198451 J (11/22/2011)	ND<0 (9/23/1998)	(-0.198451 - 0)/(30 - 10)	
-0.00992255			
-0.198451 J (11/22/2011)	ND<0 (9/23/1998)	(-0.198451 - 0)/(30 - 10)	
-0.00992255			
ND<0 (9/23/1999)	0.788457 (3/16/1999)	(0 - 0.788457)/(12 - 11)	
-0.788457			
ND<0 (3/15/2000)	0.788457 (3/16/1999)	(0 - 0.788457)/(13 - 11)	
-0.394229			
ND<0 (9/24/2003)	0.788457 (3/16/1999)	(0 - 0.788457)/(14 - 11)	
-0.262819			
ND<0 (3/11/2004)	0.788457 (3/16/1999)	(0 - 0.788457)/(15 - 11)	
-0.197114			
ND<0 (10/12/2004)	0.788457 (3/16/1999)	(0 - 0.788457)/(16 - 11)	
-0.157691			
0.652325 J (4/1/2005)	0.788457 (3/16/1999)	(0.652325 - 0.788457)/(17 - 11)	
-0.0226887			
0.0861777 J (10/25/2005)	0.788457 (3/16/1999)	(0.0861777 - 0.788457)/(18 - 11)	
-0.100326			
-0.34249 J (4/29/2006)	0.788457 (3/16/1999)	(-0.34249 - 0.788457)/(19 - 11)	
-0.141368			
-0.223144 J (11/18/2006)	0.788457 (3/16/1999)	(-0.223144 - 0.788457)/(20 - 11)	
-0.1124			

0.788457 (5/23/2007)	0.788457 (3/16/1999)	(0.788457 - 0.788457)/(21 - 11)	0
0.431782 J (11/28/2007)	0.788457 (3/16/1999)	(0.431782 - 0.788457)/(22 - 11)	-0.032425
ND<0 (6/5/2008)	0.788457 (3/16/1999)	(0 - 0.788457)/(23 - 11)	-0.0657048
0.300105 J (11/20/2008)	0.788457 (3/16/1999)	(0.300105 - 0.788457)/(24 - 11)	-0.0375656
0.641854 (6/11/2009)	0.788457 (3/16/1999)	(0.641854 - 0.788457)/(25 - 11)	-0.0104717
0.336472 (11/16/2009)	0.788457 (3/16/1999)	(0.336472 - 0.788457)/(26 - 11)	-0.0301323
0.587787 (6/30/2010)	0.788457 (3/16/1999)	(0.587787 - 0.788457)/(27 - 11)	-0.0125419
0.182322 (11/12/2010)	0.788457 (3/16/1999)	(0.182322 - 0.788457)/(28 - 11)	-0.035655
-0.274437 J (7/5/2011)	0.788457 (3/16/1999)	(-0.274437 - 0.788457)/(29 - 11)	-0.0590497
-0.198451 J (11/22/2011)	0.788457 (3/16/1999)	(-0.198451 - 0.788457)/(30 - 11)	-0.0519425
-0.198451 J (11/22/2011)	0.788457 (3/16/1999)	(-0.198451 - 0.788457)/(30 - 11)	-0.0519425

ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0
0.652325 J (4/1/2005)	ND<0 (9/23/1999)	(0.652325 - 0)/(17 - 12)	0.130465
0.0861777 J (10/25/2005)	ND<0 (9/23/1999)	(0.0861777 - 0)/(18 - 12)	0.0143629
-0.34249 J (4/29/2006)	ND<0 (9/23/1999)	(-0.34249 - 0)/(19 - 12)	-0.0489272
-0.223144 J (11/18/2006)	ND<0 (9/23/1999)	(-0.223144 - 0)/(20 - 12)	-0.0278929
0.788457 (5/23/2007)	ND<0 (9/23/1999)	(0.788457 - 0)/(21 - 12)	0.0876064
0.431782 J (11/28/2007)	ND<0 (9/23/1999)	(0.431782 - 0)/(22 - 12)	0.0431782
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0
0.300105 J (11/20/2008)	ND<0 (9/23/1999)	(0.300105 - 0)/(24 - 12)	0.0250087
0.641854 (6/11/2009)	ND<0 (9/23/1999)	(0.641854 - 0)/(25 - 12)	0.0493734
0.336472 (11/16/2009)	ND<0 (9/23/1999)	(0.336472 - 0)/(26 - 12)	0.0240337
0.587787 (6/30/2010)	ND<0 (9/23/1999)	(0.587787 - 0)/(27 - 12)	0.0391858
0.182322 (11/12/2010)	ND<0 (9/23/1999)	(0.182322 - 0)/(28 - 12)	0.0113951
-0.274437 J (7/5/2011)	ND<0 (9/23/1999)	(-0.274437 - 0)/(29 - 12)	-0.0161433
-0.198451 J (11/22/2011)	ND<0 (9/23/1999)	(-0.198451 - 0)/(30 - 12)	-0.0110251
-0.198451 J (11/22/2011)	ND<0 (9/23/1999)	(-0.198451 - 0)/(30 - 12)	-0.0110251

ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0
0.652325 J (4/1/2005)	ND<0 (3/15/2000)	(0.652325 - 0)/(17 - 13)	0.163081

0.0861777 J (10/25/2005)	ND<0	(3/15/2000)	(0.0861777 - 0)/(18 - 13)	
0.0172355				
-0.34249 J (4/29/2006)	ND<0	(3/15/2000)	(-0.34249 - 0)/(19 - 13)	
-0.0570817				
-0.223144 J (11/18/2006)	ND<0	(3/15/2000)	(-0.223144 - 0)/(20 - 13)	
-0.0318777				
0.788457 (5/23/2007)	ND<0	(3/15/2000)	(0.788457 - 0)/(21 - 13)	
0.0985572				
0.431782 J (11/28/2007)	ND<0	(3/15/2000)	(0.431782 - 0)/(22 - 13)	
0.0479758				
ND<0 (6/5/2008)	ND<0	(3/15/2000)	(0 - 0)/(23 - 13)	0
0.300105 J (11/20/2008)	ND<0	(3/15/2000)	(0.300105 - 0)/(24 - 13)	
0.0272822				
0.641854 (6/11/2009)	ND<0	(3/15/2000)	(0.641854 - 0)/(25 - 13)	
0.0534878				
0.336472 (11/16/2009)	ND<0	(3/15/2000)	(0.336472 - 0)/(26 - 13)	
0.0258825				
0.587787 (6/30/2010)	ND<0	(3/15/2000)	(0.587787 - 0)/(27 - 13)	
0.0419848				
0.182322 (11/12/2010)	ND<0	(3/15/2000)	(0.182322 - 0)/(28 - 13)	
0.0121548				
-0.274437 J (7/5/2011)	ND<0	(3/15/2000)	(-0.274437 - 0)/(29 - 13)	
-0.0171523				
-0.198451 J (11/22/2011)	ND<0	(3/15/2000)	(-0.198451 - 0)/(30 - 13)	
-0.0116736				
-0.198451 J (11/22/2011)	ND<0	(3/15/2000)	(-0.198451 - 0)/(30 - 13)	
-0.0116736				
ND<0 (3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0 (10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0
0.652325 J (4/1/2005)	ND<0	(9/24/2003)	(0.652325 - 0)/(17 - 14)	
0.217442				
0.0861777 J (10/25/2005)	ND<0	(9/24/2003)	(0.0861777 - 0)/(18 - 14)	
0.0215444				
-0.34249 J (4/29/2006)	ND<0	(9/24/2003)	(-0.34249 - 0)/(19 - 14)	
-0.0684981				
-0.223144 J (11/18/2006)	ND<0	(9/24/2003)	(-0.223144 - 0)/(20 - 14)	
-0.0371906				
0.788457 (5/23/2007)	ND<0	(9/24/2003)	(0.788457 - 0)/(21 - 14)	
0.112637				
0.431782 J (11/28/2007)	ND<0	(9/24/2003)	(0.431782 - 0)/(22 - 14)	
0.0539728				
ND<0 (6/5/2008)	ND<0	(9/24/2003)	(0 - 0)/(23 - 14)	0
0.300105 J (11/20/2008)	ND<0	(9/24/2003)	(0.300105 - 0)/(24 - 14)	
0.0300105				
0.641854 (6/11/2009)	ND<0	(9/24/2003)	(0.641854 - 0)/(25 - 14)	
0.0583504				
0.336472 (11/16/2009)	ND<0	(9/24/2003)	(0.336472 - 0)/(26 - 14)	
0.0280394				
0.587787 (6/30/2010)	ND<0	(9/24/2003)	(0.587787 - 0)/(27 - 14)	
0.0452144				
0.182322 (11/12/2010)	ND<0	(9/24/2003)	(0.182322 - 0)/(28 - 14)	
0.013023				
-0.274437 J (7/5/2011)	ND<0	(9/24/2003)	(-0.274437 - 0)/(29 - 14)	
-0.0182958				
-0.198451 J (11/22/2011)	ND<0	(9/24/2003)	(-0.198451 - 0)/(30 - 14)	
-0.0124032				
-0.198451 J (11/22/2011)	ND<0	(9/24/2003)	(-0.198451 - 0)/(30 - 14)	
-0.0124032				
ND<0 (10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(16 - 15)	0

0.652325 J (4/1/2005)	ND<0 (3/11/2004)	(0.652325 - 0)/(17 - 15)		
0.326163				
0.0861777 J (10/25/2005)	ND<0 (3/11/2004)	(0.0861777 - 0)/(18 - 15)		
0.0287259				
-0.34249 J (4/29/2006)	ND<0 (3/11/2004)	(-0.34249 - 0)/(19 - 15)		
-0.0856226				
-0.223144 J (11/18/2006)	ND<0 (3/11/2004)	(-0.223144 - 0)/(20 - 15)		
-0.0446287				
0.788457 (5/23/2007)	ND<0 (3/11/2004)	(0.788457 - 0)/(21 - 15)		0.13141
0.431782 J (11/28/2007)	ND<0 (3/11/2004)	(0.431782 - 0)/(22 - 15)		
0.0616832				
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0	
0.300105 J (11/20/2008)	ND<0 (3/11/2004)	(0.300105 - 0)/(24 - 15)		
0.033345				
0.641854 (6/11/2009)	ND<0 (3/11/2004)	(0.641854 - 0)/(25 - 15)		
0.0641854				
0.336472 (11/16/2009)	ND<0 (3/11/2004)	(0.336472 - 0)/(26 - 15)		
0.0305884				
0.587787 (6/30/2010)	ND<0 (3/11/2004)	(0.587787 - 0)/(27 - 15)		
0.0489822				
0.182322 (11/12/2010)	ND<0 (3/11/2004)	(0.182322 - 0)/(28 - 15)		
0.0140247				
-0.274437 J (7/5/2011)	ND<0 (3/11/2004)	(-0.274437 - 0)/(29 - 15)		
-0.0196026				
-0.198451 J (11/22/2011)	ND<0 (3/11/2004)	(-0.198451 - 0)/(30 - 15)		
-0.0132301				
-0.198451 J (11/22/2011)	ND<0 (3/11/2004)	(-0.198451 - 0)/(30 - 15)		
-0.0132301				
0.652325 J (4/1/2005)	ND<0 (10/12/2004)	(0.652325 - 0)/(17 - 16)		
0.652325				
0.0861777 J (10/25/2005)	ND<0 (10/12/2004)	(0.0861777 - 0)/(18 - 16)		
0.0430888				
-0.34249 J (4/29/2006)	ND<0 (10/12/2004)	(-0.34249 - 0)/(19 - 16)		
-0.114163				
-0.223144 J (11/18/2006)	ND<0 (10/12/2004)	(-0.223144 - 0)/(20 - 16)		
-0.0557859				
0.788457 (5/23/2007)	ND<0 (10/12/2004)	(0.788457 - 0)/(21 - 16)		
0.157691				
0.431782 J (11/28/2007)	ND<0 (10/12/2004)	(0.431782 - 0)/(22 - 16)		
0.0719637				
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0	
0.300105 J (11/20/2008)	ND<0 (10/12/2004)	(0.300105 - 0)/(24 - 16)		
0.0375131				
0.641854 (6/11/2009)	ND<0 (10/12/2004)	(0.641854 - 0)/(25 - 16)		
0.0713171				
0.336472 (11/16/2009)	ND<0 (10/12/2004)	(0.336472 - 0)/(26 - 16)		
0.0336472				
0.587787 (6/30/2010)	ND<0 (10/12/2004)	(0.587787 - 0)/(27 - 16)		
0.0534352				
0.182322 (11/12/2010)	ND<0 (10/12/2004)	(0.182322 - 0)/(28 - 16)		
0.0151935				
-0.274437 J (7/5/2011)	ND<0 (10/12/2004)	(-0.274437 - 0)/(29 - 16)		
-0.0211105				
-0.198451 J (11/22/2011)	ND<0 (10/12/2004)	(-0.198451 - 0)/(30 - 16)		
-0.0141751				
-0.198451 J (11/22/2011)	ND<0 (10/12/2004)	(-0.198451 - 0)/(30 - 16)		
-0.0141751				
0.0861777 J (10/25/2005)	0.652325 J (4/1/2005)	(0.0861777 - 0.652325)/(18 - 17)		
-0.566147				

-0.34249 J (4/29/2006)	0.652325 J (4/1/2005)	(-0.34249 - 0.652325)/(19 - 17)
-0.497408		
-0.223144 J (11/18/2006)	0.652325 J (4/1/2005)	(-0.223144 - 0.652325)/(20 - 17)
-0.291823		
0.788457 (5/23/2007)	0.652325 J (4/1/2005)	(0.788457 - 0.652325)/(21 - 17)
0.034033		
0.431782 J (11/28/2007)	0.652325 J (4/1/2005)	(0.431782 - 0.652325)/(22 - 17)
-0.0441086		
ND<0 (6/5/2008)	0.652325 J (4/1/2005)	(0 - 0.652325)/(23 - 17)
-0.108721		
0.300105 J (11/20/2008)	0.652325 J (4/1/2005)	(0.300105 - 0.652325)/(24 - 17)
-0.0503172		
0.641854 (6/11/2009)	0.652325 J (4/1/2005)	(0.641854 - 0.652325)/(25 - 17)
-0.00130891		
0.336472 (11/16/2009)	0.652325 J (4/1/2005)	(0.336472 - 0.652325)/(26 - 17)
-0.0350948		
0.587787 (6/30/2010)	0.652325 J (4/1/2005)	(0.587787 - 0.652325)/(27 - 17)
-0.00645385		
0.182322 (11/12/2010)	0.652325 J (4/1/2005)	(0.182322 - 0.652325)/(28 - 17)
-0.0427276		
-0.274437 J (7/5/2011)	0.652325 J (4/1/2005)	(-0.274437 - 0.652325)/(29 - 17)
-0.0772302		
-0.198451 J (11/22/2011)	0.652325 J (4/1/2005)	(-0.198451 - 0.652325)/(30 - 17)
-0.0654443		
-0.198451 J (11/22/2011)	0.652325 J (4/1/2005)	(-0.198451 - 0.652325)/(30 - 17)
-0.0654443		
-0.34249 J (4/29/2006)	0.0861777 J (10/25/2005)	(-0.34249 - 0.0861777)/(19 - 18)
-0.428668		
-0.223144 J (11/18/2006)	0.0861777 J (10/25/2005)	(-0.223144 - 0.0861777)/(20 - 18)
-0.154661		
0.788457 (5/23/2007)	0.0861777 J (10/25/2005)	(0.788457 - 0.0861777)/(21 - 18)
0.234093		
0.431782 J (11/28/2007)	0.0861777 J (10/25/2005)	(0.431782 - 0.0861777)/(22 - 18)
0.0864012		
ND<0 (6/5/2008)	0.0861777 J (10/25/2005)	(0 - 0.0861777)/(23 - 18)
-0.0172355		
0.300105 J (11/20/2008)	0.0861777 J (10/25/2005)	(0.300105 - 0.0861777)/(24 - 18)
0.0356545		
0.641854 (6/11/2009)	0.0861777 J (10/25/2005)	(0.641854 - 0.0861777)/(25 - 18)
0.0793823		
0.336472 (11/16/2009)	0.0861777 J (10/25/2005)	(0.336472 - 0.0861777)/(26 - 18)
0.0312868		
0.587787 (6/30/2010)	0.0861777 J (10/25/2005)	(0.587787 - 0.0861777)/(27 - 18)
0.0557343		
0.182322 (11/12/2010)	0.0861777 J (10/25/2005)	(0.182322 - 0.0861777)/(28 - 18)
0.00961439		
-0.274437 J (7/5/2011)	0.0861777 J (10/25/2005)	(-0.274437 - 0.0861777)/(29 - 18)
-0.0327831		
-0.198451 J (11/22/2011)	0.0861777 J (10/25/2005)	(-0.198451 - 0.0861777)/(30 - 18)
-0.0237191		
-0.198451 J (11/22/2011)	0.0861777 J (10/25/2005)	(-0.198451 - 0.0861777)/(30 - 18)
-0.0237191		
-0.223144 J (11/18/2006)	-0.34249 J (4/29/2006)	(-0.223144 - -0.34249)/(20 - 19)
0.119347		
0.788457 (5/23/2007)	-0.34249 J (4/29/2006)	(0.788457 - -0.34249)/(21 - 19)
0.565474		
0.431782 J (11/28/2007)	-0.34249 J (4/29/2006)	(0.431782 - -0.34249)/(22 - 19)
0.258091		
ND<0 (6/5/2008)	-0.34249 J (4/29/2006)	(0 - -0.34249)/(23 - 19)
0.0856226		

0.300105 J (11/20/2008)	-0.34249 J (4/29/2006)	(0.300105 - -0.34249)/(24 - 19)	0.128519
0.641854 (6/11/2009)	-0.34249 J (4/29/2006)	(0.641854 - -0.34249)/(25 - 19)	0.164057
0.336472 (11/16/2009)	-0.34249 J (4/29/2006)	(0.336472 - -0.34249)/(26 - 19)	0.0969946
0.587787 (6/30/2010)	-0.34249 J (4/29/2006)	(0.587787 - -0.34249)/(27 - 19)	0.116285
0.182322 (11/12/2010)	-0.34249 J (4/29/2006)	(0.182322 - -0.34249)/(28 - 19)	0.0583124
-0.274437 J (7/5/2011)	-0.34249 J (4/29/2006)	(-0.274437 - -0.34249)/(29 - 19)	0.00680535
-0.198451 J (11/22/2011)	-0.34249 J (4/29/2006)	(-0.198451 - -0.34249)/(30 - 19)	0.0130945
-0.198451 J (11/22/2011)	-0.34249 J (4/29/2006)	(-0.198451 - -0.34249)/(30 - 19)	0.0130945
0.788457 (5/23/2007)	-0.223144 J (11/18/2006)	(0.788457 - -0.223144)/(21 - 20)	1.0116
0.431782 J (11/28/2007)	-0.223144 J (11/18/2006)	(0.431782 - -0.223144)/(22 - 20)	0.327463
ND<0 (6/5/2008)	-0.223144 J (11/18/2006)	(0 - -0.223144)/(23 - 20)	0.0743812
0.300105 J (11/20/2008)	-0.223144 J (11/18/2006)	(0.300105 - -0.223144)/(24 - 20)	0.130812
0.641854 (6/11/2009)	-0.223144 J (11/18/2006)	(0.641854 - -0.223144)/(25 - 20)	0.172999
0.336472 (11/16/2009)	-0.223144 J (11/18/2006)	(0.336472 - -0.223144)/(26 - 20)	0.0932693
0.587787 (6/30/2010)	-0.223144 J (11/18/2006)	(0.587787 - -0.223144)/(27 - 20)	0.115847
0.182322 (11/12/2010)	-0.223144 J (11/18/2006)	(0.182322 - -0.223144)/(28 - 20)	0.0506831
-0.274437 J (7/5/2011)	-0.223144 J (11/18/2006)	(-0.274437 - -0.223144)/(29 - 20)	-0.00569925
-0.198451 J (11/22/2011)	-0.223144 J (11/18/2006)	(-0.198451 - -0.223144)/(30 - 20)	0.00246926
-0.198451 J (11/22/2011)	-0.223144 J (11/18/2006)	(-0.198451 - -0.223144)/(30 - 20)	0.00246926
0.431782 J (11/28/2007)	0.788457 (5/23/2007)	(0.431782 - 0.788457)/(22 - 21)	-0.356675
ND<0 (6/5/2008)	0.788457 (5/23/2007)	(0 - 0.788457)/(23 - 21)	-0.394229
0.300105 J (11/20/2008)	0.788457 (5/23/2007)	(0.300105 - 0.788457)/(24 - 21)	-0.162784
0.641854 (6/11/2009)	0.788457 (5/23/2007)	(0.641854 - 0.788457)/(25 - 21)	-0.0366509
0.336472 (11/16/2009)	0.788457 (5/23/2007)	(0.336472 - 0.788457)/(26 - 21)	-0.090397
0.587787 (6/30/2010)	0.788457 (5/23/2007)	(0.587787 - 0.788457)/(27 - 21)	-0.0334451
0.182322 (11/12/2010)	0.788457 (5/23/2007)	(0.182322 - 0.788457)/(28 - 21)	-0.0865908
-0.274437 J (7/5/2011)	0.788457 (5/23/2007)	(-0.274437 - 0.788457)/(29 - 21)	-0.132862
-0.198451 J (11/22/2011)	0.788457 (5/23/2007)	(-0.198451 - 0.788457)/(30 - 21)	-0.109656
-0.198451 J (11/22/2011)	0.788457 (5/23/2007)	(-0.198451 - 0.788457)/(30 - 21)	-0.109656

ND<0 (6/5/2008)	0.431782 J (11/28/2007)	(0 - 0.431782)/(23 - 22)	-0.431782
0.300105 J (11/20/2008)	0.431782 J (11/28/2007)	(0.300105 - 0.431782)/(24 - 22)	-0.0658389
0.641854 (6/11/2009)	0.431782 J (11/28/2007)	(0.641854 - 0.431782)/(25 - 22)	0.0700238
0.336472 (11/16/2009)	0.431782 J (11/28/2007)	(0.336472 - 0.431782)/(26 - 22)	-0.0238275
0.587787 (6/30/2010)	0.431782 J (11/28/2007)	(0.587787 - 0.431782)/(27 - 22)	0.0312008
0.182322 (11/12/2010)	0.431782 J (11/28/2007)	(0.182322 - 0.431782)/(28 - 22)	-0.0415768
-0.274437 J (7/5/2011)	0.431782 J (11/28/2007)	(-0.274437 - 0.431782)/(29 - 22)	-0.100888
-0.198451 J (11/22/2011)	0.431782 J (11/28/2007)	(-0.198451 - 0.431782)/(30 - 22)	-0.0787792
-0.198451 J (11/22/2011)	0.431782 J (11/28/2007)	(-0.198451 - 0.431782)/(30 - 22)	-0.0787792
0.300105 J (11/20/2008)	ND<0 (6/5/2008)	(0.300105 - 0)/(24 - 23)	0.300105
0.641854 (6/11/2009)	ND<0 (6/5/2008)	(0.641854 - 0)/(25 - 23)	0.320927
0.336472 (11/16/2009)	ND<0 (6/5/2008)	(0.336472 - 0)/(26 - 23)	0.112157
0.587787 (6/30/2010)	ND<0 (6/5/2008)	(0.587787 - 0)/(27 - 23)	0.146947
0.182322 (11/12/2010)	ND<0 (6/5/2008)	(0.182322 - 0)/(28 - 23)	0.0364643
-0.274437 J (7/5/2011)	ND<0 (6/5/2008)	(-0.274437 - 0)/(29 - 23)	-0.0457395
-0.198451 J (11/22/2011)	ND<0 (6/5/2008)	(-0.198451 - 0)/(30 - 23)	-0.0283501
-0.198451 J (11/22/2011)	ND<0 (6/5/2008)	(-0.198451 - 0)/(30 - 23)	-0.0283501
0.641854 (6/11/2009)	0.300105 J (11/20/2008)	(0.641854 - 0.300105)/(25 - 24)	0.341749
0.336472 (11/16/2009)	0.300105 J (11/20/2008)	(0.336472 - 0.300105)/(26 - 24)	0.0181838
0.587787 (6/30/2010)	0.300105 J (11/20/2008)	(0.587787 - 0.300105)/(27 - 24)	0.095894
0.182322 (11/12/2010)	0.300105 J (11/20/2008)	(0.182322 - 0.300105)/(28 - 24)	-0.0294458
-0.274437 J (7/5/2011)	0.300105 J (11/20/2008)	(-0.274437 - 0.300105)/(29 - 24)	-0.114908
-0.198451 J (11/22/2011)	0.300105 J (11/20/2008)	(-0.198451 - 0.300105)/(30 - 24)	-0.0830926
-0.198451 J (11/22/2011)	0.300105 J (11/20/2008)	(-0.198451 - 0.300105)/(30 - 24)	-0.0830926
0.336472 (11/16/2009)	0.641854 (6/11/2009)	(0.336472 - 0.641854)/(26 - 25)	-0.305382
0.587787 (6/30/2010)	0.641854 (6/11/2009)	(0.587787 - 0.641854)/(27 - 25)	-0.0270336
0.182322 (11/12/2010)	0.641854 (6/11/2009)	(0.182322 - 0.641854)/(28 - 25)	-0.153177
-0.274437 J (7/5/2011)	0.641854 (6/11/2009)	(-0.274437 - 0.641854)/(29 - 25)	-0.229073
-0.198451 J (11/22/2011)	0.641854 (6/11/2009)	(-0.198451 - 0.641854)/(30 - 25)	-0.168061

-0.198451 J (11/22/2011)	0.641854 (6/11/2009)	(-0.198451 - 0.641854)/(30 - 25)	-0.168061
0.587787 (6/30/2010)	0.336472 (11/16/2009)	(0.587787 - 0.336472)/(27 - 26)	0.251314
0.182322 (11/12/2010)	0.336472 (11/16/2009)	(0.182322 - 0.336472)/(28 - 26)	-0.0770753
-0.274437 J (7/5/2011)	0.336472 (11/16/2009)	(-0.274437 - 0.336472)/(29 - 26)	-0.203636
-0.198451 J (11/22/2011)	0.336472 (11/16/2009)	(-0.198451 - 0.336472)/(30 - 26)	-0.133731
-0.198451 J (11/22/2011)	0.336472 (11/16/2009)	(-0.198451 - 0.336472)/(30 - 26)	-0.133731
0.182322 (11/12/2010)	0.587787 (6/30/2010)	(0.182322 - 0.587787)/(28 - 27)	-0.405465
-0.274437 J (7/5/2011)	0.587787 (6/30/2010)	(-0.274437 - 0.587787)/(29 - 27)	-0.431112
-0.198451 J (11/22/2011)	0.587787 (6/30/2010)	(-0.198451 - 0.587787)/(30 - 27)	-0.262079
-0.198451 J (11/22/2011)	0.587787 (6/30/2010)	(-0.198451 - 0.587787)/(30 - 27)	-0.262079
-0.274437 J (7/5/2011)	0.182322 (11/12/2010)	(-0.274437 - 0.182322)/(29 - 28)	-0.456758
-0.198451 J (11/22/2011)	0.182322 (11/12/2010)	(-0.198451 - 0.182322)/(30 - 28)	-0.190386
-0.198451 J (11/22/2011)	0.182322 (11/12/2010)	(-0.198451 - 0.182322)/(30 - 28)	-0.190386
-0.198451 J (11/22/2011)	-0.274437 J (7/5/2011)	(-0.198451 - -0.274437)/(30 - 29)	0.0759859
-0.198451 J (11/22/2011)	-0.274437 J (7/5/2011)	(-0.198451 - -0.274437)/(30 - 29)	0.0759859
-0.198451 J (11/22/2011)	-0.198451 J (11/22/2011)	(-0.198451 - -0.198451)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.09861
2	-0.788457
3	-0.566147
4	-0.549306
5	-0.549306
6	-0.497408
7	-0.456758
8	-0.431782
9	-0.431112
10	-0.428668
11	-0.405465
12	-0.394229
13	-0.394229
14	-0.366204
15	-0.366204
16	-0.356675
17	-0.318504
18	-0.305382

19	-0.291823
20	-0.274653
21	-0.274653
22	-0.262819
23	-0.262079
24	-0.262079
25	-0.238878
26	-0.229073
27	-0.229073
28	-0.219722
29	-0.219722
30	-0.203636
31	-0.197114
32	-0.191102
33	-0.190386
34	-0.190386
35	-0.183258
36	-0.183102
37	-0.183102
38	-0.168061
39	-0.168061
40	-0.162784
41	-0.159252
42	-0.157691
43	-0.156945
44	-0.154661
45	-0.153177
46	-0.152715
47	-0.141368
48	-0.137327
49	-0.136502
50	-0.133731
51	-0.133731
52	-0.132862
53	-0.130899
54	-0.122068
55	-0.122068
56	-0.119439
57	-0.114908
58	-0.114536
59	-0.114163
60	-0.1124
61	-0.109861
62	-0.109861
63	-0.109656
64	-0.109656
65	-0.108721
66	-0.10181
67	-0.100888
68	-0.100326
69	-0.0998738
70	-0.0998738
71	-0.0960735
72	-0.0955511
73	-0.091551
74	-0.091551
75	-0.090397
76	-0.0900689
77	-0.0868647
78	-0.0865908
79	-0.0856226
80	-0.0845086

81	-0.0832992
82	-0.0830926
83	-0.0830926
84	-0.0826097
85	-0.079626
86	-0.0787792
87	-0.0787792
88	-0.0777503
89	-0.0772302
90	-0.0770753
91	-0.0763576
92	-0.076353
93	-0.0735009
94	-0.0723168
95	-0.0704839
96	-0.0699323
97	-0.0684981
98	-0.0682508
99	-0.0674956
100	-0.0658389
101	-0.0657048
102	-0.0654808
103	-0.0654493
104	-0.0654443
105	-0.0654443
106	-0.061086
107	-0.0599702
108	-0.0590497
109	-0.0578217
110	-0.0570817
111	-0.0557859
112	-0.0549306
113	-0.054922
114	-0.0543334
115	-0.0528096
116	-0.0519425
117	-0.0519425
118	-0.0503172
119	-0.049887
120	-0.049887
121	-0.0489272
122	-0.0488302
123	-0.0480394
124	-0.0480394
125	-0.0457395
126	-0.0455536
127	-0.0455005
128	-0.0446287
129	-0.0443078
130	-0.0441086
131	-0.0427276
132	-0.042526
133	-0.0416496
134	-0.0415768
135	-0.0412129
136	-0.0412129
137	-0.0399254
138	-0.0387694
139	-0.0384394
140	-0.0384394
141	-0.0381788
142	-0.0380545

143	-0.0380242
144	-0.0375656
145	-0.0371906
146	-0.0370461
147	-0.0366516
148	-0.0366509
149	-0.035655
150	-0.0350963
151	-0.0350948
152	-0.0346427
153	-0.0343298
154	-0.034249
155	-0.0334451
156	-0.0331365
157	-0.0327831
158	-0.032425
159	-0.0318777
160	-0.0318777
161	-0.0311355
162	-0.0301323
163	-0.0297912
164	-0.0297381
165	-0.0294458
166	-0.0285409
167	-0.0283501
168	-0.0283501
169	-0.0278929
170	-0.027184
171	-0.0270336
172	-0.0267907
173	-0.0263454
174	-0.0261865
175	-0.0257933
176	-0.0244636
177	-0.0238275
178	-0.0237191
179	-0.0237191
180	-0.0231927
181	-0.0230718
182	-0.0226887
183	-0.0223144
184	-0.0222098
185	-0.0217504
186	-0.0212844
187	-0.0211105
188	-0.0207617
189	-0.0202858
190	-0.0202124
191	-0.0196026
192	-0.0185953
193	-0.0185616
194	-0.0182958
195	-0.0182444
196	-0.0172355
197	-0.0172308
198	-0.0171649
199	-0.0171523
200	-0.0164978
201	-0.0161433
202	-0.0159388
203	-0.0148762
204	-0.014709

205	-0.014444
206	-0.0141751
207	-0.0141751
208	-0.0137218
209	-0.0136373
210	-0.0132301
211	-0.0132301
212	-0.0130684
213	-0.0127833
214	-0.0126348
215	-0.0125419
216	-0.0124744
217	-0.0124032
218	-0.0124032
219	-0.011932
220	-0.0116736
221	-0.0116736
222	-0.0114349
223	-0.0114349
224	-0.0110251
225	-0.0110251
226	-0.0104717
227	-0.00992255
228	-0.00992255
229	-0.00945004
230	-0.00945004
231	-0.0090205
232	-0.0090205
233	-0.00879232
234	-0.0086283
235	-0.0086283
236	-0.00826879
237	-0.00826879
238	-0.00793804
239	-0.00793804
240	-0.00645385
241	-0.00639167
242	-0.00569925
243	-0.00130891
244	0
245	0
246	0
247	0
248	0
249	0
250	0
251	0
252	0
253	0
254	0
255	0
256	0
257	0
258	0
259	0
260	0
261	0
262	0
263	0
264	0
265	0
266	0

267	0
268	0
269	0
270	0
271	0
272	0
273	0
274	0
275	0
276	0
277	0
278	0
279	0
280	0
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290	0
291	0
292	0
293	0
294	0
295	0
296	0
297	0
298	0
299	0
300	0
301	0
302	0
303	0
304	0
305	0
306	0
307	0
308	0
309	0
310	0
311	0
312	0.00246926
313	0.00246926
314	0.00662905
315	0.00680535
316	0.00718147
317	0.00783434
318	0.00792702
319	0.00828734
320	0.00861777
321	0.00868198
322	0.00911608
323	0.0095753
324	0.00959587
325	0.00961439
326	0.010129
327	0.0107722
328	0.0113951

329	0.0121548
330	0.013023
331	0.0130945
332	0.0130945
333	0.0140247
334	0.0143629
335	0.0151935
336	0.015795
337	0.0160225
338	0.0166725
339	0.0168236
340	0.0172355
341	0.0176532
342	0.0177091
343	0.0181838
344	0.0186929
345	0.0187565
346	0.0197925
347	0.020007
348	0.0210295
349	0.021436
350	0.0215444
351	0.0240337
352	0.0250087
353	0.025399
354	0.0258825
355	0.0267176
356	0.0269864
357	0.0272822
358	0.0279898
359	0.0280394
360	0.0287259
361	0.0287855
362	0.0293893
363	0.0300105
364	0.0305884
365	0.0308416
366	0.0309361
367	0.0312008
368	0.0312868
369	0.0320927
370	0.0326548
371	0.033214
372	0.033345
373	0.0336472
374	0.0337818
375	0.034033
376	0.0345757
377	0.0356545
378	0.0356585
379	0.0359819
380	0.0364643
381	0.0375131
382	0.0377561
383	0.0391858
384	0.0392207
385	0.0401159
386	0.0419848
387	0.0427903
388	0.0430888
389	0.0431782
390	0.0452144

391	0.0479758
392	0.0489822
393	0.0492786
394	0.0493734
395	0.0506831
396	0.0525638
397	0.0534352
398	0.0534878
399	0.0539728
400	0.0543604
401	0.0557343
402	0.0563184
403	0.0583124
404	0.0583504
405	0.0593023
406	0.0606506
407	0.0607739
408	0.0616832
409	0.0641854
410	0.0652325
411	0.0657048
412	0.0700238
413	0.0713171
414	0.0715504
415	0.0716779
416	0.0719637
417	0.0724806
418	0.0743812
419	0.0759859
420	0.0759859
421	0.0793823
422	0.0815406
423	0.0856226
424	0.0864012
425	0.0876064
426	0.0911608
427	0.0931893
428	0.0932693
429	0.095894
430	0.0969946
431	0.0985572
432	0.112157
433	0.112637
434	0.115847
435	0.116285
436	0.119347
437	0.128519
438	0.130465
439	0.130812
440	0.13141
441	0.13141
442	0.143101
443	0.146947
444	0.157691
445	0.157691
446	0.163081
447	0.164057
448	0.172999
449	0.197114
450	0.217442
451	0.234093
452	0.251314

453	0.258091
454	0.262819
455	0.300105
456	0.320927
457	0.326163
458	0.327463
459	0.341749
460	0.394229
461	0.565474
462	0.652325
463	0.788457
464	1.0116

Sen's Estimator (Median Q) is -0.00890641

Tied Group Value Members

1	1.09861	2	
2	0	12	
3	0.788457		2
4	-0.198451		2

Time Period Observations

7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 3882
B = 18
C = 1320
D = 0
E = 138
F = 2
a = 62310
b = 242730

c = 1860
Group Variance = 3245.15
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 93.701
M1 = (464 - 93.701)/2.0 = 185.149
M2 = (464 + 93.701)/2.0 + 1 = 279.851
Lower limit is -0.0217504 = Q(185)
Upper limit is 0 = Q(280)
-0.0217504 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Benzene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0	(8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
ND<0	(9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1)	0
ND<0	(10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1)	0
ND<0	(11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0	(12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0	(3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
1.6864	(9/24/1997)	ND<0 (7/20/1995)	(1.6864 - 0)/(8 - 1)	
	0.240914			
ND<0	(4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
1.72277	(9/23/1998)	ND<0 (7/20/1995)	(1.72277 - 0)/(10 - 1)	
	0.191419			
1.25276	(3/16/1999)	ND<0 (7/20/1995)	(1.25276 - 0)/(11 - 1)	
	0.125276			
1.28093	(9/23/1999)	ND<0 (7/20/1995)	(1.28093 - 0)/(12 - 1)	
	0.116449			
ND<0	(3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0	(9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0	(3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0	(10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
1.16938	(4/1/2005)	ND<0 (7/20/1995)	(1.16938 - 0)/(17 - 1)	
	0.0730863			
1.60744	(10/25/2005)	ND<0 (7/20/1995)	(1.60744 - 0)/(18 - 1)	
	0.0945551			
0.932164	(4/29/2006)	ND<0 (7/20/1995)	(0.932164 - 0)/(19 - 1)	
	0.0517869			
1.39377	(11/18/2006)	ND<0 (7/20/1995)	(1.39377 - 0)/(20 - 1)	
	0.0733561			
1.16315	(5/23/2007)	ND<0 (7/20/1995)	(1.16315 - 0)/(21 - 1)	
	0.0581575			
1.50408	(11/28/2007)	ND<0 (7/20/1995)	(1.50408 - 0)/(22 - 1)	
	0.0716227			
1.40364	(6/5/2008)	ND<0 (7/20/1995)	(1.40364 - 0)/(23 - 1)	
	0.063802			
1.00063	(11/20/2008)	ND<0 (7/20/1995)	(1.00063 - 0)/(24 - 1)	
	0.0435057			
1.28093	(6/11/2009)	ND<0 (7/20/1995)	(1.28093 - 0)/(25 - 1)	
	0.0533722			
0.741937	(6/30/2010)	ND<0 (7/20/1995)	(0.741937 - 0)/(26 - 1)	
	0.0296775			
1.06471	(11/12/2010)	ND<0 (7/20/1995)	(1.06471 - 0)/(27 - 1)	
	0.0409504			
1.25276	(7/5/2011)	ND<0 (7/20/1995)	(1.25276 - 0)/(28 - 1)	
	0.0463986			
1.06471	(11/22/2011)	ND<0 (7/20/1995)	(1.06471 - 0)/(29 - 1)	
	0.0380254			
1.06471	(11/22/2011)	ND<0 (7/20/1995)	(1.06471 - 0)/(29 - 1)	
	0.0380254			
ND<0	(9/28/1995)	ND<0 (8/24/1995)	(0 - 0)/(3 - 2)	0
ND<0	(10/26/1995)	ND<0 (8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0	(11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0

ND<0	(12/19/1996)	ND<0	(8/24/1995)	(0 - 0)/(6 - 2)	0
ND<0	(3/24/1997)	ND<0	(8/24/1995)	(0 - 0)/(7 - 2)	0
1.6864	(9/24/1997)	ND<0	(8/24/1995)	(1.6864 - 0)/(8 - 2)	
0.281066					
ND<0	(4/7/1998)	ND<0	(8/24/1995)	(0 - 0)/(9 - 2)	0
1.72277	(9/23/1998)	ND<0	(8/24/1995)	(1.72277 - 0)/(10 - 2)	
0.215346					
1.25276	(3/16/1999)	ND<0	(8/24/1995)	(1.25276 - 0)/(11 - 2)	
0.139196					
1.28093	(9/23/1999)	ND<0	(8/24/1995)	(1.28093 - 0)/(12 - 2)	
0.128093					
ND<0	(3/15/2000)	ND<0	(8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0	(9/24/2003)	ND<0	(8/24/1995)	(0 - 0)/(14 - 2)	0
ND<0	(3/11/2004)	ND<0	(8/24/1995)	(0 - 0)/(15 - 2)	0
ND<0	(10/12/2004)	ND<0	(8/24/1995)	(0 - 0)/(16 - 2)	0
1.16938	(4/1/2005)	ND<0	(8/24/1995)	(1.16938 - 0)/(17 - 2)	
0.0779588					
1.60744	(10/25/2005)	ND<0	(8/24/1995)	(1.60744 - 0)/(18 - 2)	
0.100465					
0.932164	(4/29/2006)	ND<0	(8/24/1995)	(0.932164 - 0)/(19 - 2)	
0.0548332					
1.39377	(11/18/2006)	ND<0	(8/24/1995)	(1.39377 - 0)/(20 - 2)	
0.0774315					
1.16315	(5/23/2007)	ND<0	(8/24/1995)	(1.16315 - 0)/(21 - 2)	
0.0612185					
1.50408	(11/28/2007)	ND<0	(8/24/1995)	(1.50408 - 0)/(22 - 2)	
0.0752039					
1.40364	(6/5/2008)	ND<0	(8/24/1995)	(1.40364 - 0)/(23 - 2)	
0.0668401					
1.00063	(11/20/2008)	ND<0	(8/24/1995)	(1.00063 - 0)/(24 - 2)	
0.0454833					
1.28093	(6/11/2009)	ND<0	(8/24/1995)	(1.28093 - 0)/(25 - 2)	
0.0556928					
0.741937	(6/30/2010)	ND<0	(8/24/1995)	(0.741937 - 0)/(26 - 2)	
0.0309141					
1.06471	(11/12/2010)	ND<0	(8/24/1995)	(1.06471 - 0)/(27 - 2)	
0.0425884					
1.25276	(7/5/2011)	ND<0	(8/24/1995)	(1.25276 - 0)/(28 - 2)	
0.0481832					
1.06471	(11/22/2011)	ND<0	(8/24/1995)	(1.06471 - 0)/(29 - 2)	
0.0394337					
1.06471	(11/22/2011)	ND<0	(8/24/1995)	(1.06471 - 0)/(29 - 2)	
0.0394337					

ND<0	(10/26/1995)	ND<0	(9/28/1995)	(0 - 0)/(4 - 3)	0	
ND<0	(11/19/1996)	ND<0	(9/28/1995)	(0 - 0)/(5 - 3)	0	
ND<0	(12/19/1996)	ND<0	(9/28/1995)	(0 - 0)/(6 - 3)	0	
ND<0	(3/24/1997)	ND<0	(9/28/1995)	(0 - 0)/(7 - 3)	0	
1.6864	(9/24/1997)	ND<0	(9/28/1995)	(1.6864 - 0)/(8 - 3)		0.33728
ND<0	(4/7/1998)	ND<0	(9/28/1995)	(0 - 0)/(9 - 3)	0	
1.72277	(9/23/1998)	ND<0	(9/28/1995)	(1.72277 - 0)/(10 - 3)		0.24611
1.25276	(3/16/1999)	ND<0	(9/28/1995)	(1.25276 - 0)/(11 - 3)		
0.156595						
1.28093	(9/23/1999)	ND<0	(9/28/1995)	(1.28093 - 0)/(12 - 3)		
0.142326						
ND<0	(3/15/2000)	ND<0	(9/28/1995)	(0 - 0)/(13 - 3)	0	
ND<0	(9/24/2003)	ND<0	(9/28/1995)	(0 - 0)/(14 - 3)	0	
ND<0	(3/11/2004)	ND<0	(9/28/1995)	(0 - 0)/(15 - 3)	0	
ND<0	(10/12/2004)	ND<0	(9/28/1995)	(0 - 0)/(16 - 3)	0	
1.16938	(4/1/2005)	ND<0	(9/28/1995)	(1.16938 - 0)/(17 - 3)		
0.0835272						

1.60744 (10/25/2005)	ND<0 (9/28/1995)	(1.60744 - 0)/(18 - 3)			
0.107162					
0.932164 (4/29/2006)	ND<0 (9/28/1995)	(0.932164 - 0)/(19 - 3)			
0.0582603					
1.39377 (11/18/2006)	ND<0 (9/28/1995)	(1.39377 - 0)/(20 - 3)			
0.0819863					
1.16315 (5/23/2007)	ND<0 (9/28/1995)	(1.16315 - 0)/(21 - 3)			
0.0646195					
1.50408 (11/28/2007)	ND<0 (9/28/1995)	(1.50408 - 0)/(22 - 3)			
0.079162					
1.40364 (6/5/2008)	ND<0 (9/28/1995)	(1.40364 - 0)/(23 - 3)			
0.0701821					
1.00063 (11/20/2008)	ND<0 (9/28/1995)	(1.00063 - 0)/(24 - 3)			
0.0476491					
1.28093 (6/11/2009)	ND<0 (9/28/1995)	(1.28093 - 0)/(25 - 3)			
0.0582243					
0.741937 (6/30/2010)	ND<0 (9/28/1995)	(0.741937 - 0)/(26 - 3)			
0.0322581					
1.06471 (11/12/2010)	ND<0 (9/28/1995)	(1.06471 - 0)/(27 - 3)			
0.0443629					
1.25276 (7/5/2011)	ND<0 (9/28/1995)	(1.25276 - 0)/(28 - 3)			
0.0501105					
1.06471 (11/22/2011)	ND<0 (9/28/1995)	(1.06471 - 0)/(29 - 3)			
0.0409504					
1.06471 (11/22/2011)	ND<0 (9/28/1995)	(1.06471 - 0)/(29 - 3)			
0.0409504					
ND<0 (11/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(5 - 4)	0		
ND<0 (12/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(6 - 4)	0		
ND<0 (3/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(7 - 4)	0		
1.6864 (9/24/1997)	ND<0 (10/26/1995)	(1.6864 - 0)/(8 - 4)		0.4216	
ND<0 (4/7/1998)	ND<0 (10/26/1995)	(0 - 0)/(9 - 4)	0		
1.72277 (9/23/1998)	ND<0 (10/26/1995)	(1.72277 - 0)/(10 - 4)			
0.287128					
1.25276 (3/16/1999)	ND<0 (10/26/1995)	(1.25276 - 0)/(11 - 4)			
0.178966					
1.28093 (9/23/1999)	ND<0 (10/26/1995)	(1.28093 - 0)/(12 - 4)			
0.160117					
ND<0 (3/15/2000)	ND<0 (10/26/1995)	(0 - 0)/(13 - 4)	0		
ND<0 (9/24/2003)	ND<0 (10/26/1995)	(0 - 0)/(14 - 4)	0		
ND<0 (3/11/2004)	ND<0 (10/26/1995)	(0 - 0)/(15 - 4)	0		
ND<0 (10/12/2004)	ND<0 (10/26/1995)	(0 - 0)/(16 - 4)	0		
1.16938 (4/1/2005)	ND<0 (10/26/1995)	(1.16938 - 0)/(17 - 4)			
0.0899524					
1.60744 (10/25/2005)	ND<0 (10/26/1995)	(1.60744 - 0)/(18 - 4)			
0.114817					
0.932164 (4/29/2006)	ND<0 (10/26/1995)	(0.932164 - 0)/(19 - 4)			
0.0621443					
1.39377 (11/18/2006)	ND<0 (10/26/1995)	(1.39377 - 0)/(20 - 4)			
0.0871104					
1.16315 (5/23/2007)	ND<0 (10/26/1995)	(1.16315 - 0)/(21 - 4)			
0.0684206					
1.50408 (11/28/2007)	ND<0 (10/26/1995)	(1.50408 - 0)/(22 - 4)			
0.0835599					
1.40364 (6/5/2008)	ND<0 (10/26/1995)	(1.40364 - 0)/(23 - 4)			
0.0738759					
1.00063 (11/20/2008)	ND<0 (10/26/1995)	(1.00063 - 0)/(24 - 4)			
0.0500316					
1.28093 (6/11/2009)	ND<0 (10/26/1995)	(1.28093 - 0)/(25 - 4)			
0.0609968					
0.741937 (6/30/2010)	ND<0 (10/26/1995)	(0.741937 - 0)/(26 - 4)			
0.0337244					

1.06471	(11/12/2010)	ND<0	(10/26/1995)	(1.06471 - 0)/(27 - 4)	
0.0462918					
1.25276	(7/5/2011)	ND<0	(10/26/1995)	(1.25276 - 0)/(28 - 4)	
0.0521985					
1.06471	(11/22/2011)	ND<0	(10/26/1995)	(1.06471 - 0)/(29 - 4)	
0.0425884					
1.06471	(11/22/2011)	ND<0	(10/26/1995)	(1.06471 - 0)/(29 - 4)	
0.0425884					
ND<0	(12/19/1996)	ND<0	(11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0	(3/24/1997)	ND<0	(11/19/1996)	(0 - 0)/(7 - 5)	0
1.6864	(9/24/1997)	ND<0	(11/19/1996)	(1.6864 - 0)/(8 - 5)	
0.562133					
ND<0	(4/7/1998)	ND<0	(11/19/1996)	(0 - 0)/(9 - 5)	0
1.72277	(9/23/1998)	ND<0	(11/19/1996)	(1.72277 - 0)/(10 - 5)	
0.344553					
1.25276	(3/16/1999)	ND<0	(11/19/1996)	(1.25276 - 0)/(11 - 5)	
0.208794					
1.28093	(9/23/1999)	ND<0	(11/19/1996)	(1.28093 - 0)/(12 - 5)	
0.182991					
ND<0	(3/15/2000)	ND<0	(11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0	(9/24/2003)	ND<0	(11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0	(3/11/2004)	ND<0	(11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0	(10/12/2004)	ND<0	(11/19/1996)	(0 - 0)/(16 - 5)	0
1.16938	(4/1/2005)	ND<0	(11/19/1996)	(1.16938 - 0)/(17 - 5)	
0.0974484					
1.60744	(10/25/2005)	ND<0	(11/19/1996)	(1.60744 - 0)/(18 - 5)	
0.123649					
0.932164	(4/29/2006)	ND<0	(11/19/1996)	(0.932164 - 0)/(19 - 5)	
0.0665831					
1.39377	(11/18/2006)	ND<0	(11/19/1996)	(1.39377 - 0)/(20 - 5)	
0.0929178					
1.16315	(5/23/2007)	ND<0	(11/19/1996)	(1.16315 - 0)/(21 - 5)	
0.0726969					
1.50408	(11/28/2007)	ND<0	(11/19/1996)	(1.50408 - 0)/(22 - 5)	
0.0884751					
1.40364	(6/5/2008)	ND<0	(11/19/1996)	(1.40364 - 0)/(23 - 5)	
0.0779802					
1.00063	(11/20/2008)	ND<0	(11/19/1996)	(1.00063 - 0)/(24 - 5)	
0.0526648					
1.28093	(6/11/2009)	ND<0	(11/19/1996)	(1.28093 - 0)/(25 - 5)	
0.0640467					
0.741937	(6/30/2010)	ND<0	(11/19/1996)	(0.741937 - 0)/(26 - 5)	
0.0353303					
1.06471	(11/12/2010)	ND<0	(11/19/1996)	(1.06471 - 0)/(27 - 5)	
0.0483959					
1.25276	(7/5/2011)	ND<0	(11/19/1996)	(1.25276 - 0)/(28 - 5)	
0.054468					
1.06471	(11/22/2011)	ND<0	(11/19/1996)	(1.06471 - 0)/(29 - 5)	
0.0443629					
1.06471	(11/22/2011)	ND<0	(11/19/1996)	(1.06471 - 0)/(29 - 5)	
0.0443629					
ND<0	(3/24/1997)	ND<0	(12/19/1996)	(0 - 0)/(7 - 6)	0
1.6864	(9/24/1997)	ND<0	(12/19/1996)	(1.6864 - 0)/(8 - 6)	
0.843199					
ND<0	(4/7/1998)	ND<0	(12/19/1996)	(0 - 0)/(9 - 6)	0
1.72277	(9/23/1998)	ND<0	(12/19/1996)	(1.72277 - 0)/(10 - 6)	
0.430692					
1.25276	(3/16/1999)	ND<0	(12/19/1996)	(1.25276 - 0)/(11 - 6)	
0.250553					

1.28093	(9/23/1999)	ND<0	(12/19/1996)	(1.28093 - 0)/(12 - 6)	
0.213489					
ND<0	(3/15/2000)	ND<0	(12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0	(9/24/2003)	ND<0	(12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0	(3/11/2004)	ND<0	(12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0	(10/12/2004)	ND<0	(12/19/1996)	(0 - 0)/(16 - 6)	0
1.16938	(4/1/2005)	ND<0	(12/19/1996)	(1.16938 - 0)/(17 - 6)	
0.106307					
1.60744	(10/25/2005)	ND<0	(12/19/1996)	(1.60744 - 0)/(18 - 6)	
0.133953					
0.932164	(4/29/2006)	ND<0	(12/19/1996)	(0.932164 - 0)/(19 - 6)	
0.0717049					
1.39377	(11/18/2006)	ND<0	(12/19/1996)	(1.39377 - 0)/(20 - 6)	
0.0995547					
1.16315	(5/23/2007)	ND<0	(12/19/1996)	(1.16315 - 0)/(21 - 6)	
0.0775434					
1.50408	(11/28/2007)	ND<0	(12/19/1996)	(1.50408 - 0)/(22 - 6)	
0.0940048					
1.40364	(6/5/2008)	ND<0	(12/19/1996)	(1.40364 - 0)/(23 - 6)	
0.0825672					
1.00063	(11/20/2008)	ND<0	(12/19/1996)	(1.00063 - 0)/(24 - 6)	
0.0555907					
1.28093	(6/11/2009)	ND<0	(12/19/1996)	(1.28093 - 0)/(25 - 6)	
0.0674176					
0.741937	(6/30/2010)	ND<0	(12/19/1996)	(0.741937 - 0)/(26 - 6)	
0.0370969					
1.06471	(11/12/2010)	ND<0	(12/19/1996)	(1.06471 - 0)/(27 - 6)	
0.0507005					
1.25276	(7/5/2011)	ND<0	(12/19/1996)	(1.25276 - 0)/(28 - 6)	
0.0569438					
1.06471	(11/22/2011)	ND<0	(12/19/1996)	(1.06471 - 0)/(29 - 6)	
0.0462918					
1.06471	(11/22/2011)	ND<0	(12/19/1996)	(1.06471 - 0)/(29 - 6)	
0.0462918					

1.6864	(9/24/1997)	ND<0	(3/24/1997)	(1.6864 - 0)/(8 - 7)		1.6864
ND<0	(4/7/1998)	ND<0	(3/24/1997)	(0 - 0)/(9 - 7)	0	
1.72277	(9/23/1998)	ND<0	(3/24/1997)	(1.72277 - 0)/(10 - 7)		
0.574256						
1.25276	(3/16/1999)	ND<0	(3/24/1997)	(1.25276 - 0)/(11 - 7)		
0.313191						
1.28093	(9/23/1999)	ND<0	(3/24/1997)	(1.28093 - 0)/(12 - 7)		
0.256187						
ND<0	(3/15/2000)	ND<0	(3/24/1997)	(0 - 0)/(13 - 7)	0	
ND<0	(9/24/2003)	ND<0	(3/24/1997)	(0 - 0)/(14 - 7)	0	
ND<0	(3/11/2004)	ND<0	(3/24/1997)	(0 - 0)/(15 - 7)	0	
ND<0	(10/12/2004)	ND<0	(3/24/1997)	(0 - 0)/(16 - 7)	0	
1.16938	(4/1/2005)	ND<0	(3/24/1997)	(1.16938 - 0)/(17 - 7)		
0.116938						
1.60744	(10/25/2005)	ND<0	(3/24/1997)	(1.60744 - 0)/(18 - 7)		
0.146131						
0.932164	(4/29/2006)	ND<0	(3/24/1997)	(0.932164 - 0)/(19 - 7)		
0.0776803						
1.39377	(11/18/2006)	ND<0	(3/24/1997)	(1.39377 - 0)/(20 - 7)		
0.107213						
1.16315	(5/23/2007)	ND<0	(3/24/1997)	(1.16315 - 0)/(21 - 7)		
0.0830822						
1.50408	(11/28/2007)	ND<0	(3/24/1997)	(1.50408 - 0)/(22 - 7)		
0.100272						
1.40364	(6/5/2008)	ND<0	(3/24/1997)	(1.40364 - 0)/(23 - 7)		
0.0877277						

1.00063	(11/20/2008)	ND<0	(3/24/1997)	(1.00063 - 0)/(24 - 7)		
0.0588607						
1.28093	(6/11/2009)	ND<0	(3/24/1997)	(1.28093 - 0)/(25 - 7)		
0.071163						
0.741937	(6/30/2010)	ND<0	(3/24/1997)	(0.741937 - 0)/(26 - 7)		
0.0390493						
1.06471	(11/12/2010)	ND<0	(3/24/1997)	(1.06471 - 0)/(27 - 7)		
0.0532355						
1.25276	(7/5/2011)	ND<0	(3/24/1997)	(1.25276 - 0)/(28 - 7)		
0.0596554						
1.06471	(11/22/2011)	ND<0	(3/24/1997)	(1.06471 - 0)/(29 - 7)		
0.0483959						
1.06471	(11/22/2011)	ND<0	(3/24/1997)	(1.06471 - 0)/(29 - 7)		
0.0483959						
ND<0	(4/7/1998)	1.6864	(9/24/1997)	(0 - 1.6864)/(9 - 8)		-1.6864
1.72277	(9/23/1998)	1.6864	(9/24/1997)	(1.72277 - 1.6864)/(10 - 8)		
0.0181838						
1.25276	(3/16/1999)	1.6864	(9/24/1997)	(1.25276 - 1.6864)/(11 - 8)		
-0.144545						
1.28093	(9/23/1999)	1.6864	(9/24/1997)	(1.28093 - 1.6864)/(12 - 8)		
-0.101366						
ND<0	(3/15/2000)	1.6864	(9/24/1997)	(0 - 1.6864)/(13 - 8)		-0.33728
ND<0	(9/24/2003)	1.6864	(9/24/1997)	(0 - 1.6864)/(14 - 8)		
-0.281066						
ND<0	(3/11/2004)	1.6864	(9/24/1997)	(0 - 1.6864)/(15 - 8)		
-0.240914						
ND<0	(10/12/2004)	1.6864	(9/24/1997)	(0 - 1.6864)/(16 - 8)		-0.2108
1.16938	(4/1/2005)	1.6864	(9/24/1997)	(1.16938 - 1.6864)/(17 - 8)		
-0.0574464						
1.60744	(10/25/2005)	1.6864	(9/24/1997)	(1.60744 - 1.6864)/(18 - 8)		
-0.0078963						
0.932164	(4/29/2006)	1.6864	(9/24/1997)	(0.932164 - 1.6864)/(19 - 8)		
-0.0685668						
1.39377	(11/18/2006)	1.6864	(9/24/1997)	(1.39377 - 1.6864)/(20 - 8)		
-0.024386						
1.16315	(5/23/2007)	1.6864	(9/24/1997)	(1.16315 - 1.6864)/(21 - 8)		
-0.0402499						
1.50408	(11/28/2007)	1.6864	(9/24/1997)	(1.50408 - 1.6864)/(22 - 8)		
-0.013023						
1.40364	(6/5/2008)	1.6864	(9/24/1997)	(1.40364 - 1.6864)/(23 - 8)		
-0.0188504						
1.00063	(11/20/2008)	1.6864	(9/24/1997)	(1.00063 - 1.6864)/(24 - 8)		
-0.0428604						
1.28093	(6/11/2009)	1.6864	(9/24/1997)	(1.28093 - 1.6864)/(25 - 8)		
-0.0238509						
0.741937	(6/30/2010)	1.6864	(9/24/1997)	(0.741937 - 1.6864)/(26 - 8)		
-0.0524701						
1.06471	(11/12/2010)	1.6864	(9/24/1997)	(1.06471 - 1.6864)/(27 - 8)		
-0.0327204						
1.25276	(7/5/2011)	1.6864	(9/24/1997)	(1.25276 - 1.6864)/(28 - 8)		
-0.0216818						
1.06471	(11/22/2011)	1.6864	(9/24/1997)	(1.06471 - 1.6864)/(29 - 8)		
-0.0296042						
1.06471	(11/22/2011)	1.6864	(9/24/1997)	(1.06471 - 1.6864)/(29 - 8)		
-0.0296042						
1.72277	(9/23/1998)	ND<0	(4/7/1998)	(1.72277 - 0)/(10 - 9)		1.72277
1.25276	(3/16/1999)	ND<0	(4/7/1998)	(1.25276 - 0)/(11 - 9)		
0.626381						
1.28093	(9/23/1999)	ND<0	(4/7/1998)	(1.28093 - 0)/(12 - 9)		
0.426978						

ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0	
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
1.16938 (4/1/2005)	ND<0 (4/7/1998)	(1.16938 - 0)/(17 - 9)		
0.146173				
1.60744 (10/25/2005)	ND<0 (4/7/1998)	(1.60744 - 0)/(18 - 9)		
0.178604				
0.932164 (4/29/2006)	ND<0 (4/7/1998)	(0.932164 - 0)/(19 - 9)		
0.0932164				
1.39377 (11/18/2006)	ND<0 (4/7/1998)	(1.39377 - 0)/(20 - 9)		
0.126706				
1.16315 (5/23/2007)	ND<0 (4/7/1998)	(1.16315 - 0)/(21 - 9)		
0.0969292				
1.50408 (11/28/2007)	ND<0 (4/7/1998)	(1.50408 - 0)/(22 - 9)		
0.115698				
1.40364 (6/5/2008)	ND<0 (4/7/1998)	(1.40364 - 0)/(23 - 9)		0.10026
1.00063 (11/20/2008)	ND<0 (4/7/1998)	(1.00063 - 0)/(24 - 9)		
0.0667088				
1.28093 (6/11/2009)	ND<0 (4/7/1998)	(1.28093 - 0)/(25 - 9)		
0.0800584				
0.741937 (6/30/2010)	ND<0 (4/7/1998)	(0.741937 - 0)/(26 - 9)		
0.0436434				
1.06471 (11/12/2010)	ND<0 (4/7/1998)	(1.06471 - 0)/(27 - 9)		
0.0591506				
1.25276 (7/5/2011)	ND<0 (4/7/1998)	(1.25276 - 0)/(28 - 9)		
0.0659349				
1.06471 (11/22/2011)	ND<0 (4/7/1998)	(1.06471 - 0)/(29 - 9)		
0.0532355				
1.06471 (11/22/2011)	ND<0 (4/7/1998)	(1.06471 - 0)/(29 - 9)		
0.0532355				

1.25276 (3/16/1999)	1.72277 (9/23/1998)	(1.25276 - 1.72277)/(11 - 10)
-0.470004		
1.28093 (9/23/1999)	1.72277 (9/23/1998)	(1.28093 - 1.72277)/(12 - 10)
-0.220916		
ND<0 (3/15/2000)	1.72277 (9/23/1998)	(0 - 1.72277)/(13 - 10)
-0.574256		
ND<0 (9/24/2003)	1.72277 (9/23/1998)	(0 - 1.72277)/(14 - 10)
-0.430692		
ND<0 (3/11/2004)	1.72277 (9/23/1998)	(0 - 1.72277)/(15 - 10)
-0.344553		
ND<0 (10/12/2004)	1.72277 (9/23/1998)	(0 - 1.72277)/(16 - 10)
-0.287128		
1.16938 (4/1/2005)	1.72277 (9/23/1998)	(1.16938 - 1.72277)/(17 - 10)
-0.079055		
1.60744 (10/25/2005)	1.72277 (9/23/1998)	(1.60744 - 1.72277)/(18 - 10)
-0.0144163		
0.932164 (4/29/2006)	1.72277 (9/23/1998)	(0.932164 - 1.72277)/(19 - 10)
-0.0878447		
1.39377 (11/18/2006)	1.72277 (9/23/1998)	(1.39377 - 1.72277)/(20 - 10)
-0.0329		
1.16315 (5/23/2007)	1.72277 (9/23/1998)	(1.16315 - 1.72277)/(21 - 10)
-0.0508742		
1.50408 (11/28/2007)	1.72277 (9/23/1998)	(1.50408 - 1.72277)/(22 - 10)
-0.0182241		
1.40364 (6/5/2008)	1.72277 (9/23/1998)	(1.40364 - 1.72277)/(23 - 10)
-0.024548		
1.00063 (11/20/2008)	1.72277 (9/23/1998)	(1.00063 - 1.72277)/(24 - 10)
-0.0515811		
1.28093 (6/11/2009)	1.72277 (9/23/1998)	(1.28093 - 1.72277)/(25 - 10)
-0.0294555		

0.741937	(6/30/2010)	1.72277	(9/23/1998)	(0.741937 - 1.72277)/(26 - 10)	
	-0.0613018				
1.06471	(11/12/2010)	1.72277	(9/23/1998)	(1.06471 - 1.72277)/(27 - 10)	
	-0.0387092				
1.25276	(7/5/2011)	1.72277	(9/23/1998)	(1.25276 - 1.72277)/(28 - 10)	
	-0.0261113				
1.06471	(11/22/2011)	1.72277	(9/23/1998)	(1.06471 - 1.72277)/(29 - 10)	
	-0.0346345				
1.06471	(11/22/2011)	1.72277	(9/23/1998)	(1.06471 - 1.72277)/(29 - 10)	
	-0.0346345				
1.28093	(9/23/1999)	1.25276	(3/16/1999)	(1.28093 - 1.25276)/(12 - 11)	
	0.0281709				
ND<0	(3/15/2000)	1.25276	(3/16/1999)	(0 - 1.25276)/(13 - 11)	
	-0.626381				
ND<0	(9/24/2003)	1.25276	(3/16/1999)	(0 - 1.25276)/(14 - 11)	
	-0.417588				
ND<0	(3/11/2004)	1.25276	(3/16/1999)	(0 - 1.25276)/(15 - 11)	
	-0.313191				
ND<0	(10/12/2004)	1.25276	(3/16/1999)	(0 - 1.25276)/(16 - 11)	
	-0.250553				
1.16938	(4/1/2005)	1.25276	(3/16/1999)	(1.16938 - 1.25276)/(17 - 11)	
	-0.0138969				
1.60744	(10/25/2005)	1.25276	(3/16/1999)	(1.60744 - 1.25276)/(18 - 11)	
	0.0506676				
0.932164	(4/29/2006)	1.25276	(3/16/1999)	(0.932164 - 1.25276)/(19 - 11)	
	-0.0400749				
1.39377	(11/18/2006)	1.25276	(3/16/1999)	(1.39377 - 1.25276)/(20 - 11)	
	0.015667				
1.16315	(5/23/2007)	1.25276	(3/16/1999)	(1.16315 - 1.25276)/(21 - 11)	
	-0.00896122				
1.50408	(11/28/2007)	1.25276	(3/16/1999)	(1.50408 - 1.25276)/(22 - 11)	
	0.0228468				
1.40364	(6/5/2008)	1.25276	(3/16/1999)	(1.40364 - 1.25276)/(23 - 11)	
	0.0125733				
1.00063	(11/20/2008)	1.25276	(3/16/1999)	(1.00063 - 1.25276)/(24 - 11)	
	-0.0193947				
1.28093	(6/11/2009)	1.25276	(3/16/1999)	(1.28093 - 1.25276)/(25 - 11)	
	0.00201221				
0.741937	(6/30/2010)	1.25276	(3/16/1999)	(0.741937 - 1.25276)/(26 - 11)	
	-0.034055				
1.06471	(11/12/2010)	1.25276	(3/16/1999)	(1.06471 - 1.25276)/(27 - 11)	
	-0.0117533				
1.25276	(7/5/2011)	1.25276	(3/16/1999)	(1.25276 - 1.25276)/(28 - 11)	
	0				
1.06471	(11/22/2011)	1.25276	(3/16/1999)	(1.06471 - 1.25276)/(29 - 11)	
	-0.0104473				
1.06471	(11/22/2011)	1.25276	(3/16/1999)	(1.06471 - 1.25276)/(29 - 11)	
	-0.0104473				
ND<0	(3/15/2000)	1.28093	(9/23/1999)	(0 - 1.28093)/(13 - 12)	-1.28093
ND<0	(9/24/2003)	1.28093	(9/23/1999)	(0 - 1.28093)/(14 - 12)	
	-0.640467				
ND<0	(3/11/2004)	1.28093	(9/23/1999)	(0 - 1.28093)/(15 - 12)	
	-0.426978				
ND<0	(10/12/2004)	1.28093	(9/23/1999)	(0 - 1.28093)/(16 - 12)	
	-0.320233				
1.16938	(4/1/2005)	1.28093	(9/23/1999)	(1.16938 - 1.28093)/(17 - 12)	
	-0.0223105				
1.60744	(10/25/2005)	1.28093	(9/23/1999)	(1.60744 - 1.28093)/(18 - 12)	
	0.054417				

0.932164	(4/29/2006)	1.28093	(9/23/1999)	(0.932164 - 1.28093)/(19 - 12)		
-0.0498243						
1.39377	(11/18/2006)	1.28093	(9/23/1999)	(1.39377 - 1.28093)/(20 - 12)		
0.0141041						
1.16315	(5/23/2007)	1.28093	(9/23/1999)	(1.16315 - 1.28093)/(21 - 12)		
-0.013087						
1.50408	(11/28/2007)	1.28093	(9/23/1999)	(1.50408 - 1.28093)/(22 - 12)		
0.0223144						
1.40364	(6/5/2008)	1.28093	(9/23/1999)	(1.40364 - 1.28093)/(23 - 12)		
0.0111554						
1.00063	(11/20/2008)	1.28093	(9/23/1999)	(1.00063 - 1.28093)/(24 - 12)		
-0.0233585						
1.28093	(6/11/2009)	1.28093	(9/23/1999)	(1.28093 - 1.28093)/(25 - 12)		
0						
0.741937	(6/30/2010)	1.28093	(9/23/1999)	(0.741937 - 1.28093)/(26 - 12)		
-0.0384998						
1.06471	(11/12/2010)	1.28093	(9/23/1999)	(1.06471 - 1.28093)/(27 - 12)		
-0.0144149						
1.25276	(7/5/2011)	1.28093	(9/23/1999)	(1.25276 - 1.28093)/(28 - 12)		
-0.00176068						
1.06471	(11/22/2011)	1.28093	(9/23/1999)	(1.06471 - 1.28093)/(29 - 12)		
-0.012719						
1.06471	(11/22/2011)	1.28093	(9/23/1999)	(1.06471 - 1.28093)/(29 - 12)		
-0.012719						
ND<0	(9/24/2003)	ND<0	(3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0	(3/11/2004)	ND<0	(3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0	(10/12/2004)	ND<0	(3/15/2000)	(0 - 0)/(16 - 13)	0	
1.16938	(4/1/2005)	ND<0	(3/15/2000)	(1.16938 - 0)/(17 - 13)		
0.292345						
1.60744	(10/25/2005)	ND<0	(3/15/2000)	(1.60744 - 0)/(18 - 13)		
0.321487						
0.932164	(4/29/2006)	ND<0	(3/15/2000)	(0.932164 - 0)/(19 - 13)		
0.155361						
1.39377	(11/18/2006)	ND<0	(3/15/2000)	(1.39377 - 0)/(20 - 13)		
0.199109						
1.16315	(5/23/2007)	ND<0	(3/15/2000)	(1.16315 - 0)/(21 - 13)		
0.145394						
1.50408	(11/28/2007)	ND<0	(3/15/2000)	(1.50408 - 0)/(22 - 13)		0.16712
1.40364	(6/5/2008)	ND<0	(3/15/2000)	(1.40364 - 0)/(23 - 13)		
0.140364						
1.00063	(11/20/2008)	ND<0	(3/15/2000)	(1.00063 - 0)/(24 - 13)		
0.0909665						
1.28093	(6/11/2009)	ND<0	(3/15/2000)	(1.28093 - 0)/(25 - 13)		
0.106744						
0.741937	(6/30/2010)	ND<0	(3/15/2000)	(0.741937 - 0)/(26 - 13)		
0.0570721						
1.06471	(11/12/2010)	ND<0	(3/15/2000)	(1.06471 - 0)/(27 - 13)		
0.0760508						
1.25276	(7/5/2011)	ND<0	(3/15/2000)	(1.25276 - 0)/(28 - 13)		
0.0835175						
1.06471	(11/22/2011)	ND<0	(3/15/2000)	(1.06471 - 0)/(29 - 13)		
0.0665444						
1.06471	(11/22/2011)	ND<0	(3/15/2000)	(1.06471 - 0)/(29 - 13)		
0.0665444						
ND<0	(3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0	(10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0	
1.16938	(4/1/2005)	ND<0	(9/24/2003)	(1.16938 - 0)/(17 - 14)		
0.389794						
1.60744	(10/25/2005)	ND<0	(9/24/2003)	(1.60744 - 0)/(18 - 14)		
0.401859						

0.932164 (4/29/2006)	ND<0 (9/24/2003)	(0.932164 - 0)/(19 - 14)			
0.186433					
1.39377 (11/18/2006)	ND<0 (9/24/2003)	(1.39377 - 0)/(20 - 14)			
0.232294					
1.16315 (5/23/2007)	ND<0 (9/24/2003)	(1.16315 - 0)/(21 - 14)			
0.166164					
1.50408 (11/28/2007)	ND<0 (9/24/2003)	(1.50408 - 0)/(22 - 14)			0.18801
1.40364 (6/5/2008)	ND<0 (9/24/2003)	(1.40364 - 0)/(23 - 14)			0.15596
1.00063 (11/20/2008)	ND<0 (9/24/2003)	(1.00063 - 0)/(24 - 14)			
0.100063					
1.28093 (6/11/2009)	ND<0 (9/24/2003)	(1.28093 - 0)/(25 - 14)			
0.116449					
0.741937 (6/30/2010)	ND<0 (9/24/2003)	(0.741937 - 0)/(26 - 14)			
0.0618281					
1.06471 (11/12/2010)	ND<0 (9/24/2003)	(1.06471 - 0)/(27 - 14)			
0.0819008					
1.25276 (7/5/2011)	ND<0 (9/24/2003)	(1.25276 - 0)/(28 - 14)			
0.0894831					
1.06471 (11/22/2011)	ND<0 (9/24/2003)	(1.06471 - 0)/(29 - 14)			
0.0709807					
1.06471 (11/22/2011)	ND<0 (9/24/2003)	(1.06471 - 0)/(29 - 14)			
0.0709807					
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0		
1.16938 (4/1/2005)	ND<0 (3/11/2004)	(1.16938 - 0)/(17 - 15)			
0.584691					
1.60744 (10/25/2005)	ND<0 (3/11/2004)	(1.60744 - 0)/(18 - 15)			
0.535812					
0.932164 (4/29/2006)	ND<0 (3/11/2004)	(0.932164 - 0)/(19 - 15)			
0.233041					
1.39377 (11/18/2006)	ND<0 (3/11/2004)	(1.39377 - 0)/(20 - 15)			
0.278753					
1.16315 (5/23/2007)	ND<0 (3/11/2004)	(1.16315 - 0)/(21 - 15)			
0.193858					
1.50408 (11/28/2007)	ND<0 (3/11/2004)	(1.50408 - 0)/(22 - 15)			
0.214868					
1.40364 (6/5/2008)	ND<0 (3/11/2004)	(1.40364 - 0)/(23 - 15)			
0.175455					
1.00063 (11/20/2008)	ND<0 (3/11/2004)	(1.00063 - 0)/(24 - 15)			
0.111181					
1.28093 (6/11/2009)	ND<0 (3/11/2004)	(1.28093 - 0)/(25 - 15)			
0.128093					
0.741937 (6/30/2010)	ND<0 (3/11/2004)	(0.741937 - 0)/(26 - 15)			
0.0674488					
1.06471 (11/12/2010)	ND<0 (3/11/2004)	(1.06471 - 0)/(27 - 15)			
0.0887259					
1.25276 (7/5/2011)	ND<0 (3/11/2004)	(1.25276 - 0)/(28 - 15)			
0.0963664					
1.06471 (11/22/2011)	ND<0 (3/11/2004)	(1.06471 - 0)/(29 - 15)			
0.0760508					
1.06471 (11/22/2011)	ND<0 (3/11/2004)	(1.06471 - 0)/(29 - 15)			
0.0760508					
1.16938 (4/1/2005)	ND<0 (10/12/2004)	(1.16938 - 0)/(17 - 16)			1.16938
1.60744 (10/25/2005)	ND<0 (10/12/2004)	(1.60744 - 0)/(18 - 16)			
0.803718					
0.932164 (4/29/2006)	ND<0 (10/12/2004)	(0.932164 - 0)/(19 - 16)			
0.310721					
1.39377 (11/18/2006)	ND<0 (10/12/2004)	(1.39377 - 0)/(20 - 16)			
0.348442					
1.16315 (5/23/2007)	ND<0 (10/12/2004)	(1.16315 - 0)/(21 - 16)			0.23263
1.50408 (11/28/2007)	ND<0 (10/12/2004)	(1.50408 - 0)/(22 - 16)			0.25068

1.40364	(6/5/2008)	ND<0	(10/12/2004)	(1.40364 - 0)/(23 - 16)		0.20052
1.00063	(11/20/2008)	ND<0	(10/12/2004)	(1.00063 - 0)/(24 - 16)		
	0.125079					
1.28093	(6/11/2009)	ND<0	(10/12/2004)	(1.28093 - 0)/(25 - 16)		
	0.142326					
0.741937	(6/30/2010)	ND<0	(10/12/2004)	(0.741937 - 0)/(26 - 16)		
	0.0741937					
1.06471	(11/12/2010)	ND<0	(10/12/2004)	(1.06471 - 0)/(27 - 16)		
	0.0967919					
1.25276	(7/5/2011)	ND<0	(10/12/2004)	(1.25276 - 0)/(28 - 16)		
	0.104397					
1.06471	(11/22/2011)	ND<0	(10/12/2004)	(1.06471 - 0)/(29 - 16)		
	0.0819008					
1.06471	(11/22/2011)	ND<0	(10/12/2004)	(1.06471 - 0)/(29 - 16)		
	0.0819008					
1.60744	(10/25/2005)	1.16938	(4/1/2005)	(1.60744 - 1.16938)/(18 - 17)		
	0.438055					
0.932164	(4/29/2006)	1.16938	(4/1/2005)	(0.932164 - 1.16938)/(19 - 17)		
	-0.118609					
1.39377	(11/18/2006)	1.16938	(4/1/2005)	(1.39377 - 1.16938)/(20 - 17)		
	0.074795					
1.16315	(5/23/2007)	1.16938	(4/1/2005)	(1.16315 - 1.16938)/(21 - 17)		
	-0.00155764					
1.50408	(11/28/2007)	1.16938	(4/1/2005)	(1.50408 - 1.16938)/(22 - 17)		
	0.0669392					
1.40364	(6/5/2008)	1.16938	(4/1/2005)	(1.40364 - 1.16938)/(23 - 17)		
	0.0390436					
1.00063	(11/20/2008)	1.16938	(4/1/2005)	(1.00063 - 1.16938)/(24 - 17)		
	-0.0241071					
1.28093	(6/11/2009)	1.16938	(4/1/2005)	(1.28093 - 1.16938)/(25 - 17)		
	0.0139441					
0.741937	(6/30/2010)	1.16938	(4/1/2005)	(0.741937 - 1.16938)/(26 - 17)		
	-0.0474938					
1.06471	(11/12/2010)	1.16938	(4/1/2005)	(1.06471 - 1.16938)/(27 - 17)		
	-0.0104671					
1.25276	(7/5/2011)	1.16938	(4/1/2005)	(1.25276 - 1.16938)/(28 - 17)		
	0.00758015					
1.06471	(11/22/2011)	1.16938	(4/1/2005)	(1.06471 - 1.16938)/(29 - 17)		
	-0.00872255					
1.06471	(11/22/2011)	1.16938	(4/1/2005)	(1.06471 - 1.16938)/(29 - 17)		
	-0.00872255					
0.932164	(4/29/2006)	1.60744	(10/25/2005)	(0.932164 - 1.60744)/(19 - 18)		
	-0.675272					
1.39377	(11/18/2006)	1.60744	(10/25/2005)	(1.39377 - 1.60744)/(20 - 18)		
	-0.106835					
1.16315	(5/23/2007)	1.60744	(10/25/2005)	(1.16315 - 1.60744)/(21 - 18)		
	-0.148095					
1.50408	(11/28/2007)	1.60744	(10/25/2005)	(1.50408 - 1.60744)/(22 - 18)		
	-0.0258396					
1.40364	(6/5/2008)	1.60744	(10/25/2005)	(1.40364 - 1.60744)/(23 - 18)		
	-0.0407586					
1.00063	(11/20/2008)	1.60744	(10/25/2005)	(1.00063 - 1.60744)/(24 - 18)		
	-0.101134					
1.28093	(6/11/2009)	1.60744	(10/25/2005)	(1.28093 - 1.60744)/(25 - 18)		
	-0.0466432					
0.741937	(6/30/2010)	1.60744	(10/25/2005)	(0.741937 - 1.60744)/(26 - 18)		
	-0.108187					
1.06471	(11/12/2010)	1.60744	(10/25/2005)	(1.06471 - 1.60744)/(27 - 18)		
	-0.0603028					

1.25276	(7/5/2011)	1.60744	(10/25/2005)	(1.25276 - 1.60744)/(28 - 18)
-0.0354673				
1.06471	(11/22/2011)	1.60744	(10/25/2005)	(1.06471 - 1.60744)/(29 - 18)
-0.0493387				
1.06471	(11/22/2011)	1.60744	(10/25/2005)	(1.06471 - 1.60744)/(29 - 18)
-0.0493387				
1.39377	(11/18/2006)	0.932164	(4/29/2006)	(1.39377 - 0.932164)/(20 - 19)
0.461602				
1.16315	(5/23/2007)	0.932164	(4/29/2006)	(1.16315 - 0.932164)/(21 - 19)
0.115493				
1.50408	(11/28/2007)	0.932164	(4/29/2006)	(1.50408 - 0.932164)/(22 - 19)
0.190638				
1.40364	(6/5/2008)	0.932164	(4/29/2006)	(1.40364 - 0.932164)/(23 - 19)
0.11787				
1.00063	(11/20/2008)	0.932164	(4/29/2006)	(1.00063 - 0.932164)/(24 - 19)
0.0136936				
1.28093	(6/11/2009)	0.932164	(4/29/2006)	(1.28093 - 0.932164)/(25 - 19)
0.0581283				
0.741937	(6/30/2010)	0.932164	(4/29/2006)	(0.741937 - 0.932164)/(26 - 19)
-0.0271752				
1.06471	(11/12/2010)	0.932164	(4/29/2006)	(1.06471 - 0.932164)/(27 - 19)
0.0165683				
1.25276	(7/5/2011)	0.932164	(4/29/2006)	(1.25276 - 0.932164)/(28 - 19)
0.0356221				
1.06471	(11/22/2011)	0.932164	(4/29/2006)	(1.06471 - 0.932164)/(29 - 19)
0.0132547				
1.06471	(11/22/2011)	0.932164	(4/29/2006)	(1.06471 - 0.932164)/(29 - 19)
0.0132547				
1.16315	(5/23/2007)	1.39377	(11/18/2006)	(1.16315 - 1.39377)/(21 - 20)
-0.230616				
1.50408	(11/28/2007)	1.39377	(11/18/2006)	(1.50408 - 1.39377)/(22 - 20)
0.0551555				
1.40364	(6/5/2008)	1.39377	(11/18/2006)	(1.40364 - 1.39377)/(23 - 20)
0.00329221				
1.00063	(11/20/2008)	1.39377	(11/18/2006)	(1.00063 - 1.39377)/(24 - 20)
-0.0982836				
1.28093	(6/11/2009)	1.39377	(11/18/2006)	(1.28093 - 1.39377)/(25 - 20)
-0.0225665				
0.741937	(6/30/2010)	1.39377	(11/18/2006)	(0.741937 - 1.39377)/(26 - 20)
-0.108638				
1.06471	(11/12/2010)	1.39377	(11/18/2006)	(1.06471 - 1.39377)/(27 - 20)
-0.0470079				
1.25276	(7/5/2011)	1.39377	(11/18/2006)	(1.25276 - 1.39377)/(28 - 20)
-0.0176254				
1.06471	(11/22/2011)	1.39377	(11/18/2006)	(1.06471 - 1.39377)/(29 - 20)
-0.0365617				
1.06471	(11/22/2011)	1.39377	(11/18/2006)	(1.06471 - 1.39377)/(29 - 20)
-0.0365617				
1.50408	(11/28/2007)	1.16315	(5/23/2007)	(1.50408 - 1.16315)/(22 - 21)
0.340927				
1.40364	(6/5/2008)	1.16315	(5/23/2007)	(1.40364 - 1.16315)/(23 - 21)
0.120246				
1.00063	(11/20/2008)	1.16315	(5/23/2007)	(1.00063 - 1.16315)/(24 - 21)
-0.054173				
1.28093	(6/11/2009)	1.16315	(5/23/2007)	(1.28093 - 1.16315)/(25 - 21)
0.0294458				
0.741937	(6/30/2010)	1.16315	(5/23/2007)	(0.741937 - 1.16315)/(26 - 21)
-0.0842427				

1.06471	(11/12/2010)	1.16315	(5/23/2007)	(1.06471 - 1.16315)/(27 - 21)	-0.0164067
1.25276	(7/5/2011)	1.16315	(5/23/2007)	(1.25276 - 1.16315)/(28 - 21)	0.0128017
1.06471	(11/22/2011)	1.16315	(5/23/2007)	(1.06471 - 1.16315)/(29 - 21)	-0.012305
1.06471	(11/22/2011)	1.16315	(5/23/2007)	(1.06471 - 1.16315)/(29 - 21)	-0.012305
1.40364	(6/5/2008)	1.50408	(11/28/2007)	(1.40364 - 1.50408)/(23 - 22)	-0.100434
1.00063	(11/20/2008)	1.50408	(11/28/2007)	(1.00063 - 1.50408)/(24 - 22)	-0.251723
1.28093	(6/11/2009)	1.50408	(11/28/2007)	(1.28093 - 1.50408)/(25 - 22)	-0.0743812
0.741937	(6/30/2010)	1.50408	(11/28/2007)	(0.741937 - 1.50408)/(26 - 22)	-0.190535
1.06471	(11/12/2010)	1.50408	(11/28/2007)	(1.06471 - 1.50408)/(27 - 22)	-0.0878733
1.25276	(7/5/2011)	1.50408	(11/28/2007)	(1.25276 - 1.50408)/(28 - 22)	-0.0418857
1.06471	(11/22/2011)	1.50408	(11/28/2007)	(1.06471 - 1.50408)/(29 - 22)	-0.0627667
1.06471	(11/22/2011)	1.50408	(11/28/2007)	(1.06471 - 1.50408)/(29 - 22)	-0.0627667
1.00063	(11/20/2008)	1.40364	(6/5/2008)	(1.00063 - 1.40364)/(24 - 23)	-0.403011
1.28093	(6/11/2009)	1.40364	(6/5/2008)	(1.28093 - 1.40364)/(25 - 23)	-0.0613546
0.741937	(6/30/2010)	1.40364	(6/5/2008)	(0.741937 - 1.40364)/(26 - 23)	-0.220569
1.06471	(11/12/2010)	1.40364	(6/5/2008)	(1.06471 - 1.40364)/(27 - 23)	-0.0847331
1.25276	(7/5/2011)	1.40364	(6/5/2008)	(1.25276 - 1.40364)/(28 - 23)	-0.030176
1.06471	(11/22/2011)	1.40364	(6/5/2008)	(1.06471 - 1.40364)/(29 - 23)	-0.0564887
1.06471	(11/22/2011)	1.40364	(6/5/2008)	(1.06471 - 1.40364)/(29 - 23)	-0.0564887
1.28093	(6/11/2009)	1.00063	(11/20/2008)	(1.28093 - 1.00063)/(25 - 24)	0.280302
0.741937	(6/30/2010)	1.00063	(11/20/2008)	(0.741937 - 1.00063)/(26 - 24)	-0.129347
1.06471	(11/12/2010)	1.00063	(11/20/2008)	(1.06471 - 1.00063)/(27 - 24)	0.0213596
1.25276	(7/5/2011)	1.00063	(11/20/2008)	(1.25276 - 1.00063)/(28 - 24)	0.0630328
1.06471	(11/22/2011)	1.00063	(11/20/2008)	(1.06471 - 1.00063)/(29 - 24)	0.0128158
1.06471	(11/22/2011)	1.00063	(11/20/2008)	(1.06471 - 1.00063)/(29 - 24)	0.0128158
0.741937	(6/30/2010)	1.28093	(6/11/2009)	(0.741937 - 1.28093)/(26 - 25)	-0.538997
1.06471	(11/12/2010)	1.28093	(6/11/2009)	(1.06471 - 1.28093)/(27 - 25)	-0.108112
1.25276	(7/5/2011)	1.28093	(6/11/2009)	(1.25276 - 1.28093)/(28 - 25)	-0.00939029
1.06471	(11/22/2011)	1.28093	(6/11/2009)	(1.06471 - 1.28093)/(29 - 25)	-0.0540558

1.06471	(11/22/2011)	1.28093	(6/11/2009)	(1.06471 - 1.28093)/(29 - 25)	-0.0540558
1.06471	(11/12/2010)	0.741937	(6/30/2010)	(1.06471 - 0.741937)/(27 - 26)	0.322773
1.25276	(7/5/2011)	0.741937	(6/30/2010)	(1.25276 - 0.741937)/(28 - 26)	0.255413
1.06471	(11/22/2011)	0.741937	(6/30/2010)	(1.06471 - 0.741937)/(29 - 26)	0.107591
1.06471	(11/22/2011)	0.741937	(6/30/2010)	(1.06471 - 0.741937)/(29 - 26)	0.107591
1.25276	(7/5/2011)	1.06471	(11/12/2010)	(1.25276 - 1.06471)/(28 - 27)	0.188052
1.06471	(11/22/2011)	1.06471	(11/12/2010)	(1.06471 - 1.06471)/(29 - 27)	0
1.06471	(11/22/2011)	1.06471	(11/12/2010)	(1.06471 - 1.06471)/(29 - 27)	0
1.06471	(11/22/2011)	1.25276	(7/5/2011)	(1.06471 - 1.25276)/(29 - 28)	-0.188052
1.06471	(11/22/2011)	1.25276	(7/5/2011)	(1.06471 - 1.25276)/(29 - 28)	-0.188052
1.06471	(11/22/2011)	1.06471	(11/22/2011)	(1.06471 - 1.06471)/(29 - 29)	Same Date

Number of Q values = 434

Ordered Q Values

n	Q
1	-1.6864
2	-1.28093
3	-0.675272
4	-0.640467
5	-0.626381
6	-0.574256
7	-0.538997
8	-0.470004
9	-0.430692
10	-0.426978
11	-0.417588
12	-0.403011
13	-0.344553
14	-0.33728
15	-0.320233
16	-0.313191
17	-0.287128
18	-0.281066
19	-0.251723
20	-0.250553
21	-0.240914
22	-0.230616
23	-0.220916
24	-0.220569
25	-0.2108
26	-0.190535
27	-0.188052
28	-0.188052
29	-0.148095

30	-0.144545
31	-0.129347
32	-0.118609
33	-0.108638
34	-0.108187
35	-0.108112
36	-0.106835
37	-0.101366
38	-0.101134
39	-0.100434
40	-0.0982836
41	-0.0878733
42	-0.0878447
43	-0.0847331
44	-0.0842427
45	-0.079055
46	-0.0743812
47	-0.0685668
48	-0.0627667
49	-0.0627667
50	-0.0613546
51	-0.0613018
52	-0.0603028
53	-0.0574464
54	-0.0564887
55	-0.0564887
56	-0.054173
57	-0.0540558
58	-0.0540558
59	-0.0524701
60	-0.0515811
61	-0.0508742
62	-0.0498243
63	-0.0493387
64	-0.0493387
65	-0.0474938
66	-0.0470079
67	-0.0466432
68	-0.0428604
69	-0.0418857
70	-0.0407586
71	-0.0402499
72	-0.0400749
73	-0.0387092
74	-0.0384998
75	-0.0365617
76	-0.0365617
77	-0.0354673
78	-0.0346345
79	-0.0346345
80	-0.034055
81	-0.0329
82	-0.0327204
83	-0.030176
84	-0.0296042
85	-0.0296042
86	-0.0294555
87	-0.0271752
88	-0.0261113
89	-0.0258396
90	-0.024548
91	-0.024386

92	-0.0241071
93	-0.0238509
94	-0.0233585
95	-0.0225665
96	-0.0223105
97	-0.0216818
98	-0.0193947
99	-0.0188504
100	-0.0182241
101	-0.0176254
102	-0.0164067
103	-0.0144163
104	-0.0144149
105	-0.0138969
106	-0.013087
107	-0.013023
108	-0.012719
109	-0.012719
110	-0.012305
111	-0.012305
112	-0.0117533
113	-0.0104671
114	-0.0104473
115	-0.0104473
116	-0.00939029
117	-0.00896122
118	-0.00872255
119	-0.00872255
120	-0.0078963
121	-0.00176068
122	-0.00155764
123	0
124	0
125	0
126	0
127	0
128	0
129	0
130	0
131	0
132	0
133	0
134	0
135	0
136	0
137	0
138	0
139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0

154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0
181	0
182	0
183	0
184	0
185	0
186	0
187	0
188	0
189	0
190	0
191	0
192	0
193	0.00201221
194	0.00329221
195	0.00758015
196	0.0111554
197	0.0125733
198	0.0128017
199	0.0128158
200	0.0128158
201	0.0132547
202	0.0132547
203	0.0136936
204	0.0139441
205	0.0141041
206	0.015667
207	0.0165683
208	0.0181838
209	0.0213596
210	0.0223144
211	0.0228468
212	0.0281709
213	0.0294458
214	0.0296775
215	0.0309141

216	0.0322581
217	0.0337244
218	0.0353303
219	0.0356221
220	0.0370969
221	0.0380254
222	0.0380254
223	0.0390436
224	0.0390493
225	0.0394337
226	0.0394337
227	0.0409504
228	0.0409504
229	0.0409504
230	0.0425884
231	0.0425884
232	0.0425884
233	0.0435057
234	0.0436434
235	0.0443629
236	0.0443629
237	0.0443629
238	0.0454833
239	0.0462918
240	0.0462918
241	0.0462918
242	0.0463986
243	0.0476491
244	0.0481832
245	0.0483959
246	0.0483959
247	0.0483959
248	0.0500316
249	0.0501105
250	0.0506676
251	0.0507005
252	0.0517869
253	0.0521985
254	0.0526648
255	0.0532355
256	0.0532355
257	0.0532355
258	0.0533722
259	0.054417
260	0.054468
261	0.0548332
262	0.0551555
263	0.0555907
264	0.0556928
265	0.0569438
266	0.0570721
267	0.0581283
268	0.0581575
269	0.0582243
270	0.0582603
271	0.0588607
272	0.0591506
273	0.0596554
274	0.0609968
275	0.0612185
276	0.0618281
277	0.0621443

278	0.0630328
279	0.063802
280	0.0640467
281	0.0646195
282	0.0659349
283	0.0665444
284	0.0665444
285	0.0665831
286	0.0667088
287	0.0668401
288	0.0669392
289	0.0674176
290	0.0674488
291	0.0684206
292	0.0701821
293	0.0709807
294	0.0709807
295	0.071163
296	0.0716227
297	0.0717049
298	0.0726969
299	0.0730863
300	0.0733561
301	0.0738759
302	0.0741937
303	0.074795
304	0.0752039
305	0.0760508
306	0.0760508
307	0.0760508
308	0.0774315
309	0.0775434
310	0.0776803
311	0.0779588
312	0.0779802
313	0.079162
314	0.0800584
315	0.0819008
316	0.0819008
317	0.0819008
318	0.0819863
319	0.0825672
320	0.0830822
321	0.0835175
322	0.0835272
323	0.0835599
324	0.0871104
325	0.0877277
326	0.0884751
327	0.0887259
328	0.0894831
329	0.0899524
330	0.0909665
331	0.0929178
332	0.0932164
333	0.0940048
334	0.0945551
335	0.0963664
336	0.0967919
337	0.0969292
338	0.0974484
339	0.0995547

340	0.100063
341	0.10026
342	0.100272
343	0.100465
344	0.104397
345	0.106307
346	0.106744
347	0.107162
348	0.107213
349	0.107591
350	0.107591
351	0.111181
352	0.114817
353	0.115493
354	0.115698
355	0.116449
356	0.116449
357	0.116938
358	0.11787
359	0.120246
360	0.123649
361	0.125079
362	0.125276
363	0.126706
364	0.128093
365	0.128093
366	0.133953
367	0.139196
368	0.140364
369	0.142326
370	0.142326
371	0.145394
372	0.146131
373	0.146173
374	0.155361
375	0.15596
376	0.156595
377	0.160117
378	0.166164
379	0.16712
380	0.175455
381	0.178604
382	0.178966
383	0.182991
384	0.186433
385	0.18801
386	0.188052
387	0.190638
388	0.191419
389	0.193858
390	0.199109
391	0.20052
392	0.208794
393	0.213489
394	0.214868
395	0.215346
396	0.232294
397	0.23263
398	0.233041
399	0.240914
400	0.24611
401	0.250553

402	0.25068
403	0.255413
404	0.256187
405	0.278753
406	0.280302
407	0.281066
408	0.287128
409	0.292345
410	0.310721
411	0.313191
412	0.321487
413	0.322773
414	0.33728
415	0.340927
416	0.344553
417	0.348442
418	0.389794
419	0.401859
420	0.4216
421	0.426978
422	0.430692
423	0.438055
424	0.461602
425	0.535812
426	0.562133
427	0.574256
428	0.584691
429	0.626381
430	0.803718
431	0.843199
432	1.16938
433	1.6864
434	1.72277

Sen's Estimator (Median Q) is 0.0345274

Tied Group	Value	Members
1	0	12
2	1.25276	2
3	1.28093	2
4	1.06471	3

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1

11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 3930
B = 18
C = 1326
D = 0
E = 142
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 2922.5
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 88.921
M1 = (434 - 88.921)/2.0 = 172.54
M2 = (434 + 88.921)/2.0 + 1 = 262.46
Lower limit is 0 = Q(173)
Upper limit is 0.0551555 = Q(262)
0 < 0 < 0.0551555 indicating no trend in data.

Concentrations (ppb)

Parameter: Beryllium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 220
Percent Non-Detects: 91.6667%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	18 (94.7368%)	3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	2 J	2 J
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	ND<0.07	ND<0.07
			11/16/2009	ND<0.07	ND<0.07
			6/30/2010	ND<0.07	ND<0.07
			11/12/2010	ND<0.07 U	ND<0.07 U
			7/5/2011	ND<0.07 U	ND<0.07 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	31	30 (96.7742%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10
			12/19/1996	ND<10	ND<10
			3/24/1997	ND<10	ND<10
			9/24/1997	ND<10	ND<10
			4/7/1998	ND<10	ND<10
			9/23/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	41	41

			6/11/2009	ND<0.07	ND<0.07	
			11/16/2009	ND<0.07	ND<0.07	
			6/30/2010	ND<0.07	ND<0.07	
			11/12/2010	ND<0.07 U	ND<0.07 U	
			7/5/2011 ND<0.07 U	ND<0.07 U		
			11/22/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U	ND<0.07 U	
MW-12A R	20	14 (70%)	3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 ND<10	ND<10		
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008 ND<10	ND<10		
			11/20/2008	ND<10	ND<10	
			6/11/2009	0.13 J	0.13 J	
			11/16/2009	0.12 J	0.12 J	
			6/30/2010	0.12 J	0.12 J	
			11/12/2010	0.07 J	0.07 J	
			7/5/2011 0.11 J	0.11 J		
			11/22/2011	0.13 J	0.13 J	
MW-11R 31	28 (90.3226%)		7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 ND<10	ND<10		
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008 ND<10	ND<10		
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07	ND<0.07	
			11/16/2009	ND<0.07	ND<0.07	
			6/30/2010	ND<0.07	ND<0.07	
			11/12/2010	ND<0.07 U	ND<0.07 U	
			7/5/2011 0.074 J	0.074 J		
			11/22/2011	0.07 J	0.07 J	
			11/22/2011	0.07 J	0.07 J	
MW-10 30	29 (96.6667%)		7/20/1995	ND<10	ND<10	

			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	56	56	
			6/11/2009	ND<0.07		ND<0.07
			11/16/2009	ND<0.07		ND<0.07
			6/30/2010	ND<0.07		ND<0.07
			11/12/2010	ND<0.35 U		ND<0.35 U
			7/5/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
MW-7	30	29 (96.6667%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	44	44	
			6/11/2009	ND<0.07		ND<0.07
			11/16/2009	ND<0.07		ND<0.07
			6/30/2010	ND<0.07		ND<0.07
			11/12/2010	ND<0.07 U		ND<0.07 U
			7/5/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
MW-6	30	30 (100%)	7/20/1995		ND<10	ND<10

			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 ND<10	ND<10		
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008 ND<10	ND<10		
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07		ND<0.07
			11/16/2009	ND<0.07		ND<0.07
			6/30/2010	ND<0.07		ND<0.07
			11/12/2010	ND<0.07 U		ND<0.07 U
			7/5/2011 ND<0.07 U		ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
MW-8	29	28 (96.5517%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998 ND<10	ND<10		
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005 ND<10	ND<10		
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008 ND<10	ND<10		
			11/20/2008	46	46	
			6/11/2009	ND<0.07		ND<0.07
			6/30/2010	ND<0.07		ND<0.07
			11/12/2010	ND<0.35 U		ND<0.35 U
			7/5/2011 ND<0.07 U		ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
MW-12BR		20	14 (70%)	3/16/1999		ND<10 ND<10
			9/23/1999	ND<10	ND<10	

3/15/2000	ND<10	ND<10
9/24/2003	ND<10	ND<10
3/11/2004	ND<10	ND<10
10/12/2004	ND<10	ND<10
4/1/2005 ND<10	ND<10	
10/25/2005	ND<10	ND<10
4/29/2006	ND<10	ND<10
11/18/2006	ND<10	ND<10
5/23/2007	ND<10	ND<10
11/28/2007	ND<10	ND<10
6/5/2008 ND<10	ND<10	
11/20/2008	ND<10	ND<10
6/11/2009	0.36	0.36
11/16/2009	0.33	0.33
6/30/2010	0.37	0.37
11/12/2010	0.34	0.34
7/5/2011 0.41	0.41	
11/22/2011	0.41	0.41

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: Beryllium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.035	-2.65209	7.03356	-0.092823
2	0.035	-2.40892	12.8365	-0.177135
3	0.035	-2.25713	17.9311	-0.256135
4	0.035	-2.14441	22.5296	-0.331189
5	0.035	-2.05375	26.7475	-0.40307
6	0.035	-1.97737	30.6575	-0.472278
7	0.035	-1.8957	34.2511	-0.538628
8	0.035	-1.83843	37.6309	-0.602972
9	0.035	-1.78661	40.8229	-0.665504
10	0.035	-1.7392	43.8477	-0.726376
11	0.035	-1.6954	46.7221	-0.785715
12	0.035	-1.65463	49.4599	-0.843627
13	0.035	-1.61644	52.0728	-0.900202
14	0.035	-1.57179	54.5433	-0.955215
15	0.035	-1.5382	56.9093	-1.00905
16	0.035	-1.50626	59.1782	-1.06177
17	0.035	-1.47579	61.3561	-1.11342
18	0.035	-1.44663	63.4489	-1.16406
19	0.035	-1.41865	65.4614	-1.21371
20	0.035	-1.39175	67.3984	-1.26242
21	0.035	-1.35946	69.2465	-1.31
22	0.035	-1.33462	71.0278	-1.35671
23	0.035	-1.31058	72.7454	-1.40258
24	0.035	-1.28727	74.4024	-1.44764
25	0.035	-1.26464	76.0018	-1.4919
26	0.035	-1.24264	77.5459	-1.53539
27	0.035	-1.21596	79.0245	-1.57795
28	0.035	-1.19522	80.453	-1.61978
29	0.035	-1.17499	81.8336	-1.66091
30	0.035	-1.15522	83.1682	-1.70134
31	0.035	-1.1359	84.4584	-1.7411
32	0.035	-1.11699	85.7061	-1.78019
33	0.035	-1.09847	86.9127	-1.81864
34	0.035	-1.07584	88.0701	-1.85629
35	0.035	-1.05812	89.1898	-1.89333
36	0.035	-1.04073	90.2729	-1.92975
37	0.035	-1.02365	91.3208	-1.96558
38	0.07	-1.00687	92.3345	-2.03606
39	0.07	-0.990356	93.3153	-2.10539
40	0.07	-0.974114	94.2642	-2.17357
41	0.074	-0.954165	95.1747	-2.24418
42	0.11	-0.938476	96.0554	-2.34741
43	0.12	-0.923014	96.9074	-2.45818
44	0.12	-0.907769	97.7314	-2.56711
45	0.13	-0.892733	98.5284	-2.68316
46	0.13	-0.877897	99.2991	-2.79729
47	0.175	-0.859618	100.038	-2.94772
48	0.175	-0.845198	100.752	-3.09563
49	0.33	-0.830953	101.443	-3.36985
50	0.34	-0.816874	102.11	-3.64758
51	0.36	-0.802956	102.755	-3.93665

52	0.37	-0.789191	103.378	-4.22865
53	0.41	-0.775574	103.979	-4.54663
54	0.41	-0.758753	104.555	-4.85772
55	2	-0.745449	105.111	-6.34862
56	5	-0.732275	105.647	-10.01
57	5	-0.719228	106.164	-13.6061
58	5	-0.706302	106.663	-17.1377
59	5	-0.693493	107.144	-20.6051
60	5	-0.680797	107.607	-24.0091
61	5	-0.665079	108.05	-27.3345
62	5	-0.652622	108.476	-30.5976
63	5	-0.640266	108.886	-33.7989
64	5	-0.628006	109.28	-36.939
65	5	-0.615839	109.659	-40.0182
66	5	-0.603765	110.024	-43.037
67	5	-0.588793	110.37	-45.981
68	5	-0.576911	110.703	-48.8655
69	5	-0.565108	111.023	-51.691
70	5	-0.553384	111.329	-54.458
71	5	-0.541736	111.622	-57.1666
72	5	-0.530162	111.903	-59.8175
73	5	-0.518658	112.172	-62.4107
74	5	-0.504372	112.427	-64.9326
75	5	-0.493018	112.67	-67.3977
76	5	-0.481728	112.902	-69.8063
77	5	-0.470498	113.123	-72.1588
78	5	-0.459327	113.334	-74.4554
79	5	-0.448213	113.535	-76.6965
80	5	-0.437153	113.726	-78.8823
81	5	-0.423405	113.906	-80.9993
82	5	-0.412463	114.076	-83.0616
83	5	-0.401571	114.237	-85.0695
84	5	-0.390726	114.39	-87.0231
85	5	-0.379927	114.534	-88.9227
86	5	-0.369171	114.67	-90.7686
87	5	-0.358459	114.799	-92.5609
88	5	-0.345126	114.918	-94.2865
89	5	-0.334503	115.03	-95.959
90	5	-0.323919	115.135	-97.5786
91	5	-0.31337	115.233	-99.1455
92	5	-0.302855	115.325	-100.66
93	5	-0.292375	115.41	-102.122
94	5	-0.279319	115.488	-103.518
95	5	-0.268908	115.56	-104.863
96	5	-0.258527	115.627	-106.155
97	5	-0.248174	115.689	-107.396
98	5	-0.237847	115.745	-108.585
99	5	-0.227545	115.797	-109.723
100	5	-0.217267	115.844	-110.81
101	5	-0.204452	115.886	-111.832
102	5	-0.194225	115.924	-112.803
103	5	-0.184017	115.958	-113.723
104	5	-0.173829	115.988	-114.592
105	5	-0.163659	116.015	-115.41
106	5	-0.153505	116.038	-116.178
107	5	-0.143367	116.059	-116.895
108	5	-0.130716	116.076	-117.548
109	5	-0.12061	116.091	-118.151
110	5	-0.110516	116.103	-118.704
111	5	-0.100433	116.113	-119.206
112	5	-0.0903606	116.121	-119.658
113	5	-0.0802981	116.127	-120.059

114	5	-0.0677301	116.132	-120.398
115	5	-0.0576847	116.135	-120.687
116	5	-0.0476439	116.138	-120.925
117	5	-0.0376076	116.139	-121.113
118	5	-0.0275759	116.14	-121.251
119	5	-0.0175476	116.14	-121.338
120	5	-0.00751925	116.14	-121.376
121	5	0.00751925	116.14	-121.338
122	5	0.0175476	116.141	-121.251
123	5	0.0275759	116.141	-121.113
124	5	0.0376076	116.143	-120.925
125	5	0.0476439	116.145	-120.687
126	5	0.0576847	116.148	-120.398
127	5	0.0677301	116.153	-120.059
128	5	0.0802981	116.159	-119.658
129	5	0.0903606	116.167	-119.206
130	5	0.100433	116.178	-118.704
131	5	0.110516	116.19	-118.151
132	5	0.12061	116.204	-117.548
133	5	0.130716	116.221	-116.895
134	5	0.143367	116.242	-116.178
135	5	0.153505	116.266	-115.41
136	5	0.163659	116.292	-114.592
137	5	0.173829	116.323	-113.723
138	5	0.184017	116.356	-112.803
139	5	0.194225	116.394	-111.832
140	5	0.204452	116.436	-110.81
141	5	0.217267	116.483	-109.723
142	5	0.227545	116.535	-108.585
143	5	0.237847	116.591	-107.396
144	5	0.248174	116.653	-106.155
145	5	0.258527	116.72	-104.863
146	5	0.268908	116.792	-103.518
147	5	0.279319	116.87	-102.122
148	5	0.292375	116.956	-100.66
149	5	0.302855	117.047	-99.1455
150	5	0.31337	117.146	-97.5786
151	5	0.323919	117.251	-95.959
152	5	0.334503	117.362	-94.2865
153	5	0.345126	117.482	-92.5609
154	5	0.358459	117.61	-90.7686
155	5	0.369171	117.746	-88.9227
156	5	0.379927	117.891	-87.0231
157	5	0.390726	118.043	-85.0695
158	5	0.401571	118.205	-83.0616
159	5	0.412463	118.375	-80.9993
160	5	0.423405	118.554	-78.8823
161	5	0.437153	118.745	-76.6965
162	5	0.448213	118.946	-74.4554
163	5	0.459327	119.157	-72.1588
164	5	0.470498	119.378	-69.8063
165	5	0.481728	119.61	-67.3977
166	5	0.493018	119.853	-64.9326
167	5	0.504372	120.108	-62.4107
168	5	0.518658	120.377	-59.8175
169	5	0.530162	120.658	-57.1666
170	5	0.541736	120.951	-54.458
171	5	0.553384	121.258	-51.691
172	5	0.565108	121.577	-48.8655
173	5	0.576911	121.91	-45.981
174	5	0.588793	122.257	-43.037
175	5	0.603765	122.621	-40.0182

176	5	0.615839		123	-36.939
177	5	0.628006		123.395	-33.7989
178	5	0.640266		123.805	-30.5976
179	5	0.652622		124.231	-27.3345
180	5	0.665079		124.673	-24.0091
181	5	0.680797		125.136	-20.6051
182	5	0.693493		125.617	-17.1377
183	5	0.706302		126.116	-13.6061
184	5	0.719228		126.633	-10.01
185	5	0.732275		127.17	-6.34862
186	5	0.745449		127.725	-2.62138
187	5	0.758753		128.301	1.17239
188	5	0.775574		128.903	5.05026
189	5	0.789191		129.525	8.99621
190	5	0.802956		130.17	13.011
191	5	0.816874		130.837	17.0954
192	5	0.830953		131.528	21.2501
193	5	0.845198		132.242	25.4761
194	5	0.859618		132.981	29.7742
195	5	0.877897		133.752	34.1637
196	5	0.892733		134.549	38.6274
197	5	0.907769		135.373	43.1662
198	5	0.923014		136.225	47.7813
199	5	0.938476		137.106	52.4737
200	5	0.954165		138.016	57.2445
201	5	0.974114		138.965	62.115
202	5	0.990356		139.946	67.0668
203	5	1.00687	140.96	72.1012	
204	5	1.02365	142.007	77.2194	
205	5	1.04073	143.091	82.4231	
206	5	1.05812	144.21	87.7137	
207	5	1.07584	145.368	93.0929	
208	5	1.09847	146.574	98.5852	
209	5	1.11699	147.822	104.17	
210	5	1.1359	149.112	109.85	
211	5	1.15522	150.447	115.626	
212	5	1.17499	151.827	121.501	
213	5	1.19522	153.256	127.477	
214	5	1.21596	154.734	133.557	
215	5	1.24264	156.279	139.77	
216	5	1.26464	157.878	146.093	
217	5	1.28727	159.535	152.529	
218	5	1.31058	161.253	159.082	
219	5	1.33462	163.034	165.755	
220	5	1.35946	164.882	172.553	
221	5	1.39175	166.819	179.511	
222	5	1.41865	168.831	186.605	
223	5	1.44663	170.924	193.838	
224	5	1.47579	173.102	201.217	
225	5	1.50626	175.371	208.748	
226	5	1.5382	177.737	216.439	
227	5	1.57179	180.208	224.298	
228	5	1.61644	182.82	232.38	
229	5	1.65463	185.558	240.653	
230	5	1.6954	188.433	249.13	
231	5	1.7392	191.457	257.826	
232	5	1.78661	194.649	266.759	
233	5	1.83843	198.029	275.952	
234	5	1.8957	201.623	285.43	
235	5	1.97737	205.533	295.317	
236	5	2.05375	209.751	305.586	
237	41	2.14441	214.349	393.506	

238	44	2.25713	219.444	492.82
239	46	2.40892	225.247	603.63
240	56	2.65209	232.28	752.147

Data Set Standard Deviation = 5.9174
Numerator = 565726
Denominator = 1.94389e+006
W Statistic = 0.291027 = 565726 / 1.94389e+006

5% Critical value of 0.976 exceeds 0.291027
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.291027
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Beryllium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.547645
0.547645 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.035	0.00414938	-2.65209	39.3121	344.01	
2	0.035	0.00829876	-2.40892	39.3121	332.136	
3	0.035	0.0124481	-2.25713	39.3121	324.723	
4	0.035	0.0165975	-2.14441	39.3121	319.219	
5	0.035	0.0207469	-2.05375	39.3121	314.791	
6	0.035	0.0248963	-1.97737	39.3121	311.062	
7	0.035	0.0290456	-1.8957	39.3121	307.073	
8	0.035	0.033195	-1.83843	39.3121	304.276	
9	0.035	0.0373444	-1.78661	39.3121	301.746	
10	0.035	0.0414938	-1.7392	39.3121	299.431	
11	0.035	0.0456432	-1.6954	39.3121	297.292	
12	0.035	0.0497925	-1.65463	39.3121	295.301	
13	0.035	0.0539419	-1.61644	39.3121	293.436	
14	0.035	0.0580913	-1.57179	39.3121	291.256	
15	0.035	0.0622407	-1.5382	39.3121	289.615	
16	0.035	0.06639	-1.50626	39.3121	288.056	
17	0.035	0.0705394	-1.47579	39.3121	286.568	
18	0.035	0.0746888	-1.44663	39.3121	285.144	
19	0.035	0.0788382	-1.41865	39.3121	283.778	
20	0.035	0.0829876	-1.39175	39.3121	282.464	
21	0.035	0.0871369	-1.35946	39.3121	280.887	
22	0.035	0.0912863	-1.33462	39.3121	279.674	
23	0.035	0.0954357	-1.31058	39.3121	278.5	
24	0.035	0.0995851	-1.28727	39.3121	277.362	
25	0.035	0.103734	-1.26464	39.3121	276.257	
26	0.035	0.107884	-1.24264	39.3121	275.182	
27	0.035	0.112033	-1.21596	39.3121	273.879	
28	0.035	0.116183	-1.19522	39.3121	272.867	
29	0.035	0.120332	-1.17499	39.3121	271.879	
30	0.035	0.124481	-1.15522	39.3121	270.913	
31	0.035	0.128631	-1.1359	39.3121	269.97	
32	0.035	0.13278	-1.11699	39.3121	269.046	
33	0.035	0.136929	-1.09847	39.3121	268.142	
34	0.035	0.141079	-1.07584	39.3121	267.037	
35	0.035	0.145228	-1.05812	39.3121	266.172	
36	0.035	0.149378	-1.04073	39.3121	265.322	
37	0.035	0.153527	-1.02365	39.3121	264.488	
38	0.07	0.157676	-1.00687	39.6242	263.669	
39	0.07	0.161826	-0.990356	39.6242	262.862	
40	0.07	0.165975	-0.974114	39.6242	262.069	
41	0.074	0.170124	-0.954165	39.6598	261.095	
42	0.11	0.174274	-0.938476	39.9808	260.329	
43	0.12	0.178423	-0.923014	40.07	259.574	
44	0.12	0.182573	-0.907769	40.07	258.829	
45	0.13	0.186722	-0.892733	40.1592	258.095	
46	0.13	0.190871	-0.877897	40.1592	257.371	
47	0.175	0.195021	-0.859618	40.5604	256.478	
48	0.175	0.19917	-0.845198	40.5604	255.774	

49	0.33	0.20332	-0.830953	41.9425	255.078	
50	0.34	0.207469	-0.816874	42.0317	254.391	
51	0.36	0.211618	-0.802956	42.21	253.711	
52	0.37	0.215768	-0.789191	42.2992	253.039	
53	0.41	0.219917	-0.775574	42.6558	252.374	
54	0.41	0.224066	-0.758753	42.6558	251.552	
55	2	0.228216	-0.745449	56.8333	250.903	
56	5	0.232365	-0.732275	83.5833	250.259	
57	5	0.236515	-0.719228	83.5833	249.622	
58	5	0.240664	-0.706302	83.5833	248.991	
59	5	0.244813	-0.693493	83.5833	248.366	
60	5	0.248963	-0.680797	83.5833	247.746	
61	5	0.253112	-0.665079	83.5833	246.978	
62	5	0.257261	-0.652622	83.5833	246.37	
63	5	0.261411	-0.640266	83.5833	245.766	
64	5	0.26556	-0.628006	83.5833	245.168	
65	5	0.26971	-0.615839	83.5833	244.573	
66	5	0.273859	-0.603765	83.5833	243.984	
67	5	0.278008	-0.588793	83.5833	243.253	
68	5	0.282158	-0.576911	83.5833	242.672	
69	5	0.286307	-0.565108	83.5833	242.096	
70	5	0.290456	-0.553384	83.5833	241.524	
71	5	0.294606	-0.541736	83.5833	240.955	
72	5	0.298755	-0.530162	83.5833	240.39	
73	5	0.302905	-0.518658	83.5833	239.828	
74	5	0.307054	-0.504372	83.5833	239.13	
75	5	0.311203	-0.493018	83.5833	238.576	
76	5	0.315353	-0.481728	83.5833	238.024	
77	5	0.319502	-0.470498	83.5833	237.476	
78	5	0.323651	-0.459327	83.5833	236.93	
79	5	0.327801	-0.448213	83.5833	236.388	
80	5	0.33195	-0.437153	83.5833	235.848	
81	5	0.3361	-0.423405	83.5833	235.176	
82	5	0.340249	-0.412463	83.5833	234.642	
83	5	0.344398	-0.401571	83.5833	234.11	
84	5	0.348548	-0.390726	83.5833	233.58	
85	5	0.352697	-0.379927	83.5833	233.053	
86	5	0.356846	-0.369171	83.5833	232.528	
87	5	0.360996	-0.358459	83.5833	232.005	
88	5	0.365145	-0.345126	83.5833	231.354	
89	5	0.369295	-0.334503	83.5833	230.835	
90	5	0.373444	-0.323919	83.5833	230.318	
91	5	0.377593	-0.31337	83.5833	229.803	
92	5	0.381743	-0.302855	83.5833	229.289	
93	5	0.385892	-0.292375	83.5833	228.778	
94	5	0.390041	-0.279319	83.5833	228.14	
95	5	0.394191	-0.268908	83.5833	227.632	
96	5	0.39834	-0.258527	83.5833	227.125	
97	5	0.40249	-0.248174	83.5833	226.619	
98	5	0.406639	-0.237847	83.5833	226.115	
99	5	0.410788	-0.227545	83.5833	225.612	
100	5	0.414938	-0.217267	83.5833	225.11	
101	5	0.419087	-0.204452	83.5833	224.484	
102	5	0.423237	-0.194225	83.5833	223.985	
103	5	0.427386	-0.184017	83.5833	223.486	
104	5	0.431535	-0.173829	83.5833	222.989	
105	5	0.435685	-0.163659	83.5833	222.492	
106	5	0.439834	-0.153505	83.5833	221.996	
107	5	0.443983	-0.143367	83.5833	221.501	
108	5	0.448133	-0.130716	83.5833	220.883	
109	5	0.452282	-0.12061	83.5833	220.39	
110	5	0.456432	-0.110516	83.5833	219.897	

111	5	0.460581	-0.100433	83.5833	219.404
112	5	0.46473	-0.0903606	83.5833	218.913
113	5	0.46888	-0.0802981	83.5833	218.421
114	5	0.473029	-0.0677301	83.5833	217.807
115	5	0.477178	-0.0576847	83.5833	217.317
116	5	0.481328	-0.0476439	83.5833	216.827
117	5	0.485477	-0.0376076	83.5833	216.337
118	5	0.489627	-0.0275759	83.5833	215.847
119	5	0.493776	-0.0175476	83.5833	215.357
120	5	0.497925	-0.00751925	83.5833	214.867
121	5	0.502075	0.00751925	83.5833	214.133
122	5	0.506224	0.0175476	83.5833	213.643
123	5	0.510373	0.0275759	83.5833	213.153
124	5	0.514523	0.0376076	83.5833	212.663
125	5	0.518672	0.0476439	83.5833	212.173
126	5	0.522822	0.0576847	83.5833	211.683
127	5	0.526971	0.0677301	83.5833	211.193
128	5	0.53112	0.0802981	83.5833	210.579
129	5	0.53527	0.0903606	83.5833	210.087
130	5	0.539419	0.100433	83.5833	209.596
131	5	0.543568	0.110516	83.5833	209.103
132	5	0.547718	0.12061	83.5833	208.61
133	5	0.551867	0.130716	83.5833	208.117
134	5	0.556017	0.143367	83.5833	207.499
135	5	0.560166	0.153505	83.5833	207.004
136	5	0.564315	0.163659	83.5833	206.508
137	5	0.568465	0.173829	83.5833	206.011
138	5	0.572614	0.184017	83.5833	205.514
139	5	0.576763	0.194225	83.5833	205.015
140	5	0.580913	0.204452	83.5833	204.516
141	5	0.585062	0.217267	83.5833	203.89
142	5	0.589212	0.227545	83.5833	203.388
143	5	0.593361	0.237847	83.5833	202.885
144	5	0.59751	0.248174	83.5833	202.381
145	5	0.60166	0.258527	83.5833	201.875
146	5	0.605809	0.268908	83.5833	201.368
147	5	0.609959	0.279319	83.5833	200.86
148	5	0.614108	0.292375	83.5833	200.222
149	5	0.618257	0.302855	83.5833	199.711
150	5	0.622407	0.31337	83.5833	199.197
151	5	0.626556	0.323919	83.5833	198.682
152	5	0.630705	0.334503	83.5833	198.165
153	5	0.634855	0.345126	83.5833	197.646
154	5	0.639004	0.358459	83.5833	196.995
155	5	0.643154	0.369171	83.5833	196.472
156	5	0.647303	0.379927	83.5833	195.947
157	5	0.651452	0.390726	83.5833	195.42
158	5	0.655602	0.401571	83.5833	194.89
159	5	0.659751	0.412463	83.5833	194.358
160	5	0.6639	0.423405	83.5833	193.824
161	5	0.66805	0.437153	83.5833	193.152
162	5	0.672199	0.448213	83.5833	192.612
163	5	0.676349	0.459327	83.5833	192.07
164	5	0.680498	0.470498	83.5833	191.524
165	5	0.684647	0.481728	83.5833	190.976
166	5	0.688797	0.493018	83.5833	190.424
167	5	0.692946	0.504372	83.5833	189.87
168	5	0.697095	0.518658	83.5833	189.172
169	5	0.701245	0.530162	83.5833	188.61
170	5	0.705394	0.541736	83.5833	188.045
171	5	0.709544	0.553384	83.5833	187.476
172	5	0.713693	0.565108	83.5833	186.904

173	5	0.717842	0.576911	83.5833	186.328
174	5	0.721992	0.588793	83.5833	185.747
175	5	0.726141	0.603765	83.5833	185.016
176	5	0.73029	0.615839	83.5833	184.427
177	5	0.73444	0.628006	83.5833	183.832
178	5	0.738589	0.640266	83.5833	183.234
179	5	0.742739	0.652622	83.5833	182.63
180	5	0.746888	0.665079	83.5833	182.022
181	5	0.751037	0.680797	83.5833	181.254
182	5	0.755187	0.693493	83.5833	180.634
183	5	0.759336	0.706302	83.5833	180.009
184	5	0.763485	0.719228	83.5833	179.378
185	5	0.767635	0.732275	83.5833	178.741
186	5	0.771784	0.745449	83.5833	178.097
187	5	0.775934	0.758753	83.5833	177.448
188	5	0.780083	0.775574	83.5833	176.626
189	5	0.784232	0.789191	83.5833	175.961
190	5	0.788382	0.802956	83.5833	175.289
191	5	0.792531	0.816874	83.5833	174.609
192	5	0.79668	0.830953	83.5833	173.922
193	5	0.80083	0.845198	83.5833	173.226
194	5	0.804979	0.859618	83.5833	172.522
195	5	0.809129	0.877897	83.5833	171.629
196	5	0.813278	0.892733	83.5833	170.905
197	5	0.817427	0.907769	83.5833	170.171
198	5	0.821577	0.923014	83.5833	169.426
199	5	0.825726	0.938476	83.5833	168.671
200	5	0.829876	0.954165	83.5833	167.905
201	5	0.834025	0.974114	83.5833	166.931
202	5	0.838174	0.990356	83.5833	166.138
203	5	0.842324	1.00687	83.5833	165.331
204	5	0.846473	1.02365	83.5833	164.512
205	5	0.850622	1.04073	83.5833	163.678
206	5	0.854772	1.05812	83.5833	162.828
207	5	0.858921	1.07584	83.5833	161.963
208	5	0.863071	1.09847	83.5833	160.858
209	5	0.86722	1.11699	83.5833	159.954
210	5	0.871369	1.1359	83.5833	159.03
211	5	0.875519	1.15522	83.5833	158.087
212	5	0.879668	1.17499	83.5833	157.121
213	5	0.883817	1.19522	83.5833	156.133
214	5	0.887967	1.21596	83.5833	155.121
215	5	0.892116	1.24264	83.5833	153.818
216	5	0.896266	1.26464	83.5833	152.743
217	5	0.900415	1.28727	83.5833	151.638
218	5	0.904564	1.31058	83.5833	150.5
219	5	0.908714	1.33462	83.5833	149.326
220	5	0.912863	1.35946	83.5833	148.113
221	5	0.917012	1.39175	83.5833	146.536
222	5	0.921162	1.41865	83.5833	145.222
223	5	0.925311	1.44663	83.5833	143.856
224	5	0.929461	1.47579	83.5833	142.432
225	5	0.93361	1.50626	83.5833	140.944
226	5	0.937759	1.5382	83.5833	139.385
227	5	0.941909	1.57179	83.5833	137.744
228	5	0.946058	1.61644	83.5833	135.564
229	5	0.950207	1.65463	83.5833	133.699
230	5	0.954357	1.6954	83.5833	131.708
231	5	0.958506	1.7392	83.5833	129.569
232	5	0.962656	1.78661	83.5833	127.254
233	5	0.966805	1.83843	83.5833	124.724
234	5	0.970954	1.8957	83.5833	121.927

235	5	0.975104	1.97737	83.5833	117.938
236	5	0.979253	2.05375	83.5833	114.209
237	41	0.983402	2.14441	404.583	109.781
238	44	0.987552	2.25713	431.333	104.277
239	46	0.991701	2.40892	449.167	96.8642
240	56	0.995851	2.65209	538.333	84.9898

Shapiro-Francia Test of Normality

Parameter: Beryllium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.35241	-2.65209	7.03356	8.89087
2	-3.35241	-2.40892	12.8365	16.9666
3	-3.35241	-2.25713	17.9311	24.5334
4	-3.35241	-2.14441	22.5296	31.7223
5	-3.35241	-2.05375	26.7475	38.6073
6	-3.35241	-1.97737	30.6575	45.2363
7	-3.35241	-1.8957	34.2511	51.5914
8	-3.35241	-1.83843	37.6309	57.7546
9	-3.35241	-1.78661	40.8229	63.744
10	-3.35241	-1.7392	43.8477	69.5745
11	-3.35241	-1.6954	46.7221	75.2582
12	-3.35241	-1.65463	49.4599	80.8051
13	-3.35241	-1.61644	52.0728	86.2241
14	-3.35241	-1.57179	54.5433	91.4934
15	-3.35241	-1.5382	56.9093	96.6501
16	-3.35241	-1.50626	59.1782	101.7
17	-3.35241	-1.47579	61.3561	106.647
18	-3.35241	-1.44663	63.4489	111.497
19	-3.35241	-1.41865	65.4614	116.253
20	-3.35241	-1.39175	67.3984	120.918
21	-3.35241	-1.35946	69.2465	125.476
22	-3.35241	-1.33462	71.0278	129.95
23	-3.35241	-1.31058	72.7454	134.344
24	-3.35241	-1.28727	74.4024	138.659
25	-3.35241	-1.26464	76.0018	142.899
26	-3.35241	-1.24264	77.5459	147.065
27	-3.35241	-1.21596	79.0245	151.141
28	-3.35241	-1.19522	80.453	155.148
29	-3.35241	-1.17499	81.8336	159.087
30	-3.35241	-1.15522	83.1682	162.96
31	-3.35241	-1.1359	84.4584	166.768
32	-3.35241	-1.11699	85.7061	170.512
33	-3.35241	-1.09847	86.9127	174.195
34	-3.35241	-1.07584	88.0701	177.801
35	-3.35241	-1.05812	89.1898	181.349
36	-3.35241	-1.04073	90.2729	184.838
37	-3.35241	-1.02365	91.3208	188.269
38	-2.65926	-1.00687	92.3345	190.947
39	-2.65926	-0.990356	93.3153	193.58
40	-2.65926	-0.974114	94.2642	196.171
41	-2.60369	-0.954165	95.1747	198.655
42	-2.20727	-0.938476	96.0554	200.727
43	-2.12026	-0.923014	96.9074	202.684
44	-2.12026	-0.907769	97.7314	204.608
45	-2.04022	-0.892733	98.5284	206.43
46	-2.04022	-0.877897	99.2991	208.221
47	-1.74297	-0.859618	100.038	209.719
48	-1.74297	-0.845198	100.752	211.192
49	-1.10866	-0.830953	101.443	212.114
50	-1.07881	-0.816874	102.11	212.995
51	-1.02165	-0.802956	102.755	213.815

52	-0.994252	-0.789191		103.378	214.6
53	-0.891598	-0.775574		103.979	215.291
54	-0.891598	-0.758753		104.555	215.968
55	0.693147	-0.745449		105.111	215.451
56	1.60944	-0.732275		105.647	214.273
57	1.60944	-0.719228		106.164	213.115
58	1.60944	-0.706302		106.663	211.978
59	1.60944	-0.693493		107.144	210.862
60	1.60944	-0.680797		107.607	209.766
61	1.60944	-0.665079		108.05	208.696
62	1.60944	-0.652622		108.476	207.646
63	1.60944	-0.640266		108.886	206.615
64	1.60944	-0.628006		109.28	205.604
65	1.60944	-0.615839		109.659	204.613
66	1.60944	-0.603765		110.024	203.642
67	1.60944	-0.588793		110.37	202.694
68	1.60944	-0.576911		110.703	201.765
69	1.60944	-0.565108		111.023	200.856
70	1.60944	-0.553384		111.329	199.965
71	1.60944	-0.541736		111.622	199.093
72	1.60944	-0.530162		111.903	198.24
73	1.60944	-0.518658		112.172	197.405
74	1.60944	-0.504372		112.427	196.594
75	1.60944	-0.493018		112.67	195.8
76	1.60944	-0.481728		112.902	195.025
77	1.60944	-0.470498		113.123	194.268
78	1.60944	-0.459327		113.334	193.528
79	1.60944	-0.448213		113.535	192.807
80	1.60944	-0.437153		113.726	192.103
81	1.60944	-0.423405		113.906	191.422
82	1.60944	-0.412463		114.076	190.758
83	1.60944	-0.401571		114.237	190.112
84	1.60944	-0.390726		114.39	189.483
85	1.60944	-0.379927		114.534	188.872
86	1.60944	-0.369171		114.67	188.277
87	1.60944	-0.358459		114.799	187.7
88	1.60944	-0.345126		114.918	187.145
89	1.60944	-0.334503		115.03	186.607
90	1.60944	-0.323919		115.135	186.085
91	1.60944	-0.31337	115.233	185.581	
92	1.60944	-0.302855		115.325	185.094
93	1.60944	-0.292375		115.41	184.623
94	1.60944	-0.279319		115.488	184.173
95	1.60944	-0.268908		115.56	183.741
96	1.60944	-0.258527		115.627	183.325
97	1.60944	-0.248174		115.689	182.925
98	1.60944	-0.237847		115.745	182.542
99	1.60944	-0.227545		115.797	182.176
100	1.60944	-0.217267		115.844	181.826
101	1.60944	-0.204452		115.886	181.497
102	1.60944	-0.194225		115.924	181.185
103	1.60944	-0.184017		115.958	180.889
104	1.60944	-0.173829		115.988	180.609
105	1.60944	-0.163659		116.015	180.345
106	1.60944	-0.153505		116.038	180.098
107	1.60944	-0.143367		116.059	179.868
108	1.60944	-0.130716		116.076	179.657
109	1.60944	-0.12061	116.091	179.463	
110	1.60944	-0.110516		116.103	179.285
111	1.60944	-0.100433		116.113	179.124
112	1.60944	-0.0903606		116.121	178.978
113	1.60944	-0.0802981		116.127	178.849

114	1.60944	-0.0677301	116.132	178.74
115	1.60944	-0.0576847	116.135	178.647
116	1.60944	-0.0476439	116.138	178.57
117	1.60944	-0.0376076	116.139	178.51
118	1.60944	-0.0275759	116.14	178.466
119	1.60944	-0.0175476	116.14	178.437
120	1.60944	-0.00751925	116.14	178.425
121	1.60944	0.00751925	116.14	178.437
122	1.60944	0.0175476	116.141	178.466
123	1.60944	0.0275759	116.141	178.51
124	1.60944	0.0376076	116.143	178.57
125	1.60944	0.0476439	116.145	178.647
126	1.60944	0.0576847	116.148	178.74
127	1.60944	0.0677301	116.153	178.849
128	1.60944	0.0802981	116.159	178.978
129	1.60944	0.0903606	116.167	179.124
130	1.60944	0.100433	116.178	179.285
131	1.60944	0.110516	116.19	179.463
132	1.60944	0.12061	116.204	179.657
133	1.60944	0.130716	116.221	179.868
134	1.60944	0.143367	116.242	180.098
135	1.60944	0.153505	116.266	180.345
136	1.60944	0.163659	116.292	180.609
137	1.60944	0.173829	116.323	180.889
138	1.60944	0.184017	116.356	181.185
139	1.60944	0.194225	116.394	181.497
140	1.60944	0.204452	116.436	181.826
141	1.60944	0.217267	116.483	182.176
142	1.60944	0.227545	116.535	182.542
143	1.60944	0.237847	116.591	182.925
144	1.60944	0.248174	116.653	183.325
145	1.60944	0.258527	116.72	183.741
146	1.60944	0.268908	116.792	184.173
147	1.60944	0.279319	116.87	184.623
148	1.60944	0.292375	116.956	185.094
149	1.60944	0.302855	117.047	185.581
150	1.60944	0.31337	117.146	186.085
151	1.60944	0.323919	117.251	186.607
152	1.60944	0.334503	117.362	187.145
153	1.60944	0.345126	117.482	187.7
154	1.60944	0.358459	117.61	188.277
155	1.60944	0.369171	117.746	188.872
156	1.60944	0.379927	117.891	189.483
157	1.60944	0.390726	118.043	190.112
158	1.60944	0.401571	118.205	190.758
159	1.60944	0.412463	118.375	191.422
160	1.60944	0.423405	118.554	192.103
161	1.60944	0.437153	118.745	192.807
162	1.60944	0.448213	118.946	193.528
163	1.60944	0.459327	119.157	194.268
164	1.60944	0.470498	119.378	195.025
165	1.60944	0.481728	119.61	195.8
166	1.60944	0.493018	119.853	196.594
167	1.60944	0.504372	120.108	197.405
168	1.60944	0.518658	120.377	198.24
169	1.60944	0.530162	120.658	199.093
170	1.60944	0.541736	120.951	199.965
171	1.60944	0.553384	121.258	200.856
172	1.60944	0.565108	121.577	201.765
173	1.60944	0.576911	121.91	202.694
174	1.60944	0.588793	122.257	203.642
175	1.60944	0.603765	122.621	204.613

176	1.60944	0.615839		123	205.604
177	1.60944	0.628006		123.395	206.615
178	1.60944	0.640266		123.805	207.646
179	1.60944	0.652622		124.231	208.696
180	1.60944	0.665079		124.673	209.766
181	1.60944	0.680797		125.136	210.862
182	1.60944	0.693493		125.617	211.978
183	1.60944	0.706302		126.116	213.115
184	1.60944	0.719228		126.633	214.273
185	1.60944	0.732275		127.17	215.451
186	1.60944	0.745449		127.725	216.651
187	1.60944	0.758753		128.301	217.872
188	1.60944	0.775574		128.903	219.12
189	1.60944	0.789191		129.525	220.39
190	1.60944	0.802956		130.17	221.683
191	1.60944	0.816874		130.837	222.997
192	1.60944	0.830953		131.528	224.335
193	1.60944	0.845198		132.242	225.695
194	1.60944	0.859618		132.981	227.079
195	1.60944	0.877897		133.752	228.492
196	1.60944	0.892733		134.549	229.928
197	1.60944	0.907769		135.373	231.389
198	1.60944	0.923014		136.225	232.875
199	1.60944	0.938476		137.106	234.385
200	1.60944	0.954165		138.016	235.921
201	1.60944	0.974114		138.965	237.489
202	1.60944	0.990356		139.946	239.083
203	1.60944	1.00687	140.96	240.703	
204	1.60944	1.02365	142.007	242.351	
205	1.60944	1.04073	143.091	244.026	
206	1.60944	1.05812	144.21	245.729	
207	1.60944	1.07584	145.368	247.46	
208	1.60944	1.09847	146.574	249.228	
209	1.60944	1.11699	147.822	251.026	
210	1.60944	1.1359	149.112	252.854	
211	1.60944	1.15522	150.447	254.713	
212	1.60944	1.17499	151.827	256.604	
213	1.60944	1.19522	153.256	258.528	
214	1.60944	1.21596	154.734	260.485	
215	1.60944	1.24264	156.279	262.485	
216	1.60944	1.26464	157.878	264.52	
217	1.60944	1.28727	159.535	266.592	
218	1.60944	1.31058	161.253	268.701	
219	1.60944	1.33462	163.034	270.849	
220	1.60944	1.35946	164.882	273.037	
221	1.60944	1.39175	166.819	275.277	
222	1.60944	1.41865	168.831	277.56	
223	1.60944	1.44663	170.924	279.889	
224	1.60944	1.47579	173.102	282.264	
225	1.60944	1.50626	175.371	284.688	
226	1.60944	1.5382	177.737	287.164	
227	1.60944	1.57179	180.208	289.693	
228	1.60944	1.61644	182.82	292.295	
229	1.60944	1.65463	185.558	294.958	
230	1.60944	1.6954	188.433	297.687	
231	1.60944	1.7392	191.457	300.486	
232	1.60944	1.78661	194.649	303.361	
233	1.60944	1.83843	198.029	306.32	
234	1.60944	1.8957	201.623	309.371	
235	1.60944	1.97737	205.533	312.553	
236	1.60944	2.05375	209.751	315.859	
237	3.71357	2.14441	214.349	323.822	

238	3.78419	2.25713	219.444	332.364
239	3.82864	2.40892	225.247	341.587
240	4.02535	2.65209	232.28	352.262

Data Set Standard Deviation = 1.95043
Numerator = 124089
Denominator = 211190
W Statistic = 0.587569 = 124089 / 211190

5% Critical value of 0.976 exceeds 0.587569
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.587569
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Beryllium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.766027
0.766027 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.35241	0.00414938	-2.65209	77.4958	344.01
2	-3.35241	0.00829876	-2.40892	77.4958	332.136
3	-3.35241	0.0124481	-2.25713	77.4958	324.723
4	-3.35241	0.0165975	-2.14441	77.4958	319.219
5	-3.35241	0.0207469	-2.05375	77.4958	314.791
6	-3.35241	0.0248963	-1.97737	77.4958	311.062
7	-3.35241	0.0290456	-1.8957	77.4958	307.073
8	-3.35241	0.033195	-1.83843	77.4958	304.276
9	-3.35241	0.0373444	-1.78661	77.4958	301.746
10	-3.35241	0.0414938	-1.7392	77.4958	299.431
11	-3.35241	0.0456432	-1.6954	77.4958	297.292
12	-3.35241	0.0497925	-1.65463	77.4958	295.301
13	-3.35241	0.0539419	-1.61644	77.4958	293.436
14	-3.35241	0.0580913	-1.57179	77.4958	291.256
15	-3.35241	0.0622407	-1.5382	77.4958	289.615
16	-3.35241	0.06639	-1.50626	77.4958	288.056
17	-3.35241	0.0705394	-1.47579	77.4958	286.568
18	-3.35241	0.0746888	-1.44663	77.4958	285.144
19	-3.35241	0.0788382	-1.41865	77.4958	283.778
20	-3.35241	0.0829876	-1.39175	77.4958	282.464
21	-3.35241	0.0871369	-1.35946	77.4958	280.887
22	-3.35241	0.0912863	-1.33462	77.4958	279.674
23	-3.35241	0.0954357	-1.31058	77.4958	278.5
24	-3.35241	0.0995851	-1.28727	77.4958	277.362
25	-3.35241	0.103734	-1.26464	77.4958	276.257
26	-3.35241	0.107884	-1.24264	77.4958	275.182
27	-3.35241	0.112033	-1.21596	77.4958	273.879
28	-3.35241	0.116183	-1.19522	77.4958	272.867
29	-3.35241	0.120332	-1.17499	77.4958	271.879
30	-3.35241	0.124481	-1.15522	77.4958	270.913
31	-3.35241	0.128631	-1.1359	77.4958	269.97
32	-3.35241	0.13278	-1.11699	77.4958	269.046
33	-3.35241	0.136929	-1.09847	77.4958	268.142
34	-3.35241	0.141079	-1.07584	77.4958	267.037
35	-3.35241	0.145228	-1.05812	77.4958	266.172
36	-3.35241	0.149378	-1.04073	77.4958	265.322
37	-3.35241	0.153527	-1.02365	77.4958	264.488
38	-2.65926	0.157676	-1.00687	118.7	263.669
39	-2.65926	0.161826	-0.990356	118.7	262.862
40	-2.65926	0.165975	-0.974114	118.7	262.069
41	-2.60369	0.170124	-0.954165	122.003	261.095
42	-2.20727	0.174274	-0.938476	145.568	260.329
43	-2.12026	0.178423	-0.923014	150.74	259.574
44	-2.12026	0.182573	-0.907769	150.74	258.829
45	-2.04022	0.186722	-0.892733	155.498	258.095
46	-2.04022	0.190871	-0.877897	155.498	257.371
47	-1.74297	0.195021	-0.859618	173.168	256.478
48	-1.74297	0.19917	-0.845198	173.168	255.774

49	-1.10866	0.20332	-0.830953	210.874	255.078		
50	-1.07881	0.207469	-0.816874	212.649	254.391		
51	-1.02165	0.211618	-0.802956	216.046	253.711		
52	-0.994252	0.215768	-0.789191	217.675	253.039		
53	-0.891598	0.219917	-0.775574	223.777	252.374		
54	-0.891598	0.224066	-0.758753	223.777	251.552		
55	0.693147	0.228216	-0.745449	317.982	250.903		
56	1.60944	0.232365	-0.732275	372.45	250.259		
57	1.60944	0.236515	-0.719228	372.45	249.622		
58	1.60944	0.240664	-0.706302	372.45	248.991		
59	1.60944	0.244813	-0.693493	372.45	248.366		
60	1.60944	0.248963	-0.680797	372.45	247.746		
61	1.60944	0.253112	-0.665079	372.45	246.978		
62	1.60944	0.257261	-0.652622	372.45	246.37		
63	1.60944	0.261411	-0.640266	372.45	245.766		
64	1.60944	0.26556	-0.628006	372.45	245.168		
65	1.60944	0.26971	-0.615839	372.45	244.573		
66	1.60944	0.273859	-0.603765	372.45	243.984		
67	1.60944	0.278008	-0.588793	372.45	243.253		
68	1.60944	0.282158	-0.576911	372.45	242.672		
69	1.60944	0.286307	-0.565108	372.45	242.096		
70	1.60944	0.290456	-0.553384	372.45	241.524		
71	1.60944	0.294606	-0.541736	372.45	240.955		
72	1.60944	0.298755	-0.530162	372.45	240.39		
73	1.60944	0.302905	-0.518658	372.45	239.828		
74	1.60944	0.307054	-0.504372	372.45	239.13		
75	1.60944	0.311203	-0.493018	372.45	238.576		
76	1.60944	0.315353	-0.481728	372.45	238.024		
77	1.60944	0.319502	-0.470498	372.45	237.476		
78	1.60944	0.323651	-0.459327	372.45	236.93		
79	1.60944	0.327801	-0.448213	372.45	236.388		
80	1.60944	0.33195	-0.437153	372.45	235.848		
81	1.60944	0.3361	-0.423405	372.45	235.176		
82	1.60944	0.340249	-0.412463	372.45	234.642		
83	1.60944	0.344398	-0.401571	372.45	234.11		
84	1.60944	0.348548	-0.390726	372.45	233.58		
85	1.60944	0.352697	-0.379927	372.45	233.053		
86	1.60944	0.356846	-0.369171	372.45	232.528		
87	1.60944	0.360996	-0.358459	372.45	232.005		
88	1.60944	0.365145	-0.345126	372.45	231.354		
89	1.60944	0.369295	-0.334503	372.45	230.835		
90	1.60944	0.373444	-0.323919	372.45	230.318		
91	1.60944	0.377593	-0.31337	372.45	229.803		
92	1.60944	0.381743	-0.302855	372.45	229.289		
93	1.60944	0.385892	-0.292375	372.45	228.778		
94	1.60944	0.390041	-0.279319	372.45	228.14		
95	1.60944	0.394191	-0.268908	372.45	227.632		
96	1.60944	0.39834	-0.258527	372.45	227.125		
97	1.60944	0.40249	-0.248174	372.45	226.619		
98	1.60944	0.406639	-0.237847	372.45	226.115		
99	1.60944	0.410788	-0.227545	372.45	225.612		
100	1.60944	0.414938	-0.217267	372.45	225.11		
101	1.60944	0.419087	-0.204452	372.45	224.484		
102	1.60944	0.423237	-0.194225	372.45	223.985		
103	1.60944	0.427386	-0.184017	372.45	223.486		
104	1.60944	0.431535	-0.173829	372.45	222.989		
105	1.60944	0.435685	-0.163659	372.45	222.492		
106	1.60944	0.439834	-0.153505	372.45	221.996		
107	1.60944	0.443983	-0.143367	372.45	221.501		
108	1.60944	0.448133	-0.130716	372.45	220.883		
109	1.60944	0.452282	-0.12061	372.45	220.39		
110	1.60944	0.456432	-0.110516	372.45	219.897		

111	1.60944	0.460581	-0.100433	372.45	219.404
112	1.60944	0.46473	-0.0903606	372.45	218.913
113	1.60944	0.46888	-0.0802981	372.45	218.421
114	1.60944	0.473029	-0.0677301	372.45	217.807
115	1.60944	0.477178	-0.0576847	372.45	217.317
116	1.60944	0.481328	-0.0476439	372.45	216.827
117	1.60944	0.485477	-0.0376076	372.45	216.337
118	1.60944	0.489627	-0.0275759	372.45	215.847
119	1.60944	0.493776	-0.0175476	372.45	215.357
120	1.60944	0.497925	-0.00751925	372.45	214.867
121	1.60944	0.502075	0.00751925	372.45	214.133
122	1.60944	0.506224	0.0175476	372.45	213.643
123	1.60944	0.510373	0.0275759	372.45	213.153
124	1.60944	0.514523	0.0376076	372.45	212.663
125	1.60944	0.518672	0.0476439	372.45	212.173
126	1.60944	0.522822	0.0576847	372.45	211.683
127	1.60944	0.526971	0.0677301	372.45	211.193
128	1.60944	0.53112	0.0802981	372.45	210.579
129	1.60944	0.53527	0.0903606	372.45	210.087
130	1.60944	0.539419	0.100433	372.45	209.596
131	1.60944	0.543568	0.110516	372.45	209.103
132	1.60944	0.547718	0.12061	372.45	208.61
133	1.60944	0.551867	0.130716	372.45	208.117
134	1.60944	0.556017	0.143367	372.45	207.499
135	1.60944	0.560166	0.153505	372.45	207.004
136	1.60944	0.564315	0.163659	372.45	206.508
137	1.60944	0.568465	0.173829	372.45	206.011
138	1.60944	0.572614	0.184017	372.45	205.514
139	1.60944	0.576763	0.194225	372.45	205.015
140	1.60944	0.580913	0.204452	372.45	204.516
141	1.60944	0.585062	0.217267	372.45	203.89
142	1.60944	0.589212	0.227545	372.45	203.388
143	1.60944	0.593361	0.237847	372.45	202.885
144	1.60944	0.59751	0.248174	372.45	202.381
145	1.60944	0.60166	0.258527	372.45	201.875
146	1.60944	0.605809	0.268908	372.45	201.368
147	1.60944	0.609959	0.279319	372.45	200.86
148	1.60944	0.614108	0.292375	372.45	200.222
149	1.60944	0.618257	0.302855	372.45	199.711
150	1.60944	0.622407	0.31337	372.45	199.197
151	1.60944	0.626556	0.323919	372.45	198.682
152	1.60944	0.630705	0.334503	372.45	198.165
153	1.60944	0.634855	0.345126	372.45	197.646
154	1.60944	0.639004	0.358459	372.45	196.995
155	1.60944	0.643154	0.369171	372.45	196.472
156	1.60944	0.647303	0.379927	372.45	195.947
157	1.60944	0.651452	0.390726	372.45	195.42
158	1.60944	0.655602	0.401571	372.45	194.89
159	1.60944	0.659751	0.412463	372.45	194.358
160	1.60944	0.6639	0.423405	372.45	193.824
161	1.60944	0.66805	0.437153	372.45	193.152
162	1.60944	0.672199	0.448213	372.45	192.612
163	1.60944	0.676349	0.459327	372.45	192.07
164	1.60944	0.680498	0.470498	372.45	191.524
165	1.60944	0.684647	0.481728	372.45	190.976
166	1.60944	0.688797	0.493018	372.45	190.424
167	1.60944	0.692946	0.504372	372.45	189.87
168	1.60944	0.697095	0.518658	372.45	189.172
169	1.60944	0.701245	0.530162	372.45	188.61
170	1.60944	0.705394	0.541736	372.45	188.045
171	1.60944	0.709544	0.553384	372.45	187.476
172	1.60944	0.713693	0.565108	372.45	186.904

173	1.60944	0.717842	0.576911	372.45	186.328	
174	1.60944	0.721992	0.588793	372.45	185.747	
175	1.60944	0.726141	0.603765	372.45	185.016	
176	1.60944	0.73029	0.615839	372.45	184.427	
177	1.60944	0.73444	0.628006	372.45	183.832	
178	1.60944	0.738589	0.640266	372.45	183.234	
179	1.60944	0.742739	0.652622	372.45	182.63	
180	1.60944	0.746888	0.665079	372.45	182.022	
181	1.60944	0.751037	0.680797	372.45	181.254	
182	1.60944	0.755187	0.693493	372.45	180.634	
183	1.60944	0.759336	0.706302	372.45	180.009	
184	1.60944	0.763485	0.719228	372.45	179.378	
185	1.60944	0.767635	0.732275	372.45	178.741	
186	1.60944	0.771784	0.745449	372.45	178.097	
187	1.60944	0.775934	0.758753	372.45	177.448	
188	1.60944	0.780083	0.775574	372.45	176.626	
189	1.60944	0.784232	0.789191	372.45	175.961	
190	1.60944	0.788382	0.802956	372.45	175.289	
191	1.60944	0.792531	0.816874	372.45	174.609	
192	1.60944	0.79668	0.830953	372.45	173.922	
193	1.60944	0.80083	0.845198	372.45	173.226	
194	1.60944	0.804979	0.859618	372.45	172.522	
195	1.60944	0.809129	0.877897	372.45	171.629	
196	1.60944	0.813278	0.892733	372.45	170.905	
197	1.60944	0.817427	0.907769	372.45	170.171	
198	1.60944	0.821577	0.923014	372.45	169.426	
199	1.60944	0.825726	0.938476	372.45	168.671	
200	1.60944	0.829876	0.954165	372.45	167.905	
201	1.60944	0.834025	0.974114	372.45	166.931	
202	1.60944	0.838174	0.990356	372.45	166.138	
203	1.60944	0.842324	1.00687	372.45	165.331	
204	1.60944	0.846473	1.02365	372.45	164.512	
205	1.60944	0.850622	1.04073	372.45	163.678	
206	1.60944	0.854772	1.05812	372.45	162.828	
207	1.60944	0.858921	1.07584	372.45	161.963	
208	1.60944	0.863071	1.09847	372.45	160.858	
209	1.60944	0.86722	1.11699	372.45	159.954	
210	1.60944	0.871369	1.1359	372.45	159.03	
211	1.60944	0.875519	1.15522	372.45	158.087	
212	1.60944	0.879668	1.17499	372.45	157.121	
213	1.60944	0.883817	1.19522	372.45	156.133	
214	1.60944	0.887967	1.21596	372.45	155.121	
215	1.60944	0.892116	1.24264	372.45	153.818	
216	1.60944	0.896266	1.26464	372.45	152.743	
217	1.60944	0.900415	1.28727	372.45	151.638	
218	1.60944	0.904564	1.31058	372.45	150.5	
219	1.60944	0.908714	1.33462	372.45	149.326	
220	1.60944	0.912863	1.35946	372.45	148.113	
221	1.60944	0.917012	1.39175	372.45	146.536	
222	1.60944	0.921162	1.41865	372.45	145.222	
223	1.60944	0.925311	1.44663	372.45	143.856	
224	1.60944	0.929461	1.47579	372.45	142.432	
225	1.60944	0.93361	1.50626	372.45	140.944	
226	1.60944	0.937759	1.5382	372.45	139.385	
227	1.60944	0.941909	1.57179	372.45	137.744	
228	1.60944	0.946058	1.61644	372.45	135.564	
229	1.60944	0.950207	1.65463	372.45	133.699	
230	1.60944	0.954357	1.6954	372.45	131.708	
231	1.60944	0.958506	1.7392	372.45	129.569	
232	1.60944	0.962656	1.78661	372.45	127.254	
233	1.60944	0.966805	1.83843	372.45	124.724	
234	1.60944	0.970954	1.8957	372.45	121.927	

235	1.60944	0.975104	1.97737	372.45	117.938
236	1.60944	0.979253	2.05375	372.45	114.209
237	3.71357	0.983402	2.14441	497.529	109.781
238	3.78419	0.987552	2.25713	501.727	104.277
239	3.82864	0.991701	2.40892	504.369	96.8642
240	4.02535	0.995851	2.65209	516.063	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Beryllium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 91.6667%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 1.60944
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-9	11/22/2011	2	-3.35241	FALSE
MW-12AR	11/22/2011	1	-2.04022	FALSE
MW-11R	11/22/2011	2	-2.65926	FALSE
MW-10	11/22/2011	1	-3.35241	FALSE
MW-7	11/22/2011	1	-3.35241	FALSE
MW-6	11/22/2011	1	-3.35241	FALSE
MW-8	11/22/2011	1	-3.35241	FALSE
MW-12BR	11/22/2011	1	-0.891598	FALSE

Concentrations (ppb)

Parameter: Bis (2-chloroisopropyl) ether

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 228
Total Non-Detect: 226
Percent Non-Detects: 99.1228%
Total Background Measurements: 17
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	17	17 (100%)	3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/30/2010	ND<1.5	ND<1.5
			11/12/2010	ND<1.5 U	ND<1.5 U
			7/5/2011	ND<1.5 U	ND<1.5 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12BR	20	20 (100%)	3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/30/2010	ND<1.5	ND<1.5
			11/12/2010	ND<1.6 U	ND<1.6 U
			11/12/2010	ND<1.6 U	ND<1.6 U
			7/5/2011	ND<1.5 U	ND<1.5 U
			11/22/2011	ND<1.5 U H	ND<1.5 U H
			11/22/2011	ND<1.5 U Q	ND<1.5 U Q
MW-10	29	29 (100%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10

			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/30/2010	ND<1.5	ND<1.5	
			11/12/2010	ND<1.5 U		ND<1.5 U
			7/5/2011	ND<1.5 U	ND<1.5 U	
			11/22/2011	ND<1.5 U Q		ND<1.5 U Q
			11/22/2011	ND<1.5 U H		ND<1.5 U H
MW-9	29	27 (93.1034%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/30/2010	ND<1.6	ND<1.6	
			11/12/2010	ND<1.5 U		ND<1.5 U
			7/5/2011	ND<1.6 U	ND<1.6 U	
			11/22/2011	6.7 J	6.7 J	
			11/22/2011	6.7 J	6.7 J	
MW-12A R	19	19 (100%)	3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	

			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/30/2010	ND<1.5	ND<1.5	
			11/12/2010	ND<1.5 U		ND<1.5 U
			7/5/2011	ND<1.5 U	ND<1.5 U	
			11/22/2011	ND<1.5 U H		ND<1.5 U H
			11/22/2011	ND<1.5 U Q		ND<1.5 U Q
MW-7	29	29 (100%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/30/2010	ND<1.6	ND<1.6	
			11/12/2010	ND<1.5 U		ND<1.5 U
			7/5/2011	ND<1.6 U	ND<1.6 U	
			11/22/2011	ND<1.4 U H		ND<1.4 U H
			11/22/2011	ND<1.5 U Q		ND<1.5 U Q
MW-11R	29	29 (100%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	

			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/30/2010	ND<1.5	ND<1.5
			11/12/2010	ND<1.5 U	ND<1.5 U
			7/5/2011	ND<1.5 U	ND<1.5 U
			11/22/2011	ND<1.5 U	ND<1.5 U
			11/22/2011	ND<1.5 U	ND<1.5 U
MW-8	27	27 (100%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10
			12/19/1996	ND<10	ND<10
			3/24/1997	ND<10	ND<10
			9/24/1997	ND<10	ND<10
			4/7/1998	ND<10	ND<10
			9/23/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			7/5/2011	ND<1.5 U	ND<1.5 U
			11/22/2011	ND<1.5 U H	ND<1.5 U H
			11/22/2011	ND<1.5 U Q	ND<1.5 U Q
MW-6	29	29 (100%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10
			12/19/1996	ND<10	ND<10
			3/24/1997	ND<10	ND<10
			9/24/1997	ND<10	ND<10
			4/7/1998	ND<10	ND<10
			9/23/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10

11/20/2008	ND<10		ND<10	
6/30/2010	ND<1.5		ND<1.5	
11/12/2010	ND<1.5	U	ND<1.5	U
7/5/2011	ND<1.6	U	ND<1.6	U
11/22/2011	ND<1.5	U H	ND<1.5	U H
11/22/2011	ND<1.5	U Q	ND<1.5	U Q

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Bis (2-chloroisopropyl) ether

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 228

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.7	-2.65209	7.03356	-1.85646
2	0.75	-2.40892	12.8365	-3.66315
3	0.75	-2.22621	17.7925	-5.33281
4	0.75	-2.12007	22.2872	-6.92286
5	0.75	-2.03352	26.4224	-8.448
6	0.75	-1.94314	30.1981	-9.90535
7	0.75	-1.88079	33.7355	-11.3159
8	0.75	-1.82501	37.0662	-12.6847
9	0.75	-1.76241	40.1723	-14.0065
10	0.75	-1.71688	43.1199	-15.2942
11	0.75	-1.66456	45.8907	-16.5426
12	0.75	-1.62576	48.5338	-17.7619
13	0.75	-1.58927	51.0596	-18.9539
14	0.75	-1.54643	53.451	-20.1137
15	0.75	-1.5141	55.7436	-21.2493
16	0.75	-1.48328	57.9437	-22.3617
17	0.75	-1.44663	60.0364	-23.4467
18	0.75	-1.41865	62.049	-24.5107
19	0.75	-1.39175	63.986	-25.5545
20	0.75	-1.35946	65.8341	-26.5741
21	0.75	-1.33462	67.6153	-27.5751
22	0.75	-1.30469	69.3175	-28.5536
23	0.75	-1.28155	70.9599	-29.5147
24	0.75	-1.25908	72.5452	-30.4591
25	0.75	-1.23187	74.0627	-31.383
26	0.75	-1.21073	75.5285	-32.291
27	0.75	-1.19012	76.9449	-33.1836
28	0.75	-1.16505	78.3023	-34.0574
29	0.75	-1.1455	79.6144	-34.9165
30	0.75	-1.12168	80.8726	-35.7578
31	0.75	-1.10306	82.0893	-36.5851
32	0.75	-1.08482	83.2662	-37.3987
33	0.75	-1.06252	84.3951	-38.1956
34	0.8	-1.04505	85.4873	-39.0316
35	0.8	-1.02789	86.5438	-39.8539
36	0.8	-1.00687	87.5576	-40.6594
37	0.8	-0.990356	88.5384	-41.4517
38	0.8	-0.974114	89.4873	-42.231
39	0.8	-0.954165	90.3977	-42.9943
40	0.8	-0.938476	91.2785	-43.7451
41	5	-0.919183	92.1234	-48.341
42	5	-0.903992	92.9406	-52.861
43	5	-0.889006	93.7309	-57.306
44	5	-0.87055	94.4888	-61.6588
45	5	-0.855996	95.2215	-65.9387
46	5	-0.841621	95.9298	-70.1468
47	5	-0.823893	96.6086	-74.2663
48	5	-0.809896	97.2646	-78.3158
49	5	-0.796056	97.8983	-82.2961
50	5	-0.778966	98.505	-86.1909
51	5	-0.765456	99.091	-90.0182

52	5	-0.748762	99.6516	-93.762
53	5	-0.735557	100.193	-97.4398
54	5	-0.722479	100.715	-101.052
55	5	-0.706302	101.213	-104.584
56	5	-0.693493	101.694	-108.051
57	5	-0.680797	102.158	-111.455
58	5	-0.665079	102.6	-114.781
59	5	-0.652622	103.026	-118.044
60	5	-0.637192	103.432	-121.23
61	5	-0.624956	103.823	-124.354
62	5	-0.612813	104.198	-127.418
63	5	-0.597761	104.556	-130.407
64	5	-0.585815	104.899	-133.336
65	5	-0.573953	105.228	-136.206
66	5	-0.559237	105.541	-139.002
67	5	-0.547551	105.841	-141.74
68	5	-0.53594	106.128	-144.42
69	5	-0.521527	106.4	-147.027
70	5	-0.510074	106.66	-149.578
71	5	-0.49585	106.906	-152.057
72	5	-0.484544	107.141	-154.48
73	5	-0.473299	107.365	-156.846
74	5	-0.459327	107.576	-159.143
75	5	-0.448213	107.777	-161.384
76	5	-0.437153	107.968	-163.57
77	5	-0.423405	108.147	-165.687
78	5	-0.412463	108.317	-167.749
79	5	-0.401571	108.478	-169.757
80	5	-0.388022	108.629	-171.697
81	5	-0.377233	108.771	-173.583
82	5	-0.363809	108.904	-175.402
83	5	-0.353118	109.028	-177.168
84	5	-0.342466	109.146	-178.88
85	5	-0.329206	109.254	-180.526
86	5	-0.318639	109.356	-182.119
87	5	-0.308108	109.45	-183.66
88	5	-0.294992	109.538	-185.135
89	5	-0.284535	109.618	-186.557
90	5	-0.271509	109.692	-187.915
91	5	-0.26112	109.76	-189.221
92	5	-0.250759	109.823	-190.474
93	5	-0.237847	109.88	-191.664
94	5	-0.227545	109.932	-192.801
95	5	-0.217267	109.979	-193.888
96	5	-0.204452	110.021	-194.91
97	5	-0.194225	110.058	-195.881
98	5	-0.184017	110.092	-196.801
99	5	-0.171285	110.122	-197.658
100	5	-0.161119	110.147	-198.463
101	5	-0.148434	110.17	-199.205
102	5	-0.138305	110.189	-199.897
103	5	-0.128189	110.205	-200.538
104	5	-0.115562	110.218	-201.116
105	5	-0.105474	110.23	-201.643
106	5	-0.0953969	110.239	-202.12
107	5	-0.0828129	110.246	-202.534
108	5	-0.0727562	110.251	-202.898
109	5	-0.0627062	110.255	-203.211
110	5	-0.0501541	110.257	-203.462
111	5	-0.0401167	110.259	-203.663
112	5	-0.0275759	110.26	-203.801
113	5	-0.0175476	110.26	-203.888

114	5	-0.00751925	110.26	-203.926
115	5	0.00751925	110.26	-203.888
116	5	0.0175476	110.26	-203.801
117	5	0.0275759	110.261	-203.663
118	5	0.0401167	110.263	-203.462
119	5	0.0501541	110.265	-203.211
120	5	0.0627062	110.269	-202.898
121	5	0.0727562	110.274	-202.534
122	5	0.0828129	110.281	-202.12
123	5	0.0953969	110.29	-201.643
124	5	0.105474	110.302	-201.116
125	5	0.115562	110.315	-200.538
126	5	0.128189	110.331	-199.897
127	5	0.138305	110.35	-199.205
128	5	0.148434	110.372	-198.463
129	5	0.161119	110.398	-197.658
130	5	0.171285	110.428	-196.801
131	5	0.184017	110.462	-195.881
132	5	0.194225	110.499	-194.91
133	5	0.204452	110.541	-193.888
134	5	0.217267	110.588	-192.801
135	5	0.227545	110.64	-191.664
136	5	0.237847	110.697	-190.474
137	5	0.250759	110.76	-189.221
138	5	0.26112	110.828	-187.915
139	5	0.271509	110.902	-186.557
140	5	0.284535	110.982	-185.135
141	5	0.294992	111.069	-183.66
142	5	0.308108	111.164	-182.119
143	5	0.318639	111.266	-180.526
144	5	0.329206	111.374	-178.88
145	5	0.342466	111.492	-177.168
146	5	0.353118	111.616	-175.402
147	5	0.363809	111.749	-173.583
148	5	0.377233	111.891	-171.697
149	5	0.388022	112.042	-169.757
150	5	0.401571	112.203	-167.749
151	5	0.412463	112.373	-165.687
152	5	0.423405	112.552	-163.57
153	5	0.437153	112.743	-161.384
154	5	0.448213	112.944	-159.143
155	5	0.459327	113.155	-156.846
156	5	0.473299	113.379	-154.48
157	5	0.484544	113.614	-152.057
158	5	0.49585	113.86	-149.578
159	5	0.510074	114.12	-147.027
160	5	0.521527	114.392	-144.42
161	5	0.53594	114.679	-141.74
162	5	0.547551	114.979	-139.002
163	5	0.559237	115.292	-136.206
164	5	0.573953	115.621	-133.336
165	5	0.585815	115.964	-130.407
166	5	0.597761	116.322	-127.418
167	5	0.612813	116.697	-124.354
168	5	0.624956	117.088	-121.23
169	5	0.637192	117.494	-118.044
170	5	0.652622	117.92	-114.781
171	5	0.665079	118.362	-111.455
172	5	0.680797	118.826	-108.051
173	5	0.693493	119.306	-104.584
174	5	0.706302	119.805	-101.052
175	5	0.722479	120.327	-97.4398

176	5	0.735557		120.868	-93.762
177	5	0.748762		121.429	-90.0182
178	5	0.765456		122.015	-86.1909
179	5	0.778966		122.622	-82.2961
180	5	0.796056		123.255	-78.3158
181	5	0.809896		123.911	-74.2663
182	5	0.823893		124.59	-70.1468
183	5	0.841621		125.298	-65.9387
184	5	0.855996		126.031	-61.6588
185	5	0.87055	126.789	-57.306	
186	5	0.889006		127.579	-52.861
187	5	0.903992		128.397	-48.341
188	5	0.919183		129.242	-43.7451
189	5	0.938476		130.122	-39.0527
190	5	0.954165		131.033	-34.2819
191	5	0.974114		131.982	-29.4113
192	5	0.990356		132.962	-24.4596
193	5	1.00687	133.976	-19.4252	
194	5	1.02789	135.033	-14.2858	
195	5	1.04505	136.125	-9.06051	
196	5	1.06252	137.254	-3.74791	
197	5	1.08482	138.431	1.6762	
198	5	1.10306	139.647	7.19151	
199	5	1.12168	140.906	12.7999	
200	5	1.1455	142.218	18.5274	
201	5	1.16505	143.575	24.3527	
202	5	1.19012	144.991	30.3033	
203	5	1.21073	146.457	36.3569	
204	5	1.23187	147.975	42.5162	
205	5	1.25908	149.56	48.8116	
206	5	1.28155	151.202	55.2194	
207	5	1.30469	152.905	61.7428	
208	5	1.33462	154.686	68.4159	
209	5	1.35946	156.534	75.2133	
210	5	1.39175	158.471	82.172	
211	5	1.41865	160.484	89.2652	
212	5	1.44663	162.576	96.4984	
213	5	1.48328	164.776	103.915	
214	5	1.5141	167.069	111.485	
215	5	1.54643	169.46	119.218	
216	5	1.58927	171.986	127.164	
217	5	1.62576	174.629	135.293	
218	5	1.66456	177.4	143.615	
219	5	1.71688	180.348	152.2	
220	5	1.76241	183.454	161.012	
221	5	1.82501	186.784	170.137	
222	5	1.88079	190.322	179.541	
223	5	1.94314	194.098	189.257	
224	5	2.03352	198.233	199.424	
225	5	2.12007	202.728	210.025	
226	5	2.22621	207.684	221.156	
227	6.7	2.40892	213.486	237.295	
228	6.7	2.65209	220.52	255.064	

Data Set Standard Deviation = 1.63181
Numerator = 65057.8
Denominator = 133294
W Statistic = 0.488078 = 65057.8 / 133294

5% Critical value of 0.976 exceeds 0.488078
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.488078
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Bis (2-chloroisopropyl) ether

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.698592
0.698592 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.7	0.00436681	-2.65209	92.5	344.01	
2	0.75	0.00873362	-2.40892	96.3214	332.136	
3	0.75	0.0131004	-2.22621	96.3214	323.213	
4	0.75	0.0174672	-2.12007	96.3214	318.03	
5	0.75	0.0218341	-2.03352	96.3214	313.804	
6	0.75	0.0262009	-1.94314	96.3214	309.39	
7	0.75	0.0305677	-1.88079	96.3214	306.345	
8	0.75	0.0349345	-1.82501	96.3214	303.621	
9	0.75	0.0393013	-1.76241	96.3214	300.564	
10	0.75	0.0436681	-1.71688	96.3214	298.341	
11	0.75	0.0480349	-1.66456	96.3214	295.786	
12	0.75	0.0524017	-1.62576	96.3214	293.891	
13	0.75	0.0567686	-1.58927	96.3214	292.109	
14	0.75	0.0611354	-1.54643	96.3214	290.017	
15	0.75	0.0655022	-1.5141	96.3214	288.439	
16	0.75	0.069869	-1.48328	96.3214	286.934	
17	0.75	0.0742358	-1.44663	96.3214	285.144	
18	0.75	0.0786026	-1.41865	96.3214	283.778	
19	0.75	0.0829694	-1.39175	96.3214	282.464	
20	0.75	0.0873362	-1.35946	96.3214	280.887	
21	0.75	0.0917031	-1.33462	96.3214	279.674	
22	0.75	0.0960699	-1.30469	96.3214	278.212	
23	0.75	0.100437	-1.28155	96.3214	277.082	
24	0.75	0.104803	-1.25908	96.3214	275.985	
25	0.75	0.10917	-1.23187	96.3214	274.656	
26	0.75	0.113537	-1.21073	96.3214	273.624	
27	0.75	0.117904	-1.19012	96.3214	272.617	
28	0.75	0.122271	-1.16505	96.3214	271.393	
29	0.75	0.126638	-1.1455	96.3214	270.439	
30	0.75	0.131004	-1.12168	96.3214	269.275	
31	0.75	0.135371	-1.10306	96.3214	268.366	
32	0.75	0.139738	-1.08482	96.3214	267.476	
33	0.75	0.144105	-1.06252	96.3214	266.386	
34	0.8	0.148472	-1.04505	100.143	265.533	
35	0.8	0.152838	-1.02789	100.143	264.695	
36	0.8	0.157205	-1.00687	100.143	263.669	
37	0.8	0.161572	-0.990356	100.143	262.862	
38	0.8	0.165939	-0.974114	100.143	262.069	
39	0.8	0.170306	-0.954165	100.143	261.095	
40	0.8	0.174672	-0.938476	100.143	260.329	
41	5	0.179039	-0.919183	421.143	259.387	
42	5	0.183406	-0.903992	421.143	258.645	
43	5	0.187773	-0.889006	421.143	257.913	
44	5	0.19214	-0.87055	421.143	257.012	
45	5	0.196507	-0.855996	421.143	256.301	
46	5	0.200873	-0.841621	421.143	255.599	
47	5	0.20524	-0.823893	421.143	254.733	
48	5	0.209607	-0.809896	421.143	254.05	

49	5	0.213974	-0.796056	421.143	253.374
50	5	0.218341	-0.778966	421.143	252.54
51	5	0.222707	-0.765456	421.143	251.88
52	5	0.227074	-0.748762	421.143	251.065
53	5	0.231441	-0.735557	421.143	250.42
54	5	0.235808	-0.722479	421.143	249.781
55	5	0.240175	-0.706302	421.143	248.991
56	5	0.244541	-0.693493	421.143	248.366
57	5	0.248908	-0.680797	421.143	247.746
58	5	0.253275	-0.665079	421.143	246.978
59	5	0.257642	-0.652622	421.143	246.37
60	5	0.262009	-0.637192	421.143	245.616
61	5	0.266376	-0.624956	421.143	245.019
62	5	0.270742	-0.612813	421.143	244.426
63	5	0.275109	-0.597761	421.143	243.691
64	5	0.279476	-0.585815	421.143	243.107
65	5	0.283843	-0.573953	421.143	242.528
66	5	0.28821	-0.559237	421.143	241.809
67	5	0.292576	-0.547551	421.143	241.239
68	5	0.296943	-0.53594	421.143	240.672
69	5	0.30131	-0.521527	421.143	239.968
70	5	0.305677	-0.510074	421.143	239.409
71	5	0.310044	-0.49585	421.143	238.714
72	5	0.31441	-0.484544	421.143	238.162
73	5	0.318777	-0.473299	421.143	237.613
74	5	0.323144	-0.459327	421.143	236.93
75	5	0.327511	-0.448213	421.143	236.388
76	5	0.331878	-0.437153	421.143	235.848
77	5	0.336245	-0.423405	421.143	235.176
78	5	0.340611	-0.412463	421.143	234.642
79	5	0.344978	-0.401571	421.143	234.11
80	5	0.349345	-0.388022	421.143	233.448
81	5	0.353712	-0.377233	421.143	232.922
82	5	0.358079	-0.363809	421.143	232.266
83	5	0.362445	-0.353118	421.143	231.744
84	5	0.366812	-0.342466	421.143	231.224
85	5	0.371179	-0.329206	421.143	230.576
86	5	0.375546	-0.318639	421.143	230.06
87	5	0.379913	-0.308108	421.143	229.546
88	5	0.384279	-0.294992	421.143	228.905
89	5	0.388646	-0.284535	421.143	228.395
90	5	0.393013	-0.271509	421.143	227.759
91	5	0.39738	-0.26112	421.143	227.251
92	5	0.401747	-0.250759	421.143	226.745
93	5	0.406114	-0.237847	421.143	226.115
94	5	0.41048	-0.227545	421.143	225.612
95	5	0.414847	-0.217267	421.143	225.11
96	5	0.419214	-0.204452	421.143	224.484
97	5	0.423581	-0.194225	421.143	223.985
98	5	0.427948	-0.184017	421.143	223.486
99	5	0.432314	-0.171285	421.143	222.864
100	5	0.436681	-0.161119	421.143	222.368
101	5	0.441048	-0.148434	421.143	221.749
102	5	0.445415	-0.138305	421.143	221.254
103	5	0.449782	-0.128189	421.143	220.76
104	5	0.454148	-0.115562	421.143	220.143
105	5	0.458515	-0.105474	421.143	219.651
106	5	0.462882	-0.0953969	421.143	219.159
107	5	0.467249	-0.0828129	421.143	218.544
108	5	0.471616	-0.0727562	421.143	218.053
109	5	0.475983	-0.0627062	421.143	217.562
110	5	0.480349	-0.0501541	421.143	216.949

111	5	0.484716	-0.0401167	421.143	216.459
112	5	0.489083	-0.0275759	421.143	215.847
113	5	0.49345	-0.0175476	421.143	215.357
114	5	0.497817	-0.00751925	421.143	214.867
115	5	0.502183	0.00751925	421.143	214.133
116	5	0.50655	0.0175476	421.143	213.643
117	5	0.510917	0.0275759	421.143	213.153
118	5	0.515284	0.0401167	421.143	212.541
119	5	0.519651	0.0501541	421.143	212.051
120	5	0.524017	0.0627062	421.143	211.438
121	5	0.528384	0.0727562	421.143	210.947
122	5	0.532751	0.0828129	421.143	210.456
123	5	0.537118	0.0953969	421.143	209.841
124	5	0.541485	0.105474	421.143	209.349
125	5	0.545852	0.115562	421.143	208.857
126	5	0.550218	0.128189	421.143	208.24
127	5	0.554585	0.138305	421.143	207.746
128	5	0.558952	0.148434	421.143	207.251
129	5	0.563319	0.161119	421.143	206.632
130	5	0.567686	0.171285	421.143	206.136
131	5	0.572052	0.184017	421.143	205.514
132	5	0.576419	0.194225	421.143	205.015
133	5	0.580786	0.204452	421.143	204.516
134	5	0.585153	0.217267	421.143	203.89
135	5	0.58952	0.227545	421.143	203.388
136	5	0.593886	0.237847	421.143	202.885
137	5	0.598253	0.250759	421.143	202.255
138	5	0.60262	0.26112	421.143	201.749
139	5	0.606987	0.271509	421.143	201.241
140	5	0.611354	0.284535	421.143	200.605
141	5	0.615721	0.294992	421.143	200.095
142	5	0.620087	0.308108	421.143	199.454
143	5	0.624454	0.318639	421.143	198.94
144	5	0.628821	0.329206	421.143	198.424
145	5	0.633188	0.342466	421.143	197.776
146	5	0.637555	0.353118	421.143	197.256
147	5	0.641921	0.363809	421.143	196.734
148	5	0.646288	0.377233	421.143	196.078
149	5	0.650655	0.388022	421.143	195.552
150	5	0.655022	0.401571	421.143	194.89
151	5	0.659389	0.412463	421.143	194.358
152	5	0.663755	0.423405	421.143	193.824
153	5	0.668122	0.437153	421.143	193.152
154	5	0.672489	0.448213	421.143	192.612
155	5	0.676856	0.459327	421.143	192.07
156	5	0.681223	0.473299	421.143	191.387
157	5	0.68559	0.484544	421.143	190.838
158	5	0.689956	0.49585	421.143	190.286
159	5	0.694323	0.510074	421.143	189.591
160	5	0.69869	0.521527	421.143	189.032
161	5	0.703057	0.53594	421.143	188.328
162	5	0.707424	0.547551	421.143	187.761
163	5	0.71179	0.559237	421.143	187.191
164	5	0.716157	0.573953	421.143	186.472
165	5	0.720524	0.585815	421.143	185.893
166	5	0.724891	0.597761	421.143	185.309
167	5	0.729258	0.612813	421.143	184.574
168	5	0.733624	0.624956	421.143	183.981
169	5	0.737991	0.637192	421.143	183.384
170	5	0.742358	0.652622	421.143	182.63
171	5	0.746725	0.665079	421.143	182.022
172	5	0.751092	0.680797	421.143	181.254

173	5	0.755459	0.693493	421.143	180.634
174	5	0.759825	0.706302	421.143	180.009
175	5	0.764192	0.722479	421.143	179.219
176	5	0.768559	0.735557	421.143	178.58
177	5	0.772926	0.748762	421.143	177.935
178	5	0.777293	0.765456	421.143	177.12
179	5	0.781659	0.778966	421.143	176.46
180	5	0.786026	0.796056	421.143	175.626
181	5	0.790393	0.809896	421.143	174.95
182	5	0.79476	0.823893	421.143	174.267
183	5	0.799127	0.841621	421.143	173.401
184	5	0.803493	0.855996	421.143	172.699
185	5	0.80786	0.87055	421.143	171.988
186	5	0.812227	0.889006	421.143	171.087
187	5	0.816594	0.903992	421.143	170.355
188	5	0.820961	0.919183	421.143	169.613
189	5	0.825328	0.938476	421.143	168.671
190	5	0.829694	0.954165	421.143	167.905
191	5	0.834061	0.974114	421.143	166.931
192	5	0.838428	0.990356	421.143	166.138
193	5	0.842795	1.00687	421.143	165.331
194	5	0.847162	1.02789	421.143	164.305
195	5	0.851528	1.04505	421.143	163.467
196	5	0.855895	1.06252	421.143	162.614
197	5	0.860262	1.08482	421.143	161.524
198	5	0.864629	1.10306	421.143	160.634
199	5	0.868996	1.12168	421.143	159.725
200	5	0.873362	1.1455	421.143	158.561
201	5	0.877729	1.16505	421.143	157.607
202	5	0.882096	1.19012	421.143	156.383
203	5	0.886463	1.21073	421.143	155.376
204	5	0.89083	1.23187	421.143	154.344
205	5	0.895197	1.25908	421.143	153.015
206	5	0.899563	1.28155	421.143	151.918
207	5	0.90393	1.30469	421.143	150.788
208	5	0.908297	1.33462	421.143	149.326
209	5	0.912664	1.35946	421.143	148.113
210	5	0.917031	1.39175	421.143	146.536
211	5	0.921397	1.41865	421.143	145.222
212	5	0.925764	1.44663	421.143	143.856
213	5	0.930131	1.48328	421.143	142.066
214	5	0.934498	1.5141	421.143	140.561
215	5	0.938865	1.54643	421.143	138.983
216	5	0.943231	1.58927	421.143	136.891
217	5	0.947598	1.62576	421.143	135.109
218	5	0.951965	1.66456	421.143	133.214
219	5	0.956332	1.71688	421.143	130.659
220	5	0.960699	1.76241	421.143	128.436
221	5	0.965066	1.82501	421.143	125.379
222	5	0.969432	1.88079	421.143	122.655
223	5	0.973799	1.94314	421.143	119.61
224	5	0.978166	2.03352	421.143	115.196
225	5	0.982533	2.12007	421.143	110.97
226	5	0.9869	2.22621	421.143	105.787
227	6.7	0.991266	2.40892	551.071	96.8642
228	6.7	0.995633	2.65209	551.071	84.9898

Shapiro-Francia Test of Normality

Parameter: Bis (2-chloroisopropyl) ether

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 228

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-0.356675		-2.65209	7.03356	0.945933
2	-0.287682		-2.40892	12.8365	1.63894
3	-0.287682		-2.22621	17.7925	2.27938
4	-0.287682		-2.12007	22.2872	2.88928
5	-0.287682		-2.03352	26.4224	3.47429
6	-0.287682		-1.94314	30.1981	4.0333
7	-0.287682		-1.88079	33.7355	4.57436
8	-0.287682		-1.82501	37.0662	5.09939
9	-0.287682		-1.76241	40.1723	5.6064
10	-0.287682		-1.71688	43.1199	6.10032
11	-0.287682		-1.66456	45.8907	6.57918
12	-0.287682		-1.62576	48.5338	7.04688
13	-0.287682		-1.58927	51.0596	7.50409
14	-0.287682		-1.54643	53.451	7.94897
15	-0.287682		-1.5141	55.7436	8.38455
16	-0.287682		-1.48328	57.9437	8.81126
17	-0.287682		-1.44663	60.0364	9.22743
18	-0.287682		-1.41865	62.049	9.63555
19	-0.287682		-1.39175	63.986	10.0359
20	-0.287682		-1.35946	65.8341	10.427
21	-0.287682		-1.33462	67.6153	10.811
22	-0.287682		-1.30469	69.3175	11.1863
23	-0.287682		-1.28155	70.9599	11.555
24	-0.287682		-1.25908	72.5452	11.9172
25	-0.287682		-1.23187	74.0627	12.2716
26	-0.287682		-1.21073	75.5285	12.6199
27	-0.287682		-1.19012	76.9449	12.9623
28	-0.287682		-1.16505	78.3023	13.2974
29	-0.287682		-1.1455	79.6144	13.627
30	-0.287682		-1.12168	80.8726	13.9497
31	-0.287682		-1.10306	82.0893	14.267
32	-0.287682		-1.08482	83.2662	14.5791
33	-0.287682		-1.06252	84.3951	14.8847
34	-0.223144		-1.04505	85.4873	15.1179
35	-0.223144		-1.02789	86.5438	15.3473
36	-0.223144		-1.00687	87.5576	15.572
37	-0.223144		-0.990356	88.5384	15.793
38	-0.223144		-0.974114	89.4873	16.0103
39	-0.223144		-0.954165	90.3977	16.2233
40	-0.223144		-0.938476	91.2785	16.4327
41	1.60944	-0.919183	92.1234	14.9533	
42	1.60944	-0.903992	92.9406	13.4984	
43	1.60944	-0.889006	93.7309	12.0676	
44	1.60944	-0.87055	94.4888	10.6665	
45	1.60944	-0.855996	95.2215	9.28882	
46	1.60944	-0.841621	95.9298	7.93428	
47	1.60944	-0.823893	96.6086	6.60828	
48	1.60944	-0.809896	97.2646	5.3048	
49	1.60944	-0.796056	97.8983	4.0236	
50	1.60944	-0.778966	98.505	2.7699	
51	1.60944	-0.765456	99.091	1.53794	

52	1.60944	-0.748762	99.6516	0.332859
53	1.60944	-0.735557	100.193	-0.850975
54	1.60944	-0.722479	100.715	-2.01376
55	1.60944	-0.706302	101.213	-3.15051
56	1.60944	-0.693493	101.694	-4.26664
57	1.60944	-0.680797	102.158	-5.36234
58	1.60944	-0.665079	102.6	-6.43275
59	1.60944	-0.652622	103.026	-7.4831
60	1.60944	-0.637192	103.432	-8.50862
61	1.60944	-0.624956	103.823	-9.51445
62	1.60944	-0.612813	104.198	-10.5007
63	1.60944	-0.597761	104.556	-11.4628
64	1.60944	-0.585815	104.899	-12.4056
65	1.60944	-0.573953	105.228	-13.3294
66	1.60944	-0.559237	105.541	-14.2294
67	1.60944	-0.547551	105.841	-15.1107
68	1.60944	-0.53594	106.128	-15.9732
69	1.60944	-0.521527	106.4	-16.8126
70	1.60944	-0.510074	106.66	-17.6335
71	1.60944	-0.49585	106.906	-18.4316
72	1.60944	-0.484544	107.141	-19.2114
73	1.60944	-0.473299	107.365	-19.9732
74	1.60944	-0.459327	107.576	-20.7124
75	1.60944	-0.448213	107.777	-21.4338
76	1.60944	-0.437153	107.968	-22.1374
77	1.60944	-0.423405	108.147	-22.8188
78	1.60944	-0.412463	108.317	-23.4826
79	1.60944	-0.401571	108.478	-24.1289
80	1.60944	-0.388022	108.629	-24.7534
81	1.60944	-0.377233	108.771	-25.3606
82	1.60944	-0.363809	108.904	-25.9461
83	1.60944	-0.353118	109.028	-26.5144
84	1.60944	-0.342466	109.146	-27.0656
85	1.60944	-0.329206	109.254	-27.5954
86	1.60944	-0.318639	109.356	-28.1083
87	1.60944	-0.308108	109.45	-28.6041
88	1.60944	-0.294992	109.538	-29.0789
89	1.60944	-0.284535	109.618	-29.5369
90	1.60944	-0.271509	109.692	-29.9738
91	1.60944	-0.26112	109.76	-30.3941
92	1.60944	-0.250759	109.823	-30.7977
93	1.60944	-0.237847	109.88	-31.1805
94	1.60944	-0.227545	109.932	-31.5467
95	1.60944	-0.217267	109.979	-31.8964
96	1.60944	-0.204452	110.021	-32.2254
97	1.60944	-0.194225	110.058	-32.538
98	1.60944	-0.184017	110.092	-32.8342
99	1.60944	-0.171285	110.122	-33.1099
100	1.60944	-0.161119	110.147	-33.3692
101	1.60944	-0.148434	110.17	-33.6081
102	1.60944	-0.138305	110.189	-33.8307
103	1.60944	-0.128189	110.205	-34.037
104	1.60944	-0.115562	110.218	-34.223
105	1.60944	-0.105474	110.23	-34.3927
106	1.60944	-0.0953969	110.239	-34.5462
107	1.60944	-0.0828129	110.246	-34.6795
108	1.60944	-0.0727562	110.251	-34.7966
109	1.60944	-0.0627062	110.255	-34.8975
110	1.60944	-0.0501541	110.257	-34.9783
111	1.60944	-0.0401167	110.259	-35.0428
112	1.60944	-0.0275759	110.26	-35.0872
113	1.60944	-0.0175476	110.26	-35.1155

114	1.60944	-0.00751925	110.26	-35.1276
115	1.60944	0.00751925	110.26	-35.1155
116	1.60944	0.0175476	110.26	-35.0872
117	1.60944	0.0275759	110.261	-35.0428
118	1.60944	0.0401167	110.263	-34.9783
119	1.60944	0.0501541	110.265	-34.8975
120	1.60944	0.0627062	110.269	-34.7966
121	1.60944	0.0727562	110.274	-34.6795
122	1.60944	0.0828129	110.281	-34.5462
123	1.60944	0.0953969	110.29	-34.3927
124	1.60944	0.105474	110.302	-34.223
125	1.60944	0.115562	110.315	-34.037
126	1.60944	0.128189	110.331	-33.8307
127	1.60944	0.138305	110.35	-33.6081
128	1.60944	0.148434	110.372	-33.3692
129	1.60944	0.161119	110.398	-33.1099
130	1.60944	0.171285	110.428	-32.8342
131	1.60944	0.184017	110.462	-32.538
132	1.60944	0.194225	110.499	-32.2254
133	1.60944	0.204452	110.541	-31.8964
134	1.60944	0.217267	110.588	-31.5467
135	1.60944	0.227545	110.64	-31.1805
136	1.60944	0.237847	110.697	-30.7977
137	1.60944	0.250759	110.76	-30.3941
138	1.60944	0.26112	110.828	-29.9738
139	1.60944	0.271509	110.902	-29.5369
140	1.60944	0.284535	110.982	-29.0789
141	1.60944	0.294992	111.069	-28.6041
142	1.60944	0.308108	111.164	-28.1083
143	1.60944	0.318639	111.266	-27.5954
144	1.60944	0.329206	111.374	-27.0656
145	1.60944	0.342466	111.492	-26.5144
146	1.60944	0.353118	111.616	-25.9461
147	1.60944	0.363809	111.749	-25.3606
148	1.60944	0.377233	111.891	-24.7534
149	1.60944	0.388022	112.042	-24.1289
150	1.60944	0.401571	112.203	-23.4826
151	1.60944	0.412463	112.373	-22.8188
152	1.60944	0.423405	112.552	-22.1374
153	1.60944	0.437153	112.743	-21.4338
154	1.60944	0.448213	112.944	-20.7124
155	1.60944	0.459327	113.155	-19.9732
156	1.60944	0.473299	113.379	-19.2114
157	1.60944	0.484544	113.614	-18.4316
158	1.60944	0.49585	113.86	-17.6335
159	1.60944	0.510074	114.12	-16.8126
160	1.60944	0.521527	114.392	-15.9732
161	1.60944	0.53594	114.679	-15.1107
162	1.60944	0.547551	114.979	-14.2294
163	1.60944	0.559237	115.292	-13.3294
164	1.60944	0.573953	115.621	-12.4056
165	1.60944	0.585815	115.964	-11.4628
166	1.60944	0.597761	116.322	-10.5007
167	1.60944	0.612813	116.697	-9.51445
168	1.60944	0.624956	117.088	-8.50862
169	1.60944	0.637192	117.494	-7.4831
170	1.60944	0.652622	117.92	-6.43275
171	1.60944	0.665079	118.362	-5.36234
172	1.60944	0.680797	118.826	-4.26664
173	1.60944	0.693493	119.306	-3.15051
174	1.60944	0.706302	119.805	-2.01376
175	1.60944	0.722479	120.327	-0.850975

176	1.60944	0.735557		120.868	0.332859
177	1.60944	0.748762		121.429	1.53794
178	1.60944	0.765456		122.015	2.7699
179	1.60944	0.778966		122.622	4.0236
180	1.60944	0.796056		123.255	5.3048
181	1.60944	0.809896		123.911	6.60828
182	1.60944	0.823893		124.59	7.93428
183	1.60944	0.841621		125.298	9.28882
184	1.60944	0.855996		126.031	10.6665
185	1.60944	0.87055	126.789	12.0676	
186	1.60944	0.889006		127.579	13.4984
187	1.60944	0.903992		128.397	14.9533
188	1.60944	0.919183		129.242	16.4327
189	1.60944	0.938476		130.122	17.9431
190	1.60944	0.954165		131.033	19.4788
191	1.60944	0.974114		131.982	21.0465
192	1.60944	0.990356		132.962	22.6405
193	1.60944	1.00687	133.976	24.2609	
194	1.60944	1.02789	135.033	25.9153	
195	1.60944	1.04505	136.125	27.5972	
196	1.60944	1.06252	137.254	29.3073	
197	1.60944	1.08482	138.431	31.0532	
198	1.60944	1.10306	139.647	32.8285	
199	1.60944	1.12168	140.906	34.6338	
200	1.60944	1.1455	142.218	36.4774	
201	1.60944	1.16505	143.575	38.3525	
202	1.60944	1.19012	144.991	40.2679	
203	1.60944	1.21073	146.457	42.2165	
204	1.60944	1.23187	147.975	44.1991	
205	1.60944	1.25908	149.56	46.2255	
206	1.60944	1.28155	151.202	48.2881	
207	1.60944	1.30469	152.905	50.3879	
208	1.60944	1.33462	154.686	52.5359	
209	1.60944	1.35946	156.534	54.7239	
210	1.60944	1.39175	158.471	56.9638	
211	1.60944	1.41865	160.484	59.2471	
212	1.60944	1.44663	162.576	61.5753	
213	1.60944	1.48328	164.776	63.9626	
214	1.60944	1.5141	167.069	66.3994	
215	1.60944	1.54643	169.46	68.8883	
216	1.60944	1.58927	171.986	71.4461	
217	1.60944	1.62576	174.629	74.0627	
218	1.60944	1.66456	177.4	76.7417	
219	1.60944	1.71688	180.348	79.5049	
220	1.60944	1.76241	183.454	82.3414	
221	1.60944	1.82501	186.784	85.2787	
222	1.60944	1.88079	190.322	88.3057	
223	1.60944	1.94314	194.098	91.433	
224	1.60944	2.03352	198.233	94.7059	
225	1.60944	2.12007	202.728	98.118	
226	1.60944	2.22621	207.684	101.701	
227	1.90211	2.40892	213.486	106.283	
228	1.90211	2.65209	220.52	111.327	

Data Set Standard Deviation = 0.721291
Numerator = 12393.8
Denominator = 26043.2
W Statistic = 0.475894 = 12393.8 / 26043.2

5% Critical value of 0.976 exceeds 0.475894
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.475894
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Bis (2-chloroisopropyl) ether

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.689581
0.689581 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.356675	0.00436681	-2.65209	153.726	344.01
2	-0.287682	0.00873362	-2.40892	166.03	332.136
3	-0.287682	0.0131004	-2.22621	166.03	323.213
4	-0.287682	0.0174672	-2.12007	166.03	318.03
5	-0.287682	0.0218341	-2.03352	166.03	313.804
6	-0.287682	0.0262009	-1.94314	166.03	309.39
7	-0.287682	0.0305677	-1.88079	166.03	306.345
8	-0.287682	0.0349345	-1.82501	166.03	303.621
9	-0.287682	0.0393013	-1.76241	166.03	300.564
10	-0.287682	0.0436681	-1.71688	166.03	298.341
11	-0.287682	0.0480349	-1.66456	166.03	295.786
12	-0.287682	0.0524017	-1.62576	166.03	293.891
13	-0.287682	0.0567686	-1.58927	166.03	292.109
14	-0.287682	0.0611354	-1.54643	166.03	290.017
15	-0.287682	0.0655022	-1.5141	166.03	288.439
16	-0.287682	0.069869	-1.48328	166.03	286.934
17	-0.287682	0.0742358	-1.44663	166.03	285.144
18	-0.287682	0.0786026	-1.41865	166.03	283.778
19	-0.287682	0.0829694	-1.39175	166.03	282.464
20	-0.287682	0.0873362	-1.35946	166.03	280.887
21	-0.287682	0.0917031	-1.33462	166.03	279.674
22	-0.287682	0.0960699	-1.30469	166.03	278.212
23	-0.287682	0.100437	-1.28155	166.03	277.082
24	-0.287682	0.104803	-1.25908	166.03	275.985
25	-0.287682	0.10917	-1.23187	166.03	274.656
26	-0.287682	0.113537	-1.21073	166.03	273.624
27	-0.287682	0.117904	-1.19012	166.03	272.617
28	-0.287682	0.122271	-1.16505	166.03	271.393
29	-0.287682	0.126638	-1.1455	166.03	270.439
30	-0.287682	0.131004	-1.12168	166.03	269.275
31	-0.287682	0.135371	-1.10306	166.03	268.366
32	-0.287682	0.139738	-1.08482	166.03	267.476
33	-0.287682	0.144105	-1.06252	166.03	266.386
34	-0.223144	0.148472	-1.04505	177.539	265.533
35	-0.223144	0.152838	-1.02789	177.539	264.695
36	-0.223144	0.157205	-1.00687	177.539	263.669
37	-0.223144	0.161572	-0.990356	177.539	262.862
38	-0.223144	0.165939	-0.974114	177.539	262.069
39	-0.223144	0.170306	-0.954165	177.539	261.095
40	-0.223144	0.174672	-0.938476	177.539	260.329
41	1.60944	0.179039	-0.919183	504.35	259.387
42	1.60944	0.183406	-0.903992	504.35	258.645
43	1.60944	0.187773	-0.889006	504.35	257.913
44	1.60944	0.19214	-0.87055	504.35	257.012
45	1.60944	0.196507	-0.855996	504.35	256.301
46	1.60944	0.200873	-0.841621	504.35	255.599
47	1.60944	0.20524	-0.823893	504.35	254.733
48	1.60944	0.209607	-0.809896	504.35	254.05

49	1.60944	0.213974	-0.796056	504.35	253.374
50	1.60944	0.218341	-0.778966	504.35	252.54
51	1.60944	0.222707	-0.765456	504.35	251.88
52	1.60944	0.227074	-0.748762	504.35	251.065
53	1.60944	0.231441	-0.735557	504.35	250.42
54	1.60944	0.235808	-0.722479	504.35	249.781
55	1.60944	0.240175	-0.706302	504.35	248.991
56	1.60944	0.244541	-0.693493	504.35	248.366
57	1.60944	0.248908	-0.680797	504.35	247.746
58	1.60944	0.253275	-0.665079	504.35	246.978
59	1.60944	0.257642	-0.652622	504.35	246.37
60	1.60944	0.262009	-0.637192	504.35	245.616
61	1.60944	0.266376	-0.624956	504.35	245.019
62	1.60944	0.270742	-0.612813	504.35	244.426
63	1.60944	0.275109	-0.597761	504.35	243.691
64	1.60944	0.279476	-0.585815	504.35	243.107
65	1.60944	0.283843	-0.573953	504.35	242.528
66	1.60944	0.28821	-0.559237	504.35	241.809
67	1.60944	0.292576	-0.547551	504.35	241.239
68	1.60944	0.296943	-0.53594	504.35	240.672
69	1.60944	0.30131	-0.521527	504.35	239.968
70	1.60944	0.305677	-0.510074	504.35	239.409
71	1.60944	0.310044	-0.49585	504.35	238.714
72	1.60944	0.31441	-0.484544	504.35	238.162
73	1.60944	0.318777	-0.473299	504.35	237.613
74	1.60944	0.323144	-0.459327	504.35	236.93
75	1.60944	0.327511	-0.448213	504.35	236.388
76	1.60944	0.331878	-0.437153	504.35	235.848
77	1.60944	0.336245	-0.423405	504.35	235.176
78	1.60944	0.340611	-0.412463	504.35	234.642
79	1.60944	0.344978	-0.401571	504.35	234.11
80	1.60944	0.349345	-0.388022	504.35	233.448
81	1.60944	0.353712	-0.377233	504.35	232.922
82	1.60944	0.358079	-0.363809	504.35	232.266
83	1.60944	0.362445	-0.353118	504.35	231.744
84	1.60944	0.366812	-0.342466	504.35	231.224
85	1.60944	0.371179	-0.329206	504.35	230.576
86	1.60944	0.375546	-0.318639	504.35	230.06
87	1.60944	0.379913	-0.308108	504.35	229.546
88	1.60944	0.384279	-0.294992	504.35	228.905
89	1.60944	0.388646	-0.284535	504.35	228.395
90	1.60944	0.393013	-0.271509	504.35	227.759
91	1.60944	0.39738	-0.26112	504.35	227.251
92	1.60944	0.401747	-0.250759	504.35	226.745
93	1.60944	0.406114	-0.237847	504.35	226.115
94	1.60944	0.41048	-0.227545	504.35	225.612
95	1.60944	0.414847	-0.217267	504.35	225.11
96	1.60944	0.419214	-0.204452	504.35	224.484
97	1.60944	0.423581	-0.194225	504.35	223.985
98	1.60944	0.427948	-0.184017	504.35	223.486
99	1.60944	0.432314	-0.171285	504.35	222.864
100	1.60944	0.436681	-0.161119	504.35	222.368
101	1.60944	0.441048	-0.148434	504.35	221.749
102	1.60944	0.445415	-0.138305	504.35	221.254
103	1.60944	0.449782	-0.128189	504.35	220.76
104	1.60944	0.454148	-0.115562	504.35	220.143
105	1.60944	0.458515	-0.105474	504.35	219.651
106	1.60944	0.462882	-0.095396	504.35	219.159
107	1.60944	0.467249	-0.082812	504.35	218.544
108	1.60944	0.471616	-0.072756	504.35	218.053
109	1.60944	0.475983	-0.062706	504.35	217.562
110	1.60944	0.480349	-0.050154	504.35	216.949

111	1.60944	0.484716	-0.0401167	504.35	216.459
112	1.60944	0.489083	-0.0275759	504.35	215.847
113	1.60944	0.49345	-0.0175476	504.35	215.357
114	1.60944	0.497817	-0.00751925	504.35	214.867
115	1.60944	0.502183	0.00751925	504.35	214.133
116	1.60944	0.50655	0.0175476	504.35	213.643
117	1.60944	0.510917	0.0275759	504.35	213.153
118	1.60944	0.515284	0.0401167	504.35	212.541
119	1.60944	0.519651	0.0501541	504.35	212.051
120	1.60944	0.524017	0.0627062	504.35	211.438
121	1.60944	0.528384	0.0727562	504.35	210.947
122	1.60944	0.532751	0.0828129	504.35	210.456
123	1.60944	0.537118	0.0953969	504.35	209.841
124	1.60944	0.541485	0.105474	504.35	209.349
125	1.60944	0.545852	0.115562	504.35	208.857
126	1.60944	0.550218	0.128189	504.35	208.24
127	1.60944	0.554585	0.138305	504.35	207.746
128	1.60944	0.558952	0.148434	504.35	207.251
129	1.60944	0.563319	0.161119	504.35	206.632
130	1.60944	0.567686	0.171285	504.35	206.136
131	1.60944	0.572052	0.184017	504.35	205.514
132	1.60944	0.576419	0.194225	504.35	205.015
133	1.60944	0.580786	0.204452	504.35	204.516
134	1.60944	0.585153	0.217267	504.35	203.89
135	1.60944	0.58952	0.227545	504.35	203.388
136	1.60944	0.593886	0.237847	504.35	202.885
137	1.60944	0.598253	0.250759	504.35	202.255
138	1.60944	0.60262	0.26112	504.35	201.749
139	1.60944	0.606987	0.271509	504.35	201.241
140	1.60944	0.611354	0.284535	504.35	200.605
141	1.60944	0.615721	0.294992	504.35	200.095
142	1.60944	0.620087	0.308108	504.35	199.454
143	1.60944	0.624454	0.318639	504.35	198.94
144	1.60944	0.628821	0.329206	504.35	198.424
145	1.60944	0.633188	0.342466	504.35	197.776
146	1.60944	0.637555	0.353118	504.35	197.256
147	1.60944	0.641921	0.363809	504.35	196.734
148	1.60944	0.646288	0.377233	504.35	196.078
149	1.60944	0.650655	0.388022	504.35	195.552
150	1.60944	0.655022	0.401571	504.35	194.89
151	1.60944	0.659389	0.412463	504.35	194.358
152	1.60944	0.663755	0.423405	504.35	193.824
153	1.60944	0.668122	0.437153	504.35	193.152
154	1.60944	0.672489	0.448213	504.35	192.612
155	1.60944	0.676856	0.459327	504.35	192.07
156	1.60944	0.681223	0.473299	504.35	191.387
157	1.60944	0.68559	0.484544	504.35	190.838
158	1.60944	0.689956	0.49585	504.35	190.286
159	1.60944	0.694323	0.510074	504.35	189.591
160	1.60944	0.69869	0.521527	504.35	189.032
161	1.60944	0.703057	0.53594	504.35	188.328
162	1.60944	0.707424	0.547551	504.35	187.761
163	1.60944	0.71179	0.559237	504.35	187.191
164	1.60944	0.716157	0.573953	504.35	186.472
165	1.60944	0.720524	0.585815	504.35	185.893
166	1.60944	0.724891	0.597761	504.35	185.309
167	1.60944	0.729258	0.612813	504.35	184.574
168	1.60944	0.733624	0.624956	504.35	183.981
169	1.60944	0.737991	0.637192	504.35	183.384
170	1.60944	0.742358	0.652622	504.35	182.63
171	1.60944	0.746725	0.665079	504.35	182.022
172	1.60944	0.751092	0.680797	504.35	181.254

173	1.60944	0.755459	0.693493	504.35	180.634	
174	1.60944	0.759825	0.706302	504.35	180.009	
175	1.60944	0.764192	0.722479	504.35	179.219	
176	1.60944	0.768559	0.735557	504.35	178.58	
177	1.60944	0.772926	0.748762	504.35	177.935	
178	1.60944	0.777293	0.765456	504.35	177.12	
179	1.60944	0.781659	0.778966	504.35	176.46	
180	1.60944	0.786026	0.796056	504.35	175.626	
181	1.60944	0.790393	0.809896	504.35	174.95	
182	1.60944	0.79476	0.823893	504.35	174.267	
183	1.60944	0.799127	0.841621	504.35	173.401	
184	1.60944	0.803493	0.855996	504.35	172.699	
185	1.60944	0.80786	0.87055	504.35	171.988	
186	1.60944	0.812227	0.889006	504.35	171.087	
187	1.60944	0.816594	0.903992	504.35	170.355	
188	1.60944	0.820961	0.919183	504.35	169.613	
189	1.60944	0.825328	0.938476	504.35	168.671	
190	1.60944	0.829694	0.954165	504.35	167.905	
191	1.60944	0.834061	0.974114	504.35	166.931	
192	1.60944	0.838428	0.990356	504.35	166.138	
193	1.60944	0.842795	1.00687	504.35	165.331	
194	1.60944	0.847162	1.02789	504.35	164.305	
195	1.60944	0.851528	1.04505	504.35	163.467	
196	1.60944	0.855895	1.06252	504.35	162.614	
197	1.60944	0.860262	1.08482	504.35	161.524	
198	1.60944	0.864629	1.10306	504.35	160.634	
199	1.60944	0.868996	1.12168	504.35	159.725	
200	1.60944	0.873362	1.1455	504.35	158.561	
201	1.60944	0.877729	1.16505	504.35	157.607	
202	1.60944	0.882096	1.19012	504.35	156.383	
203	1.60944	0.886463	1.21073	504.35	155.376	
204	1.60944	0.89083	1.23187	504.35	154.344	
205	1.60944	0.895197	1.25908	504.35	153.015	
206	1.60944	0.899563	1.28155	504.35	151.918	
207	1.60944	0.90393	1.30469	504.35	150.788	
208	1.60944	0.908297	1.33462	504.35	149.326	
209	1.60944	0.912664	1.35946	504.35	148.113	
210	1.60944	0.917031	1.39175	504.35	146.536	
211	1.60944	0.921397	1.41865	504.35	145.222	
212	1.60944	0.925764	1.44663	504.35	143.856	
213	1.60944	0.930131	1.48328	504.35	142.066	
214	1.60944	0.934498	1.5141	504.35	140.561	
215	1.60944	0.938865	1.54643	504.35	138.983	
216	1.60944	0.943231	1.58927	504.35	136.891	
217	1.60944	0.947598	1.62576	504.35	135.109	
218	1.60944	0.951965	1.66456	504.35	133.214	
219	1.60944	0.956332	1.71688	504.35	130.659	
220	1.60944	0.960699	1.76241	504.35	128.436	
221	1.60944	0.965066	1.82501	504.35	125.379	
222	1.60944	0.969432	1.88079	504.35	122.655	
223	1.60944	0.973799	1.94314	504.35	119.61	
224	1.60944	0.978166	2.03352	504.35	115.196	
225	1.60944	0.982533	2.12007	504.35	110.97	
226	1.60944	0.9869	2.22621	504.35	105.787	
227	1.90211	0.991266	2.40892	556.543	96.8642	
228	1.90211	0.995633	2.65209	556.543	84.9898	

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Bis (2-chloroisopropyl) ether

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 99.1228%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 17
Maximum Background Value = 1.60944
Confidence Level = 68%
False Positive Rate = 32%

Location	Date	Count	Mean	Significant
MW-12BR	11/22/2011	2	-0.287682	FALSE
MW-10	11/22/2011	2	-0.287682	FALSE
MW-9	11/22/2011	2	1.90211	TRUE
MW-12AR	11/22/2011	2	-0.287682	FALSE
MW-7	11/22/2011	2	-0.322179	FALSE
MW-11R	11/22/2011	2	-0.287682	FALSE
MW-8	11/22/2011	2	-0.287682	FALSE
MW-6	11/22/2011	2	-0.287682	FALSE

Shewhart-CUSUM Control Chart

Parameter: Bis (2-chloroisopropyl) ether

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.60944
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	1.60944	0	0	
3/24/1997	1.60944	0	0	
9/24/1997	1.60944	0	0	
9/24/1997	1.60944	0	0	
4/7/1998	1.60944	0	0	
4/7/1998	1.60944	0	0	
9/23/1998	1.60944	0	0	
9/23/1998	1.60944	0	0	
3/16/1999	1.60944	0	0	
3/16/1999	1.60944	0	0	
9/23/1999	1.60944	0	0	
9/23/1999	1.60944	0	0	
3/15/2000	1.60944	0	0	
3/15/2000	1.60944	0	0	
9/24/2003	1.60944	0	0	
9/24/2003	1.60944	0	0	
3/11/2004	1.60944	0	0	
3/11/2004	1.60944	0	0	
10/12/2004	1.60944	0	0	
10/12/2004	1.60944	0	0	
4/1/2005	1.60944	0	0	
4/1/2005	1.60944	0	0	
10/25/2005	1.60944	0	0	
10/25/2005	1.60944	0	0	
4/29/2006	1.60944	0	0	
4/29/2006	1.60944	0	0	
11/18/2006	1.60944	0	0	
11/18/2006	1.60944	0	0	
5/23/2007	1.60944	0	0	
5/23/2007	1.60944	0	0	
11/28/2007	1.60944	0	0	
11/28/2007	1.60944	0	0	
6/5/2008	1.60944	0	0	
6/5/2008	1.60944	0	0	
11/20/2008	1.60944	0	0	
11/20/2008	1.60944	0	0	
6/30/2010	-0.223144	0	0	
6/30/2010	-0.223144	0	0	
11/12/2010	-0.287682	0	0	
11/12/2010	-0.287682	0	0	
7/5/2011	-0.223144	0	0	
7/5/2011	-0.223144	0	0	
11/22/2011	1.90211	0	0	
11/22/2011	1.90211	0	0	

Sen's Slope Analysis

Parameter: Bis (2-chloroisopropyl) ether

Location: MW-9

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<1.60944	(8/24/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(2 - 1) 0
ND<1.60944	(9/28/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(3 - 1) 0
ND<1.60944	(10/26/1995)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(4 - 1) 0
ND<1.60944	(11/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(5 - 1) 0
ND<1.60944	(12/19/1996)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(6 - 1) 0
ND<1.60944	(3/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(7 - 1) 0
ND<1.60944	(9/24/1997)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(8 - 1) 0
ND<1.60944	(4/7/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(9 - 1) 0
ND<1.60944	(9/23/1998)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(10 - 1) 0
ND<1.60944	(3/16/1999)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(11 - 1) 0
ND<1.60944	(9/23/1999)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(12 - 1) 0
ND<1.60944	(3/15/2000)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(13 - 1) 0
ND<1.60944	(9/24/2003)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(14 - 1) 0
ND<1.60944	(3/11/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(15 - 1) 0
ND<1.60944	(10/12/2004)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(16 - 1) 0
ND<1.60944	(4/1/2005)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(17 - 1) 0
ND<1.60944	(10/25/2005)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(18 - 1) 0
ND<1.60944	(4/29/2006)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(19 - 1) 0
ND<1.60944	(11/18/2006)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(20 - 1) 0
ND<1.60944	(5/23/2007)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(21 - 1) 0
ND<1.60944	(11/28/2007)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(22 - 1) 0
ND<1.60944	(6/5/2008)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(23 - 1) 0
ND<1.60944	(11/20/2008)	ND<1.60944 (7/20/1995)	(1.60944 - 1.60944)/(24 - 1) 0
ND<-0.223144	(6/30/2010)	ND<1.60944 (7/20/1995)	(-0.223144 - 1.60944)/(25 - 1) -0.0763576
ND<-0.287682 U	(11/12/2010)	ND<1.60944 (7/20/1995)	(-0.287682 - 1.60944)/(26 - 1) -0.0758848
ND<-0.223144 U	(7/5/2011)	ND<1.60944 (7/20/1995)	(-0.223144 - 1.60944)/(27 - 1) -0.0704839
1.90211 J	(11/22/2011)	ND<1.60944 (7/20/1995)	(1.90211 - 1.60944)/(28 - 1) 0.0108396
1.90211 J	(11/22/2011)	ND<1.60944 (7/20/1995)	(1.90211 - 1.60944)/(28 - 1) 0.0108396

ND<1.60944 (9/28/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(3 - 2) 0
ND<1.60944 (10/26/1995) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(4 - 2)
0
ND<1.60944 (11/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(5 - 2)
0
ND<1.60944 (12/19/1996) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(6 - 2)
0
ND<1.60944 (3/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(7 - 2) 0
ND<1.60944 (9/24/1997) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(8 - 2) 0
ND<1.60944 (4/7/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(9 - 2) 0
ND<1.60944 (9/23/1998) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(10 - 2)
0
ND<1.60944 (3/16/1999) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(11 - 2)
0
ND<1.60944 (9/23/1999) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(12 - 2)
0
ND<1.60944 (3/15/2000) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(13 - 2)
0
ND<1.60944 (9/24/2003) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(14 - 2)
0
ND<1.60944 (3/11/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(15 - 2)
0
ND<1.60944 (10/12/2004) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(16 - 2)
0
ND<1.60944 (4/1/2005) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(17 - 2)
0
ND<1.60944 (10/25/2005) ND<1.60944 (8/24/1995) (1.60944 - 1.60944)/(18 - 2)
0
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0
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4) 0
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0
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ND<-0.287682 U (11/12/2010) ND<1.60944 (11/19/1996) (-0.287682 - 1.60944)/(26
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ND<-0.223144 U (7/5/2011) ND<1.60944 (9/24/1997) (-0.223144 - 1.60944)/(27 - 8)
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ND<-0.223144 (6/30/2010) ND<1.60944 (6/5/2008) (-0.223144 - 1.60944)/(25 - 23)
-0.916291
ND<-0.287682 U (11/12/2010) ND<1.60944 (6/5/2008) (-0.287682 - 1.60944)/(26 - 23)
-0.632373
ND<-0.223144 U (7/5/2011) ND<1.60944 (6/5/2008) (-0.223144 - 1.60944)/(27 - 23)
-0.458145
1.90211 J (11/22/2011) ND<1.60944 (6/5/2008) (1.90211 - 1.60944)/(28 - 23)
0.0585339

1.90211 J (11/22/2011) ND<1.60944 (6/5/2008) (1.90211 - 1.60944)/(28 - 23)
0.0585339

ND<-0.223144 (6/30/2010) ND<1.60944 (11/20/2008) (-0.223144 - 1.60944)/(25
- 24) -1.83258
ND<-0.287682 U (11/12/2010) ND<1.60944 (11/20/2008) (-0.287682 - 1.60944)/(26
- 24) -0.94856
ND<-0.223144 U (7/5/2011) ND<1.60944 (11/20/2008) (-0.223144 - 1.60944)/(27
- 24) -0.61086
1.90211 J (11/22/2011) ND<1.60944 (11/20/2008) (1.90211 - 1.60944)/(28 - 24)
0.0731674
1.90211 J (11/22/2011) ND<1.60944 (11/20/2008) (1.90211 - 1.60944)/(28 - 24)
0.0731674

ND<-0.287682 U (11/12/2010) ND<-0.223144 (6/30/2010) (-0.287682 -
-0.223144)/(26 - 25) -0.0645385
ND<-0.223144 U (7/5/2011) ND<-0.223144 (6/30/2010) (-0.223144 -
-0.223144)/(27 - 25) 0
1.90211 J (11/22/2011) ND<-0.223144 (6/30/2010) (1.90211 - -0.223144)/(28 - 25)
0.708417
1.90211 J (11/22/2011) ND<-0.223144 (6/30/2010) (1.90211 - -0.223144)/(28 - 25)
0.708417

ND<-0.223144 U (7/5/2011) ND<-0.287682 U (11/12/2010) (-0.223144 -
-0.287682)/(27 - 26) 0.0645385
1.90211 J (11/22/2011) ND<-0.287682 U (11/12/2010) (1.90211 - -0.287682)/(28 - 26)
1.09489
1.90211 J (11/22/2011) ND<-0.287682 U (11/12/2010) (1.90211 - -0.287682)/(28 - 26)
1.09489

1.90211 J (11/22/2011) ND<-0.223144 U (7/5/2011) (1.90211 - -0.223144)/(28 - 27)
2.12525
1.90211 J (11/22/2011) ND<-0.223144 U (7/5/2011) (1.90211 - -0.223144)/(28 - 27)
2.12525

1.90211 J (11/22/2011) 1.90211 J (11/22/2011) (1.90211 - 1.90211)/(28 - 28)
Same Date

Number of Q values = 405

Ordered Q Values

n	Q
1	-1.83258
2	-0.94856
3	-0.916291
4	-0.632373
5	-0.61086
6	-0.61086
7	-0.47428
8	-0.458145
9	-0.458145
10	-0.379424
11	-0.366516
12	-0.366516
13	-0.316187
14	-0.30543
15	-0.30543
16	-0.271017
17	-0.261797
18	-0.261797

19	-0.23714
20	-0.229073
21	-0.229073
22	-0.210791
23	-0.20362
24	-0.20362
25	-0.189712
26	-0.183258
27	-0.183258
28	-0.172465
29	-0.166598
30	-0.166598
31	-0.158093
32	-0.152715
33	-0.152715
34	-0.145932
35	-0.140968
36	-0.140968
37	-0.135509
38	-0.130899
39	-0.130899
40	-0.126475
41	-0.122172
42	-0.122172
43	-0.11857
44	-0.114536
45	-0.114536
46	-0.111595
47	-0.107799
48	-0.107799
49	-0.105396
50	-0.10181
51	-0.10181
52	-0.0998484
53	-0.0964517
54	-0.0964517
55	-0.094856
56	-0.0916291
57	-0.0916291
58	-0.090339
59	-0.0872658
60	-0.0872658
61	-0.0862327
62	-0.0832992
63	-0.0832992
64	-0.0824835
65	-0.0796775
66	-0.0796775
67	-0.0790467
68	-0.0763576
69	-0.0763576
70	-0.0758848
71	-0.0733033
72	-0.0704839
73	-0.0645385
74	0
75	0
76	0
77	0
78	0
79	0
80	0

81	0
82	0
83	0
84	0
85	0
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345	0
346	0
347	0
348	0
349	0
350	0
351	0.0108396
352	0.0108396
353	0.0112565
354	0.0112565
355	0.0117068
356	0.0117068
357	0.0121946
358	0.0121946
359	0.0127248
360	0.0127248
361	0.0133032
362	0.0133032
363	0.0139366
364	0.0139366
365	0.0146335
366	0.0146335
367	0.0154037
368	0.0154037
369	0.0162594
370	0.0162594
371	0.0172159
372	0.0172159
373	0.0182919
374	0.0182919
375	0.0195113
376	0.0195113
377	0.020905
378	0.020905
379	0.022513
380	0.022513
381	0.0243891
382	0.0243891
383	0.0266063
384	0.0266063
385	0.029267
386	0.029267
387	0.0325188
388	0.0325188
389	0.0365837
390	0.0365837

391	0.0418099
392	0.0418099
393	0.0487783
394	0.0487783
395	0.0585339
396	0.0585339
397	0.0645385
398	0.0731674
399	0.0731674
400	0.708417
401	0.708417
402	1.09489
403	1.09489
404	2.12525
405	2.12525

Sen's Estimator (Median Q) is 0

Tied Group Value Members

1	1.60944	24
2	-0.223144	2
3	1.90211	2

Time Period Observations

7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 29292
B = 18
C = 12144
D = 0
E = 556
F = 2
a = 51156
b = 197316

c = 1624
Group Variance = 1214.35
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 57.3191
M1 = (405 - 57.3191)/2.0 = 173.84
M2 = (405 + 57.3191)/2.0 + 1 = 232.16
Lower limit is 0 = Q(174)
Upper limit is 0 = Q(232)
0 < 0 < 0 indicating no trend in data.

Concentrations (ppb)

Parameter: Chlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 190
Percent Non-Detects: 77.2358%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-7	31	25 (80.6452%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.29 J	0.29 J	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	0.59 J	0.59 J	
			11/12/2010	0.36 J	0.36 J	
			7/5/2011	0.78 J	0.78 J	
			11/22/2011	0.93 J	0.93 J	
			11/22/2011	0.93 J	0.93 J	
MW-12BR	21	20 (95.2381%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.01 J	1.01 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U

MW-8	30	18 (60%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998 ND<2	ND<2	
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005 ND<2	ND<2	
			10/25/2005	2.75	2.75
			4/29/2006	1.69 J	1.69 J
			11/18/2006	3.46	3.46
			5/23/2007	2.2	2.2
			11/28/2007	3.36	3.36
			6/5/2008 ND<2	ND<2	
			11/20/2008	2.18	2.18
			6/11/2009	4.8	4.8
			6/30/2010	1.9	1.9
			11/12/2010	4.4	4.4
			7/5/2011 3.9	3.9	
			11/22/2011	3.7	3.7
			11/22/2011	3.7	3.7
MW-11R	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998 ND<2	ND<2	
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005 ND<2	ND<2	
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008 ND<2	ND<2	
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			7/5/2011 ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U

MW-12A	R	21	14 (66.6667%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	ND<2	ND<2		
			10/25/2005	0.57 J	0.57 J		
			4/29/2006	0.62 J	0.62 J		
			11/18/2006	0.53 J	0.53 J		
			5/23/2007	ND<2	ND<2		
			11/28/2007	0.56 J	0.56 J		
			6/5/2008	0.65 J	0.65 J		
			11/20/2008	0.4 J	0.4 J		
			6/11/2009	ND<0.25		ND<0.25	
			11/16/2009	ND<0.25		ND<0.25	
			6/30/2010	ND<0.25		ND<0.25	
			11/12/2010	0.73 J	0.73 J		
			7/5/2011	ND<0.25 U	ND<0.25 U		
			11/22/2011	ND<0.25 U		ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U	
MW-9	31	14 (45.1613%)	7/20/1995		ND<2	ND<2	
			8/24/1995	0.3 J	0.3 J		
			9/28/1995	ND<2	ND<2		
			10/26/1995	0.3 J	0.3 J		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		
			4/7/1998	ND<2	ND<2		
			9/23/1998	ND<2	ND<2		
			3/16/1999	ND<2	ND<2		
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	0.52 J	0.52 J		
			10/25/2005	0.34 J	0.34 J		
			4/29/2006	0.25 J	0.25 J		
			11/18/2006	0.28 J	0.28 J		
			5/23/2007	1.1	1.1		
			11/28/2007	0.74 J	0.74 J		
			6/5/2008	0.56 J	0.56 J		
			11/20/2008	0.65 J	0.65 J		
			6/11/2009	0.81 J	0.81 J		
			11/16/2009	0.8 J	0.8 J		
			6/30/2010	1.4	1.4		
			11/12/2010	1	1		
			7/5/2011	0.43 J	0.43 J		
			11/22/2011	0.46 J	0.46 J		
			11/22/2011	0.46 J	0.46 J		
MW-10	31	18 (58.0645%)	7/20/1995		ND<2	ND<2	
			8/24/1995	ND<2	ND<2		
			9/28/1995	ND<2	ND<2		
			10/26/1995	ND<2	ND<2		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		

9/24/1997	ND<2	ND<2	
4/7/1998	ND<2	ND<2	
9/23/1998	ND<2	ND<2	
3/16/1999	ND<2	ND<2	
9/23/1999	ND<2	ND<2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	ND<2	ND<2	
10/12/2004	ND<2	ND<2	
4/1/2005	0.33 J	0.33 J	
10/25/2005	0.43 J	0.43 J	
4/29/2006	0.59 J	0.59 J	
11/18/2006	0.4 J	0.4 J	
5/23/2007	ND<2	ND<2	
11/28/2007	0.59 J	0.59 J	
6/5/2008	0.6 J	0.6 J	
11/20/2008	0.62 J	0.62 J	
6/11/2009	0.45 J	0.45 J	
11/16/2009	0.63 J	0.63 J	
6/30/2010	ND<0.25		ND<0.25
11/12/2010	0.69 J	0.69 J	
7/5/2011	0.83 J	0.83 J	
11/22/2011	0.73 J	0.73 J	
11/22/2011	0.73 J	0.73 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Chlorobenzene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.65209	7.03356	-0.331511
2	0.125	-2.40892	12.8365	-0.632626
3	0.125	-2.25713	17.9311	-0.914767
4	0.125	-2.14441	22.5296	-1.18282
5	0.125	-2.05375	26.7475	-1.43954
6	0.125	-1.97737	30.6575	-1.68671
7	0.125	-1.91103	34.3095	-1.92559
8	0.125	-1.85218	37.7401	-2.15711
9	0.125	-1.79912	40.9769	-2.382
10	0.125	-1.75069	44.0418	-2.60083
11	0.125	-1.70604	46.9524	-2.81409
12	0.125	-1.66456	49.7231	-3.02216
13	0.125	-1.62576	52.3662	-3.22538
14	0.125	-1.58927	54.892	-3.42404
15	0.125	-1.55477	57.3093	-3.61839
16	0.125	-1.52203	59.6259	-3.80864
17	0.125	-1.49085	61.8486	-3.995
18	0.125	-1.46106	63.9833	-4.17763
19	0.125	-1.4325	66.0353	-4.35669
20	0.125	-1.40507	68.0096	-4.53233
21	0.125	-1.3722	69.8925	-4.70385
22	0.125	-1.34694	71.7067	-4.87222
23	0.125	-1.32251	73.4558	-5.03753
24	0.125	-1.29884	75.1427	-5.19989
25	0.125	-1.27588	76.7706	-5.35937
26	0.125	-1.25357	78.342	-5.51607
27	0.125	-1.23187	79.8595	-5.67005
28	0.125	-1.21073	81.3254	-5.82139
29	0.125	-1.19012	82.7418	-5.97016
30	0.125	-1.17	84.1107	-6.11641
31	0.125	-1.15035	85.434	-6.2602
32	0.125	-1.13113	86.7134	-6.40159
33	0.125	-1.11232	87.9507	-6.54063
34	0.125	-1.0939	89.1473	-6.67737
35	0.125	-1.07584	90.3047	-6.81185
36	0.25	-1.05812	91.4243	-7.07638
37	0.28	-1.04073	92.5075	-7.36778
38	0.29	-1.02365	93.5553	-7.66464
39	0.3	-1.00687	94.5691	-7.9667
40	0.3	-0.990356	95.5499	-8.26381
41	0.33	-0.974114	96.4988	-8.58527
42	0.34	-0.954165	97.4092	-8.90968
43	0.36	-0.938476	98.29	-9.24753
44	0.4	-0.923014	99.1419	-9.61674
45	0.4	-0.907769	99.966	-9.97985
46	0.43	-0.892733	100.763	-10.3637
47	0.43	-0.877897	101.534	-10.7412
48	0.45	-0.863249	102.279	-11.1297
49	0.46	-0.848786	102.999	-11.5201
50	0.46	-0.834498	103.696	-11.904
51	0.52	-0.820379	104.369	-12.3306

52	0.53	-0.806422	105.019	-12.758
53	0.56	-0.792618	105.647	-13.2019
54	0.56	-0.778966	106.254	-13.6381
55	0.57	-0.765456	106.84	-14.0744
56	0.59	-0.752084	107.406	-14.5181
57	0.59	-0.738846	107.951	-14.954
58	0.59	-0.725736	108.478	-15.3822
59	0.6	-0.712751	108.986	-15.8099
60	0.62	-0.699883	109.476	-16.2438
61	0.62	-0.687131	109.948	-16.6698
62	0.63	-0.671346	110.399	-17.0928
63	0.65	-0.658838	110.833	-17.521
64	0.65	-0.646431	111.251	-17.9412
65	0.69	-0.634124	111.653	-18.3787
66	0.73	-0.621911	112.04	-18.8327
67	0.73	-0.609791	112.412	-19.2779
68	0.73	-0.597761	112.769	-19.7142
69	0.74	-0.585815	113.112	-20.1477
70	0.78	-0.573953	113.441	-20.5954
71	0.8	-0.56217	113.758	-21.0452
72	0.81	-0.550465	114.061	-21.491
73	0.83	-0.538836	114.351	-21.9383
74	0.93	-0.52728	114.629	-22.4286
75	0.93	-0.515791	114.895	-22.9083
76	1	-0.504372	115.149	-23.4127
77	1	-0.493018	115.392	-23.9057
78	1	-0.481728	115.624	-24.3875
79	1	-0.470498	115.846	-24.8579
80	1	-0.459327	116.057	-25.3173
81	1	-0.448213	116.258	-25.7655
82	1	-0.437153	116.449	-26.2026
83	1	-0.423405	116.628	-26.626
84	1	-0.412463	116.798	-27.0385
85	1	-0.401571	116.959	-27.4401
86	1	-0.390726	117.112	-27.8308
87	1	-0.379927	117.256	-28.2107
88	1	-0.369171	117.393	-28.5799
89	1	-0.358459	117.521	-28.9384
90	1	-0.347787	117.642	-29.2862
91	1	-0.337155	117.756	-29.6233
92	1	-0.326561	117.863	-29.9499
93	1	-0.316004	117.962	-30.2659
94	1	-0.305481	118.056	-30.5714
95	1	-0.294992	118.143	-30.8663
96	1	-0.284535	118.224	-31.1509
97	1	-0.27411	118.299	-31.425
98	1	-0.263715	118.368	-31.6887
99	1	-0.253347	118.433	-31.9421
100	1	-0.243007	118.492	-32.1851
101	1	-0.232693	118.546	-32.4178
102	1	-0.222403	118.595	-32.6402
103	1	-0.209575	118.639	-32.8497
104	1	-0.199336	118.679	-33.0491
105	1	-0.189118	118.715	-33.2382
106	1	-0.17892	118.747	-33.4171
107	1	-0.168741	118.775	-33.5858
108	1	-0.158579	118.8	-33.7444
109	1	-0.148434	118.822	-33.8929
110	1	-0.138305	118.841	-34.0312
111	1	-0.128189	118.858	-34.1594
112	1	-0.118085	118.872	-34.2774
113	1	-0.107995	118.883	-34.3854

114	1	-0.0979139	118.893	-34.4833
115	1	-0.0878447	118.901	-34.5712
116	1	-0.0777834	118.907	-34.649
117	1	-0.0677301	118.911	-34.7167
118	1	-0.0576847	118.915	-34.7744
119	1	-0.0476439	118.917	-34.822
120	1	-0.0376076	118.918	-34.8596
121	1	-0.0275759	118.919	-34.8872
122	1	-0.0175476	118.919	-34.9048
123	1	-0.00751925	118.92	-34.9123
124	1	0.00751925	118.92	-34.9048
125	1	0.0175476	118.92	-34.8872
126	1	0.0275759	118.921	-34.8596
127	1	0.0376076	118.922	-34.822
128	1	0.0476439	118.924	-34.7744
129	1	0.0576847	118.928	-34.7167
130	1	0.0677301	118.932	-34.649
131	1	0.0777834	118.938	-34.5712
132	1	0.0878447	118.946	-34.4833
133	1	0.0979139	118.956	-34.3854
134	1	0.107995	118.967	-34.2774
135	1	0.118085	118.981	-34.1594
136	1	0.128189	118.998	-34.0312
137	1	0.138305	119.017	-33.8929
138	1	0.148434	119.039	-33.7444
139	1	0.158579	119.064	-33.5858
140	1	0.168741	119.092	-33.4171
141	1	0.17892	119.124	-33.2382
142	1	0.189118	119.16	-33.0491
143	1	0.199336	119.2	-32.8497
144	1	0.209575	119.244	-32.6402
145	1	0.222403	119.293	-32.4178
146	1	0.232693	119.347	-32.1851
147	1	0.243007	119.407	-31.9421
148	1	0.253347	119.471	-31.6887
149	1	0.263715	119.54	-31.425
150	1	0.27411	119.615	-31.1509
151	1	0.284535	119.696	-30.8663
152	1	0.294992	119.783	-30.5714
153	1	0.305481	119.877	-30.2659
154	1	0.316004	119.977	-29.9499
155	1	0.326561	120.083	-29.6233
156	1	0.337155	120.197	-29.2862
157	1	0.347787	120.318	-28.9384
158	1	0.358459	120.446	-28.5799
159	1	0.369171	120.583	-28.2107
160	1	0.379927	120.727	-27.8308
161	1	0.390726	120.88	-27.4401
162	1	0.401571	121.041	-27.0385
163	1	0.412463	121.211	-26.626
164	1	0.423405	121.39	-26.2026
165	1	0.437153	121.581	-25.7655
166	1	0.448213	121.782	-25.3173
167	1	0.459327	121.993	-24.8579
168	1	0.470498	122.215	-24.3875
169	1	0.481728	122.447	-23.9057
170	1	0.493018	122.69	-23.4127
171	1	0.504372	122.944	-22.9083
172	1	0.515791	123.21	-22.3925
173	1	0.52728	123.488	-21.8653
174	1	0.538836	123.779	-21.3264
175	1	0.550465	124.082	-20.776

176	1	0.56217	124.398	-20.2138	
177	1	0.573953		124.727	-19.6398
178	1	0.585815		125.07	-19.054
179	1	0.597761		125.428	-18.4563
180	1	0.609791		125.799	-17.8465
181	1	0.621911		126.186	-17.2246
182	1	0.634124		126.588	-16.5904
183	1	0.646431		127.006	-15.944
184	1	0.658838		127.44	-15.2852
185	1	0.671346		127.891	-14.6138
186	1	0.687131		128.363	-13.9267
187	1	0.699883		128.853	-13.2268
188	1	0.712751		129.361	-12.5141
189	1	0.725736		129.888	-11.7883
190	1	0.738846		130.433	-11.0495
191	1	0.752084		130.999	-10.2974
192	1	0.765456		131.585	-9.53194
193	1	0.778966		132.192	-8.75297
194	1	0.792618		132.82	-7.96035
195	1	0.806422		133.47	-7.15393
196	1	0.820379		134.143	-6.33355
197	1	0.834498		134.84	-5.49905
198	1	0.848786		135.56	-4.65027
199	1	0.863249		136.305	-3.78702
200	1	0.877897		137.076	-2.90912
201	1	0.892733		137.873	-2.01639
202	1	0.907769		138.697	-1.10862
203	1	0.923014		139.549	-0.185607
204	1	0.938476		140.43	0.752869
205	1	0.954165		141.34	1.70703
206	1	0.974114		142.289	2.68115
207	1	0.990356		143.27	3.6715
208	1	1.00687	144.284	4.67837	
209	1	1.02365	145.332	5.70202	
210	1	1.04073	146.415	6.74275	
211	1	1.05812	147.534	7.80088	
212	1	1.07584	148.692	8.87671	
213	1	1.0939	149.888	9.97061	
214	1	1.11232	151.126	11.0829	
215	1	1.13113	152.405	12.2141	
216	1	1.15035	153.728	13.3644	
217	1	1.17	155.097	14.5344	
218	1	1.19012	156.514	15.7245	
219	1	1.21073	157.98	16.9353	
220	1	1.23187	159.497	18.1671	
221	1	1.25357	161.068	19.4207	
222	1	1.27588	162.696	20.6966	
223	1	1.29884	164.383	21.9954	
224	1	1.32251	166.132	23.3179	
225	1	1.34694	167.947	24.6648	
226	1	1.3722	169.83	26.0371	
227	1	1.40507	171.804	27.4421	
228	1	1.4325	173.856	28.8746	
229	1	1.46106	175.991	30.3357	
230	1	1.49085	178.213	31.8265	
231	1	1.52203	180.53	33.3486	
232	1.01	1.55477	182.947	34.9189	
233	1.1	1.58927	185.473	36.6671	
234	1.4	1.62576	188.116	38.9432	
235	1.69	1.66456	190.887	41.7563	
236	1.9	1.70604	193.797	44.9978	
237	2.18	1.75069	196.862	48.8142	

238	2.2	1.79912	200.099	52.7723
239	2.75	1.85218	203.53	57.8658
240	3.36	1.91103	207.182	64.2869
241	3.46	1.97737	211.092	71.1285
242	3.7	2.05375	215.309	78.7274
243	3.7	2.14441	219.908	86.6617
244	3.9	2.25713	225.003	95.4645
245	4.4	2.40892	230.806	106.064
246	4.8	2.65209	237.839	118.794

Data Set Standard Deviation = 0.644849
Numerator = 14112
Denominator = 24230.7
W Statistic = 0.5824 = 14112 / 24230.7

5% Critical value of 0.976 exceeds 0.5824
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.5824
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chlorobenzene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.768186
0.768186 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00404858	-2.65209	52.375	344.01	
2	0.125	0.00809717	-2.40892	52.375	332.136	
3	0.125	0.0121457	-2.25713	52.375	324.723	
4	0.125	0.0161943	-2.14441	52.375	319.219	
5	0.125	0.0202429	-2.05375	52.375	314.791	
6	0.125	0.0242915	-1.97737	52.375	311.062	
7	0.125	0.0283401	-1.91103	52.375	307.822	
8	0.125	0.0323887	-1.85218	52.375	304.948	
9	0.125	0.0364372	-1.79912	52.375	302.357	
10	0.125	0.0404858	-1.75069	52.375	299.992	
11	0.125	0.0445344	-1.70604	52.375	297.812	
12	0.125	0.048583	-1.66456	52.375	295.786	
13	0.125	0.0526316	-1.62576	52.375	293.891	
14	0.125	0.0566802	-1.58927	52.375	292.109	
15	0.125	0.0607287	-1.55477	52.375	290.425	
16	0.125	0.0647773	-1.52203	52.375	288.826	
17	0.125	0.0688259	-1.49085	52.375	287.303	
18	0.125	0.0728745	-1.46106	52.375	285.848	
19	0.125	0.0769231	-1.4325	52.375	284.454	
20	0.125	0.0809717	-1.40507	52.375	283.114	
21	0.125	0.0850202	-1.3722	52.375	281.509	
22	0.125	0.0890688	-1.34694	52.375	280.276	
23	0.125	0.0931174	-1.32251	52.375	279.082	
24	0.125	0.097166	-1.29884	52.375	277.926	
25	0.125	0.101215	-1.27588	52.375	276.805	
26	0.125	0.105263	-1.25357	52.375	275.716	
27	0.125	0.109312	-1.23187	52.375	274.656	
28	0.125	0.11336	-1.21073	52.375	273.624	
29	0.125	0.117409	-1.19012	52.375	272.617	
30	0.125	0.121457	-1.17	52.375	271.635	
31	0.125	0.125506	-1.15035	52.375	270.675	
32	0.125	0.129555	-1.13113	52.375	269.737	
33	0.125	0.133603	-1.11232	52.375	268.818	
34	0.125	0.137652	-1.0939	52.375	267.919	
35	0.125	0.1417	-1.07584	52.375	267.037	
36	0.25	0.145749	-1.05812	65.75	266.172	
37	0.28	0.149798	-1.04073	68.96	265.322	
38	0.29	0.153846	-1.02365	70.03	264.488	
39	0.3	0.157895	-1.00687	71.1	263.669	
40	0.3	0.161943	-0.990356	71.1	262.862	
41	0.33	0.165992	-0.974114	74.31	262.069	
42	0.34	0.17004	-0.954165	75.38	261.095	
43	0.36	0.174089	-0.938476	77.52	260.329	
44	0.4	0.178138	-0.923014	81.8	259.574	
45	0.4	0.182186	-0.907769	81.8	258.829	
46	0.43	0.186235	-0.892733	85.01	258.095	
47	0.43	0.190283	-0.877897	85.01	257.371	
48	0.45	0.194332	-0.863249	87.15	256.655	

49	0.46	0.198381	-0.848786	88.22	255.949
50	0.46	0.202429	-0.834498	88.22	255.251
51	0.52	0.206478	-0.820379	94.64	254.562
52	0.53	0.210526	-0.806422	95.71	253.88
53	0.56	0.214575	-0.792618	98.92	253.206
54	0.56	0.218623	-0.778966	98.92	252.54
55	0.57	0.222672	-0.765456	99.99	251.88
56	0.59	0.226721	-0.752084	102.13	251.227
57	0.59	0.230769	-0.738846	102.13	250.58
58	0.59	0.234818	-0.725736	102.13	249.94
59	0.6	0.238866	-0.712751	103.2	249.306
60	0.62	0.242915	-0.699883	105.34	248.678
61	0.62	0.246964	-0.687131	105.34	248.055
62	0.63	0.251012	-0.671346	106.41	247.284
63	0.65	0.255061	-0.658838	108.55	246.673
64	0.65	0.259109	-0.646431	108.55	246.067
65	0.69	0.263158	-0.634124	112.83	245.466
66	0.73	0.267206	-0.621911	117.11	244.87
67	0.73	0.271255	-0.609791	117.11	244.278
68	0.73	0.275304	-0.597761	117.11	243.691
69	0.74	0.279352	-0.585815	118.18	243.107
70	0.78	0.283401	-0.573953	122.46	242.528
71	0.8	0.287449	-0.56217	124.6	241.953
72	0.81	0.291498	-0.550465	125.67	241.381
73	0.83	0.295547	-0.538836	127.81	240.813
74	0.93	0.299595	-0.52728	138.51	240.249
75	0.93	0.303644	-0.515791	138.51	239.688
76	1	0.307692	-0.504372	146	239.13
77	1	0.311741	-0.493018	146	238.576
78	1	0.315789	-0.481728	146	238.024
79	1	0.319838	-0.470498	146	237.476
80	1	0.323887	-0.459327	146	236.93
81	1	0.327935	-0.448213	146	236.388
82	1	0.331984	-0.437153	146	235.848
83	1	0.336032	-0.423405	146	235.176
84	1	0.340081	-0.412463	146	234.642
85	1	0.34413	-0.401571	146	234.11
86	1	0.348178	-0.390726	146	233.58
87	1	0.352227	-0.379927	146	233.053
88	1	0.356275	-0.369171	146	232.528
89	1	0.360324	-0.358459	146	232.005
90	1	0.364372	-0.347787	146	231.484
91	1	0.368421	-0.337155	146	230.964
92	1	0.37247	-0.326561	146	230.447
93	1	0.376518	-0.316004	146	229.932
94	1	0.380567	-0.305481	146	229.418
95	1	0.384615	-0.294992	146	228.905
96	1	0.388664	-0.284535	146	228.395
97	1	0.392713	-0.27411	146	227.886
98	1	0.396761	-0.263715	146	227.378
99	1	0.40081	-0.253347	146	226.872
100	1	0.404858	-0.243007	146	226.367
101	1	0.408907	-0.232693	146	225.863
102	1	0.412955	-0.222403	146	225.361
103	1	0.417004	-0.209575	146	224.734
104	1	0.421053	-0.199336	146	224.234
105	1	0.425101	-0.189118	146	223.735
106	1	0.42915	-0.17892	146	223.237
107	1	0.433198	-0.168741	146	222.74
108	1	0.437247	-0.158579	146	222.244
109	1	0.441296	-0.148434	146	221.749
110	1	0.445344	-0.138305	146	221.254

111	1	0.449393	-0.128189	146	220.76
112	1	0.453441	-0.118085	146	220.267
113	1	0.45749	-0.107995	146	219.774
114	1	0.461538	-0.0979139	146	219.281
115	1	0.465587	-0.0878447	146	218.79
116	1	0.469636	-0.0777834	146	218.298
117	1	0.473684	-0.0677301	146	217.807
118	1	0.477733	-0.0576847	146	217.317
119	1	0.481781	-0.0476439	146	216.827
120	1	0.48583	-0.0376076	146	216.337
121	1	0.489879	-0.0275759	146	215.847
122	1	0.493927	-0.0175476	146	215.357
123	1	0.497976	-0.00751925	146	214.867
124	1	0.502024	0.00751925	146	214.133
125	1	0.506073	0.0175476	146	213.643
126	1	0.510121	0.0275759	146	213.153
127	1	0.51417	0.0376076	146	212.663
128	1	0.518219	0.0476439	146	212.173
129	1	0.522267	0.0576847	146	211.683
130	1	0.526316	0.0677301	146	211.193
131	1	0.530364	0.0777834	146	210.702
132	1	0.534413	0.0878447	146	210.21
133	1	0.538462	0.0979139	146	209.719
134	1	0.54251	0.107995	146	209.226
135	1	0.546559	0.118085	146	208.733
136	1	0.550607	0.128189	146	208.24
137	1	0.554656	0.138305	146	207.746
138	1	0.558704	0.148434	146	207.251
139	1	0.562753	0.158579	146	206.756
140	1	0.566802	0.168741	146	206.26
141	1	0.57085	0.17892	146	205.763
142	1	0.574899	0.189118	146	205.265
143	1	0.578947	0.199336	146	204.766
144	1	0.582996	0.209575	146	204.266
145	1	0.587045	0.222403	146	203.639
146	1	0.591093	0.232693	146	203.137
147	1	0.595142	0.243007	146	202.633
148	1	0.59919	0.253347	146	202.128
149	1	0.603239	0.263715	146	201.622
150	1	0.607287	0.27411	146	201.114
151	1	0.611336	0.284535	146	200.605
152	1	0.615385	0.294992	146	200.095
153	1	0.619433	0.305481	146	199.582
154	1	0.623482	0.316004	146	199.068
155	1	0.62753	0.326561	146	198.553
156	1	0.631579	0.337155	146	198.036
157	1	0.635628	0.347787	146	197.516
158	1	0.639676	0.358459	146	196.995
159	1	0.643725	0.369171	146	196.472
160	1	0.647773	0.379927	146	195.947
161	1	0.651822	0.390726	146	195.42
162	1	0.65587	0.401571	146	194.89
163	1	0.659919	0.412463	146	194.358
164	1	0.663968	0.423405	146	193.824
165	1	0.668016	0.437153	146	193.152
166	1	0.672065	0.448213	146	192.612
167	1	0.676113	0.459327	146	192.07
168	1	0.680162	0.470498	146	191.524
169	1	0.684211	0.481728	146	190.976
170	1	0.688259	0.493018	146	190.424
171	1	0.692308	0.504372	146	189.87
172	1	0.696356	0.515791	146	189.312

173	1	0.700405	0.52728	146	188.751	
174	1	0.704453	0.538836		146	188.187
175	1	0.708502	0.550465		146	187.619
176	1	0.712551	0.56217	146	187.047	
177	1	0.716599	0.573953		146	186.472
178	1	0.720648	0.585815		146	185.893
179	1	0.724696	0.597761		146	185.309
180	1	0.728745	0.609791		146	184.722
181	1	0.732794	0.621911		146	184.13
182	1	0.736842	0.634124		146	183.534
183	1	0.740891	0.646431		146	182.933
184	1	0.744939	0.658838		146	182.327
185	1	0.748988	0.671346		146	181.716
186	1	0.753036	0.687131		146	180.945
187	1	0.757085	0.699883		146	180.322
188	1	0.761134	0.712751		146	179.694
189	1	0.765182	0.725736		146	179.06
190	1	0.769231	0.738846		146	178.42
191	1	0.773279	0.752084		146	177.773
192	1	0.777328	0.765456		146	177.12
193	1	0.781377	0.778966		146	176.46
194	1	0.785425	0.792618		146	175.794
195	1	0.789474	0.806422		146	175.12
196	1	0.793522	0.820379		146	174.438
197	1	0.797571	0.834498		146	173.749
198	1	0.801619	0.848786		146	173.051
199	1	0.805668	0.863249		146	172.345
200	1	0.809717	0.877897		146	171.629
201	1	0.813765	0.892733		146	170.905
202	1	0.817814	0.907769		146	170.171
203	1	0.821862	0.923014		146	169.426
204	1	0.825911	0.938476		146	168.671
205	1	0.82996	0.954165	146	167.905	
206	1	0.834008	0.974114		146	166.931
207	1	0.838057	0.990356		146	166.138
208	1	0.842105	1.00687	146	165.331	
209	1	0.846154	1.02365	146	164.512	
210	1	0.850202	1.04073	146	163.678	
211	1	0.854251	1.05812	146	162.828	
212	1	0.8583	1.07584	146	161.963	
213	1	0.862348	1.0939	146	161.081	
214	1	0.866397	1.11232	146	160.182	
215	1	0.870445	1.13113	146	159.263	
216	1	0.874494	1.15035	146	158.325	
217	1	0.878543	1.17	146	157.365	
218	1	0.882591	1.19012	146	156.383	
219	1	0.88664	1.21073	146	155.376	
220	1	0.890688	1.23187	146	154.344	
221	1	0.894737	1.25357	146	153.284	
222	1	0.898785	1.27588	146	152.195	
223	1	0.902834	1.29884	146	151.074	
224	1	0.906883	1.32251	146	149.918	
225	1	0.910931	1.34694	146	148.724	
226	1	0.91498	1.3722	146	147.491	
227	1	0.919028	1.40507	146	145.886	
228	1	0.923077	1.4325	146	144.546	
229	1	0.927126	1.46106	146	143.152	
230	1	0.931174	1.49085	146	141.697	
231	1	0.935223	1.52203	146	140.174	
232	1.01	0.939271	1.55477	147.07	138.575	
233	1.1	0.94332	1.58927	156.7	136.891	
234	1.4	0.947368	1.62576	188.8	135.109	

235	1.69	0.951417	1.66456	219.83	133.214
236	1.9	0.955466	1.70604	242.3	131.188
237	2.18	0.959514	1.75069	272.26	129.008
238	2.2	0.963563	1.79912	274.4	126.643
239	2.75	0.967611	1.85218	333.25	124.052
240	3.36	0.97166	1.91103	398.52	121.178
241	3.46	0.975709	1.97737	409.22	117.938
242	3.7	0.979757	2.05375	434.9	114.209
243	3.7	0.983806	2.14441	434.9	109.781
244	3.9	0.987854	2.25713	456.3	104.277
245	4.4	0.991903	2.40892	509.8	96.8642
246	4.8	0.995951	2.65209	552.6	84.9898

Shapiro-Francia Test of Normality

Parameter: Chlorobenzene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.07944	-2.65209	7.03356	5.51486	
2	-2.07944	-2.40892	12.8365	10.5241	
3	-2.07944	-2.25713	17.9311	15.2176	
4	-2.07944	-2.14441	22.5296	19.6768	
5	-2.07944	-2.05375	26.7475	23.9475	
6	-2.07944	-1.97737	30.6575	28.0593	
7	-2.07944	-1.91103	34.3095	32.0332	
8	-2.07944	-1.85218	37.7401	35.8847	
9	-2.07944	-1.79912	40.9769	39.6258	
10	-2.07944	-1.75069	44.0418	43.2663	
11	-2.07944	-1.70604	46.9524	46.8139	
12	-2.07944	-1.66456	49.7231	50.2752	
13	-2.07944	-1.62576	52.3662	53.6559	
14	-2.07944	-1.58927	54.892	56.9607	
15	-2.07944	-1.55477	57.3093	60.1938	
16	-2.07944	-1.52203	59.6259	63.3588	
17	-2.07944	-1.49085	61.8486	66.4589	
18	-2.07944	-1.46106	63.9833	69.4971	
19	-2.07944	-1.4325	66.0353	72.4759	
20	-2.07944	-1.40507	68.0096	75.3977	
21	-2.07944	-1.3722	69.8925	78.2511	
22	-2.07944	-1.34694	71.7067	81.052	
23	-2.07944	-1.32251	73.4558	83.802	
24	-2.07944	-1.29884	75.1427	86.5029	
25	-2.07944	-1.27588	76.7706	89.156	
26	-2.07944	-1.25357	78.342	91.7627	
27	-2.07944	-1.23187	79.8595	94.3243	
28	-2.07944	-1.21073	81.3254	96.8419	
29	-2.07944	-1.19012	82.7418	99.3167	
30	-2.07944	-1.17	84.1107	101.75	
31	-2.07944	-1.15035	85.434	104.142	
32	-2.07944	-1.13113	86.7134	106.494	
33	-2.07944	-1.11232	87.9507	108.807	
34	-2.07944	-1.0939	89.1473	111.082	
35	-2.07944	-1.07584	90.3047	113.319	
36	-1.38629	-1.05812	91.4243	114.786	
37	-1.27297	-1.04073	92.5075	116.11	
38	-1.23787	-1.02365	93.5553	117.378	
39	-1.20397	-1.00687	94.5691	118.59	
40	-1.20397	-0.990356	95.5499	119.782	
41	-1.10866	-0.974114	96.4988	120.862	
42	-1.07881	-0.954165	97.4092	121.891	
43	-1.02165	-0.938476	98.29	122.85	
44	-0.916291	-0.923014	99.1419	123.696	
45	-0.916291	-0.907769	99.966	124.528	
46	-0.84397	-0.892733	100.763	125.281	
47	-0.84397	-0.877897	101.534	126.022	
48	-0.798508	-0.863249	102.279	126.711	
49	-0.776529	-0.848786	102.999	127.371	
50	-0.776529	-0.834498	103.696	128.019	
51	-0.653926	-0.820379	104.369	128.555	

52	-0.634878		-0.806422	105.019	129.067
53	-0.579818		-0.792618	105.647	129.527
54	-0.579818		-0.778966	106.254	129.978
55	-0.562119		-0.765456	106.84	130.409
56	-0.527633		-0.752084	107.406	130.805
57	-0.527633		-0.738846	107.951	131.195
58	-0.527633		-0.725736	108.478	131.578
59	-0.510826		-0.712751	108.986	131.942
60	-0.478036		-0.699883	109.476	132.277
61	-0.478036		-0.687131	109.948	132.605
62	-0.462035		-0.671346	110.399	132.915
63	-0.430783		-0.658838	110.833	133.199
64	-0.430783		-0.646431	111.251	133.478
65	-0.371064		-0.634124	111.653	133.713
66	-0.314711		-0.621911	112.04	133.909
67	-0.314711		-0.609791	112.412	134.101
68	-0.314711		-0.597761	112.769	134.289
69	-0.301105		-0.585815	113.112	134.465
70	-0.248461		-0.573953	113.441	134.608
71	-0.223144		-0.56217	113.758	134.733
72	-0.210721		-0.550465	114.061	134.849
73	-0.18633	-0.538836		114.351	134.95
74	-0.0725707		-0.52728	114.629	134.988
75	-0.0725707		-0.515791	114.895	135.025
76	0	-0.504372		115.149	135.025
77	0	-0.493018		115.392	135.025
78	0	-0.481728		115.624	135.025
79	0	-0.470498		115.846	135.025
80	0	-0.459327		116.057	135.025
81	0	-0.448213		116.258	135.025
82	0	-0.437153		116.449	135.025
83	0	-0.423405		116.628	135.025
84	0	-0.412463		116.798	135.025
85	0	-0.401571		116.959	135.025
86	0	-0.390726		117.112	135.025
87	0	-0.379927		117.256	135.025
88	0	-0.369171		117.393	135.025
89	0	-0.358459		117.521	135.025
90	0	-0.347787		117.642	135.025
91	0	-0.337155		117.756	135.025
92	0	-0.326561		117.863	135.025
93	0	-0.316004		117.962	135.025
94	0	-0.305481		118.056	135.025
95	0	-0.294992		118.143	135.025
96	0	-0.284535		118.224	135.025
97	0	-0.27411	118.299	135.025	
98	0	-0.263715		118.368	135.025
99	0	-0.253347		118.433	135.025
100	0	-0.243007		118.492	135.025
101	0	-0.232693		118.546	135.025
102	0	-0.222403		118.595	135.025
103	0	-0.209575		118.639	135.025
104	0	-0.199336		118.679	135.025
105	0	-0.189118		118.715	135.025
106	0	-0.17892	118.747	135.025	
107	0	-0.168741		118.775	135.025
108	0	-0.158579		118.8	135.025
109	0	-0.148434		118.822	135.025
110	0	-0.138305		118.841	135.025
111	0	-0.128189		118.858	135.025
112	0	-0.118085		118.872	135.025
113	0	-0.107995		118.883	135.025

114	0	-0.0979139	118.893	135.025
115	0	-0.0878447	118.901	135.025
116	0	-0.0777834	118.907	135.025
117	0	-0.0677301	118.911	135.025
118	0	-0.0576847	118.915	135.025
119	0	-0.0476439	118.917	135.025
120	0	-0.0376076	118.918	135.025
121	0	-0.0275759	118.919	135.025
122	0	-0.0175476	118.919	135.025
123	0	-0.00751925	118.92	135.025
124	0	0.00751925	118.92	135.025
125	0	0.0175476	118.92	135.025
126	0	0.0275759	118.921	135.025
127	0	0.0376076	118.922	135.025
128	0	0.0476439	118.924	135.025
129	0	0.0576847	118.928	135.025
130	0	0.0677301	118.932	135.025
131	0	0.0777834	118.938	135.025
132	0	0.0878447	118.946	135.025
133	0	0.0979139	118.956	135.025
134	0	0.107995	118.967	135.025
135	0	0.118085	118.981	135.025
136	0	0.128189	118.998	135.025
137	0	0.138305	119.017	135.025
138	0	0.148434	119.039	135.025
139	0	0.158579	119.064	135.025
140	0	0.168741	119.092	135.025
141	0	0.17892	119.124	135.025
142	0	0.189118	119.16	135.025
143	0	0.199336	119.2	135.025
144	0	0.209575	119.244	135.025
145	0	0.222403	119.293	135.025
146	0	0.232693	119.347	135.025
147	0	0.243007	119.407	135.025
148	0	0.253347	119.471	135.025
149	0	0.263715	119.54	135.025
150	0	0.27411	119.615	135.025
151	0	0.284535	119.696	135.025
152	0	0.294992	119.783	135.025
153	0	0.305481	119.877	135.025
154	0	0.316004	119.977	135.025
155	0	0.326561	120.083	135.025
156	0	0.337155	120.197	135.025
157	0	0.347787	120.318	135.025
158	0	0.358459	120.446	135.025
159	0	0.369171	120.583	135.025
160	0	0.379927	120.727	135.025
161	0	0.390726	120.88	135.025
162	0	0.401571	121.041	135.025
163	0	0.412463	121.211	135.025
164	0	0.423405	121.39	135.025
165	0	0.437153	121.581	135.025
166	0	0.448213	121.782	135.025
167	0	0.459327	121.993	135.025
168	0	0.470498	122.215	135.025
169	0	0.481728	122.447	135.025
170	0	0.493018	122.69	135.025
171	0	0.504372	122.944	135.025
172	0	0.515791	123.21	135.025
173	0	0.52728	123.488	135.025
174	0	0.538836	123.779	135.025
175	0	0.550465	124.082	135.025

176	0	0.56217	124.398	135.025	
177	0	0.573953		124.727	135.025
178	0	0.585815		125.07	135.025
179	0	0.597761		125.428	135.025
180	0	0.609791		125.799	135.025
181	0	0.621911		126.186	135.025
182	0	0.634124		126.588	135.025
183	0	0.646431		127.006	135.025
184	0	0.658838		127.44	135.025
185	0	0.671346		127.891	135.025
186	0	0.687131		128.363	135.025
187	0	0.699883		128.853	135.025
188	0	0.712751		129.361	135.025
189	0	0.725736		129.888	135.025
190	0	0.738846		130.433	135.025
191	0	0.752084		130.999	135.025
192	0	0.765456		131.585	135.025
193	0	0.778966		132.192	135.025
194	0	0.792618		132.82	135.025
195	0	0.806422		133.47	135.025
196	0	0.820379		134.143	135.025
197	0	0.834498		134.84	135.025
198	0	0.848786		135.56	135.025
199	0	0.863249		136.305	135.025
200	0	0.877897		137.076	135.025
201	0	0.892733		137.873	135.025
202	0	0.907769		138.697	135.025
203	0	0.923014		139.549	135.025
204	0	0.938476		140.43	135.025
205	0	0.954165		141.34	135.025
206	0	0.974114		142.289	135.025
207	0	0.990356		143.27	135.025
208	0	1.00687	144.284	135.025	
209	0	1.02365	145.332	135.025	
210	0	1.04073	146.415	135.025	
211	0	1.05812	147.534	135.025	
212	0	1.07584	148.692	135.025	
213	0	1.0939	149.888	135.025	
214	0	1.11232	151.126	135.025	
215	0	1.13113	152.405	135.025	
216	0	1.15035	153.728	135.025	
217	0	1.17	155.097	135.025	
218	0	1.19012	156.514	135.025	
219	0	1.21073	157.98	135.025	
220	0	1.23187	159.497	135.025	
221	0	1.25357	161.068	135.025	
222	0	1.27588	162.696	135.025	
223	0	1.29884	164.383	135.025	
224	0	1.32251	166.132	135.025	
225	0	1.34694	167.947	135.025	
226	0	1.3722	169.83	135.025	
227	0	1.40507	171.804	135.025	
228	0	1.4325	173.856	135.025	
229	0	1.46106	175.991	135.025	
230	0	1.49085	178.213	135.025	
231	0	1.52203	180.53	135.025	
232	0.00995033		1.55477	182.947	135.041
233	0.0953102		1.58927	185.473	135.192
234	0.336472		1.62576	188.116	135.739
235	0.524729		1.66456	190.887	136.613
236	0.641854		1.70604	193.797	137.708
237	0.779325		1.75069	196.862	139.072

238	0.788457		1.79912	200.099	140.491
239	1.0116	1.85218	203.53	142.364	
240	1.21194	1.91103	207.182	144.68	
241	1.24127	1.97737	211.092	147.135	
242	1.30833	2.05375	215.309	149.822	
243	1.30833	2.14441	219.908	152.627	
244	1.36098	2.25713	225.003	155.699	
245	1.4816	2.40892	230.806	159.268	
246	1.56862	2.65209	237.839	163.428	

Data Set Standard Deviation = 0.806487
Numerator = 26708.9
Denominator = 37900.5
W Statistic = 0.704711 = 26708.9 / 37900.5

5% Critical value of 0.976 exceeds 0.704711
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.704711
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.839891
0.839891 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00404858	-2.65209	137.5	344.01
2	-2.07944	0.00809717	-2.40892	137.5	332.136
3	-2.07944	0.0121457	-2.25713	137.5	324.723
4	-2.07944	0.0161943	-2.14441	137.5	319.219
5	-2.07944	0.0202429	-2.05375	137.5	314.791
6	-2.07944	0.0242915	-1.97737	137.5	311.062
7	-2.07944	0.0283401	-1.91103	137.5	307.822
8	-2.07944	0.0323887	-1.85218	137.5	304.948
9	-2.07944	0.0364372	-1.79912	137.5	302.357
10	-2.07944	0.0404858	-1.75069	137.5	299.992
11	-2.07944	0.0445344	-1.70604	137.5	297.812
12	-2.07944	0.048583	-1.66456	137.5	295.786
13	-2.07944	0.0526316	-1.62576	137.5	293.891
14	-2.07944	0.0566802	-1.58927	137.5	292.109
15	-2.07944	0.0607287	-1.55477	137.5	290.425
16	-2.07944	0.0647773	-1.52203	137.5	288.826
17	-2.07944	0.0688259	-1.49085	137.5	287.303
18	-2.07944	0.0728745	-1.46106	137.5	285.848
19	-2.07944	0.0769231	-1.4325	137.5	284.454
20	-2.07944	0.0809717	-1.40507	137.5	283.114
21	-2.07944	0.0850202	-1.3722	137.5	281.509
22	-2.07944	0.0890688	-1.34694	137.5	280.276
23	-2.07944	0.0931174	-1.32251	137.5	279.082
24	-2.07944	0.097166	-1.29884	137.5	277.926
25	-2.07944	0.101215	-1.27588	137.5	276.805
26	-2.07944	0.105263	-1.25357	137.5	275.716
27	-2.07944	0.109312	-1.23187	137.5	274.656
28	-2.07944	0.11336	-1.21073	137.5	273.624
29	-2.07944	0.117409	-1.19012	137.5	272.617
30	-2.07944	0.121457	-1.17	137.5	271.635
31	-2.07944	0.125506	-1.15035	137.5	270.675
32	-2.07944	0.129555	-1.13113	137.5	269.737
33	-2.07944	0.133603	-1.11232	137.5	268.818
34	-2.07944	0.137652	-1.0939	137.5	267.919
35	-2.07944	0.1417	-1.07584	137.5	267.037
36	-1.38629	0.145749	-1.05812	211.667	266.172
37	-1.27297	0.149798	-1.04073	223.793	265.322
38	-1.23787	0.153846	-1.02365	227.547	264.488
39	-1.20397	0.157895	-1.00687	231.175	263.669
40	-1.20397	0.161943	-0.990356	231.175	262.862
41	-1.10866	0.165992	-0.974114	241.373	262.069
42	-1.07881	0.17004	-0.954165	244.567	261.095
43	-1.02165	0.174089	-0.938476	250.683	260.329
44	-0.916291	0.178138	-0.923014	261.957	259.574
45	-0.916291	0.182186	-0.907769	261.957	258.829
46	-0.84397	0.186235	-0.892733	269.695	258.095
47	-0.84397	0.190283	-0.877897	269.695	257.371
48	-0.798508	0.194332	-0.863249	274.56	256.655

49	-0.776529	0.198381	-0.848786	276.911	255.949
50	-0.776529	0.202429	-0.834498	276.911	255.251
51	-0.653926	0.206478	-0.820379	290.03	254.562
52	-0.634878	0.210526	-0.806422	292.068	253.88
53	-0.579818	0.214575	-0.792618	297.959	253.206
54	-0.579818	0.218623	-0.778966	297.959	252.54
55	-0.562119	0.222672	-0.765456	299.853	251.88
56	-0.527633	0.226721	-0.752084	303.543	251.227
57	-0.527633	0.230769	-0.738846	303.543	250.58
58	-0.527633	0.234818	-0.725736	303.543	249.94
59	-0.510826	0.238866	-0.712751	305.342	249.306
60	-0.478036	0.242915	-0.699883	308.85	248.678
61	-0.478036	0.246964	-0.687131	308.85	248.055
62	-0.462035	0.251012	-0.671346	310.562	247.284
63	-0.430783	0.255061	-0.658838	313.906	246.673
64	-0.430783	0.259109	-0.646431	313.906	246.067
65	-0.371064	0.263158	-0.634124	320.296	245.466
66	-0.314711	0.267206	-0.621911	326.326	244.87
67	-0.314711	0.271255	-0.609791	326.326	244.278
68	-0.314711	0.275304	-0.597761	326.326	243.691
69	-0.301105	0.279352	-0.585815	327.782	243.107
70	-0.248461	0.283401	-0.573953	333.415	242.528
71	-0.223144	0.287449	-0.56217	336.124	241.953
72	-0.210721	0.291498	-0.550465	337.453	241.381
73	-0.18633	0.295547	-0.538836	340.063	240.813
74	-0.072570	7 0.299595	-0.52728	352.235	240.249
75	-0.072570	7 0.303644	-0.515791	352.235	239.688
76	0	0.307692	-0.504372	360	239.13
77	0	0.311741	-0.493018	360	238.576
78	0	0.315789	-0.481728	360	238.024
79	0	0.319838	-0.470498	360	237.476
80	0	0.323887	-0.459327	360	236.93
81	0	0.327935	-0.448213	360	236.388
82	0	0.331984	-0.437153	360	235.848
83	0	0.336032	-0.423405	360	235.176
84	0	0.340081	-0.412463	360	234.642
85	0	0.34413	-0.401571	360	234.11
86	0	0.348178	-0.390726	360	233.58
87	0	0.352227	-0.379927	360	233.053
88	0	0.356275	-0.369171	360	232.528
89	0	0.360324	-0.358459	360	232.005
90	0	0.364372	-0.347787	360	231.484
91	0	0.368421	-0.337155	360	230.964
92	0	0.37247	-0.326561	360	230.447
93	0	0.376518	-0.316004	360	229.932
94	0	0.380567	-0.305481	360	229.418
95	0	0.384615	-0.294992	360	228.905
96	0	0.388664	-0.284535	360	228.395
97	0	0.392713	-0.27411	360	227.886
98	0	0.396761	-0.263715	360	227.378
99	0	0.40081	-0.253347	360	226.872
100	0	0.404858	-0.243007	360	226.367
101	0	0.408907	-0.232693	360	225.863
102	0	0.412955	-0.222403	360	225.361
103	0	0.417004	-0.209575	360	224.734
104	0	0.421053	-0.199336	360	224.234
105	0	0.425101	-0.189118	360	223.735
106	0	0.42915	-0.17892	360	223.237
107	0	0.433198	-0.168741	360	222.74
108	0	0.437247	-0.158579	360	222.244
109	0	0.441296	-0.148434	360	221.749
110	0	0.445344	-0.138305	360	221.254

111	0	0.449393	-0.128189	360	220.76
112	0	0.453441	-0.118085	360	220.267
113	0	0.45749	-0.107995	360	219.774
114	0	0.461538	-0.0979139	360	219.281
115	0	0.465587	-0.0878447	360	218.79
116	0	0.469636	-0.0777834	360	218.298
117	0	0.473684	-0.0677301	360	217.807
118	0	0.477733	-0.0576847	360	217.317
119	0	0.481781	-0.0476439	360	216.827
120	0	0.48583	-0.0376076	360	216.337
121	0	0.489879	-0.0275759	360	215.847
122	0	0.493927	-0.0175476	360	215.357
123	0	0.497976	-0.00751925	360	214.867
124	0	0.502024	0.00751925	360	214.133
125	0	0.506073	0.0175476	360	213.643
126	0	0.510121	0.0275759	360	213.153
127	0	0.51417	0.0376076	360	212.663
128	0	0.518219	0.0476439	360	212.173
129	0	0.522267	0.0576847	360	211.683
130	0	0.526316	0.0677301	360	211.193
131	0	0.530364	0.0777834	360	210.702
132	0	0.534413	0.0878447	360	210.21
133	0	0.538462	0.0979139	360	209.719
134	0	0.54251	0.107995	360	209.226
135	0	0.546559	0.118085	360	208.733
136	0	0.550607	0.128189	360	208.24
137	0	0.554656	0.138305	360	207.746
138	0	0.558704	0.148434	360	207.251
139	0	0.562753	0.158579	360	206.756
140	0	0.566802	0.168741	360	206.26
141	0	0.57085	0.17892	360	205.763
142	0	0.574899	0.189118	360	205.265
143	0	0.578947	0.199336	360	204.766
144	0	0.582996	0.209575	360	204.266
145	0	0.587045	0.222403	360	203.639
146	0	0.591093	0.232693	360	203.137
147	0	0.595142	0.243007	360	202.633
148	0	0.59919	0.253347	360	202.128
149	0	0.603239	0.263715	360	201.622
150	0	0.607287	0.27411	360	201.114
151	0	0.611336	0.284535	360	200.605
152	0	0.615385	0.294992	360	200.095
153	0	0.619433	0.305481	360	199.582
154	0	0.623482	0.316004	360	199.068
155	0	0.62753	0.326561	360	198.553
156	0	0.631579	0.337155	360	198.036
157	0	0.635628	0.347787	360	197.516
158	0	0.639676	0.358459	360	196.995
159	0	0.643725	0.369171	360	196.472
160	0	0.647773	0.379927	360	195.947
161	0	0.651822	0.390726	360	195.42
162	0	0.65587	0.401571	360	194.89
163	0	0.659919	0.412463	360	194.358
164	0	0.663968	0.423405	360	193.824
165	0	0.668016	0.437153	360	193.152
166	0	0.672065	0.448213	360	192.612
167	0	0.676113	0.459327	360	192.07
168	0	0.680162	0.470498	360	191.524
169	0	0.684211	0.481728	360	190.976
170	0	0.688259	0.493018	360	190.424
171	0	0.692308	0.504372	360	189.87
172	0	0.696356	0.515791	360	189.312

173	0	0.700405	0.52728	360	188.751	
174	0	0.704453	0.538836		360	188.187
175	0	0.708502	0.550465		360	187.619
176	0	0.712551	0.56217	360	187.047	
177	0	0.716599	0.573953		360	186.472
178	0	0.720648	0.585815		360	185.893
179	0	0.724696	0.597761		360	185.309
180	0	0.728745	0.609791		360	184.722
181	0	0.732794	0.621911		360	184.13
182	0	0.736842	0.634124		360	183.534
183	0	0.740891	0.646431		360	182.933
184	0	0.744939	0.658838		360	182.327
185	0	0.748988	0.671346		360	181.716
186	0	0.753036	0.687131		360	180.945
187	0	0.757085	0.699883		360	180.322
188	0	0.761134	0.712751		360	179.694
189	0	0.765182	0.725736		360	179.06
190	0	0.769231	0.738846		360	178.42
191	0	0.773279	0.752084		360	177.773
192	0	0.777328	0.765456		360	177.12
193	0	0.781377	0.778966		360	176.46
194	0	0.785425	0.792618		360	175.794
195	0	0.789474	0.806422		360	175.12
196	0	0.793522	0.820379		360	174.438
197	0	0.797571	0.834498		360	173.749
198	0	0.801619	0.848786		360	173.051
199	0	0.805668	0.863249		360	172.345
200	0	0.809717	0.877897		360	171.629
201	0	0.813765	0.892733		360	170.905
202	0	0.817814	0.907769		360	170.171
203	0	0.821862	0.923014		360	169.426
204	0	0.825911	0.938476		360	168.671
205	0	0.82996	0.954165	360	167.905	
206	0	0.834008	0.974114		360	166.931
207	0	0.838057	0.990356		360	166.138
208	0	0.842105	1.00687	360	165.331	
209	0	0.846154	1.02365	360	164.512	
210	0	0.850202	1.04073	360	163.678	
211	0	0.854251	1.05812	360	162.828	
212	0	0.8583	1.07584	360	161.963	
213	0	0.862348	1.0939	360	161.081	
214	0	0.866397	1.11232	360	160.182	
215	0	0.870445	1.13113	360	159.263	
216	0	0.874494	1.15035	360	158.325	
217	0	0.878543	1.17	360	157.365	
218	0	0.882591	1.19012	360	156.383	
219	0	0.88664	1.21073	360	155.376	
220	0	0.890688	1.23187	360	154.344	
221	0	0.894737	1.25357	360	153.284	
222	0	0.898785	1.27588	360	152.195	
223	0	0.902834	1.29884	360	151.074	
224	0	0.906883	1.32251	360	149.918	
225	0	0.910931	1.34694	360	148.724	
226	0	0.91498	1.3722	360	147.491	
227	0	0.919028	1.40507	360	145.886	
228	0	0.923077	1.4325	360	144.546	
229	0	0.927126	1.46106	360	143.152	
230	0	0.931174	1.49085	360	141.697	
231	0	0.935223	1.52203	360	140.174	
232	0.00995033	0.939271	1.55477	361.065	138.575	
233	0.0953102	0.94332	1.58927	370.198	136.891	
234	0.336472	0.947368	1.62576	396.003	135.109	

235	0.524729		0.951417	1.66456	416.146	133.214
236	0.641854		0.955466	1.70604	428.678	131.188
237	0.779325		0.959514	1.75069	443.388	129.008
238	0.788457		0.963563	1.79912	444.365	126.643
239	1.0116	0.967611	1.85218	468.241	124.052	
240	1.21194	0.97166	1.91103	489.678	121.178	
241	1.24127	0.975709	1.97737	492.816	117.938	
242	1.30833	0.979757	2.05375	499.992	114.209	
243	1.30833	0.983806	2.14441	499.992	109.781	
244	1.36098	0.987854	2.25713	505.624	104.277	
245	1.4816	0.991903	2.40892	518.532	96.8642	
246	1.56862	0.995951	2.65209	527.842	84.9898	

Kruskal-Wallis Non-Parametric Test

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	95.5
	9/23/1999	ND<0	95.5
	3/15/2000	ND<0	95.5
	9/24/2003	ND<0	95.5
	3/11/2004	ND<0	95.5
	10/12/2004	ND<0	95.5
	4/1/2005	ND<0	95.5
	10/25/2005	ND<0	95.5
	4/29/2006	ND<0	95.5
	11/18/2006	ND<0	95.5
	5/23/2007	ND<0	95.5
	11/28/2007	ND<0	95.5
	6/5/2008	ND<0	95.5
	11/20/2008	ND<0	95.5
	6/11/2009	ND<-2.07944	95.5
	11/16/2009	ND<-2.07944	95.5
	6/30/2010	ND<-2.07944	95.5
	11/12/2010	ND<-2.07944 U	95.5
	7/5/2011	ND<-2.07944 U	95.5

Rank Sum = 1814.5
Rank Mean = 95.5

Background Rank Sum = 1814.5
Background Rank Mean = 95.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	95.5
	8/24/1995	ND<0	95.5
	9/28/1995	ND<0	95.5
	10/26/1995	ND<0	95.5
	11/19/1996	ND<0	95.5
	12/19/1996	ND<0	95.5
	3/24/1997	ND<0	95.5
	9/24/1997	ND<0	95.5
	4/7/1998	ND<0	95.5
	9/23/1998	ND<0	95.5
	3/16/1999	ND<0	95.5
	9/23/1999	ND<0	95.5
	3/15/2000	ND<0	95.5
	9/24/2003	ND<0	95.5
	3/11/2004	ND<0	95.5
	10/12/2004	ND<0	95.5
	4/1/2005	ND<0	95.5
	10/25/2005	ND<0	95.5
	4/29/2006	ND<0	95.5
	11/18/2006	ND<0	95.5
	5/23/2007	ND<0	95.5

	11/28/2007	ND<0		95.5
	6/5/2008	ND<0		95.5
	11/20/2008	ND<0		95.5
	6/11/2009	ND<-2.07944		95.5
	11/16/2009	ND<-2.07944		95.5
	6/30/2010	ND<-2.07944		95.5
	11/12/2010	ND<-2.07944	U	95.5
	7/5/2011	ND<-2.07944	U	95.5
	11/22/2011	ND<-2.07944	U	95.5
	11/22/2011	ND<-2.07944	U	95.5

Rank Sum = 2960.5
Rank Mean = 95.5

MW-7	7/20/1995	ND<0		95.5
	8/24/1995	ND<0		95.5
	9/28/1995	ND<0		95.5
	10/26/1995	ND<0		95.5
	11/19/1996	ND<0		95.5
	12/19/1996	ND<0		95.5
	3/24/1997	ND<0		95.5
	9/24/1997	ND<0		95.5
	4/7/1998	ND<0		95.5
	9/23/1998	ND<0		95.5
	3/16/1999	ND<0		95.5
	9/23/1999	ND<0		95.5
	3/15/2000	ND<0		95.5
	9/24/2003	ND<0		95.5
	3/11/2004	ND<0		95.5
	10/12/2004	ND<0		95.5
	4/1/2005	ND<0		95.5
	10/25/2005	ND<0		95.5
	4/29/2006	ND<0		95.5
	11/18/2006	ND<0		95.5
	5/23/2007	ND<0		95.5
	11/28/2007	ND<0		95.5
	6/5/2008	ND<0		95.5
	11/20/2008	-1.23787	J	193
	6/11/2009	ND<-2.07944		95.5
	11/16/2009	ND<-2.07944		95.5
	6/30/2010	-0.527633	J	211
	11/12/2010	-1.02165	J	198
	7/5/2011	-0.248461	J	225
	11/22/2011	-0.072570 7	J	229
	11/22/2011	-0.072570 7	J	230

Rank Sum = 3673.5
Rank Mean = 118.5

MW-12BR	3/16/1999	ND<0		95.5
	9/23/1999	ND<0		95.5
	3/15/2000	ND<0		95.5
	9/24/2003	ND<0		95.5
	3/11/2004	ND<0		95.5
	10/12/2004	ND<0		95.5
	4/1/2005	0.00995033	J	232
	10/25/2005	ND<0		95.5
	4/29/2006	ND<0		95.5
	11/18/2006	ND<0		95.5
	5/23/2007	ND<0		95.5
	11/28/2007	ND<0		95.5
	6/5/2008	ND<0		95.5
	11/20/2008	ND<0		95.5
	6/11/2009	ND<-2.07944		95.5

	11/16/2009	ND<-2.07944		95.5
	6/30/2010	ND<-2.07944		95.5
	11/12/2010	ND<-2.07944	U	95.5
	7/5/2011	ND<-2.07944	U	95.5
	11/22/2011	ND<-2.07944	U	95.5
	11/22/2011	ND<-2.07944	U	95.5

Rank Sum = 2142
Rank Mean = 102

MW-8	7/20/1995	ND<0		95.5
	8/24/1995	ND<0		95.5
	9/28/1995	ND<0		95.5
	10/26/1995	ND<0		95.5
	11/19/1996	ND<0		95.5
	12/19/1996	ND<0		95.5
	3/24/1997	ND<0		95.5
	9/24/1997	ND<0		95.5
	4/7/1998	ND<0		95.5
	9/23/1998	ND<0		95.5
	3/16/1999	ND<0		95.5
	9/23/1999	ND<0		95.5
	3/15/2000	ND<0		95.5
	9/24/2003	ND<0		95.5
	3/11/2004	ND<0		95.5
	10/12/2004	ND<0		95.5
	4/1/2005	ND<0		95.5
	10/25/2005	1.0116		239
	4/29/2006	0.524729	J	235
	11/18/2006	1.24127		241
	5/23/2007	0.788457		238
	11/28/2007	1.21194		240
	6/5/2008	ND<0		95.5
	11/20/2008	0.779325		237
	6/11/2009	1.56862		246
	6/30/2010	0.641854		236
	11/12/2010	1.4816		245
	7/5/2011	1.36098		244
	11/22/2011	1.30833		242
	11/22/2011	1.30833		243

Rank Sum = 4605
Rank Mean = 153.5

MW-11R	7/20/1995	ND<0		95.5
	8/24/1995	ND<0		95.5
	9/28/1995	ND<0		95.5
	10/26/1995	ND<0		95.5
	11/19/1996	ND<0		95.5
	12/19/1996	ND<0		95.5
	3/24/1997	ND<0		95.5
	9/24/1997	ND<0		95.5
	4/7/1998	ND<0		95.5
	9/23/1998	ND<0		95.5
	3/16/1999	ND<0		95.5
	9/23/1999	ND<0		95.5
	3/15/2000	ND<0		95.5
	9/24/2003	ND<0		95.5
	3/11/2004	ND<0		95.5
	10/12/2004	ND<0		95.5
	4/1/2005	ND<0		95.5
	10/25/2005	ND<0		95.5
	4/29/2006	ND<0		95.5
	11/18/2006	ND<0		95.5

	5/23/2007	ND<0	95.5		
	11/28/2007	ND<0	95.5		
	6/5/2008	ND<0	95.5		
	11/20/2008	ND<0	95.5		
	6/11/2009	ND<-2.07944			95.5
	11/16/2009	ND<-2.07944			95.5
	6/30/2010	ND<-2.07944			95.5
	11/12/2010	ND<-2.07944		U	95.5
	7/5/2011	ND<-2.07944		U	95.5
	11/22/2011	ND<-2.07944		U	95.5
	11/22/2011	ND<-2.07944		U	95.5

Rank Sum = 2960.5
Rank Mean = 95.5

MW-12A	R	3/16/1999	ND<0		95.5
	9/23/1999	ND<0	95.5		
	3/15/2000	ND<0	95.5		
	9/24/2003	ND<0	95.5		
	3/11/2004	ND<0	95.5		
	10/12/2004	ND<0	95.5		
	4/1/2005	ND<0	95.5		
	10/25/2005	-0.562119		J	210
	4/29/2006	-0.478036		J	215
	11/18/2006	-0.634878		J	207
	5/23/2007	ND<0	95.5		
	11/28/2007	-0.579818		J	208
	6/5/2008	-0.430783		J	218
	11/20/2008	-0.916291		J	199
	6/11/2009	ND<-2.07944			95.5
	11/16/2009	ND<-2.07944			95.5
	6/30/2010	ND<-2.07944			95.5
	11/12/2010	-0.314711		J	221
	7/5/2011	ND<-2.07944		U	95.5
	11/22/2011	ND<-2.07944		U	95.5
	11/22/2011	ND<-2.07944		U	95.5

Rank Sum = 2815
Rank Mean = 134.048

MW-9	7/20/1995	ND<0	95.5		
	8/24/1995	-1.20397		J	194
	9/28/1995	ND<0	95.5		
	10/26/1995	-1.20397		J	195
	11/19/1996	ND<0	95.5		
	12/19/1996	ND<0	95.5		
	3/24/1997	ND<0	95.5		
	9/24/1997	ND<0	95.5		
	4/7/1998	ND<0	95.5		
	9/23/1998	ND<0	95.5		
	3/16/1999	ND<0	95.5		
	9/23/1999	ND<0	95.5		
	3/15/2000	ND<0	95.5		
	9/24/2003	ND<0	95.5		
	3/11/2004	ND<0	95.5		
	10/12/2004	ND<0	95.5		
	4/1/2005	-0.653926		J	206
	10/25/2005	-1.07881		J	197
	4/29/2006	-1.38629		J	191
	11/18/2006	-1.27297		J	192
	5/23/2007	0.095310	2		233
	11/28/2007	-0.301105		J	224
	6/5/2008	-0.579818		J	209
	11/20/2008	-0.430783		J	219

	6/11/2009	-0.210721	J	227
	11/16/2009	-0.223144	J	226
	6/30/2010	0.336472		234
	11/12/2010	0	231	
	7/5/2011	-0.84397	J	201
	11/22/2011	-0.776529	J	204
	11/22/2011	-0.776529	J	205

Rank Sum = 4925
Rank Mean = 158.871

MW-10	7/20/1995	ND<0	95.5	
	8/24/1995	ND<0	95.5	
	9/28/1995	ND<0	95.5	
	10/26/1995	ND<0	95.5	
	11/19/1996	ND<0	95.5	
	12/19/1996	ND<0	95.5	
	3/24/1997	ND<0	95.5	
	9/24/1997	ND<0	95.5	
	4/7/1998	ND<0	95.5	
	9/23/1998	ND<0	95.5	
	3/16/1999	ND<0	95.5	
	9/23/1999	ND<0	95.5	
	3/15/2000	ND<0	95.5	
	9/24/2003	ND<0	95.5	
	3/11/2004	ND<0	95.5	
	10/12/2004	ND<0	95.5	
	4/1/2005	-1.10866	J	196
	10/25/2005	-0.84397	J	202
	4/29/2006	-0.527633	J	212
	11/18/2006	-0.916291	J	200
	5/23/2007	ND<0	95.5	
	11/28/2007	-0.527633	J	213
	6/5/2008	-0.510826	J	214
	11/20/2008	-0.478036	J	216
	6/11/2009	-0.798508	J	203
	11/16/2009	-0.462035	J	217
	6/30/2010	ND<-2.07944		95.5
	11/12/2010	-0.371064	J	220
	7/5/2011	-0.18633	J	228
	11/22/2011	-0.314711	J	222
	11/22/2011	-0.314711	J	223

Rank Sum = 4485
Rank Mean = 144.677

Calculation Results:

Kruskal-Wallis H Statistic = 30.8107
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 57.1345
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
30.8107 > 15.5073 indicating a significant group difference at 5% significance level
57.1345 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 95.5

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-6	**95.5**	**0**	**48.231**	
MW-7	**118.5**	**23**	**48.231**	
MW-12BR		**102**	**6.5**	**52.4134**
MW-8	**153.5**	**58**	**48.5355**	

MW-11R	95.5	0	48.231	
MW-12AR		134.048	38.5476	52.4134
MW-9	158.871	63.371	48.231	
MW-10	144.677	49.1774	48.231	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 95.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-6	95.5	0	52.0829	
MW-7	118.5	23	52.0829	
MW-12BR		102	6.5	56.5994
MW-8	153.5	58	52.4118	
MW-11R	95.5	0	52.0829	
MW-12AR		134.048	38.5476	56.5994
MW-9	158.871	63.371	52.0829	
MW-10	144.677	49.1774	52.0829	

Shewhart-CUSUM Control Chart

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	0	
3/24/1997	0	0	0	
9/24/1997	0	0	0	
9/24/1997	0	0	0	
4/7/1998	0	0	0	
4/7/1998	0	0	0	
9/23/1998	0	0	0	
9/23/1998	0	0	0	
3/16/1999	0	0	0	
3/16/1999	0	0	0	
9/23/1999	0	0	0	
9/23/1999	0	0	0	
3/15/2000	0	0	0	
3/15/2000	0	0	0	
9/24/2003	0	0	0	
9/24/2003	0	0	0	
3/11/2004	0	0	0	
3/11/2004	0	0	0	
10/12/2004	0	0	0	
10/12/2004	0	0	0	
4/1/2005	0	0	0	
4/1/2005	0	0	0	
10/25/2005	1.0116	0	0	
10/25/2005	1.0116	0	0	
4/29/2006	0.524729		0	0
4/29/2006	0.524729		0	0
11/18/2006	1.24127	0	0	
11/18/2006	1.24127	0	0	
5/23/2007	0.788457		0	0
5/23/2007	0.788457		0	0
11/28/2007	1.21194	0	0	
11/28/2007	1.21194	0	0	
6/5/2008	0	0	0	
6/5/2008	0	0	0	
11/20/2008	0.779325		0	0
11/20/2008	0.779325		0	0
6/11/2009	1.56862	0	0	
6/11/2009	1.56862	0	0	
6/30/2010	0.641854		0	0
6/30/2010	0.641854		0	0
11/12/2010	1.4816	0	0	
11/12/2010	1.4816	0	0	
7/5/2011	1.36098	0	0	
7/5/2011	1.36098	0	0	
11/22/2011	1.30833	0	0	

11/22/2011	1.30833	0	0

Shewhart-CUSUM Control Chart

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.401324
Baseline Std Dev = 0.621729
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	0.645497	
3/24/1997	0	0	0.645497	
9/24/1997	0	0	0.645497	
9/24/1997	0	0	0.645497	
4/7/1998	0	0	0.645497	
4/7/1998	0	0	0.645497	
9/23/1998	0	0	0.645497	
9/23/1998	0	0	0.645497	
3/16/1999	0	0	0.645497	
3/16/1999	0	0	0.645497	
9/23/1999	0	0	0.645497	
9/23/1999	0	0	0.645497	
3/15/2000	0	0	0.645497	
3/15/2000	0	0	0.645497	
9/24/2003	0	0	0.645497	
9/24/2003	0	0	0.645497	
3/11/2004	0	0	0.645497	
3/11/2004	0	0	0.645497	
10/12/2004	0	0	0.645497	
10/12/2004	0	0	0.645497	
4/1/2005	-0.653926	0	-0.40629	
4/1/2005	-0.653926	0	-0.40629	
10/25/2005	-1.078810	0	-1.08968	
10/25/2005	-1.078810	0	-1.08968	
4/29/2006	-1.386290	0	-1.58424	
4/29/2006	-1.386290	0	-1.58424	
11/18/2006	-1.272970	0	-1.40196	
11/18/2006	-1.272970	0	-1.40196	
5/23/2007	0.0953102	0	0.798796	
5/23/2007	0.0953102	0	0.798796	
11/28/2007	-0.301105	0	0.161194	
11/28/2007	-0.301105	0	0.161194	
6/5/2008	-0.579818	0	-0.287093	
6/5/2008	-0.579818	0	-0.287093	
11/20/2008	-0.430783	0	-0.0473818	
11/20/2008	-0.430783	0	-0.0473818	
6/11/2009	-0.210721	0	0.30657	
6/11/2009	-0.210721	0	0.30657	
11/16/2009	-0.223144	0	0.286589	
11/16/2009	-0.223144	0	0.286589	
6/30/2010	0.336472	0.186685	1.18669	
6/30/2010	0.336472	0.186685	1.18669	
11/12/2010	0	0	0.645497	
11/12/2010	0	0	0.645497	
7/5/2011	-0.84397	0	-0.71196	

7/5/2011	-0.84397	0	-0.71196	
11/22/2011	-0.776529	0	-0.853458	
11/22/2011	-0.776529	0	-0.853458	

Shewhart-CUSUM Control Chart

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0
Baseline Std Dev = 0
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	0	0	0	
3/24/1997	0	0	0	
9/24/1997	0	0	0	
9/24/1997	0	0	0	
4/7/1998	0	0	0	
4/7/1998	0	0	0	
9/23/1998	0	0	0	
9/23/1998	0	0	0	
3/16/1999	0	0	0	
3/16/1999	0	0	0	
9/23/1999	0	0	0	
9/23/1999	0	0	0	
3/15/2000	0	0	0	
3/15/2000	0	0	0	
9/24/2003	0	0	0	
9/24/2003	0	0	0	
3/11/2004	0	0	0	
3/11/2004	0	0	0	
10/12/2004	0	0	0	
10/12/2004	0	0	0	
4/1/2005	-1.10866	0	0	
4/1/2005	-1.10866	0	0	
10/25/2005	-0.84397	0	0	
10/25/2005	-0.84397	0	0	
4/29/2006	-0.527633	0	0	
4/29/2006	-0.527633	0	0	
11/18/2006	-0.916291	0	0	
11/18/2006	-0.916291	0	0	
5/23/2007	0	0	0	
5/23/2007	0	0	0	
11/28/2007	-0.527633	0	0	
11/28/2007	-0.527633	0	0	
6/5/2008	-0.510826	0	0	
6/5/2008	-0.510826	0	0	
11/20/2008	-0.478036	0	0	
11/20/2008	-0.478036	0	0	
6/11/2009	-0.798508	0	0	
6/11/2009	-0.798508	0	0	
11/16/2009	-0.462035	0	0	
11/16/2009	-0.462035	0	0	
6/30/2010	-2.07944	0	0	
6/30/2010	-2.07944	0	0	
11/12/2010	-0.371064	0	0	
11/12/2010	-0.371064	0	0	
7/5/2011	-0.18633	0	0	

7/5/2011	-0.18633	0	0	
11/22/2011	-0.31471	1	0	0
11/22/2011	-0.31471	1	0	0

Sen's Slope Analysis
Parameter: Chlorobenzene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0	(8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
ND<0	(9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1)	0
ND<0	(10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1)	0
ND<0	(11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0	(12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0	(3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0	(9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0	(4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0	(9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0	(3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0	(9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0	(3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0	(9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0	(3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0	(10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
ND<0	(4/1/2005)	ND<0 (7/20/1995)	(0 - 0)/(17 - 1)	0
1.0116	(10/25/2005)	ND<0 (7/20/1995)	(1.0116 - 0)/(18 - 1)	
	0.0595059			
0.524729 J	(4/29/2006)	ND<0 (7/20/1995)	(0.524729 - 0)/(19 - 1)	
	0.0291516			
1.24127	(11/18/2006)	ND<0 (7/20/1995)	(1.24127 - 0)/(20 - 1)	
	0.0653299			
0.788457	(5/23/2007)	ND<0 (7/20/1995)	(0.788457 - 0)/(21 - 1)	
	0.0394229			
1.21194	(11/28/2007)	ND<0 (7/20/1995)	(1.21194 - 0)/(22 - 1)	
	0.0577115			
ND<0	(6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1)	0
0.779325	(11/20/2008)	ND<0 (7/20/1995)	(0.779325 - 0)/(24 - 1)	
	0.0338837			
1.56862	(6/11/2009)	ND<0 (7/20/1995)	(1.56862 - 0)/(25 - 1)	
	0.065359			
0.641854	(6/30/2010)	ND<0 (7/20/1995)	(0.641854 - 0)/(26 - 1)	
	0.0256742			
1.4816	(11/12/2010)	ND<0 (7/20/1995)	(1.4816 - 0)/(27 - 1)	
	0.0569848			
1.36098	(7/5/2011)	ND<0 (7/20/1995)	(1.36098 - 0)/(28 - 1)	
	0.0504065			
1.30833	(11/22/2011)	ND<0 (7/20/1995)	(1.30833 - 0)/(29 - 1)	
	0.0467262			
1.30833	(11/22/2011)	ND<0 (7/20/1995)	(1.30833 - 0)/(29 - 1)	
	0.0467262			
ND<0	(9/28/1995)	ND<0 (8/24/1995)	(0 - 0)/(3 - 2)	0
ND<0	(10/26/1995)	ND<0 (8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0	(11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0
ND<0	(12/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(6 - 2)	0
ND<0	(3/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(7 - 2)	0
ND<0	(9/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(8 - 2)	0
ND<0	(4/7/1998)	ND<0 (8/24/1995)	(0 - 0)/(9 - 2)	0
ND<0	(9/23/1998)	ND<0 (8/24/1995)	(0 - 0)/(10 - 2)	0
ND<0	(3/16/1999)	ND<0 (8/24/1995)	(0 - 0)/(11 - 2)	0

ND<0 (9/23/1999)	ND<0 (8/24/1995)	(0 - 0)/(12 - 2)	0
ND<0 (3/15/2000)	ND<0 (8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0 (9/24/2003)	ND<0 (8/24/1995)	(0 - 0)/(14 - 2)	0
ND<0 (3/11/2004)	ND<0 (8/24/1995)	(0 - 0)/(15 - 2)	0
ND<0 (10/12/2004)	ND<0 (8/24/1995)	(0 - 0)/(16 - 2)	0
ND<0 (4/1/2005)	ND<0 (8/24/1995)	(0 - 0)/(17 - 2)	0
1.0116 (10/25/2005)	ND<0 (8/24/1995)	(1.0116 - 0)/(18 - 2)	
0.0632251			
0.524729 J (4/29/2006)	ND<0 (8/24/1995)	(0.524729 - 0)/(19 - 2)	
0.0308664			
1.24127 (11/18/2006)	ND<0 (8/24/1995)	(1.24127 - 0)/(20 - 2)	
0.0689594			
0.788457 (5/23/2007)	ND<0 (8/24/1995)	(0.788457 - 0)/(21 - 2)	
0.0414978			
1.21194 (11/28/2007)	ND<0 (8/24/1995)	(1.21194 - 0)/(22 - 2)	
0.060597			
ND<0 (6/5/2008)	ND<0 (8/24/1995)	(0 - 0)/(23 - 2)	0
0.779325 (11/20/2008)	ND<0 (8/24/1995)	(0.779325 - 0)/(24 - 2)	
0.0354239			
1.56862 (6/11/2009)	ND<0 (8/24/1995)	(1.56862 - 0)/(25 - 2)	
0.0682007			
0.641854 (6/30/2010)	ND<0 (8/24/1995)	(0.641854 - 0)/(26 - 2)	
0.0267439			
1.4816 (11/12/2010)	ND<0 (8/24/1995)	(1.4816 - 0)/(27 - 2)	
0.0592642			
1.36098 (7/5/2011)	ND<0 (8/24/1995)	(1.36098 - 0)/(28 - 2)	
0.0523453			
1.30833 (11/22/2011)	ND<0 (8/24/1995)	(1.30833 - 0)/(29 - 2)	
0.0484568			
1.30833 (11/22/2011)	ND<0 (8/24/1995)	(1.30833 - 0)/(29 - 2)	
0.0484568			
ND<0 (10/26/1995)	ND<0 (9/28/1995)	(0 - 0)/(4 - 3)	0
ND<0 (11/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(5 - 3)	0
ND<0 (12/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(6 - 3)	0
ND<0 (3/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(7 - 3)	0
ND<0 (9/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(8 - 3)	0
ND<0 (4/7/1998)	ND<0 (9/28/1995)	(0 - 0)/(9 - 3)	0
ND<0 (9/23/1998)	ND<0 (9/28/1995)	(0 - 0)/(10 - 3)	0
ND<0 (3/16/1999)	ND<0 (9/28/1995)	(0 - 0)/(11 - 3)	0
ND<0 (9/23/1999)	ND<0 (9/28/1995)	(0 - 0)/(12 - 3)	0
ND<0 (3/15/2000)	ND<0 (9/28/1995)	(0 - 0)/(13 - 3)	0
ND<0 (9/24/2003)	ND<0 (9/28/1995)	(0 - 0)/(14 - 3)	0
ND<0 (3/11/2004)	ND<0 (9/28/1995)	(0 - 0)/(15 - 3)	0
ND<0 (10/12/2004)	ND<0 (9/28/1995)	(0 - 0)/(16 - 3)	0
ND<0 (4/1/2005)	ND<0 (9/28/1995)	(0 - 0)/(17 - 3)	0
1.0116 (10/25/2005)	ND<0 (9/28/1995)	(1.0116 - 0)/(18 - 3)	
0.0674401			
0.524729 J (4/29/2006)	ND<0 (9/28/1995)	(0.524729 - 0)/(19 - 3)	
0.0327955			
1.24127 (11/18/2006)	ND<0 (9/28/1995)	(1.24127 - 0)/(20 - 3)	
0.0730158			
0.788457 (5/23/2007)	ND<0 (9/28/1995)	(0.788457 - 0)/(21 - 3)	
0.0438032			
1.21194 (11/28/2007)	ND<0 (9/28/1995)	(1.21194 - 0)/(22 - 3)	
0.0637864			
ND<0 (6/5/2008)	ND<0 (9/28/1995)	(0 - 0)/(23 - 3)	0
0.779325 (11/20/2008)	ND<0 (9/28/1995)	(0.779325 - 0)/(24 - 3)	
0.0371107			
1.56862 (6/11/2009)	ND<0 (9/28/1995)	(1.56862 - 0)/(25 - 3)	
0.0713007			

0.641854 (6/30/2010) 0.0279067	ND<0 (9/28/1995)	(0.641854 - 0)/(26 - 3)		
1.4816 (11/12/2010) 0.0617335	ND<0 (9/28/1995)	(1.4816 - 0)/(27 - 3)		
1.36098 (7/5/2011) 0.0544391	ND<0 (9/28/1995)	(1.36098 - 0)/(28 - 3)		
1.30833 (11/22/2011) 0.0503205	ND<0 (9/28/1995)	(1.30833 - 0)/(29 - 3)		
1.30833 (11/22/2011) 0.0503205	ND<0 (9/28/1995)	(1.30833 - 0)/(29 - 3)		
ND<0 (11/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(5 - 4)	0	
ND<0 (12/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(6 - 4)	0	
ND<0 (3/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(7 - 4)	0	
ND<0 (9/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(8 - 4)	0	
ND<0 (4/7/1998)	ND<0 (10/26/1995)	(0 - 0)/(9 - 4)	0	
ND<0 (9/23/1998)	ND<0 (10/26/1995)	(0 - 0)/(10 - 4)	0	
ND<0 (3/16/1999)	ND<0 (10/26/1995)	(0 - 0)/(11 - 4)	0	
ND<0 (9/23/1999)	ND<0 (10/26/1995)	(0 - 0)/(12 - 4)	0	
ND<0 (3/15/2000)	ND<0 (10/26/1995)	(0 - 0)/(13 - 4)	0	
ND<0 (9/24/2003)	ND<0 (10/26/1995)	(0 - 0)/(14 - 4)	0	
ND<0 (3/11/2004)	ND<0 (10/26/1995)	(0 - 0)/(15 - 4)	0	
ND<0 (10/12/2004)	ND<0 (10/26/1995)	(0 - 0)/(16 - 4)	0	
ND<0 (4/1/2005)	ND<0 (10/26/1995)	(0 - 0)/(17 - 4)	0	
1.0116 (10/25/2005) 0.0722572	ND<0 (10/26/1995)	(1.0116 - 0)/(18 - 4)		
0.524729 J (4/29/2006) 0.0349819	ND<0 (10/26/1995)	(0.524729 - 0)/(19 - 4)		
1.24127 (11/18/2006) 0.0775793	ND<0 (10/26/1995)	(1.24127 - 0)/(20 - 4)		
0.788457 (5/23/2007) 0.0463798	ND<0 (10/26/1995)	(0.788457 - 0)/(21 - 4)		
1.21194 (11/28/2007) 0.0673301	ND<0 (10/26/1995)	(1.21194 - 0)/(22 - 4)		
ND<0 (6/5/2008)	ND<0 (10/26/1995)	(0 - 0)/(23 - 4)	0	
0.779325 (11/20/2008) 0.0389662	ND<0 (10/26/1995)	(0.779325 - 0)/(24 - 4)		
1.56862 (6/11/2009) 0.074696	ND<0 (10/26/1995)	(1.56862 - 0)/(25 - 4)		
0.641854 (6/30/2010) 0.0291752	ND<0 (10/26/1995)	(0.641854 - 0)/(26 - 4)		
1.4816 (11/12/2010) 0.0644176	ND<0 (10/26/1995)	(1.4816 - 0)/(27 - 4)		
1.36098 (7/5/2011) 0.0567074	ND<0 (10/26/1995)	(1.36098 - 0)/(28 - 4)		
1.30833 (11/22/2011) 0.0523333	ND<0 (10/26/1995)	(1.30833 - 0)/(29 - 4)		
1.30833 (11/22/2011) 0.0523333	ND<0 (10/26/1995)	(1.30833 - 0)/(29 - 4)		
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0	
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0	
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
ND<0 (4/1/2005)	ND<0 (11/19/1996)	(0 - 0)/(17 - 5)	0	

1.0116 (10/25/2005)	ND<0 (11/19/1996)	(1.0116 - 0)/(18 - 5)		
0.0778155				
0.524729 J (4/29/2006)	ND<0 (11/19/1996)	(0.524729 - 0)/(19 - 5)		
0.0374806				
1.24127 (11/18/2006)	ND<0 (11/19/1996)	(1.24127 - 0)/(20 - 5)		
0.0827512				
0.788457 (5/23/2007)	ND<0 (11/19/1996)	(0.788457 - 0)/(21 - 5)		
0.0492786				
1.21194 (11/28/2007)	ND<0 (11/19/1996)	(1.21194 - 0)/(22 - 5)		
0.0712906				
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0	
0.779325 (11/20/2008)	ND<0 (11/19/1996)	(0.779325 - 0)/(24 - 5)		
0.0410171				
1.56862 (6/11/2009)	ND<0 (11/19/1996)	(1.56862 - 0)/(25 - 5)		
0.0784308				
0.641854 (6/30/2010)	ND<0 (11/19/1996)	(0.641854 - 0)/(26 - 5)		
0.0305645				
1.4816 (11/12/2010)	ND<0 (11/19/1996)	(1.4816 - 0)/(27 - 5)		
0.0673457				
1.36098 (7/5/2011)	ND<0 (11/19/1996)	(1.36098 - 0)/(28 - 5)		
0.0591729				
1.30833 (11/22/2011)	ND<0 (11/19/1996)	(1.30833 - 0)/(29 - 5)		
0.0545139				
1.30833 (11/22/2011)	ND<0 (11/19/1996)	(1.30833 - 0)/(29 - 5)		
0.0545139				
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0	
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0	
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
ND<0 (4/1/2005)	ND<0 (12/19/1996)	(0 - 0)/(17 - 6)	0	
1.0116 (10/25/2005)	ND<0 (12/19/1996)	(1.0116 - 0)/(18 - 6)		
0.0843001				
0.524729 J (4/29/2006)	ND<0 (12/19/1996)	(0.524729 - 0)/(19 - 6)		
0.0403637				
1.24127 (11/18/2006)	ND<0 (12/19/1996)	(1.24127 - 0)/(20 - 6)		
0.088662				
0.788457 (5/23/2007)	ND<0 (12/19/1996)	(0.788457 - 0)/(21 - 6)		
0.0525638				
1.21194 (11/28/2007)	ND<0 (12/19/1996)	(1.21194 - 0)/(22 - 6)		
0.0757463				
ND<0 (6/5/2008)	ND<0 (12/19/1996)	(0 - 0)/(23 - 6)	0	
0.779325 (11/20/2008)	ND<0 (12/19/1996)	(0.779325 - 0)/(24 - 6)		
0.0432958				
1.56862 (6/11/2009)	ND<0 (12/19/1996)	(1.56862 - 0)/(25 - 6)		
0.0825587				
0.641854 (6/30/2010)	ND<0 (12/19/1996)	(0.641854 - 0)/(26 - 6)		
0.0320927				
1.4816 (11/12/2010)	ND<0 (12/19/1996)	(1.4816 - 0)/(27 - 6)		
0.0705526				
1.36098 (7/5/2011)	ND<0 (12/19/1996)	(1.36098 - 0)/(28 - 6)		
0.0618626				
1.30833 (11/22/2011)	ND<0 (12/19/1996)	(1.30833 - 0)/(29 - 6)		
0.056884				
1.30833 (11/22/2011)	ND<0 (12/19/1996)	(1.30833 - 0)/(29 - 6)		
0.056884				

ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0	
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0	
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0	
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0	
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0	
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0	
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0	
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0	
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0	
ND<0 (4/1/2005)	ND<0 (3/24/1997)	(0 - 0)/(17 - 7)	0	
1.0116 (10/25/2005)	ND<0 (3/24/1997)	(1.0116 - 0)/(18 - 7)		
0.0919637				
0.524729 J (4/29/2006)	ND<0 (3/24/1997)	(0.524729 - 0)/(19 - 7)		
0.0437274				
1.24127 (11/18/2006)	ND<0 (3/24/1997)	(1.24127 - 0)/(20 - 7)		
0.0954822				
0.788457 (5/23/2007)	ND<0 (3/24/1997)	(0.788457 - 0)/(21 - 7)		
0.0563184				
1.21194 (11/28/2007)	ND<0 (3/24/1997)	(1.21194 - 0)/(22 - 7)		
0.0807961				
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0	
0.779325 (11/20/2008)	ND<0 (3/24/1997)	(0.779325 - 0)/(24 - 7)		
0.0458426				
1.56862 (6/11/2009)	ND<0 (3/24/1997)	(1.56862 - 0)/(25 - 7)		
0.0871453				
0.641854 (6/30/2010)	ND<0 (3/24/1997)	(0.641854 - 0)/(26 - 7)		
0.0337818				
1.4816 (11/12/2010)	ND<0 (3/24/1997)	(1.4816 - 0)/(27 - 7)		
0.0740802				
1.36098 (7/5/2011)	ND<0 (3/24/1997)	(1.36098 - 0)/(28 - 7)		
0.0648084				
1.30833 (11/22/2011)	ND<0 (3/24/1997)	(1.30833 - 0)/(29 - 7)		
0.0594697				
1.30833 (11/22/2011)	ND<0 (3/24/1997)	(1.30833 - 0)/(29 - 7)		
0.0594697				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0	
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0	
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
ND<0 (4/1/2005)	ND<0 (9/24/1997)	(0 - 0)/(17 - 8)	0	
1.0116 (10/25/2005)	ND<0 (9/24/1997)	(1.0116 - 0)/(18 - 8)		0.10116
0.524729 J (4/29/2006)	ND<0 (9/24/1997)	(0.524729 - 0)/(19 - 8)		
0.0477026				
1.24127 (11/18/2006)	ND<0 (9/24/1997)	(1.24127 - 0)/(20 - 8)		
0.103439				
0.788457 (5/23/2007)	ND<0 (9/24/1997)	(0.788457 - 0)/(21 - 8)		
0.0606506				
1.21194 (11/28/2007)	ND<0 (9/24/1997)	(1.21194 - 0)/(22 - 8)		
0.0865672				
ND<0 (6/5/2008)	ND<0 (9/24/1997)	(0 - 0)/(23 - 8)	0	
0.779325 (11/20/2008)	ND<0 (9/24/1997)	(0.779325 - 0)/(24 - 8)		
0.0487078				
1.56862 (6/11/2009)	ND<0 (9/24/1997)	(1.56862 - 0)/(25 - 8)		
0.0922715				
0.641854 (6/30/2010)	ND<0 (9/24/1997)	(0.641854 - 0)/(26 - 8)		
0.0356585				

1.4816 (11/12/2010)	ND<0 (9/24/1997)	(1.4816 - 0)/(27 - 8)			
0.0779792					
1.36098 (7/5/2011)	ND<0 (9/24/1997)	(1.36098 - 0)/(28 - 8)			
0.0680488					
1.30833 (11/22/2011)	ND<0 (9/24/1997)	(1.30833 - 0)/(29 - 8)			
0.0623016					
1.30833 (11/22/2011)	ND<0 (9/24/1997)	(1.30833 - 0)/(29 - 8)			
0.0623016					
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0		
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0		
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0		
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0		
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0		
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0		
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0		
ND<0 (4/1/2005)	ND<0 (4/7/1998)	(0 - 0)/(17 - 9)	0		
1.0116 (10/25/2005)	ND<0 (4/7/1998)	(1.0116 - 0)/(18 - 9)		0.1124	
0.524729 J (4/29/2006)	ND<0 (4/7/1998)	(0.524729 - 0)/(19 - 9)			
0.0524729					
1.24127 (11/18/2006)	ND<0 (4/7/1998)	(1.24127 - 0)/(20 - 9)			
0.112843					
0.788457 (5/23/2007)	ND<0 (4/7/1998)	(0.788457 - 0)/(21 - 9)			
0.0657048					
1.21194 (11/28/2007)	ND<0 (4/7/1998)	(1.21194 - 0)/(22 - 9)			
0.0932262					
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0		
0.779325 (11/20/2008)	ND<0 (4/7/1998)	(0.779325 - 0)/(24 - 9)			
0.051955					
1.56862 (6/11/2009)	ND<0 (4/7/1998)	(1.56862 - 0)/(25 - 9)			
0.0980385					
0.641854 (6/30/2010)	ND<0 (4/7/1998)	(0.641854 - 0)/(26 - 9)			
0.0377561					
1.4816 (11/12/2010)	ND<0 (4/7/1998)	(1.4816 - 0)/(27 - 9)			
0.0823114					
1.36098 (7/5/2011)	ND<0 (4/7/1998)	(1.36098 - 0)/(28 - 9)			
0.0716303					
1.30833 (11/22/2011)	ND<0 (4/7/1998)	(1.30833 - 0)/(29 - 9)			
0.0654166					
1.30833 (11/22/2011)	ND<0 (4/7/1998)	(1.30833 - 0)/(29 - 9)			
0.0654166					
ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0		
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0		
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0		
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0		
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0		
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0		
ND<0 (4/1/2005)	ND<0 (9/23/1998)	(0 - 0)/(17 - 10)	0		
1.0116 (10/25/2005)	ND<0 (9/23/1998)	(1.0116 - 0)/(18 - 10)		0.12645	
0.524729 J (4/29/2006)	ND<0 (9/23/1998)	(0.524729 - 0)/(19 - 10)			
0.0583032					
1.24127 (11/18/2006)	ND<0 (9/23/1998)	(1.24127 - 0)/(20 - 10)			
0.124127					
0.788457 (5/23/2007)	ND<0 (9/23/1998)	(0.788457 - 0)/(21 - 10)			
0.0716779					
1.21194 (11/28/2007)	ND<0 (9/23/1998)	(1.21194 - 0)/(22 - 10)			
0.100995					
ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0		
0.779325 (11/20/2008)	ND<0 (9/23/1998)	(0.779325 - 0)/(24 - 10)			
0.0556661					

1.56862 (6/11/2009)	ND<0 (9/23/1998)	(1.56862 - 0)/(25 - 10)			
0.104574					
0.641854 (6/30/2010)	ND<0 (9/23/1998)	(0.641854 - 0)/(26 - 10)			
0.0401159					
1.4816 (11/12/2010)	ND<0 (9/23/1998)	(1.4816 - 0)/(27 - 10)			
0.0871532					
1.36098 (7/5/2011)	ND<0 (9/23/1998)	(1.36098 - 0)/(28 - 10)			
0.0756098					
1.30833 (11/22/2011)	ND<0 (9/23/1998)	(1.30833 - 0)/(29 - 10)			
0.0688596					
1.30833 (11/22/2011)	ND<0 (9/23/1998)	(1.30833 - 0)/(29 - 10)			
0.0688596					
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0		
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0		
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0		
ND<0 (3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(15 - 11)	0		
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0		
ND<0 (4/1/2005)	ND<0 (3/16/1999)	(0 - 0)/(17 - 11)	0		
1.0116 (10/25/2005)	ND<0 (3/16/1999)	(1.0116 - 0)/(18 - 11)			
0.144514					
0.524729 J (4/29/2006)	ND<0 (3/16/1999)	(0.524729 - 0)/(19 - 11)			
0.0655911					
1.24127 (11/18/2006)	ND<0 (3/16/1999)	(1.24127 - 0)/(20 - 11)			
0.137919					
0.788457 (5/23/2007)	ND<0 (3/16/1999)	(0.788457 - 0)/(21 - 11)			
0.0788457					
1.21194 (11/28/2007)	ND<0 (3/16/1999)	(1.21194 - 0)/(22 - 11)			
0.110176					
ND<0 (6/5/2008)	ND<0 (3/16/1999)	(0 - 0)/(23 - 11)	0		
0.779325 (11/20/2008)	ND<0 (3/16/1999)	(0.779325 - 0)/(24 - 11)			
0.0599481					
1.56862 (6/11/2009)	ND<0 (3/16/1999)	(1.56862 - 0)/(25 - 11)			
0.112044					
0.641854 (6/30/2010)	ND<0 (3/16/1999)	(0.641854 - 0)/(26 - 11)			
0.0427903					
1.4816 (11/12/2010)	ND<0 (3/16/1999)	(1.4816 - 0)/(27 - 11)			
0.0926003					
1.36098 (7/5/2011)	ND<0 (3/16/1999)	(1.36098 - 0)/(28 - 11)			
0.0800574					
1.30833 (11/22/2011)	ND<0 (3/16/1999)	(1.30833 - 0)/(29 - 11)			
0.0726852					
1.30833 (11/22/2011)	ND<0 (3/16/1999)	(1.30833 - 0)/(29 - 11)			
0.0726852					
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0		
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0		
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0		
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0		
ND<0 (4/1/2005)	ND<0 (9/23/1999)	(0 - 0)/(17 - 12)	0		
1.0116 (10/25/2005)	ND<0 (9/23/1999)	(1.0116 - 0)/(18 - 12)		0.1686	
0.524729 J (4/29/2006)	ND<0 (9/23/1999)	(0.524729 - 0)/(19 - 12)			
0.0749612					
1.24127 (11/18/2006)	ND<0 (9/23/1999)	(1.24127 - 0)/(20 - 12)			
0.155159					
0.788457 (5/23/2007)	ND<0 (9/23/1999)	(0.788457 - 0)/(21 - 12)			
0.0876064					
1.21194 (11/28/2007)	ND<0 (9/23/1999)	(1.21194 - 0)/(22 - 12)			
0.121194					
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0		
0.779325 (11/20/2008)	ND<0 (9/23/1999)	(0.779325 - 0)/(24 - 12)			
0.0649437					

1.56862 (6/11/2009)	ND<0 (9/23/1999)	(1.56862 - 0)/(25 - 12)		
0.120663				
0.641854 (6/30/2010)	ND<0 (9/23/1999)	(0.641854 - 0)/(26 - 12)		
0.0458467				
1.4816 (11/12/2010)	ND<0 (9/23/1999)	(1.4816 - 0)/(27 - 12)		
0.0987736				
1.36098 (7/5/2011)	ND<0 (9/23/1999)	(1.36098 - 0)/(28 - 12)		
0.085061				
1.30833 (11/22/2011)	ND<0 (9/23/1999)	(1.30833 - 0)/(29 - 12)		
0.0769608				
1.30833 (11/22/2011)	ND<0 (9/23/1999)	(1.30833 - 0)/(29 - 12)		
0.0769608				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
ND<0 (4/1/2005)	ND<0 (3/15/2000)	(0 - 0)/(17 - 13)	0	
1.0116 (10/25/2005)	ND<0 (3/15/2000)	(1.0116 - 0)/(18 - 13)		0.20232
0.524729 J (4/29/2006)	ND<0 (3/15/2000)	(0.524729 - 0)/(19 - 13)		
0.0874548				
1.24127 (11/18/2006)	ND<0 (3/15/2000)	(1.24127 - 0)/(20 - 13)		
0.177324				
0.788457 (5/23/2007)	ND<0 (3/15/2000)	(0.788457 - 0)/(21 - 13)		
0.0985572				
1.21194 (11/28/2007)	ND<0 (3/15/2000)	(1.21194 - 0)/(22 - 13)		0.13466
ND<0 (6/5/2008)	ND<0 (3/15/2000)	(0 - 0)/(23 - 13)	0	
0.779325 (11/20/2008)	ND<0 (3/15/2000)	(0.779325 - 0)/(24 - 13)		
0.0708477				
1.56862 (6/11/2009)	ND<0 (3/15/2000)	(1.56862 - 0)/(25 - 13)		
0.130718				
0.641854 (6/30/2010)	ND<0 (3/15/2000)	(0.641854 - 0)/(26 - 13)		
0.0493734				
1.4816 (11/12/2010)	ND<0 (3/15/2000)	(1.4816 - 0)/(27 - 13)		
0.105829				
1.36098 (7/5/2011)	ND<0 (3/15/2000)	(1.36098 - 0)/(28 - 13)		
0.0907318				
1.30833 (11/22/2011)	ND<0 (3/15/2000)	(1.30833 - 0)/(29 - 13)		
0.0817708				
1.30833 (11/22/2011)	ND<0 (3/15/2000)	(1.30833 - 0)/(29 - 13)		
0.0817708				
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
ND<0 (4/1/2005)	ND<0 (9/24/2003)	(0 - 0)/(17 - 14)	0	
1.0116 (10/25/2005)	ND<0 (9/24/2003)	(1.0116 - 0)/(18 - 14)		0.2529
0.524729 J (4/29/2006)	ND<0 (9/24/2003)	(0.524729 - 0)/(19 - 14)		
0.104946				
1.24127 (11/18/2006)	ND<0 (9/24/2003)	(1.24127 - 0)/(20 - 14)		
0.206878				
0.788457 (5/23/2007)	ND<0 (9/24/2003)	(0.788457 - 0)/(21 - 14)		
0.112637				
1.21194 (11/28/2007)	ND<0 (9/24/2003)	(1.21194 - 0)/(22 - 14)		
0.151493				
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0	
0.779325 (11/20/2008)	ND<0 (9/24/2003)	(0.779325 - 0)/(24 - 14)		
0.0779325				
1.56862 (6/11/2009)	ND<0 (9/24/2003)	(1.56862 - 0)/(25 - 14)		
0.142601				
0.641854 (6/30/2010)	ND<0 (9/24/2003)	(0.641854 - 0)/(26 - 14)		
0.0534878				
1.4816 (11/12/2010)	ND<0 (9/24/2003)	(1.4816 - 0)/(27 - 14)		0.11397

1.36098 (7/5/2011)	ND<0 (9/24/2003)	(1.36098 - 0)/(28 - 14)			
0.0972126					
1.30833 (11/22/2011)	ND<0 (9/24/2003)	(1.30833 - 0)/(29 - 14)			
0.0872222					
1.30833 (11/22/2011)	ND<0 (9/24/2003)	(1.30833 - 0)/(29 - 14)			
0.0872222					
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0		
ND<0 (4/1/2005)	ND<0 (3/11/2004)	(0 - 0)/(17 - 15)	0		
1.0116 (10/25/2005)	ND<0 (3/11/2004)	(1.0116 - 0)/(18 - 15)		0.3372	
0.524729 J (4/29/2006)	ND<0 (3/11/2004)	(0.524729 - 0)/(19 - 15)			
0.131182					
1.24127 (11/18/2006)	ND<0 (3/11/2004)	(1.24127 - 0)/(20 - 15)			
0.248254					
0.788457 (5/23/2007)	ND<0 (3/11/2004)	(0.788457 - 0)/(21 - 15)		0.13141	
1.21194 (11/28/2007)	ND<0 (3/11/2004)	(1.21194 - 0)/(22 - 15)			
0.173134					
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0		
0.779325 (11/20/2008)	ND<0 (3/11/2004)	(0.779325 - 0)/(24 - 15)			
0.0865917					
1.56862 (6/11/2009)	ND<0 (3/11/2004)	(1.56862 - 0)/(25 - 15)			
0.156862					
0.641854 (6/30/2010)	ND<0 (3/11/2004)	(0.641854 - 0)/(26 - 15)			
0.0583504					
1.4816 (11/12/2010)	ND<0 (3/11/2004)	(1.4816 - 0)/(27 - 15)			
0.123467					
1.36098 (7/5/2011)	ND<0 (3/11/2004)	(1.36098 - 0)/(28 - 15)			
0.104691					
1.30833 (11/22/2011)	ND<0 (3/11/2004)	(1.30833 - 0)/(29 - 15)			
0.0934523					
1.30833 (11/22/2011)	ND<0 (3/11/2004)	(1.30833 - 0)/(29 - 15)			
0.0934523					
ND<0 (4/1/2005)	ND<0 (10/12/2004)	(0 - 0)/(17 - 16)	0		
1.0116 (10/25/2005)	ND<0 (10/12/2004)	(1.0116 - 0)/(18 - 16)		0.5058	
0.524729 J (4/29/2006)	ND<0 (10/12/2004)	(0.524729 - 0)/(19 - 16)		0.17491	
1.24127 (11/18/2006)	ND<0 (10/12/2004)	(1.24127 - 0)/(20 - 16)			
0.310317					
0.788457 (5/23/2007)	ND<0 (10/12/2004)	(0.788457 - 0)/(21 - 16)			
0.157691					
1.21194 (11/28/2007)	ND<0 (10/12/2004)	(1.21194 - 0)/(22 - 16)		0.20199	
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0		
0.779325 (11/20/2008)	ND<0 (10/12/2004)	(0.779325 - 0)/(24 - 16)			
0.0974156					
1.56862 (6/11/2009)	ND<0 (10/12/2004)	(1.56862 - 0)/(25 - 16)			
0.174291					
0.641854 (6/30/2010)	ND<0 (10/12/2004)	(0.641854 - 0)/(26 - 16)			
0.0641854					
1.4816 (11/12/2010)	ND<0 (10/12/2004)	(1.4816 - 0)/(27 - 16)			
0.134691					
1.36098 (7/5/2011)	ND<0 (10/12/2004)	(1.36098 - 0)/(28 - 16)			
0.113415					
1.30833 (11/22/2011)	ND<0 (10/12/2004)	(1.30833 - 0)/(29 - 16)			
0.100641					
1.30833 (11/22/2011)	ND<0 (10/12/2004)	(1.30833 - 0)/(29 - 16)			
0.100641					
1.0116 (10/25/2005)	ND<0 (4/1/2005)	(1.0116 - 0)/(18 - 17)		1.0116	
0.524729 J (4/29/2006)	ND<0 (4/1/2005)	(0.524729 - 0)/(19 - 17)			
0.262364					
1.24127 (11/18/2006)	ND<0 (4/1/2005)	(1.24127 - 0)/(20 - 17)			
0.413756					

0.788457 (5/23/2007)	ND<0 (4/1/2005)	(0.788457 - 0)/(21 - 17)		
0.197114				
1.21194 (11/28/2007)	ND<0 (4/1/2005)	(1.21194 - 0)/(22 - 17)		
0.242388				
ND<0 (6/5/2008)	ND<0 (4/1/2005)	(0 - 0)/(23 - 17)	0	
0.779325 (11/20/2008)	ND<0 (4/1/2005)	(0.779325 - 0)/(24 - 17)		
0.111332				
1.56862 (6/11/2009)	ND<0 (4/1/2005)	(1.56862 - 0)/(25 - 17)		
0.196077				
0.641854 (6/30/2010)	ND<0 (4/1/2005)	(0.641854 - 0)/(26 - 17)		
0.0713171				
1.4816 (11/12/2010)	ND<0 (4/1/2005)	(1.4816 - 0)/(27 - 17)		0.14816
1.36098 (7/5/2011)	ND<0 (4/1/2005)	(1.36098 - 0)/(28 - 17)		
0.123725				
1.30833 (11/22/2011)	ND<0 (4/1/2005)	(1.30833 - 0)/(29 - 17)		
0.109028				
1.30833 (11/22/2011)	ND<0 (4/1/2005)	(1.30833 - 0)/(29 - 17)		
0.109028				
0.524729 J (4/29/2006)	1.0116 (10/25/2005)	(0.524729 - 1.0116)/(19 - 18)		
-0.486872				
1.24127 (11/18/2006)	1.0116 (10/25/2005)	(1.24127 - 1.0116)/(20 - 18)		
0.114834				
0.788457 (5/23/2007)	1.0116 (10/25/2005)	(0.788457 - 1.0116)/(21 - 18)		
-0.0743812				
1.21194 (11/28/2007)	1.0116 (10/25/2005)	(1.21194 - 1.0116)/(22 - 18)		
0.050085				
ND<0 (6/5/2008)	1.0116 (10/25/2005)	(0 - 1.0116)/(23 - 18)		-0.20232
0.779325 (11/20/2008)	1.0116 (10/25/2005)	(0.779325 - 1.0116)/(24 - 18)		
-0.0387127				
1.56862 (6/11/2009)	1.0116 (10/25/2005)	(1.56862 - 1.0116)/(25 - 18)		
0.0795736				
0.641854 (6/30/2010)	1.0116 (10/25/2005)	(0.641854 - 1.0116)/(26 - 18)		
-0.0462184				
1.4816 (11/12/2010)	1.0116 (10/25/2005)	(1.4816 - 1.0116)/(27 - 18)		
0.0522226				
1.36098 (7/5/2011)	1.0116 (10/25/2005)	(1.36098 - 1.0116)/(28 - 18)		
0.0349376				
1.30833 (11/22/2011)	1.0116 (10/25/2005)	(1.30833 - 1.0116)/(29 - 18)		
0.0269756				
1.30833 (11/22/2011)	1.0116 (10/25/2005)	(1.30833 - 1.0116)/(29 - 18)		
0.0269756				
1.24127 (11/18/2006)	0.524729 J (4/29/2006)	(1.24127 - 0.524729)/(20 - 19)		
0.71654				
0.788457 (5/23/2007)	0.524729 J (4/29/2006)	(0.788457 - 0.524729)/(21 - 19)		
0.131864				
1.21194 (11/28/2007)	0.524729 J (4/29/2006)	(1.21194 - 0.524729)/(22 - 19)		
0.229071				
ND<0 (6/5/2008)	0.524729 J (4/29/2006)	(0 - 0.524729)/(23 - 19)		
-0.131182				
0.779325 (11/20/2008)	0.524729 J (4/29/2006)	(0.779325 - 0.524729)/(24 - 19)		
0.0509193				
1.56862 (6/11/2009)	0.524729 J (4/29/2006)	(1.56862 - 0.524729)/(25 - 19)		
0.173981				
0.641854 (6/30/2010)	0.524729 J (4/29/2006)	(0.641854 - 0.524729)/(26 - 19)		
0.0167322				
1.4816 (11/12/2010)	0.524729 J (4/29/2006)	(1.4816 - 0.524729)/(27 - 19)		
0.11961				
1.36098 (7/5/2011)	0.524729 J (4/29/2006)	(1.36098 - 0.524729)/(28 - 19)		
0.0929164				

1.30833 (11/22/2011)	0.524729 J (4/29/2006)	(1.30833 - 0.524729)/(29 - 19)	
0.0783604			
1.30833 (11/22/2011)	0.524729 J (4/29/2006)	(1.30833 - 0.524729)/(29 - 19)	
0.0783604			
0.788457 (5/23/2007)	1.24127 (11/18/2006)	(0.788457 - 1.24127)/(21 - 20)	
-0.452811			
1.21194 (11/28/2007)	1.24127 (11/18/2006)	(1.21194 - 1.24127)/(22 - 20)	
-0.0146638			
ND<0 (6/5/2008)	1.24127 (11/18/2006)	(0 - 1.24127)/(23 - 20)	
-0.413756			
0.779325 (11/20/2008)	1.24127 (11/18/2006)	(0.779325 - 1.24127)/(24 - 20)	
-0.115486			
1.56862 (6/11/2009)	1.24127 (11/18/2006)	(1.56862 - 1.24127)/(25 - 20)	
0.0654695			
0.641854 (6/30/2010)	1.24127 (11/18/2006)	(0.641854 - 1.24127)/(26 - 20)	
-0.0999025			
1.4816 (11/12/2010)	1.24127 (11/18/2006)	(1.4816 - 1.24127)/(27 - 20)	
0.0343337			
1.36098 (7/5/2011)	1.24127 (11/18/2006)	(1.36098 - 1.24127)/(28 - 20)	
0.0149635			
1.30833 (11/22/2011)	1.24127 (11/18/2006)	(1.30833 - 1.24127)/(29 - 20)	
0.00745158			
1.30833 (11/22/2011)	1.24127 (11/18/2006)	(1.30833 - 1.24127)/(29 - 20)	
0.00745158			
1.21194 (11/28/2007)	0.788457 (5/23/2007)	(1.21194 - 0.788457)/(22 - 21)	
0.423484			
ND<0 (6/5/2008)	0.788457 (5/23/2007)	(0 - 0.788457)/(23 - 21)	
-0.394229			
0.779325 (11/20/2008)	0.788457 (5/23/2007)	(0.779325 - 0.788457)/(24 - 21)	
-0.00304416			
1.56862 (6/11/2009)	0.788457 (5/23/2007)	(1.56862 - 0.788457)/(25 - 21)	
0.19504			
0.641854 (6/30/2010)	0.788457 (5/23/2007)	(0.641854 - 0.788457)/(26 - 21)	
-0.0293207			
1.4816 (11/12/2010)	0.788457 (5/23/2007)	(1.4816 - 0.788457)/(27 - 21)	
0.115525			
1.36098 (7/5/2011)	0.788457 (5/23/2007)	(1.36098 - 0.788457)/(28 - 21)	
0.0817885			
1.30833 (11/22/2011)	0.788457 (5/23/2007)	(1.30833 - 0.788457)/(29 - 21)	
0.0649844			
1.30833 (11/22/2011)	0.788457 (5/23/2007)	(1.30833 - 0.788457)/(29 - 21)	
0.0649844			
ND<0 (6/5/2008)	1.21194 (11/28/2007)	(0 - 1.21194)/(23 - 22)	-1.21194
0.779325 (11/20/2008)	1.21194 (11/28/2007)	(0.779325 - 1.21194)/(24 - 22)	
-0.216308			
1.56862 (6/11/2009)	1.21194 (11/28/2007)	(1.56862 - 1.21194)/(25 - 22)	
0.118892			
0.641854 (6/30/2010)	1.21194 (11/28/2007)	(0.641854 - 1.21194)/(26 - 22)	
-0.142522			
1.4816 (11/12/2010)	1.21194 (11/28/2007)	(1.4816 - 1.21194)/(27 - 22)	
0.0539327			
1.36098 (7/5/2011)	1.21194 (11/28/2007)	(1.36098 - 1.21194)/(28 - 22)	
0.0248393			
1.30833 (11/22/2011)	1.21194 (11/28/2007)	(1.30833 - 1.21194)/(29 - 22)	
0.0137703			
1.30833 (11/22/2011)	1.21194 (11/28/2007)	(1.30833 - 1.21194)/(29 - 22)	
0.0137703			

0.779325 (11/20/2008)	ND<0 (6/5/2008)	(0.779325 - 0)/(24 - 23)
0.779325		
1.56862 (6/11/2009)	ND<0 (6/5/2008)	(1.56862 - 0)/(25 - 23)
0.784308		
0.641854 (6/30/2010)	ND<0 (6/5/2008)	(0.641854 - 0)/(26 - 23)
0.213951		
1.4816 (11/12/2010)	ND<0 (6/5/2008)	(1.4816 - 0)/(27 - 23)
0.370401		
1.36098 (7/5/2011)	ND<0 (6/5/2008)	(1.36098 - 0)/(28 - 23)
0.272195		
1.30833 (11/22/2011)	ND<0 (6/5/2008)	(1.30833 - 0)/(29 - 23)
0.218055		
1.30833 (11/22/2011)	ND<0 (6/5/2008)	(1.30833 - 0)/(29 - 23)
0.218055		
1.56862 (6/11/2009)	0.779325 (11/20/2008)	(1.56862 - 0.779325)/(25 - 24)
0.789291		
0.641854 (6/30/2010)	0.779325 (11/20/2008)	(0.641854 - 0.779325)/(26 - 24)
-0.0687355		
1.4816 (11/12/2010)	0.779325 (11/20/2008)	(1.4816 - 0.779325)/(27 - 24)
0.234093		
1.36098 (7/5/2011)	0.779325 (11/20/2008)	(1.36098 - 0.779325)/(28 - 24)
0.145413		
1.30833 (11/22/2011)	0.779325 (11/20/2008)	(1.30833 - 0.779325)/(29 - 24)
0.105802		
1.30833 (11/22/2011)	0.779325 (11/20/2008)	(1.30833 - 0.779325)/(29 - 24)
0.105802		
0.641854 (6/30/2010)	1.56862 (6/11/2009)	(0.641854 - 1.56862)/(26 - 25)
-0.926762		
1.4816 (11/12/2010)	1.56862 (6/11/2009)	(1.4816 - 1.56862)/(27 - 25)
-0.0435057		
1.36098 (7/5/2011)	1.56862 (6/11/2009)	(1.36098 - 1.56862)/(28 - 25)
-0.0692131		
1.30833 (11/22/2011)	1.56862 (6/11/2009)	(1.30833 - 1.56862)/(29 - 25)
-0.0650708		
1.30833 (11/22/2011)	1.56862 (6/11/2009)	(1.30833 - 1.56862)/(29 - 25)
-0.0650708		
1.4816 (11/12/2010)	0.641854 (6/30/2010)	(1.4816 - 0.641854)/(27 - 26)
0.839751		
1.36098 (7/5/2011)	0.641854 (6/30/2010)	(1.36098 - 0.641854)/(28 - 26)
0.359561		
1.30833 (11/22/2011)	0.641854 (6/30/2010)	(1.30833 - 0.641854)/(29 - 26)
0.22216		
1.30833 (11/22/2011)	0.641854 (6/30/2010)	(1.30833 - 0.641854)/(29 - 26)
0.22216		
1.36098 (7/5/2011)	1.4816 (11/12/2010)	(1.36098 - 1.4816)/(28 - 27)
-0.120628		
1.30833 (11/22/2011)	1.4816 (11/12/2010)	(1.30833 - 1.4816)/(29 - 27)
-0.0866359		
1.30833 (11/22/2011)	1.4816 (11/12/2010)	(1.30833 - 1.4816)/(29 - 27)
-0.0866359		
1.30833 (11/22/2011)	1.36098 (7/5/2011)	(1.30833 - 1.36098)/(29 - 28)
-0.0526437		
1.30833 (11/22/2011)	1.36098 (7/5/2011)	(1.30833 - 1.36098)/(29 - 28)
-0.0526437		

1.30833	(11/22/2011)	1.30833	(11/22/2011)	(1.30833 - 1.30833)/(29 - 29)
	Same Date			

Number of Q values = 434

Ordered Q Values

n	Q
1	-1.21194
2	-0.926762
3	-0.486872
4	-0.452811
5	-0.413756
6	-0.394229
7	-0.216308
8	-0.20232
9	-0.142522
10	-0.131182
11	-0.120628
12	-0.115486
13	-0.0999025
14	-0.0866359
15	-0.0866359
16	-0.0743812
17	-0.0692131
18	-0.0687355
19	-0.0650708
20	-0.0650708
21	-0.0526437
22	-0.0526437
23	-0.0462184
24	-0.0435057
25	-0.0387127
26	-0.0293207
27	-0.0146638
28	-0.00304416
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0

54	0
55	0
56	0
57	0
58	0
59	0
60	0
61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0
75	0
76	0
77	0
78	0
79	0
80	0
81	0
82	0
83	0
84	0
85	0
86	0
87	0
88	0
89	0
90	0
91	0
92	0
93	0
94	0
95	0
96	0
97	0
98	0
99	0
100	0
101	0
102	0
103	0
104	0
105	0
106	0
107	0
108	0
109	0
110	0
111	0
112	0
113	0
114	0
115	0

116	0
117	0
118	0
119	0
120	0
121	0
122	0
123	0
124	0
125	0
126	0
127	0
128	0
129	0
130	0
131	0
132	0
133	0
134	0
135	0
136	0
137	0
138	0
139	0
140	0
141	0
142	0
143	0
144	0
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0
154	0
155	0
156	0
157	0
158	0
159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
176	0
177	0

178	0
179	0
180	0
181	0
182	0.00745158
183	0.00745158
184	0.0137703
185	0.0137703
186	0.0149635
187	0.0167322
188	0.0248393
189	0.0256742
190	0.0267439
191	0.0269756
192	0.0269756
193	0.0279067
194	0.0291516
195	0.0291752
196	0.0305645
197	0.0308664
198	0.0320927
199	0.0327955
200	0.0337818
201	0.0338837
202	0.0343337
203	0.0349376
204	0.0349819
205	0.0354239
206	0.0356585
207	0.0371107
208	0.0374806
209	0.0377561
210	0.0389662
211	0.0394229
212	0.0401159
213	0.0403637
214	0.0410171
215	0.0414978
216	0.0427903
217	0.0432958
218	0.0437274
219	0.0438032
220	0.0458426
221	0.0458467
222	0.0463798
223	0.0467262
224	0.0467262
225	0.0477026
226	0.0484568
227	0.0484568
228	0.0487078
229	0.0492786
230	0.0493734
231	0.050085
232	0.0503205
233	0.0503205
234	0.0504065
235	0.0509193
236	0.051955
237	0.0522226
238	0.0523333
239	0.0523333

240	0.0523453
241	0.0524729
242	0.0525638
243	0.0534878
244	0.0539327
245	0.0544391
246	0.0545139
247	0.0545139
248	0.0556661
249	0.0563184
250	0.0567074
251	0.056884
252	0.056884
253	0.0569848
254	0.0577115
255	0.0583032
256	0.0583504
257	0.0591729
258	0.0592642
259	0.0594697
260	0.0594697
261	0.0595059
262	0.0599481
263	0.060597
264	0.0606506
265	0.0617335
266	0.0618626
267	0.0623016
268	0.0623016
269	0.0632251
270	0.0637864
271	0.0641854
272	0.0644176
273	0.0648084
274	0.0649437
275	0.0649844
276	0.0649844
277	0.0653299
278	0.065359
279	0.0654166
280	0.0654166
281	0.0654695
282	0.0655911
283	0.0657048
284	0.0673301
285	0.0673457
286	0.0674401
287	0.0680488
288	0.0682007
289	0.0688596
290	0.0688596
291	0.0689594
292	0.0705526
293	0.0708477
294	0.0712906
295	0.0713007
296	0.0713171
297	0.0716303
298	0.0716779
299	0.0722572
300	0.0726852
301	0.0726852

302	0.0730158
303	0.0740802
304	0.074696
305	0.0749612
306	0.0756098
307	0.0757463
308	0.0769608
309	0.0769608
310	0.0775793
311	0.0778155
312	0.0779325
313	0.0779792
314	0.0783604
315	0.0783604
316	0.0784308
317	0.0788457
318	0.0795736
319	0.0800574
320	0.0807961
321	0.0817708
322	0.0817708
323	0.0817885
324	0.0823114
325	0.0825587
326	0.0827512
327	0.0843001
328	0.085061
329	0.0865672
330	0.0865917
331	0.0871453
332	0.0871532
333	0.0872222
334	0.0872222
335	0.0874548
336	0.0876064
337	0.088662
338	0.0907318
339	0.0919637
340	0.0922715
341	0.0926003
342	0.0929164
343	0.0932262
344	0.0934523
345	0.0934523
346	0.0954822
347	0.0972126
348	0.0974156
349	0.0980385
350	0.0985572
351	0.0987736
352	0.100641
353	0.100641
354	0.100995
355	0.10116
356	0.103439
357	0.104574
358	0.104691
359	0.104946
360	0.105802
361	0.105802
362	0.105829
363	0.109028

364	0.109028
365	0.110176
366	0.111332
367	0.112044
368	0.1124
369	0.112637
370	0.112843
371	0.113415
372	0.11397
373	0.114834
374	0.115525
375	0.118892
376	0.11961
377	0.120663
378	0.121194
379	0.123467
380	0.123725
381	0.124127
382	0.12645
383	0.130718
384	0.131182
385	0.13141
386	0.131864
387	0.13466
388	0.134691
389	0.137919
390	0.142601
391	0.144514
392	0.145413
393	0.14816
394	0.151493
395	0.155159
396	0.156862
397	0.157691
398	0.1686
399	0.173134
400	0.173981
401	0.174291
402	0.17491
403	0.177324
404	0.19504
405	0.196077
406	0.197114
407	0.20199
408	0.20232
409	0.206878
410	0.213951
411	0.218055
412	0.218055
413	0.22216
414	0.22216
415	0.229071
416	0.234093
417	0.242388
418	0.248254
419	0.2529
420	0.262364
421	0.272195
422	0.310317
423	0.3372
424	0.359561
425	0.370401

426	0.413756
427	0.423484
428	0.5058
429	0.71654
430	0.779325
431	0.784308
432	0.789291
433	0.839751
434	1.0116

Sen's Estimator (Median Q) is 0.0435116

Tied Group Value Members

1	0	18
2	1.30833	2

Time Period Observations

7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 12564
B = 18
C = 4896
D = 0
E = 308
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 2443.02
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 81.3
M1 = (434 - 81.3)/2.0 = 176.35
M2 = (434 + 81.3)/2.0 + 1 = 258.65

Lower limit is 0 = Q(176)
Upper limit is 0.0594697 = Q(259)
0 < 0 < 0.0594697 indicating no trend in data.

Sen's Slope Analysis
Parameter: Chlorobenzene
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-1.20397 J (8/24/1995)	ND<0 (7/20/1995)	(-1.20397 - 0)/(2 - 1)	-1.20397
ND<0 (9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1)	0
-1.20397 J (10/26/1995)	ND<0 (7/20/1995)	(-1.20397 - 0)/(4 - 1)	-0.401324
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0 (3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
-0.653926 J (4/1/2005)	ND<0 (7/20/1995)	(-0.653926 - 0)/(17 - 1)	-0.0408704
-1.07881 J (10/25/2005)	ND<0 (7/20/1995)	(-1.07881 - 0)/(18 - 1)	-0.0634594
-1.38629 J (4/29/2006)	ND<0 (7/20/1995)	(-1.38629 - 0)/(19 - 1)	-0.0770164
-1.27297 J (11/18/2006)	ND<0 (7/20/1995)	(-1.27297 - 0)/(20 - 1)	-0.0669982
0.0953102 (5/23/2007)	ND<0 (7/20/1995)	(0.0953102 - 0)/(21 - 1)	0.00476551
-0.301105 J (11/28/2007)	ND<0 (7/20/1995)	(-0.301105 - 0)/(22 - 1)	-0.0143383
-0.579818 J (6/5/2008)	ND<0 (7/20/1995)	(-0.579818 - 0)/(23 - 1)	-0.0263554
-0.430783 J (11/20/2008)	ND<0 (7/20/1995)	(-0.430783 - 0)/(24 - 1)	-0.0187297
-0.210721 J (6/11/2009)	ND<0 (7/20/1995)	(-0.210721 - 0)/(25 - 1)	-0.00878004
-0.223144 J (11/16/2009)	ND<0 (7/20/1995)	(-0.223144 - 0)/(26 - 1)	-0.00892574
0.336472 (6/30/2010)	ND<0 (7/20/1995)	(0.336472 - 0)/(27 - 1)	0.0129412
0 (11/12/2010)	ND<0 (7/20/1995)	(0 - 0)/(28 - 1)	0
-0.84397 J (7/5/2011)	ND<0 (7/20/1995)	(-0.84397 - 0)/(29 - 1)	-0.0301418
-0.776529 J (11/22/2011)	ND<0 (7/20/1995)	(-0.776529 - 0)/(30 - 1)	-0.0267769
-0.776529 J (11/22/2011)	ND<0 (7/20/1995)	(-0.776529 - 0)/(30 - 1)	-0.0267769
ND<0 (9/28/1995)	-1.20397 J (8/24/1995)	(0 - -1.20397)/(3 - 2)	1.20397
-1.20397 J (10/26/1995)	-1.20397 J (8/24/1995)	(-1.20397 - -1.20397)/(4 - 2)	0
ND<0 (11/19/1996)	-1.20397 J (8/24/1995)	(0 - -1.20397)/(5 - 2)	0.401324

ND<0 (12/19/1996) -1.20397 J (8/24/1995) (0 - -1.20397)/(6 - 2)
0.300993
ND<0 (3/24/1997) -1.20397 J (8/24/1995) (0 - -1.20397)/(7 - 2)
0.240795
ND<0 (9/24/1997) -1.20397 J (8/24/1995) (0 - -1.20397)/(8 - 2)
0.200662
ND<0 (4/7/1998) -1.20397 J (8/24/1995) (0 - -1.20397)/(9 - 2)
0.171996
ND<0 (9/23/1998) -1.20397 J (8/24/1995) (0 - -1.20397)/(10 - 2)
0.150497
ND<0 (3/16/1999) -1.20397 J (8/24/1995) (0 - -1.20397)/(11 - 2)
0.133775
ND<0 (9/23/1999) -1.20397 J (8/24/1995) (0 - -1.20397)/(12 - 2)
0.120397
ND<0 (3/15/2000) -1.20397 J (8/24/1995) (0 - -1.20397)/(13 - 2)
0.109452
ND<0 (9/24/2003) -1.20397 J (8/24/1995) (0 - -1.20397)/(14 - 2)
0.100331
ND<0 (3/11/2004) -1.20397 J (8/24/1995) (0 - -1.20397)/(15 - 2)
0.0926133
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-0.776529 J (11/22/2011) 0.0953102 (5/23/2007) (-0.776529 - 0.0953102)/(30 - 21) -0.096871
-0.776529 J (11/22/2011) 0.0953102 (5/23/2007) (-0.776529 - 0.0953102)/(30 - 21) -0.096871

-0.579818 J (6/5/2008) -0.301105 J (11/28/2007) (-0.579818 - -0.301105)/(23 - 22) -0.278713
-0.430783 J (11/20/2008) -0.301105 J (11/28/2007) (-0.430783 - -0.301105)/(24 - 22) -0.0648389
-0.210721 J (6/11/2009) -0.301105 J (11/28/2007) (-0.210721 - -0.301105)/(25 - 22) 0.030128
-0.223144 J (11/16/2009) -0.301105 J (11/28/2007) (-0.223144 - -0.301105)/(26 - 22) 0.0194904
0.336472 (6/30/2010) -0.301105 J (11/28/2007) (0.336472 - -0.301105)/(27 - 22) 0.127515
0 (11/12/2010) -0.301105 J (11/28/2007) (0 - -0.301105)/(28 - 22) 0.0501842
-0.84397 J (7/5/2011) -0.301105 J (11/28/2007) (-0.84397 - -0.301105)/(29 - 22) -0.0775521
-0.776529 J (11/22/2011) -0.301105 J (11/28/2007) (-0.776529 - -0.301105)/(30 - 22) -0.059428
-0.776529 J (11/22/2011) -0.301105 J (11/28/2007) (-0.776529 - -0.301105)/(30 - 22) -0.059428

-0.430783 J (11/20/2008) -0.579818 J (6/5/2008) (-0.430783 - -0.579818)/(24 - 23) 0.149036
-0.210721 J (6/11/2009) -0.579818 J (6/5/2008) (-0.210721 - -0.579818)/(25 - 23) 0.184549
-0.223144 J (11/16/2009) -0.579818 J (6/5/2008) (-0.223144 - -0.579818)/(26 - 23) 0.118892
0.336472 (6/30/2010) -0.579818 J (6/5/2008) (0.336472 - -0.579818)/(27 - 23) 0.229073
0 (11/12/2010) -0.579818 J (6/5/2008) (0 - -0.579818)/(28 - 23) 0.115964
-0.84397 J (7/5/2011) -0.579818 J (6/5/2008) (-0.84397 - -0.579818)/(29 - 23) -0.0440253
-0.776529 J (11/22/2011) -0.579818 J (6/5/2008) (-0.776529 - -0.579818)/(30 - 23) -0.0281015
-0.776529 J (11/22/2011) -0.579818 J (6/5/2008) (-0.776529 - -0.579818)/(30 - 23) -0.0281015

-0.210721 J (6/11/2009) -0.430783 J (11/20/2008) (-0.210721 - -0.430783)/(25 - 24) 0.220062
-0.223144 J (11/16/2009) -0.430783 J (11/20/2008) (-0.223144 - -0.430783)/(26 - 24) 0.10382
0.336472 (6/30/2010) -0.430783 J (11/20/2008) (0.336472 - -0.430783)/(27 - 24) 0.255752
0 (11/12/2010) -0.430783 J (11/20/2008) (0 - -0.430783)/(28 - 24) 0.107696
-0.84397 J (7/5/2011) -0.430783 J (11/20/2008) (-0.84397 - -0.430783)/(29 - 24) -0.0826374
-0.776529 J (11/22/2011) -0.430783 J (11/20/2008) (-0.776529 - -0.430783)/(30 - 24) -0.0576243
-0.776529 J (11/22/2011) -0.430783 J (11/20/2008) (-0.776529 - -0.430783)/(30 - 24) -0.0576243

-0.223144 J (11/16/2009) -0.210721 J (6/11/2009) (-0.223144 - -0.210721)/(26 - 25) -0.0124225
0.336472 (6/30/2010) -0.210721 J (6/11/2009) (0.336472 - -0.210721)/(27 - 25) 0.273597
0 (11/12/2010) -0.210721 J (6/11/2009) (0 - -0.210721)/(28 - 25) 0.0702403
-0.84397 J (7/5/2011) -0.210721 J (6/11/2009) (-0.84397 - -0.210721)/(29 - 25) -0.158312
-0.776529 J (11/22/2011) -0.210721 J (6/11/2009) (-0.776529 - -0.210721)/(30 - 25) -0.113162
-0.776529 J (11/22/2011) -0.210721 J (6/11/2009) (-0.776529 - -0.210721)/(30 - 25) -0.113162

0.336472 (6/30/2010) -0.223144 J (11/16/2009) (0.336472 - -0.223144)/(27 - 26) 0.559616
0 (11/12/2010) -0.223144 J (11/16/2009) (0 - -0.223144)/(28 - 26) 0.111572
-0.84397 J (7/5/2011) -0.223144 J (11/16/2009) (-0.84397 - -0.223144)/(29 - 26) -0.206942
-0.776529 J (11/22/2011) -0.223144 J (11/16/2009) (-0.776529 - -0.223144)/(30 - 26) -0.138346
-0.776529 J (11/22/2011) -0.223144 J (11/16/2009) (-0.776529 - -0.223144)/(30 - 26) -0.138346

0 (11/12/2010) 0.336472 (6/30/2010) (0 - 0.336472)/(28 - 27) -0.336472
-0.84397 J (7/5/2011) 0.336472 (6/30/2010) (-0.84397 - 0.336472)/(29 - 27) -0.590221
-0.776529 J (11/22/2011) 0.336472 (6/30/2010) (-0.776529 - 0.336472)/(30 - 27) -0.371
-0.776529 J (11/22/2011) 0.336472 (6/30/2010) (-0.776529 - 0.336472)/(30 - 27) -0.371

-0.84397 J (7/5/2011) 0 (11/12/2010) (-0.84397 - 0)/(29 - 28) -0.84397
-0.776529 J (11/22/2011) 0 (11/12/2010) (-0.776529 - 0)/(30 - 28) -0.388264
-0.776529 J (11/22/2011) 0 (11/12/2010) (-0.776529 - 0)/(30 - 28) -0.388264

-0.776529 J (11/22/2011) -0.84397 J (7/5/2011) (-0.776529 - -0.84397)/(30 - 29) 0.0674413
-0.776529 J (11/22/2011) -0.84397 J (7/5/2011) (-0.776529 - -0.84397)/(30 - 29) 0.0674413

-0.776529 J (11/22/2011) -0.776529 J (11/22/2011) (-0.776529 - -0.776529)/(30 - 30) Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.20397
2	-1.20397
3	-0.84397
4	-0.653926
5	-0.590221
6	-0.539405
7	-0.462098
8	-0.424883
9	-0.401324
10	-0.396415
11	-0.388264
12	-0.388264
13	-0.371
14	-0.371

15	-0.366184
16	-0.359603
17	-0.346574
18	-0.337564
19	-0.336472
20	-0.326963
21	-0.318241
22	-0.307485
23	-0.278713
24	-0.277259
25	-0.269702
26	-0.254593
27	-0.231049
28	-0.217975
29	-0.215762
30	-0.212161
31	-0.206942
32	-0.206346
33	-0.198042
34	-0.181852
35	-0.179802
36	-0.175364
37	-0.173287
38	-0.163482
39	-0.159121
40	-0.158312
41	-0.154116
42	-0.154033
43	-0.141441
44	-0.138629
45	-0.138346
46	-0.138346
47	-0.134851
48	-0.130785
49	-0.127297
50	-0.126027
51	-0.119868
52	-0.11741
53	-0.115724
54	-0.115525
55	-0.113162
56	-0.113162
57	-0.108988
58	-0.107881
59	-0.106638
60	-0.10608
61	-0.099021
62	-0.0980736
63	-0.0979204
64	-0.097078
65	-0.096871
66	-0.096871
67	-0.0934181
68	-0.0909261
69	-0.0899008
70	-0.0866434
71	-0.0848644
72	-0.0829854
73	-0.0828312
74	-0.0826374
75	-0.0817408
76	-0.0775521

77	-0.0770164
78	-0.0765078
79	-0.0748803
80	-0.0726585
81	-0.0724773
82	-0.0719206
83	-0.0669982
84	-0.0653926
85	-0.0649208
86	-0.0648389
87	-0.0644243
88	-0.0636907
89	-0.0634594
90	-0.0602836
91	-0.0594479
92	-0.059428
93	-0.059428
94	-0.0579818
95	-0.0576243
96	-0.0576243
97	-0.0562647
98	-0.0554663
99	-0.0554663
100	-0.0544939
101	-0.0538479
102	-0.0527481
103	-0.0527108
104	-0.0517686
105	-0.0517686
106	-0.0501842
107	-0.0496453
108	-0.048533
109	-0.048533
110	-0.0483182
111	-0.0478648
112	-0.0468872
113	-0.046709
114	-0.0456782
115	-0.0456782
116	-0.0446014
117	-0.0444195
118	-0.0440253
119	-0.0431405
120	-0.0431405
121	-0.0430783
122	-0.043015
123	-0.0421985
124	-0.0414156
125	-0.0408704
126	-0.0408699
127	-0.0408699
128	-0.0401891
129	-0.0391621
130	-0.0388264
131	-0.0388264
132	-0.0386546
133	-0.0383623
134	-0.0376381
135	-0.0369776
136	-0.0369776
137	-0.0366944
138	-0.0362387

139	-0.0358986
140	-0.0352968
141	-0.0352968
142	-0.0351654
143	-0.034107
144	-0.0337621
145	-0.0337621
146	-0.0334561
147	-0.0331371
148	-0.0324604
149	-0.0323554
150	-0.0323554
151	-0.0322121
152	-0.0310612
153	-0.0310612
154	-0.0307702
155	-0.0301418
156	-0.0301105
157	-0.0289909
158	-0.0287603
159	-0.0287603
160	-0.0287189
161	-0.0281015
162	-0.0281015
163	-0.0273732
164	-0.0269239
165	-0.0267769
166	-0.0267769
167	-0.0263554
168	-0.0253402
169	-0.0250921
170	-0.0239324
171	-0.0234134
172	-0.0231619
173	-0.0226728
174	-0.0223144
175	-0.0215075
176	-0.0210721
177	-0.0205135
178	-0.0202858
179	-0.0200737
180	-0.0191565
181	-0.0188191
182	-0.0187297
183	-0.0185953
184	-0.0177121
185	-0.0175601
186	-0.0171649
187	-0.0162093
188	-0.0159388
189	-0.0158476
190	-0.015837
191	-0.0150515
192	-0.0148762
193	-0.0143383
194	-0.0140481
195	-0.0139465
196	-0.0136157
197	-0.0131701
198	-0.0131261
199	-0.0124225
200	-0.0123969

201	-0.0123954
202	-0.0121548
203	-0.0117444
204	-0.0117067
205	-0.0111572
206	-0.0110906
207	-0.0107248
208	-0.0106259
209	-0.0105361
210	-0.00970189
211	-0.00957823
212	-0.00943095
213	-0.00943095
214	-0.00892574
215	-0.00878004
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217	-0.00383294
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316	0
317	0
318	0
319	0
320	0
321	0
322	0
323	0
324	0.00476551

325	0.00529501
326	0.00595689
327	0.00635401
328	0.00680787
329	0.00733155
330	0.0078227
331	0.00794251
332	0.00866456
333	0.00894022
334	0.00953102
335	0.01059
336	0.0119138
337	0.0123513
338	0.0129412
339	0.0133334
340	0.0136157
341	0.0140197
342	0.0144001
343	0.0152659
344	0.0152659
345	0.0152942
346	0.015885
347	0.0160225
348	0.0164402
349	0.0164402
350	0.0168236
351	0.0177091
352	0.0186929
353	0.019062
354	0.0194904
355	0.0197925
356	0.0210295
357	0.0213491
358	0.0224315
359	0.0240337
360	0.0251901
361	0.0251901
362	0.0258825
363	0.0280394
364	0.0297216
365	0.030128
366	0.0305884
367	0.0318777
368	0.0328502
369	0.035145
370	0.0366698
371	0.0386595
372	0.0401937
373	0.0408679
374	0.0423113
375	0.0431849
376	0.0445831
377	0.0451434
378	0.0463066
379	0.0472977
380	0.0476662
381	0.0478648
382	0.0496437
383	0.0496437
384	0.0501593
385	0.0501655
386	0.0501842

387	0.0542324
388	0.0554007
389	0.0554332
390	0.0554332
391	0.0594479
392	0.0616178
393	0.0669759
394	0.0674413
395	0.0674413
396	0.0683833
397	0.0702403
398	0.0705643
399	0.0764284
400	0.0859981
401	0.0926133
402	0.0990399
403	0.0997982
404	0.100331
405	0.100331
406	0.10382
407	0.106958
408	0.107696
409	0.107881
410	0.108004
411	0.109452
412	0.109452
413	0.111572
414	0.113329
415	0.115964
416	0.118892
417	0.120397
418	0.120397
419	0.124013
420	0.127515
421	0.133775
422	0.133775
423	0.149036
424	0.150497
425	0.150497
426	0.154033
427	0.157254
428	0.159121
429	0.166164
430	0.171996
431	0.171996
432	0.17497
433	0.184549
434	0.187309
435	0.191102
436	0.194426
437	0.195929
438	0.200662
439	0.200662
440	0.201619
441	0.210546
442	0.212449
443	0.215346
444	0.220062
445	0.229073
446	0.22992
447	0.231049
448	0.240795

449	0.240795
450	0.255752
451	0.273597
452	0.300993
453	0.300993
454	0.36173
455	0.391373
456	0.401324
457	0.401324
458	0.48593
459	0.559616
460	0.601986
461	0.740802
462	1.20397
463	1.20397
464	1.36828

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	15
2	-1.20397	2
3	-0.776529	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 7386
B = 18
C = 2730
D = 0
E = 214

F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3050.56
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 90.8484
M1 = (464 - 90.8484)/2.0 = 186.576
M2 = (464 + 90.8484)/2.0 + 1 = 278.424
Lower limit is -0.0162093 = Q(187)
Upper limit is 0 = Q(278)
-0.0162093 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Chlorobenzene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0	(8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
ND<0	(9/28/1995)	ND<0 (7/20/1995)	(0 - 0)/(3 - 1)	0
ND<0	(10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1)	0
ND<0	(11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0	(12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0	(3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0	(9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0	(4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0	(9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0	(3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0	(9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0	(3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0	(9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0	(3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0	(10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
-1.10866 J	(4/1/2005)	ND<0 (7/20/1995)	(-1.10866 - 0)/(17 - 1)	
-0.0692914				
-0.84397 J	(10/25/2005)	ND<0 (7/20/1995)	(-0.84397 - 0)/(18 - 1)	
-0.0496453				
-0.527633 J	(4/29/2006)	ND<0 (7/20/1995)	(-0.527633 - 0)/(19 - 1)	
-0.0293129				
-0.916291 J	(11/18/2006)	ND<0 (7/20/1995)	(-0.916291 - 0)/(20 - 1)	
-0.0482258				
ND<0	(5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
-0.527633 J	(11/28/2007)	ND<0 (7/20/1995)	(-0.527633 - 0)/(22 - 1)	
-0.0251254				
-0.510826 J	(6/5/2008)	ND<0 (7/20/1995)	(-0.510826 - 0)/(23 - 1)	
-0.0232193				
-0.478036 J	(11/20/2008)	ND<0 (7/20/1995)	(-0.478036 - 0)/(24 - 1)	
-0.0207842				
-0.798508 J	(6/11/2009)	ND<0 (7/20/1995)	(-0.798508 - 0)/(25 - 1)	
-0.0332712				
-0.462035 J	(11/16/2009)	ND<0 (7/20/1995)	(-0.462035 - 0)/(26 - 1)	
-0.0184814				
ND<-2.07944	(6/30/2010)	ND<0 (7/20/1995)	(-2.07944 - 0)/(27 - 1)	
-0.0799785				
-0.371064 J	(11/12/2010)	ND<0 (7/20/1995)	(-0.371064 - 0)/(28 - 1)	
-0.0137431				
-0.18633 J	(7/5/2011)	ND<0 (7/20/1995)	(-0.18633 - 0)/(29 - 1)	
-0.00665463				
-0.314711 J	(11/22/2011)	ND<0 (7/20/1995)	(-0.314711 - 0)/(30 - 1)	
-0.0108521				
-0.314711 J	(11/22/2011)	ND<0 (7/20/1995)	(-0.314711 - 0)/(30 - 1)	
-0.0108521				
ND<0	(9/28/1995)	ND<0 (8/24/1995)	(0 - 0)/(3 - 2)	0
ND<0	(10/26/1995)	ND<0 (8/24/1995)	(0 - 0)/(4 - 2)	0
ND<0	(11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0
ND<0	(12/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(6 - 2)	0
ND<0	(3/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(7 - 2)	0
ND<0	(9/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(8 - 2)	0

ND<0 (4/7/1998)	ND<0 (8/24/1995)	(0 - 0)/(9 - 2)	0
ND<0 (9/23/1998)	ND<0 (8/24/1995)	(0 - 0)/(10 - 2)	0
ND<0 (3/16/1999)	ND<0 (8/24/1995)	(0 - 0)/(11 - 2)	0
ND<0 (9/23/1999)	ND<0 (8/24/1995)	(0 - 0)/(12 - 2)	0
ND<0 (3/15/2000)	ND<0 (8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0 (9/24/2003)	ND<0 (8/24/1995)	(0 - 0)/(14 - 2)	0
ND<0 (3/11/2004)	ND<0 (8/24/1995)	(0 - 0)/(15 - 2)	0
ND<0 (10/12/2004)	ND<0 (8/24/1995)	(0 - 0)/(16 - 2)	0
-1.10866 J (4/1/2005) -0.0739108	ND<0 (8/24/1995)	(-1.10866 - 0)/(17 - 2)	
-0.84397 J (10/25/2005) -0.0527481	ND<0 (8/24/1995)	(-0.84397 - 0)/(18 - 2)	
-0.527633 J (4/29/2006) -0.0310372	ND<0 (8/24/1995)	(-0.527633 - 0)/(19 - 2)	
-0.916291 J (11/18/2006) -0.050905	ND<0 (8/24/1995)	(-0.916291 - 0)/(20 - 2)	
ND<0 (5/23/2007)	ND<0 (8/24/1995)	(0 - 0)/(21 - 2)	0
-0.527633 J (11/28/2007) -0.0263816	ND<0 (8/24/1995)	(-0.527633 - 0)/(22 - 2)	
-0.510826 J (6/5/2008) -0.024325	ND<0 (8/24/1995)	(-0.510826 - 0)/(23 - 2)	
-0.478036 J (11/20/2008) -0.0217289	ND<0 (8/24/1995)	(-0.478036 - 0)/(24 - 2)	
-0.798508 J (6/11/2009) -0.0347177	ND<0 (8/24/1995)	(-0.798508 - 0)/(25 - 2)	
-0.462035 J (11/16/2009) -0.0192515	ND<0 (8/24/1995)	(-0.462035 - 0)/(26 - 2)	
ND<-2.07944 (6/30/2010) -0.0831777	ND<0 (8/24/1995)	(-2.07944 - 0)/(27 - 2)	
-0.371064 J (11/12/2010) -0.0142717	ND<0 (8/24/1995)	(-0.371064 - 0)/(28 - 2)	
-0.18633 J (7/5/2011) -0.0069011	ND<0 (8/24/1995)	(-0.18633 - 0)/(29 - 2)	
-0.314711 J (11/22/2011) -0.0112397	ND<0 (8/24/1995)	(-0.314711 - 0)/(30 - 2)	
-0.314711 J (11/22/2011) -0.0112397	ND<0 (8/24/1995)	(-0.314711 - 0)/(30 - 2)	
ND<0 (10/26/1995)	ND<0 (9/28/1995)	(0 - 0)/(4 - 3)	0
ND<0 (11/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(5 - 3)	0
ND<0 (12/19/1996)	ND<0 (9/28/1995)	(0 - 0)/(6 - 3)	0
ND<0 (3/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(7 - 3)	0
ND<0 (9/24/1997)	ND<0 (9/28/1995)	(0 - 0)/(8 - 3)	0
ND<0 (4/7/1998)	ND<0 (9/28/1995)	(0 - 0)/(9 - 3)	0
ND<0 (9/23/1998)	ND<0 (9/28/1995)	(0 - 0)/(10 - 3)	0
ND<0 (3/16/1999)	ND<0 (9/28/1995)	(0 - 0)/(11 - 3)	0
ND<0 (9/23/1999)	ND<0 (9/28/1995)	(0 - 0)/(12 - 3)	0
ND<0 (3/15/2000)	ND<0 (9/28/1995)	(0 - 0)/(13 - 3)	0
ND<0 (9/24/2003)	ND<0 (9/28/1995)	(0 - 0)/(14 - 3)	0
ND<0 (3/11/2004)	ND<0 (9/28/1995)	(0 - 0)/(15 - 3)	0
ND<0 (10/12/2004)	ND<0 (9/28/1995)	(0 - 0)/(16 - 3)	0
-1.10866 J (4/1/2005) -0.0791902	ND<0 (9/28/1995)	(-1.10866 - 0)/(17 - 3)	
-0.84397 J (10/25/2005) -0.0562647	ND<0 (9/28/1995)	(-0.84397 - 0)/(18 - 3)	
-0.527633 J (4/29/2006) -0.032977	ND<0 (9/28/1995)	(-0.527633 - 0)/(19 - 3)	
-0.916291 J (11/18/2006) -0.0538995	ND<0 (9/28/1995)	(-0.916291 - 0)/(20 - 3)	
ND<0 (5/23/2007)	ND<0 (9/28/1995)	(0 - 0)/(21 - 3)	0
-0.527633 J (11/28/2007) -0.0277701	ND<0 (9/28/1995)	(-0.527633 - 0)/(22 - 3)	

-0.510826 J (6/5/2008)	ND<0 (9/28/1995)	(-0.510826 - 0)/(23 - 3)	
-0.0255413			
-0.478036 J (11/20/2008)	ND<0 (9/28/1995)	(-0.478036 - 0)/(24 - 3)	
-0.0227636			
-0.798508 J (6/11/2009)	ND<0 (9/28/1995)	(-0.798508 - 0)/(25 - 3)	
-0.0362958			
-0.462035 J (11/16/2009)	ND<0 (9/28/1995)	(-0.462035 - 0)/(26 - 3)	
-0.0200885			
ND<-2.07944 (6/30/2010)	ND<0 (9/28/1995)	(-2.07944 - 0)/(27 - 3)	
-0.0866434			
-0.371064 J (11/12/2010)	ND<0 (9/28/1995)	(-0.371064 - 0)/(28 - 3)	
-0.0148425			
-0.18633 J (7/5/2011)	ND<0 (9/28/1995)	(-0.18633 - 0)/(29 - 3)	
-0.00716652			
-0.314711 J (11/22/2011)	ND<0 (9/28/1995)	(-0.314711 - 0)/(30 - 3)	
-0.011656			
-0.314711 J (11/22/2011)	ND<0 (9/28/1995)	(-0.314711 - 0)/(30 - 3)	
-0.011656			
ND<0 (11/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(5 - 4)	0
ND<0 (12/19/1996)	ND<0 (10/26/1995)	(0 - 0)/(6 - 4)	0
ND<0 (3/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(7 - 4)	0
ND<0 (9/24/1997)	ND<0 (10/26/1995)	(0 - 0)/(8 - 4)	0
ND<0 (4/7/1998)	ND<0 (10/26/1995)	(0 - 0)/(9 - 4)	0
ND<0 (9/23/1998)	ND<0 (10/26/1995)	(0 - 0)/(10 - 4)	0
ND<0 (3/16/1999)	ND<0 (10/26/1995)	(0 - 0)/(11 - 4)	0
ND<0 (9/23/1999)	ND<0 (10/26/1995)	(0 - 0)/(12 - 4)	0
ND<0 (3/15/2000)	ND<0 (10/26/1995)	(0 - 0)/(13 - 4)	0
ND<0 (9/24/2003)	ND<0 (10/26/1995)	(0 - 0)/(14 - 4)	0
ND<0 (3/11/2004)	ND<0 (10/26/1995)	(0 - 0)/(15 - 4)	0
ND<0 (10/12/2004)	ND<0 (10/26/1995)	(0 - 0)/(16 - 4)	0
-1.10866 J (4/1/2005)	ND<0 (10/26/1995)	(-1.10866 - 0)/(17 - 4)	
-0.0852817			
-0.84397 J (10/25/2005)	ND<0 (10/26/1995)	(-0.84397 - 0)/(18 - 4)	
-0.0602836			
-0.527633 J (4/29/2006)	ND<0 (10/26/1995)	(-0.527633 - 0)/(19 - 4)	
-0.0351755			
-0.916291 J (11/18/2006)	ND<0 (10/26/1995)	(-0.916291 - 0)/(20 - 4)	
-0.0572682			
ND<0 (5/23/2007)	ND<0 (10/26/1995)	(0 - 0)/(21 - 4)	0
-0.527633 J (11/28/2007)	ND<0 (10/26/1995)	(-0.527633 - 0)/(22 - 4)	
-0.0293129			
-0.510826 J (6/5/2008)	ND<0 (10/26/1995)	(-0.510826 - 0)/(23 - 4)	
-0.0268856			
-0.478036 J (11/20/2008)	ND<0 (10/26/1995)	(-0.478036 - 0)/(24 - 4)	
-0.0239018			
-0.798508 J (6/11/2009)	ND<0 (10/26/1995)	(-0.798508 - 0)/(25 - 4)	
-0.0380242			
-0.462035 J (11/16/2009)	ND<0 (10/26/1995)	(-0.462035 - 0)/(26 - 4)	
-0.0210016			
ND<-2.07944 (6/30/2010)	ND<0 (10/26/1995)	(-2.07944 - 0)/(27 - 4)	
-0.0904105			
-0.371064 J (11/12/2010)	ND<0 (10/26/1995)	(-0.371064 - 0)/(28 - 4)	
-0.015461			
-0.18633 J (7/5/2011)	ND<0 (10/26/1995)	(-0.18633 - 0)/(29 - 4)	
-0.00745318			
-0.314711 J (11/22/2011)	ND<0 (10/26/1995)	(-0.314711 - 0)/(30 - 4)	
-0.0121043			
-0.314711 J (11/22/2011)	ND<0 (10/26/1995)	(-0.314711 - 0)/(30 - 4)	
-0.0121043			
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0

ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
-1.10866 J (4/1/2005) -0.0923886	ND<0 (11/19/1996)	(-1.10866 - 0)/(17 - 5)	
-0.84397 J (10/25/2005) -0.0649208	ND<0 (11/19/1996)	(-0.84397 - 0)/(18 - 5)	
-0.527633 J (4/29/2006) -0.0376881	ND<0 (11/19/1996)	(-0.527633 - 0)/(19 - 5)	
-0.916291 J (11/18/2006) -0.061086	ND<0 (11/19/1996)	(-0.916291 - 0)/(20 - 5)	
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
-0.527633 J (11/28/2007) -0.0310372	ND<0 (11/19/1996)	(-0.527633 - 0)/(22 - 5)	
-0.510826 J (6/5/2008) -0.0283792	ND<0 (11/19/1996)	(-0.510826 - 0)/(23 - 5)	
-0.478036 J (11/20/2008) -0.0251598	ND<0 (11/19/1996)	(-0.478036 - 0)/(24 - 5)	
-0.798508 J (6/11/2009) -0.0399254	ND<0 (11/19/1996)	(-0.798508 - 0)/(25 - 5)	
-0.462035 J (11/16/2009) -0.0220017	ND<0 (11/19/1996)	(-0.462035 - 0)/(26 - 5)	
ND<-2.07944 (6/30/2010) -0.0945201	ND<0 (11/19/1996)	(-2.07944 - 0)/(27 - 5)	
-0.371064 J (11/12/2010) -0.0161332	ND<0 (11/19/1996)	(-0.371064 - 0)/(28 - 5)	
-0.18633 J (7/5/2011) -0.00776373	ND<0 (11/19/1996)	(-0.18633 - 0)/(29 - 5)	
-0.314711 J (11/22/2011) -0.0125884	ND<0 (11/19/1996)	(-0.314711 - 0)/(30 - 5)	
-0.314711 J (11/22/2011) -0.0125884	ND<0 (11/19/1996)	(-0.314711 - 0)/(30 - 5)	

ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
-1.10866 J (4/1/2005) -0.100788	ND<0 (12/19/1996)	(-1.10866 - 0)/(17 - 6)	
-0.84397 J (10/25/2005) -0.0703308	ND<0 (12/19/1996)	(-0.84397 - 0)/(18 - 6)	
-0.527633 J (4/29/2006) -0.0405871	ND<0 (12/19/1996)	(-0.527633 - 0)/(19 - 6)	
-0.916291 J (11/18/2006) -0.0654493	ND<0 (12/19/1996)	(-0.916291 - 0)/(20 - 6)	
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0
-0.527633 J (11/28/2007) -0.032977	ND<0 (12/19/1996)	(-0.527633 - 0)/(22 - 6)	

-0.510826 J (6/5/2008)	ND<0 (12/19/1996)	(-0.510826 - 0)/(23 - 6)	
-0.0300486			
-0.478036 J (11/20/2008)	ND<0 (12/19/1996)	(-0.478036 - 0)/(24 - 6)	
-0.0265575			
-0.798508 J (6/11/2009)	ND<0 (12/19/1996)	(-0.798508 - 0)/(25 - 6)	
-0.0420267			
-0.462035 J (11/16/2009)	ND<0 (12/19/1996)	(-0.462035 - 0)/(26 - 6)	
-0.0231018			
ND<-2.07944 (6/30/2010)	ND<0 (12/19/1996)	(-2.07944 - 0)/(27 - 6)	
-0.099021			
-0.371064 J (11/12/2010)	ND<0 (12/19/1996)	(-0.371064 - 0)/(28 - 6)	
-0.0168665			
-0.18633 J (7/5/2011)	ND<0 (12/19/1996)	(-0.18633 - 0)/(29 - 6)	
-0.00810129			
-0.314711 J (11/22/2011)	ND<0 (12/19/1996)	(-0.314711 - 0)/(30 - 6)	
-0.0131129			
-0.314711 J (11/22/2011)	ND<0 (12/19/1996)	(-0.314711 - 0)/(30 - 6)	
-0.0131129			
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
-1.10866 J (4/1/2005)	ND<0 (3/24/1997)	(-1.10866 - 0)/(17 - 7)	
-0.110866			
-0.84397 J (10/25/2005)	ND<0 (3/24/1997)	(-0.84397 - 0)/(18 - 7)	
-0.0767246			
-0.527633 J (4/29/2006)	ND<0 (3/24/1997)	(-0.527633 - 0)/(19 - 7)	
-0.0439694			
-0.916291 J (11/18/2006)	ND<0 (3/24/1997)	(-0.916291 - 0)/(20 - 7)	
-0.0704839			
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
-0.527633 J (11/28/2007)	ND<0 (3/24/1997)	(-0.527633 - 0)/(22 - 7)	
-0.0351755			
-0.510826 J (6/5/2008)	ND<0 (3/24/1997)	(-0.510826 - 0)/(23 - 7)	
-0.0319266			
-0.478036 J (11/20/2008)	ND<0 (3/24/1997)	(-0.478036 - 0)/(24 - 7)	
-0.0281198			
-0.798508 J (6/11/2009)	ND<0 (3/24/1997)	(-0.798508 - 0)/(25 - 7)	
-0.0443615			
-0.462035 J (11/16/2009)	ND<0 (3/24/1997)	(-0.462035 - 0)/(26 - 7)	
-0.0243177			
ND<-2.07944 (6/30/2010)	ND<0 (3/24/1997)	(-2.07944 - 0)/(27 - 7)	
-0.103972			
-0.371064 J (11/12/2010)	ND<0 (3/24/1997)	(-0.371064 - 0)/(28 - 7)	
-0.0176697			
-0.18633 J (7/5/2011)	ND<0 (3/24/1997)	(-0.18633 - 0)/(29 - 7)	
-0.00846953			
-0.314711 J (11/22/2011)	ND<0 (3/24/1997)	(-0.314711 - 0)/(30 - 7)	
-0.0136831			
-0.314711 J (11/22/2011)	ND<0 (3/24/1997)	(-0.314711 - 0)/(30 - 7)	
-0.0136831			
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0

ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0
-1.10866 J (4/1/2005)	ND<0 (9/24/1997)	(-1.10866 - 0)/(17 - 8)	
-0.123185			
-0.84397 J (10/25/2005)	ND<0 (9/24/1997)	(-0.84397 - 0)/(18 - 8)	
-0.084397			
-0.527633 J (4/29/2006)	ND<0 (9/24/1997)	(-0.527633 - 0)/(19 - 8)	
-0.0479666			
-0.916291 J (11/18/2006)	ND<0 (9/24/1997)	(-0.916291 - 0)/(20 - 8)	
-0.0763576			
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0
-0.527633 J (11/28/2007)	ND<0 (9/24/1997)	(-0.527633 - 0)/(22 - 8)	
-0.0376881			
-0.510826 J (6/5/2008)	ND<0 (9/24/1997)	(-0.510826 - 0)/(23 - 8)	
-0.034055			
-0.478036 J (11/20/2008)	ND<0 (9/24/1997)	(-0.478036 - 0)/(24 - 8)	
-0.0298772			
-0.798508 J (6/11/2009)	ND<0 (9/24/1997)	(-0.798508 - 0)/(25 - 8)	
-0.046971			
-0.462035 J (11/16/2009)	ND<0 (9/24/1997)	(-0.462035 - 0)/(26 - 8)	
-0.0256686			
ND<-2.07944 (6/30/2010)	ND<0 (9/24/1997)	(-2.07944 - 0)/(27 - 8)	
-0.109444			
-0.371064 J (11/12/2010)	ND<0 (9/24/1997)	(-0.371064 - 0)/(28 - 8)	
-0.0185532			
-0.18633 J (7/5/2011)	ND<0 (9/24/1997)	(-0.18633 - 0)/(29 - 8)	
-0.00887284			
-0.314711 J (11/22/2011)	ND<0 (9/24/1997)	(-0.314711 - 0)/(30 - 8)	
-0.014305			
-0.314711 J (11/22/2011)	ND<0 (9/24/1997)	(-0.314711 - 0)/(30 - 8)	
-0.014305			
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
-1.10866 J (4/1/2005)	ND<0 (4/7/1998)	(-1.10866 - 0)/(17 - 9)	
-0.138583			
-0.84397 J (10/25/2005)	ND<0 (4/7/1998)	(-0.84397 - 0)/(18 - 9)	
-0.0937745			
-0.527633 J (4/29/2006)	ND<0 (4/7/1998)	(-0.527633 - 0)/(19 - 9)	
-0.0527633			
-0.916291 J (11/18/2006)	ND<0 (4/7/1998)	(-0.916291 - 0)/(20 - 9)	
-0.0832992			
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0
-0.527633 J (11/28/2007)	ND<0 (4/7/1998)	(-0.527633 - 0)/(22 - 9)	
-0.0405871			
-0.510826 J (6/5/2008)	ND<0 (4/7/1998)	(-0.510826 - 0)/(23 - 9)	
-0.0364875			
-0.478036 J (11/20/2008)	ND<0 (4/7/1998)	(-0.478036 - 0)/(24 - 9)	
-0.0318691			
-0.798508 J (6/11/2009)	ND<0 (4/7/1998)	(-0.798508 - 0)/(25 - 9)	
-0.0499067			
-0.462035 J (11/16/2009)	ND<0 (4/7/1998)	(-0.462035 - 0)/(26 - 9)	
-0.0271786			
ND<-2.07944 (6/30/2010)	ND<0 (4/7/1998)	(-2.07944 - 0)/(27 - 9)	
-0.115525			

-0.371064 J (11/12/2010)	ND<0 (4/7/1998)	(-0.371064 - 0)/(28 - 9)		
-0.0195297				
-0.18633 J (7/5/2011)	ND<0 (4/7/1998)	(-0.18633 - 0)/(29 - 9)		
-0.00931648				
-0.314711 J (11/22/2011)	ND<0 (4/7/1998)	(-0.314711 - 0)/(30 - 9)		
-0.0149862				
-0.314711 J (11/22/2011)	ND<0 (4/7/1998)	(-0.314711 - 0)/(30 - 9)		
-0.0149862				
ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0	
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0	
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
-1.10866 J (4/1/2005)	ND<0 (9/23/1998)	(-1.10866 - 0)/(17 - 10)		-0.15838
-0.84397 J (10/25/2005)	ND<0 (9/23/1998)	(-0.84397 - 0)/(18 - 10)		
-0.105496				
-0.527633 J (4/29/2006)	ND<0 (9/23/1998)	(-0.527633 - 0)/(19 - 10)		
-0.0586259				
-0.916291 J (11/18/2006)	ND<0 (9/23/1998)	(-0.916291 - 0)/(20 - 10)		
-0.0916291				
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0	
-0.527633 J (11/28/2007)	ND<0 (9/23/1998)	(-0.527633 - 0)/(22 - 10)		
-0.0439694				
-0.510826 J (6/5/2008)	ND<0 (9/23/1998)	(-0.510826 - 0)/(23 - 10)		
-0.0392943				
-0.478036 J (11/20/2008)	ND<0 (9/23/1998)	(-0.478036 - 0)/(24 - 10)		
-0.0341454				
-0.798508 J (6/11/2009)	ND<0 (9/23/1998)	(-0.798508 - 0)/(25 - 10)		
-0.0532338				
-0.462035 J (11/16/2009)	ND<0 (9/23/1998)	(-0.462035 - 0)/(26 - 10)		
-0.0288772				
ND<-2.07944 (6/30/2010)	ND<0 (9/23/1998)	(-2.07944 - 0)/(27 - 10)		-0.12232
-0.371064 J (11/12/2010)	ND<0 (9/23/1998)	(-0.371064 - 0)/(28 - 10)		
-0.0206146				
-0.18633 J (7/5/2011)	ND<0 (9/23/1998)	(-0.18633 - 0)/(29 - 10)		
-0.00980682				
-0.314711 J (11/22/2011)	ND<0 (9/23/1998)	(-0.314711 - 0)/(30 - 10)		
-0.0157355				
-0.314711 J (11/22/2011)	ND<0 (9/23/1998)	(-0.314711 - 0)/(30 - 10)		
-0.0157355				
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0	
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0	
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0	
ND<0 (3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(15 - 11)	0	
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0	
-1.10866 J (4/1/2005)	ND<0 (3/16/1999)	(-1.10866 - 0)/(17 - 11)		
-0.184777				
-0.84397 J (10/25/2005)	ND<0 (3/16/1999)	(-0.84397 - 0)/(18 - 11)		
-0.120567				
-0.527633 J (4/29/2006)	ND<0 (3/16/1999)	(-0.527633 - 0)/(19 - 11)		
-0.0659541				
-0.916291 J (11/18/2006)	ND<0 (3/16/1999)	(-0.916291 - 0)/(20 - 11)		-0.10181
ND<0 (5/23/2007)	ND<0 (3/16/1999)	(0 - 0)/(21 - 11)	0	
-0.527633 J (11/28/2007)	ND<0 (3/16/1999)	(-0.527633 - 0)/(22 - 11)		
-0.0479666				
-0.510826 J (6/5/2008)	ND<0 (3/16/1999)	(-0.510826 - 0)/(23 - 11)		
-0.0425688				
-0.478036 J (11/20/2008)	ND<0 (3/16/1999)	(-0.478036 - 0)/(24 - 11)		
-0.036772				

-0.798508 J (6/11/2009)	ND<0 (3/16/1999)	(-0.798508 - 0)/(25 - 11)	
-0.0570363			
-0.462035 J (11/16/2009)	ND<0 (3/16/1999)	(-0.462035 - 0)/(26 - 11)	
-0.0308024			
ND<-2.07944 (6/30/2010)	ND<0 (3/16/1999)	(-2.07944 - 0)/(27 - 11)	
-0.129965			
-0.371064 J (11/12/2010)	ND<0 (3/16/1999)	(-0.371064 - 0)/(28 - 11)	
-0.0218273			
-0.18633 J (7/5/2011)	ND<0 (3/16/1999)	(-0.18633 - 0)/(29 - 11)	
-0.0103516			
-0.314711 J (11/22/2011)	ND<0 (3/16/1999)	(-0.314711 - 0)/(30 - 11)	
-0.0165637			
-0.314711 J (11/22/2011)	ND<0 (3/16/1999)	(-0.314711 - 0)/(30 - 11)	
-0.0165637			
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0
-1.10866 J (4/1/2005)	ND<0 (9/23/1999)	(-1.10866 - 0)/(17 - 12)	
-0.221733			
-0.84397 J (10/25/2005)	ND<0 (9/23/1999)	(-0.84397 - 0)/(18 - 12)	
-0.140662			
-0.527633 J (4/29/2006)	ND<0 (9/23/1999)	(-0.527633 - 0)/(19 - 12)	
-0.0753761			
-0.916291 J (11/18/2006)	ND<0 (9/23/1999)	(-0.916291 - 0)/(20 - 12)	
-0.114536			
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0
-0.527633 J (11/28/2007)	ND<0 (9/23/1999)	(-0.527633 - 0)/(22 - 12)	
-0.0527633			
-0.510826 J (6/5/2008)	ND<0 (9/23/1999)	(-0.510826 - 0)/(23 - 12)	
-0.0464387			
-0.478036 J (11/20/2008)	ND<0 (9/23/1999)	(-0.478036 - 0)/(24 - 12)	
-0.0398363			
-0.798508 J (6/11/2009)	ND<0 (9/23/1999)	(-0.798508 - 0)/(25 - 12)	
-0.0614237			
-0.462035 J (11/16/2009)	ND<0 (9/23/1999)	(-0.462035 - 0)/(26 - 12)	
-0.0330025			
ND<-2.07944 (6/30/2010)	ND<0 (9/23/1999)	(-2.07944 - 0)/(27 - 12)	
-0.138629			
-0.371064 J (11/12/2010)	ND<0 (9/23/1999)	(-0.371064 - 0)/(28 - 12)	
-0.0231915			
-0.18633 J (7/5/2011)	ND<0 (9/23/1999)	(-0.18633 - 0)/(29 - 12)	
-0.0109606			
-0.314711 J (11/22/2011)	ND<0 (9/23/1999)	(-0.314711 - 0)/(30 - 12)	
-0.0174839			
-0.314711 J (11/22/2011)	ND<0 (9/23/1999)	(-0.314711 - 0)/(30 - 12)	
-0.0174839			
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0
-1.10866 J (4/1/2005)	ND<0 (3/15/2000)	(-1.10866 - 0)/(17 - 13)	
-0.277166			
-0.84397 J (10/25/2005)	ND<0 (3/15/2000)	(-0.84397 - 0)/(18 - 13)	
-0.168794			
-0.527633 J (4/29/2006)	ND<0 (3/15/2000)	(-0.527633 - 0)/(19 - 13)	
-0.0879388			
-0.916291 J (11/18/2006)	ND<0 (3/15/2000)	(-0.916291 - 0)/(20 - 13)	
-0.130899			
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0

-0.527633 J (11/28/2007)	ND<0	(3/15/2000)	(-0.527633 - 0)/(22 - 13)	
-0.0586259				
-0.510826 J (6/5/2008)	ND<0	(3/15/2000)	(-0.510826 - 0)/(23 - 13)	
-0.0510826				
-0.478036 J (11/20/2008)	ND<0	(3/15/2000)	(-0.478036 - 0)/(24 - 13)	
-0.0434578				
-0.798508 J (6/11/2009)	ND<0	(3/15/2000)	(-0.798508 - 0)/(25 - 13)	
-0.0665423				
-0.462035 J (11/16/2009)	ND<0	(3/15/2000)	(-0.462035 - 0)/(26 - 13)	
-0.0355412				
ND<-2.07944 (6/30/2010)	ND<0	(3/15/2000)	(-2.07944 - 0)/(27 - 13)	
-0.148532				
-0.371064 J (11/12/2010)	ND<0	(3/15/2000)	(-0.371064 - 0)/(28 - 13)	
-0.0247376				
-0.18633 J (7/5/2011)	ND<0	(3/15/2000)	(-0.18633 - 0)/(29 - 13)	
-0.0116456				
-0.314711 J (11/22/2011)	ND<0	(3/15/2000)	(-0.314711 - 0)/(30 - 13)	
-0.0185124				
-0.314711 J (11/22/2011)	ND<0	(3/15/2000)	(-0.314711 - 0)/(30 - 13)	
-0.0185124				
ND<0 (3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0 (10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0
-1.10866 J (4/1/2005)	ND<0	(9/24/2003)	(-1.10866 - 0)/(17 - 14)	
-0.369554				
-0.84397 J (10/25/2005)	ND<0	(9/24/2003)	(-0.84397 - 0)/(18 - 14)	
-0.210993				
-0.527633 J (4/29/2006)	ND<0	(9/24/2003)	(-0.527633 - 0)/(19 - 14)	
-0.105527				
-0.916291 J (11/18/2006)	ND<0	(9/24/2003)	(-0.916291 - 0)/(20 - 14)	
-0.152715				
ND<0 (5/23/2007)	ND<0	(9/24/2003)	(0 - 0)/(21 - 14)	0
-0.527633 J (11/28/2007)	ND<0	(9/24/2003)	(-0.527633 - 0)/(22 - 14)	
-0.0659541				
-0.510826 J (6/5/2008)	ND<0	(9/24/2003)	(-0.510826 - 0)/(23 - 14)	
-0.0567584				
-0.478036 J (11/20/2008)	ND<0	(9/24/2003)	(-0.478036 - 0)/(24 - 14)	
-0.0478036				
-0.798508 J (6/11/2009)	ND<0	(9/24/2003)	(-0.798508 - 0)/(25 - 14)	
-0.0725916				
-0.462035 J (11/16/2009)	ND<0	(9/24/2003)	(-0.462035 - 0)/(26 - 14)	
-0.038503				
ND<-2.07944 (6/30/2010)	ND<0	(9/24/2003)	(-2.07944 - 0)/(27 - 14)	
-0.159957				
-0.371064 J (11/12/2010)	ND<0	(9/24/2003)	(-0.371064 - 0)/(28 - 14)	
-0.0265045				
-0.18633 J (7/5/2011)	ND<0	(9/24/2003)	(-0.18633 - 0)/(29 - 14)	
-0.012422				
-0.314711 J (11/22/2011)	ND<0	(9/24/2003)	(-0.314711 - 0)/(30 - 14)	
-0.0196694				
-0.314711 J (11/22/2011)	ND<0	(9/24/2003)	(-0.314711 - 0)/(30 - 14)	
-0.0196694				
ND<0 (10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(16 - 15)	0
-1.10866 J (4/1/2005)	ND<0	(3/11/2004)	(-1.10866 - 0)/(17 - 15)	
-0.554331				
-0.84397 J (10/25/2005)	ND<0	(3/11/2004)	(-0.84397 - 0)/(18 - 15)	
-0.281323				
-0.527633 J (4/29/2006)	ND<0	(3/11/2004)	(-0.527633 - 0)/(19 - 15)	
-0.131908				
-0.916291 J (11/18/2006)	ND<0	(3/11/2004)	(-0.916291 - 0)/(20 - 15)	
-0.183258				

ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0	
-0.527633 J (11/28/2007)	ND<0 (3/11/2004)	(-0.527633 - 0)/(22 - 15)		
-0.0753761				
-0.510826 J (6/5/2008)	ND<0 (3/11/2004)	(-0.510826 - 0)/(23 - 15)		
-0.0638532				
-0.478036 J (11/20/2008)	ND<0 (3/11/2004)	(-0.478036 - 0)/(24 - 15)		
-0.0531151				
-0.798508 J (6/11/2009)	ND<0 (3/11/2004)	(-0.798508 - 0)/(25 - 15)		
-0.0798508				
-0.462035 J (11/16/2009)	ND<0 (3/11/2004)	(-0.462035 - 0)/(26 - 15)		
-0.0420032				
ND<-2.07944 (6/30/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(27 - 15)		
-0.173287				
-0.371064 J (11/12/2010)	ND<0 (3/11/2004)	(-0.371064 - 0)/(28 - 15)		
-0.0285434				
-0.18633 J (7/5/2011)	ND<0 (3/11/2004)	(-0.18633 - 0)/(29 - 15)		
-0.0133093				
-0.314711 J (11/22/2011)	ND<0 (3/11/2004)	(-0.314711 - 0)/(30 - 15)		
-0.0209807				
-0.314711 J (11/22/2011)	ND<0 (3/11/2004)	(-0.314711 - 0)/(30 - 15)		
-0.0209807				
-1.10866 J (4/1/2005)	ND<0 (10/12/2004)	(-1.10866 - 0)/(17 - 16)		-1.10866
-0.84397 J (10/25/2005)	ND<0 (10/12/2004)	(-0.84397 - 0)/(18 - 16)		
-0.421985				
-0.527633 J (4/29/2006)	ND<0 (10/12/2004)	(-0.527633 - 0)/(19 - 16)		
-0.175878				
-0.916291 J (11/18/2006)	ND<0 (10/12/2004)	(-0.916291 - 0)/(20 - 16)		
-0.229073				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
-0.527633 J (11/28/2007)	ND<0 (10/12/2004)	(-0.527633 - 0)/(22 - 16)		
-0.0879388				
-0.510826 J (6/5/2008)	ND<0 (10/12/2004)	(-0.510826 - 0)/(23 - 16)		
-0.0729751				
-0.478036 J (11/20/2008)	ND<0 (10/12/2004)	(-0.478036 - 0)/(24 - 16)		
-0.0597545				
-0.798508 J (6/11/2009)	ND<0 (10/12/2004)	(-0.798508 - 0)/(25 - 16)		
-0.0887231				
-0.462035 J (11/16/2009)	ND<0 (10/12/2004)	(-0.462035 - 0)/(26 - 16)		
-0.0462035				
ND<-2.07944 (6/30/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(27 - 16)		-0.18904
-0.371064 J (11/12/2010)	ND<0 (10/12/2004)	(-0.371064 - 0)/(28 - 16)		
-0.030922				
-0.18633 J (7/5/2011)	ND<0 (10/12/2004)	(-0.18633 - 0)/(29 - 16)		
-0.014333				
-0.314711 J (11/22/2011)	ND<0 (10/12/2004)	(-0.314711 - 0)/(30 - 16)		
-0.0224793				
-0.314711 J (11/22/2011)	ND<0 (10/12/2004)	(-0.314711 - 0)/(30 - 16)		
-0.0224793				
-0.84397 J (10/25/2005)	-1.10866 J (4/1/2005)	(-0.84397 - -1.10866)/(18 - 17)		
0.264693				
-0.527633 J (4/29/2006)	-1.10866 J (4/1/2005)	(-0.527633 - -1.10866)/(19 - 17)		
0.290515				
-0.916291 J (11/18/2006)	-1.10866 J (4/1/2005)	(-0.916291 - -1.10866)/(20 - 17)		
0.064124				
ND<0 (5/23/2007)	-1.10866 J (4/1/2005)	(0 - -1.10866)/(21 - 17)		
0.277166				
-0.527633 J (11/28/2007)	-1.10866 J (4/1/2005)	(-0.527633 - -1.10866)/(22 - 17)		
0.116206				
-0.510826 J (6/5/2008)	-1.10866 J (4/1/2005)	(-0.510826 - -1.10866)/(23 - 17)		
0.0996395				

-0.478036 J (11/20/2008)	-1.10866 J (4/1/2005)	(-0.478036 - -1.10866)/(24 - 17)
0.0900895		
-0.798508 J (6/11/2009)	-1.10866 J (4/1/2005)	(-0.798508 - -1.10866)/(25 - 17)
0.0387694		
-0.462035 J (11/16/2009)	-1.10866 J (4/1/2005)	(-0.462035 - -1.10866)/(26 - 17)
0.0718475		
ND<-2.07944 (6/30/2010)	-1.10866 J (4/1/2005)	(-2.07944 - -1.10866)/(27 - 17)
-0.0970779		
-0.371064 J (11/12/2010)	-1.10866 J (4/1/2005)	(-0.371064 - -1.10866)/(28 - 17)
0.0670544		
-0.18633 J (7/5/2011)	-1.10866 J (4/1/2005)	(-0.18633 - -1.10866)/(29 - 17)
0.0768611		
-0.314711 J (11/22/2011)	-1.10866 J (4/1/2005)	(-0.314711 - -1.10866)/(30 - 17)
0.0610732		
-0.314711 J (11/22/2011)	-1.10866 J (4/1/2005)	(-0.314711 - -1.10866)/(30 - 17)
0.0610732		
-0.527633 J (4/29/2006)	-0.84397 J (10/25/2005)	(-0.527633 - -0.84397)/(19 - 18)
0.316337		
-0.916291 J (11/18/2006)	-0.84397 J (10/25/2005)	(-0.916291 - -0.84397)/(20 - 18)
-0.0361603		
ND<0 (5/23/2007)	-0.84397 J (10/25/2005)	(0 - -0.84397)/(21 - 18)
0.281323		
-0.527633 J (11/28/2007)	-0.84397 J (10/25/2005)	(-0.527633 - -0.84397)/(22 - 18)
0.0790843		
-0.510826 J (6/5/2008)	-0.84397 J (10/25/2005)	(-0.510826 - -0.84397)/(23 - 18)
0.0666289		
-0.478036 J (11/20/2008)	-0.84397 J (10/25/2005)	(-0.478036 - -0.84397)/(24 - 18)
0.060989		
-0.798508 J (6/11/2009)	-0.84397 J (10/25/2005)	(-0.798508 - -0.84397)/(25 - 18)
0.00649462		
-0.462035 J (11/16/2009)	-0.84397 J (10/25/2005)	(-0.462035 - -0.84397)/(26 - 18)
0.0477418		
ND<-2.07944 (6/30/2010)	-0.84397 J (10/25/2005)	(-2.07944 - -0.84397)/(27 - 18)
-0.137275		
-0.371064 J (11/12/2010)	-0.84397 J (10/25/2005)	(-0.371064 - -0.84397)/(28 - 18)
0.0472906		
-0.18633 J (7/5/2011)	-0.84397 J (10/25/2005)	(-0.18633 - -0.84397)/(29 - 18)
0.0597855		
-0.314711 J (11/22/2011)	-0.84397 J (10/25/2005)	(-0.314711 - -0.84397)/(30 - 18)
0.0441049		
-0.314711 J (11/22/2011)	-0.84397 J (10/25/2005)	(-0.314711 - -0.84397)/(30 - 18)
0.0441049		
-0.916291 J (11/18/2006)	-0.527633 J (4/29/2006)	(-0.916291 - -0.527633)/(20 - 19)
-0.388658		
ND<0 (5/23/2007)	-0.527633 J (4/29/2006)	(0 - -0.527633)/(21 - 19)
0.263816		
-0.527633 J (11/28/2007)	-0.527633 J (4/29/2006)	(-0.527633 - -0.527633)/(22 - 19)
0		
-0.510826 J (6/5/2008)	-0.527633 J (4/29/2006)	(-0.510826 - -0.527633)/(23 - 19)
0.00420178		
-0.478036 J (11/20/2008)	-0.527633 J (4/29/2006)	(-0.478036 - -0.527633)/(24 - 19)
0.00991939		
-0.798508 J (6/11/2009)	-0.527633 J (4/29/2006)	(-0.798508 - -0.527633)/(25 - 19)
-0.0451458		
-0.462035 J (11/16/2009)	-0.527633 J (4/29/2006)	(-0.462035 - -0.527633)/(26 - 19)
0.00937104		
ND<-2.07944 (6/30/2010)	-0.527633 J (4/29/2006)	(-2.07944 - -0.527633)/(27 - 19)
-0.193976		
-0.371064 J (11/12/2010)	-0.527633 J (4/29/2006)	(-0.371064 - -0.527633)/(28 - 19)
0.0173966		

-0.18633 J (7/5/2011)	-0.527633 J (4/29/2006)	(-0.18633 - -0.527633)/(29 - 19)
0.0341303		
-0.314711 J (11/22/2011)	-0.527633 J (4/29/2006)	(-0.314711 - -0.527633)/(30 - 19)
0.0193565		
-0.314711 J (11/22/2011)	-0.527633 J (4/29/2006)	(-0.314711 - -0.527633)/(30 - 19)
0.0193565		
ND<0 (5/23/2007)	-0.916291 J (11/18/2006)	(0 - -0.916291)/(21 - 20)
0.916291		
-0.527633 J (11/28/2007)	-0.916291 J (11/18/2006)	(-0.527633 - -0.916291)/(22 - 20)
0.194329		
-0.510826 J (6/5/2008)	-0.916291 J (11/18/2006)	(-0.510826 - -0.916291)/(23 - 20)
0.135155		
-0.478036 J (11/20/2008)	-0.916291 J (11/18/2006)	(-0.478036 - -0.916291)/(24 - 20)
0.109564		
-0.798508 J (6/11/2009)	-0.916291 J (11/18/2006)	(-0.798508 - -0.916291)/(25 - 20)
0.0235566		
-0.462035 J (11/16/2009)	-0.916291 J (11/18/2006)	(-0.462035 - -0.916291)/(26 - 20)
0.0757092		
ND<-2.07944 (6/30/2010)	-0.916291 J (11/18/2006)	(-2.07944 - -0.916291)/(27 - 20)
-0.166164		
-0.371064 J (11/12/2010)	-0.916291 J (11/18/2006)	(-0.371064 - -0.916291)/(28 - 20)
0.0681534		
-0.18633 J (7/5/2011)	-0.916291 J (11/18/2006)	(-0.18633 - -0.916291)/(29 - 20)
0.0811068		
-0.314711 J (11/22/2011)	-0.916291 J (11/18/2006)	(-0.314711 - -0.916291)/(30 - 20)
0.060158		
-0.314711 J (11/22/2011)	-0.916291 J (11/18/2006)	(-0.314711 - -0.916291)/(30 - 20)
0.060158		
-0.527633 J (11/28/2007)	ND<0 (5/23/2007)	(-0.527633 - 0)/(22 - 21)
-0.527633		
-0.510826 J (6/5/2008)	ND<0 (5/23/2007)	(-0.510826 - 0)/(23 - 21)
-0.255413		
-0.478036 J (11/20/2008)	ND<0 (5/23/2007)	(-0.478036 - 0)/(24 - 21)
-0.159345		
-0.798508 J (6/11/2009)	ND<0 (5/23/2007)	(-0.798508 - 0)/(25 - 21)
-0.199627		
-0.462035 J (11/16/2009)	ND<0 (5/23/2007)	(-0.462035 - 0)/(26 - 21)
-0.0924071		
ND<-2.07944 (6/30/2010)	ND<0 (5/23/2007)	(-2.07944 - 0)/(27 - 21)
-0.346574		
-0.371064 J (11/12/2010)	ND<0 (5/23/2007)	(-0.371064 - 0)/(28 - 21)
-0.0530091		
-0.18633 J (7/5/2011)	ND<0 (5/23/2007)	(-0.18633 - 0)/(29 - 21)
-0.0232912		
-0.314711 J (11/22/2011)	ND<0 (5/23/2007)	(-0.314711 - 0)/(30 - 21)
-0.0349679		
-0.314711 J (11/22/2011)	ND<0 (5/23/2007)	(-0.314711 - 0)/(30 - 21)
-0.0349679		
-0.510826 J (6/5/2008)	-0.527633 J (11/28/2007)	(-0.510826 - -0.527633)/(23 - 22)
0.0168071		
-0.478036 J (11/20/2008)	-0.527633 J (11/28/2007)	(-0.478036 - -0.527633)/(24 - 22)
0.0247985		
-0.798508 J (6/11/2009)	-0.527633 J (11/28/2007)	(-0.798508 - -0.527633)/(25 - 22)
-0.0902917		
-0.462035 J (11/16/2009)	-0.527633 J (11/28/2007)	(-0.462035 - -0.527633)/(26 - 22)
0.0163993		
ND<-2.07944 (6/30/2010)	-0.527633 J (11/28/2007)	(-2.07944 - -0.527633)/(27 - 22)
-0.310362		

-0.371064 J (11/12/2010) -0.527633 J (11/28/2007) (-0.371064 - -0.527633)/(28 - 22)
0.0260948
-0.18633 J (7/5/2011) -0.527633 J (11/28/2007) (-0.18633 - -0.527633)/(29 - 22)
0.0487576
-0.314711 J (11/22/2011) -0.527633 J (11/28/2007) (-0.314711 - -0.527633)/(30 - 22)
0.0266152
-0.314711 J (11/22/2011) -0.527633 J (11/28/2007) (-0.314711 - -0.527633)/(30 - 22)
0.0266152

-0.478036 J (11/20/2008) -0.510826 J (6/5/2008) (-0.478036 - -0.510826)/(24 - 23)
0.0327898
-0.798508 J (6/11/2009) -0.510826 J (6/5/2008) (-0.798508 - -0.510826)/(25 - 23)
-0.143841
-0.462035 J (11/16/2009) -0.510826 J (6/5/2008) (-0.462035 - -0.510826)/(26 - 23)
0.0162634
ND<-2.07944 (6/30/2010) -0.510826 J (6/5/2008) (-2.07944 - -0.510826)/(27 - 23)
-0.392154
-0.371064 J (11/12/2010) -0.510826 J (6/5/2008) (-0.371064 - -0.510826)/(28 - 23)
0.0279524
-0.18633 J (7/5/2011) -0.510826 J (6/5/2008) (-0.18633 - -0.510826)/(29 - 23)
0.0540827
-0.314711 J (11/22/2011) -0.510826 J (6/5/2008) (-0.314711 - -0.510826)/(30 - 23)
0.0280164
-0.314711 J (11/22/2011) -0.510826 J (6/5/2008) (-0.314711 - -0.510826)/(30 - 23)
0.0280164

-0.798508 J (6/11/2009) -0.478036 J (11/20/2008) (-0.798508 - -0.478036)/(25 - 24)
-0.320472
-0.462035 J (11/16/2009) -0.478036 J (11/20/2008) (-0.462035 - -0.478036)/(26 - 24)
0.00800017
ND<-2.07944 (6/30/2010) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(27 - 24)
-0.533802
-0.371064 J (11/12/2010) -0.478036 J (11/20/2008) (-0.371064 - -0.478036)/(28 - 24)
0.026743
-0.18633 J (7/5/2011) -0.478036 J (11/20/2008) (-0.18633 - -0.478036)/(29 - 24)
0.0583412
-0.314711 J (11/22/2011) -0.478036 J (11/20/2008) (-0.314711 - -0.478036)/(30 - 24)
0.0272208
-0.314711 J (11/22/2011) -0.478036 J (11/20/2008) (-0.314711 - -0.478036)/(30 - 24)
0.0272208

-0.462035 J (11/16/2009) -0.798508 J (6/11/2009) (-0.462035 - -0.798508)/(26 - 25)
0.336472
ND<-2.07944 (6/30/2010) -0.798508 J (6/11/2009) (-2.07944 - -0.798508)/(27 - 25)
-0.640467
-0.371064 J (11/12/2010) -0.798508 J (6/11/2009) (-0.371064 - -0.798508)/(28 - 25)
0.142481
-0.18633 J (7/5/2011) -0.798508 J (6/11/2009) (-0.18633 - -0.798508)/(29 - 25)
0.153045
-0.314711 J (11/22/2011) -0.798508 J (6/11/2009) (-0.314711 - -0.798508)/(30 - 25)
0.0967594
-0.314711 J (11/22/2011) -0.798508 J (6/11/2009) (-0.314711 - -0.798508)/(30 - 25)
0.0967594

ND<-2.07944 (6/30/2010) -0.462035 J (11/16/2009) (-2.07944 - -0.462035)/(27 - 26)
-1.61741
-0.371064 J (11/12/2010) -0.462035 J (11/16/2009) (-0.371064 - -0.462035)/(28 - 26)
0.0454859
-0.18633 J (7/5/2011) -0.462035 J (11/16/2009) (-0.18633 - -0.462035)/(29 - 26)
0.091902
-0.314711 J (11/22/2011) -0.462035 J (11/16/2009) (-0.314711 - -0.462035)/(30 - 26)
0.0368312

-0.314711 J (11/22/2011)	-0.462035 J (11/16/2009)	(-0.314711 - -0.462035)/(30 - 26)
0.0368312		
-0.371064 J (11/12/2010)	ND<-2.07944 (6/30/2010)	(-0.371064 - -2.07944)/(28 - 27)
1.70838		
-0.18633 J (7/5/2011)	ND<-2.07944 (6/30/2010)	(-0.18633 - -2.07944)/(29 - 27)
0.946556		
-0.314711 J (11/22/2011)	ND<-2.07944 (6/30/2010)	(-0.314711 - -2.07944)/(30 - 27)
0.588244		
-0.314711 J (11/22/2011)	ND<-2.07944 (6/30/2010)	(-0.314711 - -2.07944)/(30 - 27)
0.588244		
-0.18633 J (7/5/2011)	-0.371064 J (11/12/2010)	(-0.18633 - -0.371064)/(29 - 28)
0.184734		
-0.314711 J (11/22/2011)	-0.371064 J (11/12/2010)	(-0.314711 - -0.371064)/(30 - 28)
0.0281765		
-0.314711 J (11/22/2011)	-0.371064 J (11/12/2010)	(-0.314711 - -0.371064)/(30 - 28)
0.0281765		
-0.314711 J (11/22/2011)	-0.18633 J (7/5/2011)	(-0.314711 - -0.18633)/(30 - 29)
-0.128381		
-0.314711 J (11/22/2011)	-0.18633 J (7/5/2011)	(-0.314711 - -0.18633)/(30 - 29)
-0.128381		
-0.314711 J (11/22/2011)	-0.314711 J (11/22/2011)	(-0.314711 - -0.314711)/(30 - 30)
Same Date		

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.61741
2	-1.10866
3	-0.640467
4	-0.554331
5	-0.533802
6	-0.527633
7	-0.421985
8	-0.392154
9	-0.388658
10	-0.369554
11	-0.346574
12	-0.320472
13	-0.310362
14	-0.281323
15	-0.277166
16	-0.255413
17	-0.229073
18	-0.221733
19	-0.210993
20	-0.199627
21	-0.193976
22	-0.18904
23	-0.184777
24	-0.183258
25	-0.175878
26	-0.173287
27	-0.168794
28	-0.166164
29	-0.159957

30	-0.159345
31	-0.15838
32	-0.152715
33	-0.148532
34	-0.143841
35	-0.140662
36	-0.138629
37	-0.138583
38	-0.137275
39	-0.131908
40	-0.130899
41	-0.129965
42	-0.128381
43	-0.128381
44	-0.123185
45	-0.12232
46	-0.120567
47	-0.115525
48	-0.114536
49	-0.110866
50	-0.109444
51	-0.105527
52	-0.105496
53	-0.103972
54	-0.10181
55	-0.100788
56	-0.099021
57	-0.0970779
58	-0.0945201
59	-0.0937745
60	-0.0924071
61	-0.0923886
62	-0.0916291
63	-0.0904105
64	-0.0902917
65	-0.0887231
66	-0.0879388
67	-0.0879388
68	-0.0866434
69	-0.0852817
70	-0.084397
71	-0.0832992
72	-0.0831777
73	-0.0799785
74	-0.0798508
75	-0.0791902
76	-0.0767246
77	-0.0763576
78	-0.0753761
79	-0.0753761
80	-0.0739108
81	-0.0729751
82	-0.0725916
83	-0.0704839
84	-0.0703308
85	-0.0692914
86	-0.0665423
87	-0.0659541
88	-0.0659541
89	-0.0654493
90	-0.0649208
91	-0.0638532

92	-0.0614237
93	-0.061086
94	-0.0602836
95	-0.0597545
96	-0.0586259
97	-0.0586259
98	-0.0572682
99	-0.0570363
100	-0.0567584
101	-0.0562647
102	-0.0538995
103	-0.0532338
104	-0.0531151
105	-0.0530091
106	-0.0527633
107	-0.0527633
108	-0.0527481
109	-0.0510826
110	-0.050905
111	-0.0499067
112	-0.0496453
113	-0.0482258
114	-0.0479666
115	-0.0479666
116	-0.0478036
117	-0.046971
118	-0.0464387
119	-0.0462035
120	-0.0451458
121	-0.0443615
122	-0.0439694
123	-0.0439694
124	-0.0434578
125	-0.0425688
126	-0.0420267
127	-0.0420032
128	-0.0405871
129	-0.0405871
130	-0.0399254
131	-0.0398363
132	-0.0392943
133	-0.038503
134	-0.0380242
135	-0.0376881
136	-0.0376881
137	-0.036772
138	-0.0364875
139	-0.0362958
140	-0.0361603
141	-0.0355412
142	-0.0351755
143	-0.0351755
144	-0.0349679
145	-0.0349679
146	-0.0347177
147	-0.0341454
148	-0.034055
149	-0.0332712
150	-0.0330025
151	-0.032977
152	-0.032977
153	-0.0319266

154	-0.0318691
155	-0.0310372
156	-0.0310372
157	-0.030922
158	-0.0308024
159	-0.0300486
160	-0.0298772
161	-0.0293129
162	-0.0293129
163	-0.0288772
164	-0.0285434
165	-0.0283792
166	-0.0281198
167	-0.0277701
168	-0.0271786
169	-0.0268856
170	-0.0265575
171	-0.0265045
172	-0.0263816
173	-0.0256686
174	-0.0255413
175	-0.0251598
176	-0.0251254
177	-0.0247376
178	-0.024325
179	-0.0243177
180	-0.0239018
181	-0.0232912
182	-0.0232193
183	-0.0231915
184	-0.0231018
185	-0.0227636
186	-0.0224793
187	-0.0224793
188	-0.0220017
189	-0.0218273
190	-0.0217289
191	-0.0210016
192	-0.0209807
193	-0.0209807
194	-0.0207842
195	-0.0206146
196	-0.0200885
197	-0.0196694
198	-0.0196694
199	-0.0195297
200	-0.0192515
201	-0.0185532
202	-0.0185124
203	-0.0185124
204	-0.0184814
205	-0.0176697
206	-0.0174839
207	-0.0174839
208	-0.0168665
209	-0.0165637
210	-0.0165637
211	-0.0161332
212	-0.0157355
213	-0.0157355
214	-0.015461
215	-0.0149862

216	-0.0149862
217	-0.0148425
218	-0.014333
219	-0.014305
220	-0.014305
221	-0.0142717
222	-0.0137431
223	-0.0136831
224	-0.0136831
225	-0.0133093
226	-0.0131129
227	-0.0131129
228	-0.0125884
229	-0.0125884
230	-0.012422
231	-0.0121043
232	-0.0121043
233	-0.011656
234	-0.011656
235	-0.0116456
236	-0.0112397
237	-0.0112397
238	-0.0109606
239	-0.0108521
240	-0.0108521
241	-0.0103516
242	-0.00980682
243	-0.00931648
244	-0.00887284
245	-0.00846953
246	-0.00810129
247	-0.00776373
248	-0.00745318
249	-0.00716652
250	-0.0069011
251	-0.00665463
252	0
253	0
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377	0
378	0
379	0
380	0
381	0
382	0
383	0
384	0
385	0
386	0
387	0
388	0
389	0.00420178
390	0.00649462
391	0.00800017
392	0.00937104
393	0.00991939
394	0.0162634
395	0.0163993
396	0.0168071
397	0.0173966
398	0.0193565
399	0.0193565
400	0.0235566
401	0.0247985

402	0.0260948
403	0.0266152
404	0.0266152
405	0.026743
406	0.0272208
407	0.0272208
408	0.0279524
409	0.0280164
410	0.0280164
411	0.0281765
412	0.0281765
413	0.0327898
414	0.0341303
415	0.0368312
416	0.0368312
417	0.0387694
418	0.0441049
419	0.0441049
420	0.0454859
421	0.0472906
422	0.0477418
423	0.0487576
424	0.0540827
425	0.0583412
426	0.0597855
427	0.060158
428	0.060158
429	0.060989
430	0.0610732
431	0.0610732
432	0.064124
433	0.0666289
434	0.0670544
435	0.0681534
436	0.0718475
437	0.0757092
438	0.0768611
439	0.0790843
440	0.0811068
441	0.0900895
442	0.091902
443	0.0967594
444	0.0967594
445	0.0996395
446	0.109564
447	0.116206
448	0.135155
449	0.142481
450	0.153045
451	0.184734
452	0.194329
453	0.263816
454	0.264693
455	0.277166
456	0.281323
457	0.290515
458	0.316337
459	0.336472
460	0.588244
461	0.588244
462	0.916291
463	0.946556

464 1.70838
Sen's Estimator (Median Q) is -0.0118801

Tied Group	Value	Members
1	0	17
2	-0.527633	2
3	-0.314711	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 10644
B = 18
C = 4080
D = 0
E = 276
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 2869.63
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 88.113
M1 = (464 - 88.113)/2.0 = 187.943
M2 = (464 + 88.113)/2.0 + 1 = 277.057
Lower limit is -0.0220017 = Q(188)
Upper limit is 0 = Q(277)
-0.0220017 < 0 < 0 indicating no trend in data.

Concentrations (ppb)

Parameter: Chloroform

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 221
Percent Non-Detects: 89.8374%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.14	ND<0.14
			11/16/2009	ND<0.14	ND<0.14
			6/30/2010	ND<0.14	ND<0.14
			11/12/2010	ND<0.14 U	ND<0.14 U
			7/5/2011	ND<0.14 U	ND<0.14 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12A R	21	20 (95.2381%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.14	ND<0.14
			11/16/2009	ND<0.14	ND<0.14
			6/30/2010	ND<0.14	ND<0.14
			11/12/2010	ND<0.14 U	ND<0.14 U
			7/5/2011	1.3	1.3
			11/22/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
MW-9	31	27 (87.0968%)	7/20/1995	0.96 J	0.96 J
			8/24/1995	0.6 J	0.6 J

			9/28/1995	0.5 J	0.5 J	
			10/26/1995	0.5 J	0.5 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.14	ND<0.14	
			11/16/2009	ND<0.14	ND<0.14	
			6/30/2010	ND<0.14	ND<0.14	
			11/12/2010	ND<0.14 U	ND<0.14 U	
			7/5/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U	ND<0.14 U	
MW-12BR		21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.14	ND<0.14	
			11/16/2009	ND<0.14	ND<0.14	
			6/30/2010	ND<0.14	ND<0.14	
			11/12/2010	ND<0.14 U	ND<0.14 U	
			7/5/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U	ND<0.14 U	
MW-6	31	20 (64.5161%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	

			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.24 J	0.24 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.27 J	0.27 J	
			6/5/2008	0.21 J	0.21 J	
			11/20/2008	0.21 J	0.21 J	
			6/11/2009	0.31 J	0.31 J	
			11/16/2009	0.37 J	0.37 J	
			6/30/2010	0.44 J	0.44 J	
			11/12/2010	0.51 J	0.51 J	
			7/5/2011	0.28 J	0.28 J	
			11/22/2011	0.26 J	0.26 J	
			11/22/2011	0.26 J	0.26 J	
MW-11R	31	22 (70.9677%)	7/20/1995	0.38 J	0.38 J	
			8/24/1995	ND<2	ND<2	
			9/28/1995	0.6 J	0.6 J	
			10/26/1995	0.9 J	0.9 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.22 J	0.22 J	
			6/11/2009	ND<0.14	ND<0.14	
			11/16/2009	0.23 J	0.23 J	
			6/30/2010	ND<0.14	ND<0.14	
			11/12/2010	0.18 J	0.18 J	
			7/5/2011	0.22 J	0.22 J	
			11/22/2011	0.27 J	0.27 J	
			11/22/2011	0.27 J	0.27 J	
MW-8	30	30 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	

			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.14		ND<0.14
			6/30/2010	ND<0.14		ND<0.14
			11/12/2010	ND<0.14 U		ND<0.14 U
			7/5/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U		ND<0.14 U
			11/22/2011	ND<0.14 U		ND<0.14 U
MW-7	31	31 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.14		ND<0.14
			11/16/2009	ND<0.14		ND<0.14
			6/30/2010	ND<0.14		ND<0.14
			11/12/2010	ND<0.14 U		ND<0.14 U
			7/5/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U		ND<0.14 U
			11/22/2011	ND<0.14 U		ND<0.14 U
MW-10	31	31 (100%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	

9/24/1997	ND<2	ND<2	
4/7/1998	ND<2	ND<2	
9/23/1998	ND<2	ND<2	
3/16/1999	ND<2	ND<2	
9/23/1999	ND<2	ND<2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	ND<2	ND<2	
10/12/2004	ND<2	ND<2	
4/1/2005	ND<2	ND<2	
10/25/2005	ND<2	ND<2	
4/29/2006	ND<2	ND<2	
11/18/2006	ND<2	ND<2	
5/23/2007	ND<2	ND<2	
11/28/2007	ND<2	ND<2	
6/5/2008	ND<2	ND<2	
11/20/2008	ND<2	ND<2	
6/11/2009	ND<0.14		ND<0.14
11/16/2009	ND<0.14		ND<0.14
6/30/2010	ND<0.14		ND<0.14
11/12/2010	ND<0.14 U		ND<0.14 U
7/5/2011	ND<0.14 U	ND<0.14 U	
11/22/2011	ND<0.14 U		ND<0.14 U
11/22/2011	ND<0.14 U		ND<0.14 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Chloroform

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.07	-2.65209	7.03356	-0.185646
2	0.07	-2.40892	12.8365	-0.354271
3	0.07	-2.25713	17.9311	-0.51227
4	0.07	-2.14441	22.5296	-0.662378
5	0.07	-2.05375	26.7475	-0.806141
6	0.07	-1.97737	30.6575	-0.944556
7	0.07	-1.91103	34.3095	-1.07833
8	0.07	-1.85218	37.7401	-1.20798
9	0.07	-1.79912	40.9769	-1.33392
10	0.07	-1.75069	44.0418	-1.45647
11	0.07	-1.70604	46.9524	-1.57589
12	0.07	-1.66456	49.7231	-1.69241
13	0.07	-1.62576	52.3662	-1.80621
14	0.07	-1.58927	54.892	-1.91746
15	0.07	-1.55477	57.3093	-2.0263
16	0.07	-1.52203	59.6259	-2.13284
17	0.07	-1.49085	61.8486	-2.2372
18	0.07	-1.46106	63.9833	-2.33947
19	0.07	-1.4325	66.0353	-2.43975
20	0.07	-1.40507	68.0096	-2.5381
21	0.07	-1.3722	69.8925	-2.63416
22	0.07	-1.34694	71.7067	-2.72844
23	0.07	-1.32251	73.4558	-2.82102
24	0.07	-1.29884	75.1427	-2.91194
25	0.07	-1.27588	76.7706	-3.00125
26	0.07	-1.25357	78.342	-3.089
27	0.07	-1.23187	79.8595	-3.17523
28	0.07	-1.21073	81.3254	-3.25998
29	0.07	-1.19012	82.7418	-3.34329
30	0.07	-1.17	84.1107	-3.42519
31	0.07	-1.15035	85.434	-3.50571
32	0.07	-1.13113	86.7134	-3.58489
33	0.07	-1.11232	87.9507	-3.66275
34	0.07	-1.0939	89.1473	-3.73933
35	0.07	-1.07584	90.3047	-3.81463
36	0.07	-1.05812	91.4243	-3.8887
37	0.07	-1.04073	92.5075	-3.96155
38	0.07	-1.02365	93.5553	-4.03321
39	0.07	-1.00687	94.5691	-4.10369
40	0.07	-0.990356	95.5499	-4.17302
41	0.07	-0.974114	96.4988	-4.2412
42	0.07	-0.954165	97.4092	-4.308
43	0.07	-0.938476	98.29	-4.37369
44	0.07	-0.923014	99.1419	-4.4383
45	0.07	-0.907769	99.966	-4.50184
46	0.07	-0.892733	100.763	-4.56433
47	0.07	-0.877897	101.534	-4.62579
48	0.18	-0.863249	102.279	-4.78117
49	0.21	-0.848786	102.999	-4.95942
50	0.21	-0.834498	103.696	-5.13466
51	0.22	-0.820379	104.369	-5.31515

52	0.22	-0.806422	105.019	-5.49256
53	0.23	-0.792618	105.647	-5.67486
54	0.24	-0.778966	106.254	-5.86181
55	0.26	-0.765456	106.84	-6.06083
56	0.26	-0.752084	107.406	-6.25637
57	0.27	-0.738846	107.951	-6.45586
58	0.27	-0.725736	108.478	-6.65181
59	0.27	-0.712751	108.986	-6.84425
60	0.28	-0.699883	109.476	-7.04022
61	0.31	-0.687131	109.948	-7.25323
62	0.37	-0.671346	110.399	-7.50163
63	0.38	-0.658838	110.833	-7.75199
64	0.44	-0.646431	111.251	-8.03642
65	0.5	-0.634124	111.653	-8.35348
66	0.5	-0.621911	112.04	-8.66443
67	0.51	-0.609791	112.412	-8.97543
68	0.6	-0.597761	112.769	-9.33408
69	0.6	-0.585815	113.112	-9.68557
70	0.9	-0.573953	113.441	-10.2021
71	0.96	-0.56217	113.758	-10.7418
72	1	-0.550465	114.061	-11.2923
73	1	-0.538836	114.351	-11.8311
74	1	-0.52728	114.629	-12.3584
75	1	-0.515791	114.895	-12.8742
76	1	-0.504372	115.149	-13.3786
77	1	-0.493018	115.392	-13.8716
78	1	-0.481728	115.624	-14.3533
79	1	-0.470498	115.846	-14.8238
80	1	-0.459327	116.057	-15.2831
81	1	-0.448213	116.258	-15.7313
82	1	-0.437153	116.449	-16.1685
83	1	-0.423405	116.628	-16.5919
84	1	-0.412463	116.798	-17.0044
85	1	-0.401571	116.959	-17.4059
86	1	-0.390726	117.112	-17.7967
87	1	-0.379927	117.256	-18.1766
88	1	-0.369171	117.393	-18.5458
89	1	-0.358459	117.521	-18.9042
90	1	-0.347787	117.642	-19.252
91	1	-0.337155	117.756	-19.5892
92	1	-0.326561	117.863	-19.9157
93	1	-0.316004	117.962	-20.2317
94	1	-0.305481	118.056	-20.5372
95	1	-0.294992	118.143	-20.8322
96	1	-0.284535	118.224	-21.1167
97	1	-0.27411	118.299	-21.3908
98	1	-0.263715	118.368	-21.6546
99	1	-0.253347	118.433	-21.9079
100	1	-0.243007	118.492	-22.1509
101	1	-0.232693	118.546	-22.3836
102	1	-0.222403	118.595	-22.606
103	1	-0.209575	118.639	-22.8156
104	1	-0.199336	118.679	-23.0149
105	1	-0.189118	118.715	-23.204
106	1	-0.17892	118.747	-23.383
107	1	-0.168741	118.775	-23.5517
108	1	-0.158579	118.8	-23.7103
109	1	-0.148434	118.822	-23.8587
110	1	-0.138305	118.841	-23.997
111	1	-0.128189	118.858	-24.1252
112	1	-0.118085	118.872	-24.2433
113	1	-0.107995	118.883	-24.3513

114	1	-0.0979139	118.893	-24.4492
115	1	-0.0878447	118.901	-24.537
116	1	-0.0777834	118.907	-24.6148
117	1	-0.0677301	118.911	-24.6826
118	1	-0.0576847	118.915	-24.7402
119	1	-0.0476439	118.917	-24.7879
120	1	-0.0376076	118.918	-24.8255
121	1	-0.0275759	118.919	-24.8531
122	1	-0.0175476	118.919	-24.8706
123	1	-0.00751925	118.92	-24.8781
124	1	0.00751925	118.92	-24.8706
125	1	0.0175476	118.92	-24.8531
126	1	0.0275759	118.921	-24.8255
127	1	0.0376076	118.922	-24.7879
128	1	0.0476439	118.924	-24.7402
129	1	0.0576847	118.928	-24.6826
130	1	0.0677301	118.932	-24.6148
131	1	0.0777834	118.938	-24.537
132	1	0.0878447	118.946	-24.4492
133	1	0.0979139	118.956	-24.3513
134	1	0.107995	118.967	-24.2433
135	1	0.118085	118.981	-24.1252
136	1	0.128189	118.998	-23.997
137	1	0.138305	119.017	-23.8587
138	1	0.148434	119.039	-23.7103
139	1	0.158579	119.064	-23.5517
140	1	0.168741	119.092	-23.383
141	1	0.17892	119.124	-23.204
142	1	0.189118	119.16	-23.0149
143	1	0.199336	119.2	-22.8156
144	1	0.209575	119.244	-22.606
145	1	0.222403	119.293	-22.3836
146	1	0.232693	119.347	-22.1509
147	1	0.243007	119.407	-21.9079
148	1	0.253347	119.471	-21.6546
149	1	0.263715	119.54	-21.3908
150	1	0.27411	119.615	-21.1167
151	1	0.284535	119.696	-20.8322
152	1	0.294992	119.783	-20.5372
153	1	0.305481	119.877	-20.2317
154	1	0.316004	119.977	-19.9157
155	1	0.326561	120.083	-19.5892
156	1	0.337155	120.197	-19.252
157	1	0.347787	120.318	-18.9042
158	1	0.358459	120.446	-18.5458
159	1	0.369171	120.583	-18.1766
160	1	0.379927	120.727	-17.7967
161	1	0.390726	120.88	-17.4059
162	1	0.401571	121.041	-17.0044
163	1	0.412463	121.211	-16.5919
164	1	0.423405	121.39	-16.1685
165	1	0.437153	121.581	-15.7313
166	1	0.448213	121.782	-15.2831
167	1	0.459327	121.993	-14.8238
168	1	0.470498	122.215	-14.3533
169	1	0.481728	122.447	-13.8716
170	1	0.493018	122.69	-13.3786
171	1	0.504372	122.944	-12.8742
172	1	0.515791	123.21	-12.3584
173	1	0.52728	123.488	-11.8311
174	1	0.538836	123.779	-11.2923
175	1	0.550465	124.082	-10.7418

176	1	0.56217	124.398	-10.1796	
177	1	0.573953		124.727	-9.60569
178	1	0.585815		125.07	-9.01988
179	1	0.597761		125.428	-8.42212
180	1	0.609791		125.799	-7.81232
181	1	0.621911		126.186	-7.19041
182	1	0.634124		126.588	-6.55629
183	1	0.646431		127.006	-5.90986
184	1	0.658838		127.44	-5.25102
185	1	0.671346		127.891	-4.57967
186	1	0.687131		128.363	-3.89254
187	1	0.699883		128.853	-3.19266
188	1	0.712751		129.361	-2.47991
189	1	0.725736		129.888	-1.75417
190	1	0.738846		130.433	-1.01533
191	1	0.752084		130.999	-0.263243
192	1	0.765456		131.585	0.502213
193	1	0.778966		132.192	1.28118
194	1	0.792618		132.82	2.0738
195	1	0.806422		133.47	2.88022
196	1	0.820379		134.143	3.7006
197	1	0.834498		134.84	4.5351
198	1	0.848786		135.56	5.38388
199	1	0.863249		136.305	6.24713
200	1	0.877897		137.076	7.12503
201	1	0.892733		137.873	8.01776
202	1	0.907769		138.697	8.92553
203	1	0.923014		139.549	9.84854
204	1	0.938476		140.43	10.787
205	1	0.954165		141.34	11.7412
206	1	0.974114		142.289	12.7153
207	1	0.990356		143.27	13.7057
208	1	1.00687	144.284	14.7125	
209	1	1.02365	145.332	15.7362	
210	1	1.04073	146.415	16.7769	
211	1	1.05812	147.534	17.835	
212	1	1.07584	148.692	18.9109	
213	1	1.0939	149.888	20.0048	
214	1	1.11232	151.126	21.1171	
215	1	1.13113	152.405	22.2482	
216	1	1.15035	153.728	23.3986	
217	1	1.17	155.097	24.5686	
218	1	1.19012	156.514	25.7587	
219	1	1.21073	157.98	26.9694	
220	1	1.23187	159.497	28.2013	
221	1	1.25357	161.068	29.4548	
222	1	1.27588	162.696	30.7307	
223	1	1.29884	164.383	32.0296	
224	1	1.32251	166.132	33.3521	
225	1	1.34694	167.947	34.699	
226	1	1.3722	169.83	36.0712	
227	1	1.40507	171.804	37.4763	
228	1	1.4325	173.856	38.9088	
229	1	1.46106	175.991	40.3698	
230	1	1.49085	178.213	41.8607	
231	1	1.52203	180.53	43.3827	
232	1	1.55477	182.947	44.9375	
233	1	1.58927	185.473	46.5268	
234	1	1.62576	188.116	48.1525	
235	1	1.66456	190.887	49.8171	
236	1	1.70604	193.797	51.5231	
237	1	1.75069	196.862	53.2738	

238	1	1.79912	200.099	55.0729
239	1	1.85218	203.53	56.9251
240	1	1.91103	207.182	58.8361
241	1	1.97737	211.092	60.8135
242	1	2.05375	215.309	62.8673
243	1	2.14441	219.908	65.0117
244	1	2.25713	225.003	67.2688
245	1	2.40892	230.806	69.6777
246	1.3	2.65209	237.839	73.1254

Data Set Standard Deviation = 0.389267
Numerator = 5347.33
Denominator = 8829.65
W Statistic = 0.605611 = 5347.33 / 8829.65

5% Critical value of 0.976 exceeds 0.605611
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.605611
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chloroform

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.775993
0.775993 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.07	0.00404858	-2.65209	57.725	344.01	
2	0.07	0.00809717	-2.40892	57.725	332.136	
3	0.07	0.0121457	-2.25713	57.725	324.723	
4	0.07	0.0161943	-2.14441	57.725	319.219	
5	0.07	0.0202429	-2.05375	57.725	314.791	
6	0.07	0.0242915	-1.97737	57.725	311.062	
7	0.07	0.0283401	-1.91103	57.725	307.822	
8	0.07	0.0323887	-1.85218	57.725	304.948	
9	0.07	0.0364372	-1.79912	57.725	302.357	
10	0.07	0.0404858	-1.75069	57.725	299.992	
11	0.07	0.0445344	-1.70604	57.725	297.812	
12	0.07	0.048583	-1.66456	57.725	295.786	
13	0.07	0.0526316	-1.62576	57.725	293.891	
14	0.07	0.0566802	-1.58927	57.725	292.109	
15	0.07	0.0607287	-1.55477	57.725	290.425	
16	0.07	0.0647773	-1.52203	57.725	288.826	
17	0.07	0.0688259	-1.49085	57.725	287.303	
18	0.07	0.0728745	-1.46106	57.725	285.848	
19	0.07	0.0769231	-1.4325	57.725	284.454	
20	0.07	0.0809717	-1.40507	57.725	283.114	
21	0.07	0.0850202	-1.3722	57.725	281.509	
22	0.07	0.0890688	-1.34694	57.725	280.276	
23	0.07	0.0931174	-1.32251	57.725	279.082	
24	0.07	0.097166	-1.29884	57.725	277.926	
25	0.07	0.101215	-1.27588	57.725	276.805	
26	0.07	0.105263	-1.25357	57.725	275.716	
27	0.07	0.109312	-1.23187	57.725	274.656	
28	0.07	0.11336	-1.21073	57.725	273.624	
29	0.07	0.117409	-1.19012	57.725	272.617	
30	0.07	0.121457	-1.17	57.725	271.635	
31	0.07	0.125506	-1.15035	57.725	270.675	
32	0.07	0.129555	-1.13113	57.725	269.737	
33	0.07	0.133603	-1.11232	57.725	268.818	
34	0.07	0.137652	-1.0939	57.725	267.919	
35	0.07	0.1417	-1.07584	57.725	267.037	
36	0.07	0.145749	-1.05812	57.725	266.172	
37	0.07	0.149798	-1.04073	57.725	265.322	
38	0.07	0.153846	-1.02365	57.725	264.488	
39	0.07	0.157895	-1.00687	57.725	263.669	
40	0.07	0.161943	-0.990356	57.725	262.862	
41	0.07	0.165992	-0.974114	57.725	262.069	
42	0.07	0.17004	-0.954165	57.725	261.095	
43	0.07	0.174089	-0.938476	57.725	260.329	
44	0.07	0.178138	-0.923014	57.725	259.574	
45	0.07	0.182186	-0.907769	57.725	258.829	
46	0.07	0.186235	-0.892733	57.725	258.095	
47	0.07	0.190283	-0.877897	57.725	257.371	
48	0.18	0.194332	-0.863249	87.15	256.655	

49	0.21	0.198381	-0.848786	95.175	255.949
50	0.21	0.202429	-0.834498	95.175	255.251
51	0.22	0.206478	-0.820379	97.85	254.562
52	0.22	0.210526	-0.806422	97.85	253.88
53	0.23	0.214575	-0.792618	100.525	253.206
54	0.24	0.218623	-0.778966	103.2	252.54
55	0.26	0.222672	-0.765456	108.55	251.88
56	0.26	0.226721	-0.752084	108.55	251.227
57	0.27	0.230769	-0.738846	111.225	250.58
58	0.27	0.234818	-0.725736	111.225	249.94
59	0.27	0.238866	-0.712751	111.225	249.306
60	0.28	0.242915	-0.699883	113.9	248.678
61	0.31	0.246964	-0.687131	121.925	248.055
62	0.37	0.251012	-0.671346	137.975	247.284
63	0.38	0.255061	-0.658838	140.65	246.673
64	0.44	0.259109	-0.646431	156.7	246.067
65	0.5	0.263158	-0.634124	172.75	245.466
66	0.5	0.267206	-0.621911	172.75	244.87
67	0.51	0.271255	-0.609791	175.425	244.278
68	0.6	0.275304	-0.597761	199.5	243.691
69	0.6	0.279352	-0.585815	199.5	243.107
70	0.9	0.283401	-0.573953	279.75	242.528
71	0.96	0.287449	-0.56217	295.8	241.953
72	1	0.291498	-0.550465	306.5	241.381
73	1	0.295547	-0.538836	306.5	240.813
74	1	0.299595	-0.52728	306.5	240.249
75	1	0.303644	-0.515791	306.5	239.688
76	1	0.307692	-0.504372	306.5	239.13
77	1	0.311741	-0.493018	306.5	238.576
78	1	0.315789	-0.481728	306.5	238.024
79	1	0.319838	-0.470498	306.5	237.476
80	1	0.323887	-0.459327	306.5	236.93
81	1	0.327935	-0.448213	306.5	236.388
82	1	0.331984	-0.437153	306.5	235.848
83	1	0.336032	-0.423405	306.5	235.176
84	1	0.340081	-0.412463	306.5	234.642
85	1	0.34413	-0.401571	306.5	234.11
86	1	0.348178	-0.390726	306.5	233.58
87	1	0.352227	-0.379927	306.5	233.053
88	1	0.356275	-0.369171	306.5	232.528
89	1	0.360324	-0.358459	306.5	232.005
90	1	0.364372	-0.347787	306.5	231.484
91	1	0.368421	-0.337155	306.5	230.964
92	1	0.37247	-0.326561	306.5	230.447
93	1	0.376518	-0.316004	306.5	229.932
94	1	0.380567	-0.305481	306.5	229.418
95	1	0.384615	-0.294992	306.5	228.905
96	1	0.388664	-0.284535	306.5	228.395
97	1	0.392713	-0.27411	306.5	227.886
98	1	0.396761	-0.263715	306.5	227.378
99	1	0.40081	-0.253347	306.5	226.872
100	1	0.404858	-0.243007	306.5	226.367
101	1	0.408907	-0.232693	306.5	225.863
102	1	0.412955	-0.222403	306.5	225.361
103	1	0.417004	-0.209575	306.5	224.734
104	1	0.421053	-0.199336	306.5	224.234
105	1	0.425101	-0.189118	306.5	223.735
106	1	0.42915	-0.17892	306.5	223.237
107	1	0.433198	-0.168741	306.5	222.74
108	1	0.437247	-0.158579	306.5	222.244
109	1	0.441296	-0.148434	306.5	221.749
110	1	0.445344	-0.138305	306.5	221.254

111	1	0.449393	-0.128189	306.5	220.76
112	1	0.453441	-0.118085	306.5	220.267
113	1	0.45749	-0.107995	306.5	219.774
114	1	0.461538	-0.0979139	306.5	219.281
115	1	0.465587	-0.0878447	306.5	218.79
116	1	0.469636	-0.0777834	306.5	218.298
117	1	0.473684	-0.0677301	306.5	217.807
118	1	0.477733	-0.0576847	306.5	217.317
119	1	0.481781	-0.0476439	306.5	216.827
120	1	0.48583	-0.0376076	306.5	216.337
121	1	0.489879	-0.0275759	306.5	215.847
122	1	0.493927	-0.0175476	306.5	215.357
123	1	0.497976	-0.00751925	306.5	214.867
124	1	0.502024	0.00751925	306.5	214.133
125	1	0.506073	0.0175476	306.5	213.643
126	1	0.510121	0.0275759	306.5	213.153
127	1	0.51417	0.0376076	306.5	212.663
128	1	0.518219	0.0476439	306.5	212.173
129	1	0.522267	0.0576847	306.5	211.683
130	1	0.526316	0.0677301	306.5	211.193
131	1	0.530364	0.0777834	306.5	210.702
132	1	0.534413	0.0878447	306.5	210.21
133	1	0.538462	0.0979139	306.5	209.719
134	1	0.54251	0.107995	306.5	209.226
135	1	0.546559	0.118085	306.5	208.733
136	1	0.550607	0.128189	306.5	208.24
137	1	0.554656	0.138305	306.5	207.746
138	1	0.558704	0.148434	306.5	207.251
139	1	0.562753	0.158579	306.5	206.756
140	1	0.566802	0.168741	306.5	206.26
141	1	0.57085	0.17892	306.5	205.763
142	1	0.574899	0.189118	306.5	205.265
143	1	0.578947	0.199336	306.5	204.766
144	1	0.582996	0.209575	306.5	204.266
145	1	0.587045	0.222403	306.5	203.639
146	1	0.591093	0.232693	306.5	203.137
147	1	0.595142	0.243007	306.5	202.633
148	1	0.59919	0.253347	306.5	202.128
149	1	0.603239	0.263715	306.5	201.622
150	1	0.607287	0.27411	306.5	201.114
151	1	0.611336	0.284535	306.5	200.605
152	1	0.615385	0.294992	306.5	200.095
153	1	0.619433	0.305481	306.5	199.582
154	1	0.623482	0.316004	306.5	199.068
155	1	0.62753	0.326561	306.5	198.553
156	1	0.631579	0.337155	306.5	198.036
157	1	0.635628	0.347787	306.5	197.516
158	1	0.639676	0.358459	306.5	196.995
159	1	0.643725	0.369171	306.5	196.472
160	1	0.647773	0.379927	306.5	195.947
161	1	0.651822	0.390726	306.5	195.42
162	1	0.65587	0.401571	306.5	194.89
163	1	0.659919	0.412463	306.5	194.358
164	1	0.663968	0.423405	306.5	193.824
165	1	0.668016	0.437153	306.5	193.152
166	1	0.672065	0.448213	306.5	192.612
167	1	0.676113	0.459327	306.5	192.07
168	1	0.680162	0.470498	306.5	191.524
169	1	0.684211	0.481728	306.5	190.976
170	1	0.688259	0.493018	306.5	190.424
171	1	0.692308	0.504372	306.5	189.87
172	1	0.696356	0.515791	306.5	189.312

173	1	0.700405	0.52728	306.5	188.751	
174	1	0.704453	0.538836	306.5	188.187	
175	1	0.708502	0.550465	306.5	187.619	
176	1	0.712551	0.56217	306.5	187.047	
177	1	0.716599	0.573953	306.5	186.472	
178	1	0.720648	0.585815	306.5	185.893	
179	1	0.724696	0.597761	306.5	185.309	
180	1	0.728745	0.609791	306.5	184.722	
181	1	0.732794	0.621911	306.5	184.13	
182	1	0.736842	0.634124	306.5	183.534	
183	1	0.740891	0.646431	306.5	182.933	
184	1	0.744939	0.658838	306.5	182.327	
185	1	0.748988	0.671346	306.5	181.716	
186	1	0.753036	0.687131	306.5	180.945	
187	1	0.757085	0.699883	306.5	180.322	
188	1	0.761134	0.712751	306.5	179.694	
189	1	0.765182	0.725736	306.5	179.06	
190	1	0.769231	0.738846	306.5	178.42	
191	1	0.773279	0.752084	306.5	177.773	
192	1	0.777328	0.765456	306.5	177.12	
193	1	0.781377	0.778966	306.5	176.46	
194	1	0.785425	0.792618	306.5	175.794	
195	1	0.789474	0.806422	306.5	175.12	
196	1	0.793522	0.820379	306.5	174.438	
197	1	0.797571	0.834498	306.5	173.749	
198	1	0.801619	0.848786	306.5	173.051	
199	1	0.805668	0.863249	306.5	172.345	
200	1	0.809717	0.877897	306.5	171.629	
201	1	0.813765	0.892733	306.5	170.905	
202	1	0.817814	0.907769	306.5	170.171	
203	1	0.821862	0.923014	306.5	169.426	
204	1	0.825911	0.938476	306.5	168.671	
205	1	0.82996	0.954165	306.5	167.905	
206	1	0.834008	0.974114	306.5	166.931	
207	1	0.838057	0.990356	306.5	166.138	
208	1	0.842105	1.00687	306.5	165.331	
209	1	0.846154	1.02365	306.5	164.512	
210	1	0.850202	1.04073	306.5	163.678	
211	1	0.854251	1.05812	306.5	162.828	
212	1	0.8583	1.07584	306.5	161.963	
213	1	0.862348	1.0939	306.5	161.081	
214	1	0.866397	1.11232	306.5	160.182	
215	1	0.870445	1.13113	306.5	159.263	
216	1	0.874494	1.15035	306.5	158.325	
217	1	0.878543	1.17	306.5	157.365	
218	1	0.882591	1.19012	306.5	156.383	
219	1	0.88664	1.21073	306.5	155.376	
220	1	0.890688	1.23187	306.5	154.344	
221	1	0.894737	1.25357	306.5	153.284	
222	1	0.898785	1.27588	306.5	152.195	
223	1	0.902834	1.29884	306.5	151.074	
224	1	0.906883	1.32251	306.5	149.918	
225	1	0.910931	1.34694	306.5	148.724	
226	1	0.91498	1.3722	306.5	147.491	
227	1	0.919028	1.40507	306.5	145.886	
228	1	0.923077	1.4325	306.5	144.546	
229	1	0.927126	1.46106	306.5	143.152	
230	1	0.931174	1.49085	306.5	141.697	
231	1	0.935223	1.52203	306.5	140.174	
232	1	0.939271	1.55477	306.5	138.575	
233	1	0.94332	1.58927	306.5	136.891	
234	1	0.947368	1.62576	306.5	135.109	

235	1	0.951417	1.66456	306.5	133.214
236	1	0.955466	1.70604	306.5	131.188
237	1	0.959514	1.75069	306.5	129.008
238	1	0.963563	1.79912	306.5	126.643
239	1	0.967611	1.85218	306.5	124.052
240	1	0.97166	1.91103	306.5	121.178
241	1	0.975709	1.97737	306.5	117.938
242	1	0.979757	2.05375	306.5	114.209
243	1	0.983806	2.14441	306.5	109.781
244	1	0.987854	2.25713	306.5	104.277
245	1	0.991903	2.40892	306.5	96.8642
246	1.3	0.995951	2.65209	386.75	84.9898

Shapiro-Francia Test of Normality

Parameter: Chloroform

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.65926	-2.65209	7.03356	7.05259
2	-2.65926	-2.40892	12.8365	13.4585
3	-2.65926	-2.25713	17.9311	19.4608
4	-2.65926	-2.14441	22.5296	25.1634
5	-2.65926	-2.05375	26.7475	30.6248
6	-2.65926	-1.97737	30.6575	35.8832
7	-2.65926	-1.91103	34.3095	40.9651
8	-2.65926	-1.85218	37.7401	45.8905
9	-2.65926	-1.79912	40.9769	50.6748
10	-2.65926	-1.75069	44.0418	55.3304
11	-2.65926	-1.70604	46.9524	59.8672
12	-2.65926	-1.66456	49.7231	64.2937
13	-2.65926	-1.62576	52.3662	68.617
14	-2.65926	-1.58927	54.892	72.8433
15	-2.65926	-1.55477	57.3093	76.9778
16	-2.65926	-1.52203	59.6259	81.0253
17	-2.65926	-1.49085	61.8486	84.9899
18	-2.65926	-1.46106	63.9833	88.8752
19	-2.65926	-1.4325	66.0353	92.6846
20	-2.65926	-1.40507	68.0096	96.4211
21	-2.65926	-1.3722	69.8925	100.07
22	-2.65926	-1.34694	71.7067	103.652
23	-2.65926	-1.32251	73.4558	107.169
24	-2.65926	-1.29884	75.1427	110.623
25	-2.65926	-1.27588	76.7706	114.016
26	-2.65926	-1.25357	78.342	117.349
27	-2.65926	-1.23187	79.8595	120.625
28	-2.65926	-1.21073	81.3254	123.845
29	-2.65926	-1.19012	82.7418	127.01
30	-2.65926	-1.17	84.1107	130.121
31	-2.65926	-1.15035	85.434	133.18
32	-2.65926	-1.13113	86.7134	136.188
33	-2.65926	-1.11232	87.9507	139.146
34	-2.65926	-1.0939	89.1473	142.055
35	-2.65926	-1.07584	90.3047	144.916
36	-2.65926	-1.05812	91.4243	147.73
37	-2.65926	-1.04073	92.5075	150.497
38	-2.65926	-1.02365	93.5553	153.219
39	-2.65926	-1.00687	94.5691	155.897
40	-2.65926	-0.990356	95.5499	158.53
41	-2.65926	-0.974114	96.4988	161.121
42	-2.65926	-0.954165	97.4092	163.658
43	-2.65926	-0.938476	98.29	166.154
44	-2.65926	-0.923014	99.1419	168.608
45	-2.65926	-0.907769	99.966	171.022
46	-2.65926	-0.892733	100.763	173.396
47	-2.65926	-0.877897	101.534	175.731
48	-1.7148	-0.863249	102.279	177.211
49	-1.56065	-0.848786	102.999	178.536
50	-1.56065	-0.834498	103.696	179.838
51	-1.51413	-0.820379	104.369	181.08

52	-1.51413	-0.806422	105.019	182.302	
53	-1.46968	-0.792618	105.647	183.466	
54	-1.42712	-0.778966	106.254	184.578	
55	-1.34707	-0.765456	106.84	185.609	
56	-1.34707	-0.752084	107.406	186.622	
57	-1.30933	-0.738846	107.951	187.59	
58	-1.30933	-0.725736	108.478	188.54	
59	-1.30933	-0.712751	108.986	189.473	
60	-1.27297	-0.699883	109.476	190.364	
61	-1.17118	-0.687131	109.948	191.169	
62	-0.994252	-0.671346	110.399	191.836	
63	-0.967584	-0.658838	110.833	192.474	
64	-0.820981	-0.646431	111.251	193.005	
65	-0.693147	-0.634124	111.653	193.444	
66	-0.693147	-0.621911	112.04	193.875	
67	-0.673345	-0.609791	112.412	194.286	
68	-0.510826	-0.597761	112.769	194.591	
69	-0.510826	-0.585815	113.112	194.89	
70	-0.105361	-0.573953	113.441	194.951	
71	-0.040822	-0.56217	113.758	194.974	
72	0	-0.550465	114.061	194.974	
73	0	-0.538836	114.351	194.974	
74	0	-0.52728	114.629	194.974	
75	0	-0.515791	114.895	194.974	
76	0	-0.504372	115.149	194.974	
77	0	-0.493018	115.392	194.974	
78	0	-0.481728	115.624	194.974	
79	0	-0.470498	115.846	194.974	
80	0	-0.459327	116.057	194.974	
81	0	-0.448213	116.258	194.974	
82	0	-0.437153	116.449	194.974	
83	0	-0.423405	116.628	194.974	
84	0	-0.412463	116.798	194.974	
85	0	-0.401571	116.959	194.974	
86	0	-0.390726	117.112	194.974	
87	0	-0.379927	117.256	194.974	
88	0	-0.369171	117.393	194.974	
89	0	-0.358459	117.521	194.974	
90	0	-0.347787	117.642	194.974	
91	0	-0.337155	117.756	194.974	
92	0	-0.326561	117.863	194.974	
93	0	-0.316004	117.962	194.974	
94	0	-0.305481	118.056	194.974	
95	0	-0.294992	118.143	194.974	
96	0	-0.284535	118.224	194.974	
97	0	-0.27411	118.299	194.974	
98	0	-0.263715	118.368	194.974	
99	0	-0.253347	118.433	194.974	
100	0	-0.243007	118.492	194.974	
101	0	-0.232693	118.546	194.974	
102	0	-0.222403	118.595	194.974	
103	0	-0.209575	118.639	194.974	
104	0	-0.199336	118.679	194.974	
105	0	-0.189118	118.715	194.974	
106	0	-0.17892	118.747	194.974	
107	0	-0.168741	118.775	194.974	
108	0	-0.158579	118.8	194.974	
109	0	-0.148434	118.822	194.974	
110	0	-0.138305	118.841	194.974	
111	0	-0.128189	118.858	194.974	
112	0	-0.118085	118.872	194.974	
113	0	-0.107995	118.883	194.974	

114	0	-0.0979139	118.893	194.974
115	0	-0.0878447	118.901	194.974
116	0	-0.0777834	118.907	194.974
117	0	-0.0677301	118.911	194.974
118	0	-0.0576847	118.915	194.974
119	0	-0.0476439	118.917	194.974
120	0	-0.0376076	118.918	194.974
121	0	-0.0275759	118.919	194.974
122	0	-0.0175476	118.919	194.974
123	0	-0.00751925	118.92	194.974
124	0	0.00751925	118.92	194.974
125	0	0.0175476	118.92	194.974
126	0	0.0275759	118.921	194.974
127	0	0.0376076	118.922	194.974
128	0	0.0476439	118.924	194.974
129	0	0.0576847	118.928	194.974
130	0	0.0677301	118.932	194.974
131	0	0.0777834	118.938	194.974
132	0	0.0878447	118.946	194.974
133	0	0.0979139	118.956	194.974
134	0	0.107995	118.967	194.974
135	0	0.118085	118.981	194.974
136	0	0.128189	118.998	194.974
137	0	0.138305	119.017	194.974
138	0	0.148434	119.039	194.974
139	0	0.158579	119.064	194.974
140	0	0.168741	119.092	194.974
141	0	0.17892	119.124	194.974
142	0	0.189118	119.16	194.974
143	0	0.199336	119.2	194.974
144	0	0.209575	119.244	194.974
145	0	0.222403	119.293	194.974
146	0	0.232693	119.347	194.974
147	0	0.243007	119.407	194.974
148	0	0.253347	119.471	194.974
149	0	0.263715	119.54	194.974
150	0	0.27411	119.615	194.974
151	0	0.284535	119.696	194.974
152	0	0.294992	119.783	194.974
153	0	0.305481	119.877	194.974
154	0	0.316004	119.977	194.974
155	0	0.326561	120.083	194.974
156	0	0.337155	120.197	194.974
157	0	0.347787	120.318	194.974
158	0	0.358459	120.446	194.974
159	0	0.369171	120.583	194.974
160	0	0.379927	120.727	194.974
161	0	0.390726	120.88	194.974
162	0	0.401571	121.041	194.974
163	0	0.412463	121.211	194.974
164	0	0.423405	121.39	194.974
165	0	0.437153	121.581	194.974
166	0	0.448213	121.782	194.974
167	0	0.459327	121.993	194.974
168	0	0.470498	122.215	194.974
169	0	0.481728	122.447	194.974
170	0	0.493018	122.69	194.974
171	0	0.504372	122.944	194.974
172	0	0.515791	123.21	194.974
173	0	0.52728	123.488	194.974
174	0	0.538836	123.779	194.974
175	0	0.550465	124.082	194.974

176	0	0.56217	124.398	194.974	
177	0	0.573953		124.727	194.974
178	0	0.585815		125.07	194.974
179	0	0.597761		125.428	194.974
180	0	0.609791		125.799	194.974
181	0	0.621911		126.186	194.974
182	0	0.634124		126.588	194.974
183	0	0.646431		127.006	194.974
184	0	0.658838		127.44	194.974
185	0	0.671346		127.891	194.974
186	0	0.687131		128.363	194.974
187	0	0.699883		128.853	194.974
188	0	0.712751		129.361	194.974
189	0	0.725736		129.888	194.974
190	0	0.738846		130.433	194.974
191	0	0.752084		130.999	194.974
192	0	0.765456		131.585	194.974
193	0	0.778966		132.192	194.974
194	0	0.792618		132.82	194.974
195	0	0.806422		133.47	194.974
196	0	0.820379		134.143	194.974
197	0	0.834498		134.84	194.974
198	0	0.848786		135.56	194.974
199	0	0.863249		136.305	194.974
200	0	0.877897		137.076	194.974
201	0	0.892733		137.873	194.974
202	0	0.907769		138.697	194.974
203	0	0.923014		139.549	194.974
204	0	0.938476		140.43	194.974
205	0	0.954165		141.34	194.974
206	0	0.974114		142.289	194.974
207	0	0.990356		143.27	194.974
208	0	1.00687	144.284	194.974	
209	0	1.02365	145.332	194.974	
210	0	1.04073	146.415	194.974	
211	0	1.05812	147.534	194.974	
212	0	1.07584	148.692	194.974	
213	0	1.0939	149.888	194.974	
214	0	1.11232	151.126	194.974	
215	0	1.13113	152.405	194.974	
216	0	1.15035	153.728	194.974	
217	0	1.17	155.097	194.974	
218	0	1.19012	156.514	194.974	
219	0	1.21073	157.98	194.974	
220	0	1.23187	159.497	194.974	
221	0	1.25357	161.068	194.974	
222	0	1.27588	162.696	194.974	
223	0	1.29884	164.383	194.974	
224	0	1.32251	166.132	194.974	
225	0	1.34694	167.947	194.974	
226	0	1.3722	169.83	194.974	
227	0	1.40507	171.804	194.974	
228	0	1.4325	173.856	194.974	
229	0	1.46106	175.991	194.974	
230	0	1.49085	178.213	194.974	
231	0	1.52203	180.53	194.974	
232	0	1.55477	182.947	194.974	
233	0	1.58927	185.473	194.974	
234	0	1.62576	188.116	194.974	
235	0	1.66456	190.887	194.974	
236	0	1.70604	193.797	194.974	
237	0	1.75069	196.862	194.974	

238	0	1.79912	200.099	194.974	
239	0	1.85218	203.53	194.974	
240	0	1.91103	207.182	194.974	
241	0	1.97737	211.092	194.974	
242	0	2.05375	215.309	194.974	
243	0	2.14441	219.908	194.974	
244	0	2.25713	225.003	194.974	
245	0	2.40892	230.806	194.974	
246	0.262364		2.65209	237.839	195.67

Data Set Standard Deviation = 1.05597
Numerator = 38286.6
Denominator = 64976.3
W Statistic = 0.589239 = 38286.6 / 64976.3

5% Critical value of 0.976 exceeds 0.589239
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.589239
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chloroform

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.765332
0.765332 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.65926	0.00404858	-2.65209	84.574	344.01
2	-2.65926	0.00809717	-2.40892	84.574	332.136
3	-2.65926	0.0121457	-2.25713	84.574	324.723
4	-2.65926	0.0161943	-2.14441	84.574	319.219
5	-2.65926	0.0202429	-2.05375	84.574	314.791
6	-2.65926	0.0242915	-1.97737	84.574	311.062
7	-2.65926	0.0283401	-1.91103	84.574	307.822
8	-2.65926	0.0323887	-1.85218	84.574	304.948
9	-2.65926	0.0364372	-1.79912	84.574	302.357
10	-2.65926	0.0404858	-1.75069	84.574	299.992
11	-2.65926	0.0445344	-1.70604	84.574	297.812
12	-2.65926	0.048583	-1.66456	84.574	295.786
13	-2.65926	0.0526316	-1.62576	84.574	293.891
14	-2.65926	0.0566802	-1.58927	84.574	292.109
15	-2.65926	0.0607287	-1.55477	84.574	290.425
16	-2.65926	0.0647773	-1.52203	84.574	288.826
17	-2.65926	0.0688259	-1.49085	84.574	287.303
18	-2.65926	0.0728745	-1.46106	84.574	285.848
19	-2.65926	0.0769231	-1.4325	84.574	284.454
20	-2.65926	0.0809717	-1.40507	84.574	283.114
21	-2.65926	0.0850202	-1.3722	84.574	281.509
22	-2.65926	0.0890688	-1.34694	84.574	280.276
23	-2.65926	0.0931174	-1.32251	84.574	279.082
24	-2.65926	0.097166	-1.29884	84.574	277.926
25	-2.65926	0.101215	-1.27588	84.574	276.805
26	-2.65926	0.105263	-1.25357	84.574	275.716
27	-2.65926	0.109312	-1.23187	84.574	274.656
28	-2.65926	0.11336	-1.21073	84.574	273.624
29	-2.65926	0.117409	-1.19012	84.574	272.617
30	-2.65926	0.121457	-1.17	84.574	271.635
31	-2.65926	0.125506	-1.15035	84.574	270.675
32	-2.65926	0.129555	-1.13113	84.574	269.737
33	-2.65926	0.133603	-1.11232	84.574	268.818
34	-2.65926	0.137652	-1.0939	84.574	267.919
35	-2.65926	0.1417	-1.07584	84.574	267.037
36	-2.65926	0.145749	-1.05812	84.574	266.172
37	-2.65926	0.149798	-1.04073	84.574	265.322
38	-2.65926	0.153846	-1.02365	84.574	264.488
39	-2.65926	0.157895	-1.00687	84.574	263.669
40	-2.65926	0.161943	-0.990356	84.574	262.862
41	-2.65926	0.165992	-0.974114	84.574	262.069
42	-2.65926	0.17004	-0.954165	84.574	261.095
43	-2.65926	0.174089	-0.938476	84.574	260.329
44	-2.65926	0.178138	-0.923014	84.574	259.574
45	-2.65926	0.182186	-0.907769	84.574	258.829
46	-2.65926	0.186235	-0.892733	84.574	258.095
47	-2.65926	0.190283	-0.877897	84.574	257.371
48	-1.7148	0.194332	-0.863249	210.896	256.655

49	-1.56065	0.198381	-0.848786	231.513	255.949	
50	-1.56065	0.202429	-0.834498	231.513	255.251	
51	-1.51413	0.206478	-0.820379	237.735	254.562	
52	-1.51413	0.210526	-0.806422	237.735	253.88	
53	-1.46968	0.214575	-0.792618	243.681	253.206	
54	-1.42712	0.218623	-0.778966	249.373	252.54	
55	-1.34707	0.222672	-0.765456	260.079	251.88	
56	-1.34707	0.226721	-0.752084	260.079	251.227	
57	-1.30933	0.230769	-0.738846	265.127	250.58	
58	-1.30933	0.234818	-0.725736	265.127	249.94	
59	-1.30933	0.238866	-0.712751	265.127	249.306	
60	-1.27297	0.242915	-0.699883	269.991	248.678	
61	-1.17118	0.246964	-0.687131	283.604	248.055	
62	-0.994252	0.251012	-0.671346	307.269	247.284	
63	-0.967584	0.255061	-0.658838	310.836	246.673	
64	-0.820981	0.259109	-0.646431	330.444	246.067	
65	-0.693147	0.263158	-0.634124	347.542	245.466	
66	-0.693147	0.267206	-0.621911	347.542	244.87	
67	-0.673345	0.271255	-0.609791	350.19	244.278	
68	-0.510826	0.275304	-0.597761	371.927	243.691	
69	-0.510826	0.279352	-0.585815	371.927	243.107	
70	-0.105361	0.283401	-0.573953	426.158	242.528	
71	-0.040822	0.287449	-0.56217	434.79	241.953	
72	0	0.291498	-0.550465	440.25	241.381	
73	0	0.295547	-0.538836	440.25	240.813	
74	0	0.299595	-0.52728	440.25	240.249	
75	0	0.303644	-0.515791	440.25	239.688	
76	0	0.307692	-0.504372	440.25	239.13	
77	0	0.311741	-0.493018	440.25	238.576	
78	0	0.315789	-0.481728	440.25	238.024	
79	0	0.319838	-0.470498	440.25	237.476	
80	0	0.323887	-0.459327	440.25	236.93	
81	0	0.327935	-0.448213	440.25	236.388	
82	0	0.331984	-0.437153	440.25	235.848	
83	0	0.336032	-0.423405	440.25	235.176	
84	0	0.340081	-0.412463	440.25	234.642	
85	0	0.34413	-0.401571	440.25	234.11	
86	0	0.348178	-0.390726	440.25	233.58	
87	0	0.352227	-0.379927	440.25	233.053	
88	0	0.356275	-0.369171	440.25	232.528	
89	0	0.360324	-0.358459	440.25	232.005	
90	0	0.364372	-0.347787	440.25	231.484	
91	0	0.368421	-0.337155	440.25	230.964	
92	0	0.37247	-0.326561	440.25	230.447	
93	0	0.376518	-0.316004	440.25	229.932	
94	0	0.380567	-0.305481	440.25	229.418	
95	0	0.384615	-0.294992	440.25	228.905	
96	0	0.388664	-0.284535	440.25	228.395	
97	0	0.392713	-0.27411	440.25	227.886	
98	0	0.396761	-0.263715	440.25	227.378	
99	0	0.40081	-0.253347	440.25	226.872	
100	0	0.404858	-0.243007	440.25	226.367	
101	0	0.408907	-0.232693	440.25	225.863	
102	0	0.412955	-0.222403	440.25	225.361	
103	0	0.417004	-0.209575	440.25	224.734	
104	0	0.421053	-0.199336	440.25	224.234	
105	0	0.425101	-0.189118	440.25	223.735	
106	0	0.42915	-0.17892	440.25	223.237	
107	0	0.433198	-0.168741	440.25	222.74	
108	0	0.437247	-0.158579	440.25	222.244	
109	0	0.441296	-0.148434	440.25	221.749	
110	0	0.445344	-0.138305	440.25	221.254	

111	0	0.449393	-0.128189	440.25	220.76
112	0	0.453441	-0.118085	440.25	220.267
113	0	0.45749	-0.107995	440.25	219.774
114	0	0.461538	-0.0979139	440.25	219.281
115	0	0.465587	-0.0878447	440.25	218.79
116	0	0.469636	-0.0777834	440.25	218.298
117	0	0.473684	-0.0677301	440.25	217.807
118	0	0.477733	-0.0576847	440.25	217.317
119	0	0.481781	-0.0476439	440.25	216.827
120	0	0.48583	-0.0376076	440.25	216.337
121	0	0.489879	-0.0275759	440.25	215.847
122	0	0.493927	-0.0175476	440.25	215.357
123	0	0.497976	-0.00751925	440.25	214.867
124	0	0.502024	0.00751925	440.25	214.133
125	0	0.506073	0.0175476	440.25	213.643
126	0	0.510121	0.0275759	440.25	213.153
127	0	0.51417	0.0376076	440.25	212.663
128	0	0.518219	0.0476439	440.25	212.173
129	0	0.522267	0.0576847	440.25	211.683
130	0	0.526316	0.0677301	440.25	211.193
131	0	0.530364	0.0777834	440.25	210.702
132	0	0.534413	0.0878447	440.25	210.21
133	0	0.538462	0.0979139	440.25	209.719
134	0	0.54251	0.107995	440.25	209.226
135	0	0.546559	0.118085	440.25	208.733
136	0	0.550607	0.128189	440.25	208.24
137	0	0.554656	0.138305	440.25	207.746
138	0	0.558704	0.148434	440.25	207.251
139	0	0.562753	0.158579	440.25	206.756
140	0	0.566802	0.168741	440.25	206.26
141	0	0.57085	0.17892	440.25	205.763
142	0	0.574899	0.189118	440.25	205.265
143	0	0.578947	0.199336	440.25	204.766
144	0	0.582996	0.209575	440.25	204.266
145	0	0.587045	0.222403	440.25	203.639
146	0	0.591093	0.232693	440.25	203.137
147	0	0.595142	0.243007	440.25	202.633
148	0	0.59919	0.253347	440.25	202.128
149	0	0.603239	0.263715	440.25	201.622
150	0	0.607287	0.27411	440.25	201.114
151	0	0.611336	0.284535	440.25	200.605
152	0	0.615385	0.294992	440.25	200.095
153	0	0.619433	0.305481	440.25	199.582
154	0	0.623482	0.316004	440.25	199.068
155	0	0.62753	0.326561	440.25	198.553
156	0	0.631579	0.337155	440.25	198.036
157	0	0.635628	0.347787	440.25	197.516
158	0	0.639676	0.358459	440.25	196.995
159	0	0.643725	0.369171	440.25	196.472
160	0	0.647773	0.379927	440.25	195.947
161	0	0.651822	0.390726	440.25	195.42
162	0	0.65587	0.401571	440.25	194.89
163	0	0.659919	0.412463	440.25	194.358
164	0	0.663968	0.423405	440.25	193.824
165	0	0.668016	0.437153	440.25	193.152
166	0	0.672065	0.448213	440.25	192.612
167	0	0.676113	0.459327	440.25	192.07
168	0	0.680162	0.470498	440.25	191.524
169	0	0.684211	0.481728	440.25	190.976
170	0	0.688259	0.493018	440.25	190.424
171	0	0.692308	0.504372	440.25	189.87
172	0	0.696356	0.515791	440.25	189.312

173	0	0.700405	0.52728	440.25	188.751	
174	0	0.704453	0.538836		440.25	188.187
175	0	0.708502	0.550465		440.25	187.619
176	0	0.712551	0.56217	440.25	187.047	
177	0	0.716599	0.573953		440.25	186.472
178	0	0.720648	0.585815		440.25	185.893
179	0	0.724696	0.597761		440.25	185.309
180	0	0.728745	0.609791		440.25	184.722
181	0	0.732794	0.621911		440.25	184.13
182	0	0.736842	0.634124		440.25	183.534
183	0	0.740891	0.646431		440.25	182.933
184	0	0.744939	0.658838		440.25	182.327
185	0	0.748988	0.671346		440.25	181.716
186	0	0.753036	0.687131		440.25	180.945
187	0	0.757085	0.699883		440.25	180.322
188	0	0.761134	0.712751		440.25	179.694
189	0	0.765182	0.725736		440.25	179.06
190	0	0.769231	0.738846		440.25	178.42
191	0	0.773279	0.752084		440.25	177.773
192	0	0.777328	0.765456		440.25	177.12
193	0	0.781377	0.778966		440.25	176.46
194	0	0.785425	0.792618		440.25	175.794
195	0	0.789474	0.806422		440.25	175.12
196	0	0.793522	0.820379		440.25	174.438
197	0	0.797571	0.834498		440.25	173.749
198	0	0.801619	0.848786		440.25	173.051
199	0	0.805668	0.863249		440.25	172.345
200	0	0.809717	0.877897		440.25	171.629
201	0	0.813765	0.892733		440.25	170.905
202	0	0.817814	0.907769		440.25	170.171
203	0	0.821862	0.923014		440.25	169.426
204	0	0.825911	0.938476		440.25	168.671
205	0	0.82996	0.954165	440.25	167.905	
206	0	0.834008	0.974114		440.25	166.931
207	0	0.838057	0.990356		440.25	166.138
208	0	0.842105	1.00687	440.25	165.331	
209	0	0.846154	1.02365	440.25	164.512	
210	0	0.850202	1.04073	440.25	163.678	
211	0	0.854251	1.05812	440.25	162.828	
212	0	0.8583	1.07584	440.25	161.963	
213	0	0.862348	1.0939	440.25	161.081	
214	0	0.866397	1.11232	440.25	160.182	
215	0	0.870445	1.13113	440.25	159.263	
216	0	0.874494	1.15035	440.25	158.325	
217	0	0.878543	1.17	440.25	157.365	
218	0	0.882591	1.19012	440.25	156.383	
219	0	0.88664	1.21073	440.25	155.376	
220	0	0.890688	1.23187	440.25	154.344	
221	0	0.894737	1.25357	440.25	153.284	
222	0	0.898785	1.27588	440.25	152.195	
223	0	0.902834	1.29884	440.25	151.074	
224	0	0.906883	1.32251	440.25	149.918	
225	0	0.910931	1.34694	440.25	148.724	
226	0	0.91498	1.3722	440.25	147.491	
227	0	0.919028	1.40507	440.25	145.886	
228	0	0.923077	1.4325	440.25	144.546	
229	0	0.927126	1.46106	440.25	143.152	
230	0	0.931174	1.49085	440.25	141.697	
231	0	0.935223	1.52203	440.25	140.174	
232	0	0.939271	1.55477	440.25	138.575	
233	0	0.94332	1.58927	440.25	136.891	
234	0	0.947368	1.62576	440.25	135.109	

235	0	0.951417	1.66456	440.25	133.214	
236	0	0.955466	1.70604	440.25	131.188	
237	0	0.959514	1.75069	440.25	129.008	
238	0	0.963563	1.79912	440.25	126.643	
239	0	0.967611	1.85218	440.25	124.052	
240	0	0.97166	1.91103	440.25	121.178	
241	0	0.975709	1.97737	440.25	117.938	
242	0	0.979757	2.05375	440.25	114.209	
243	0	0.983806	2.14441	440.25	109.781	
244	0	0.987854	2.25713	440.25	104.277	
245	0	0.991903	2.40892	440.25	96.8642	
246	0.262364	0.995951	2.65209	475.341	84.9898	

Kruskal-Wallis Non-Parametric Test

Parameter: Chloroform

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	111
	9/23/1999	ND<0	111
	3/15/2000	ND<0	111
	9/24/2003	ND<0	111
	3/11/2004	ND<0	111
	10/12/2004	ND<0	111
	4/1/2005	ND<0	111
	10/25/2005	ND<0	111
	4/29/2006	ND<0	111
	11/18/2006	ND<0	111
	5/23/2007	ND<0	111
	11/28/2007	ND<0	111
	6/5/2008	ND<0	111
	11/20/2008	ND<0	111
	6/11/2009	ND<-2.65926	111
	11/16/2009	ND<-2.65926	111
	6/30/2010	ND<-2.65926	111
	11/12/2010	ND<-2.65926 U	111
	7/5/2011	ND<-2.65926 U	111

Rank Sum = 2109
Rank Mean = 111

Background Rank Sum = 2109
Background Rank Mean = 111

Compliance Locations

Loc. ID	Date	Value	Rank
MW-12A R	3/16/1999	ND<0	111
	9/23/1999	ND<0	111
	3/15/2000	ND<0	111
	9/24/2003	ND<0	111
	3/11/2004	ND<0	111
	10/12/2004	ND<0	111
	4/1/2005	ND<0	111
	10/25/2005	ND<0	111
	4/29/2006	ND<0	111
	11/18/2006	ND<0	111
	5/23/2007	ND<0	111
	11/28/2007	ND<0	111
	6/5/2008	ND<0	111
	11/20/2008	ND<0	111
	6/11/2009	ND<-2.65926	111
	11/16/2009	ND<-2.65926	111
	6/30/2010	ND<-2.65926	111
	11/12/2010	ND<-2.65926 U	111
	7/5/2011	0.262364	246
	11/22/2011	ND<-2.65926 U	111
	11/22/2011	ND<-2.65926 U	111

Rank Sum = 2466
Rank Mean = 117.429

MW-9	7/20/1995	-0.040822	J	245
	8/24/1995	-0.510826	J	242
	9/28/1995	-0.693147	J	239
	10/26/1995	-0.693147	J	240
	11/19/1996	ND<0	111	
	12/19/1996	ND<0	111	
	3/24/1997	ND<0	111	
	9/24/1997	ND<0	111	
	4/7/1998	ND<0	111	
	9/23/1998	ND<0	111	
	3/16/1999	ND<0	111	
	9/23/1999	ND<0	111	
	3/15/2000	ND<0	111	
	9/24/2003	ND<0	111	
	3/11/2004	ND<0	111	
	10/12/2004	ND<0	111	
	4/1/2005	ND<0	111	
	10/25/2005	ND<0	111	
	4/29/2006	ND<0	111	
	11/18/2006	ND<0	111	
	5/23/2007	ND<0	111	
	11/28/2007	ND<0	111	
	6/5/2008	ND<0	111	
	11/20/2008	ND<0	111	
	6/11/2009	ND<-2.65926		111
	11/16/2009	ND<-2.65926		111
	6/30/2010	ND<-2.65926		111
	11/12/2010	ND<-2.65926	U	111
	7/5/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111

Rank Sum = 3963
Rank Mean = 127.839

MW-12BR	3/16/1999	ND<0		111
	9/23/1999	ND<0	111	
	3/15/2000	ND<0	111	
	9/24/2003	ND<0	111	
	3/11/2004	ND<0	111	
	10/12/2004	ND<0	111	
	4/1/2005	ND<0	111	
	10/25/2005	ND<0	111	
	4/29/2006	ND<0	111	
	11/18/2006	ND<0	111	
	5/23/2007	ND<0	111	
	11/28/2007	ND<0	111	
	6/5/2008	ND<0	111	
	11/20/2008	ND<0	111	
	6/11/2009	ND<-2.65926		111
	11/16/2009	ND<-2.65926		111
	6/30/2010	ND<-2.65926		111
	11/12/2010	ND<-2.65926	U	111
	7/5/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111

Rank Sum = 2331
Rank Mean = 111

MW-6	7/20/1995	ND<0	111

	8/24/1995	ND<0	111	
	9/28/1995	ND<0	111	
	10/26/1995	ND<0	111	
	11/19/1996	ND<0	111	
	12/19/1996	ND<0	111	
	3/24/1997	ND<0	111	
	9/24/1997	ND<0	111	
	4/7/1998	ND<0	111	
	9/23/1998	ND<0	111	
	3/16/1999	ND<0	111	
	9/23/1999	ND<0	111	
	3/15/2000	ND<0	111	
	9/24/2003	ND<0	111	
	3/11/2004	ND<0	111	
	10/12/2004	ND<0	111	
	4/1/2005	-1.42712	J	228
	10/25/2005	ND<0	111	
	4/29/2006	ND<0	111	
	11/18/2006	ND<0	111	
	5/23/2007	ND<0	111	
	11/28/2007	-1.30933	J	231
	6/5/2008	-1.56065	J	223
	11/20/2008	-1.56065	J	224
	6/11/2009	-1.17118	J	235
	11/16/2009	-0.994252	J	236
	6/30/2010	-0.820981	J	238
	11/12/2010	-0.673345	J	241
	7/5/2011	-1.27297	J	234
	11/22/2011	-1.34707	J	229
	11/22/2011	-1.34707	J	230

Rank Sum = 4769
Rank Mean = 153.839

MW-11R	7/20/1995	-0.967584	J	237
	8/24/1995	ND<0	111	
	9/28/1995	-0.510826	J	243
	10/26/1995	-0.105361	J	244
	11/19/1996	ND<0	111	
	12/19/1996	ND<0	111	
	3/24/1997	ND<0	111	
	9/24/1997	ND<0	111	
	4/7/1998	ND<0	111	
	9/23/1998	ND<0	111	
	3/16/1999	ND<0	111	
	9/23/1999	ND<0	111	
	3/15/2000	ND<0	111	
	9/24/2003	ND<0	111	
	3/11/2004	ND<0	111	
	10/12/2004	ND<0	111	
	4/1/2005	ND<0	111	
	10/25/2005	ND<0	111	
	4/29/2006	ND<0	111	
	11/18/2006	ND<0	111	
	5/23/2007	ND<0	111	
	11/28/2007	ND<0	111	
	6/5/2008	ND<0	111	
	11/20/2008	-1.51413	J	225
	6/11/2009	ND<-2.65926		111
	11/16/2009	-1.46968	J	227
	6/30/2010	ND<-2.65926		111
	11/12/2010	-1.7148	J	222
	7/5/2011	-1.51413	J	226

	11/22/2011	-1.30933	J	232
	11/22/2011	-1.30933	J	233

Rank Sum = 4531
Rank Mean = 146.161

MW-8	7/20/1995	ND<0		111
	8/24/1995	ND<0		111
	9/28/1995	ND<0		111
	10/26/1995	ND<0		111
	11/19/1996	ND<0		111
	12/19/1996	ND<0		111
	3/24/1997	ND<0		111
	9/24/1997	ND<0		111
	4/7/1998	ND<0		111
	9/23/1998	ND<0		111
	3/16/1999	ND<0		111
	9/23/1999	ND<0		111
	3/15/2000	ND<0		111
	9/24/2003	ND<0		111
	3/11/2004	ND<0		111
	10/12/2004	ND<0		111
	4/1/2005	ND<0		111
	10/25/2005	ND<0		111
	4/29/2006	ND<0		111
	11/18/2006	ND<0		111
	5/23/2007	ND<0		111
	11/28/2007	ND<0		111
	6/5/2008	ND<0		111
	11/20/2008	ND<0		111
	6/11/2009	ND<-2.65926		111
	6/30/2010	ND<-2.65926		111
	11/12/2010	ND<-2.65926	U	111
	7/5/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111

Rank Sum = 3330
Rank Mean = 111

MW-7	7/20/1995	ND<0		111
	8/24/1995	ND<0		111
	9/28/1995	ND<0		111
	10/26/1995	ND<0		111
	11/19/1996	ND<0		111
	12/19/1996	ND<0		111
	3/24/1997	ND<0		111
	9/24/1997	ND<0		111
	4/7/1998	ND<0		111
	9/23/1998	ND<0		111
	3/16/1999	ND<0		111
	9/23/1999	ND<0		111
	3/15/2000	ND<0		111
	9/24/2003	ND<0		111
	3/11/2004	ND<0		111
	10/12/2004	ND<0		111
	4/1/2005	ND<0		111
	10/25/2005	ND<0		111
	4/29/2006	ND<0		111
	11/18/2006	ND<0		111
	5/23/2007	ND<0		111
	11/28/2007	ND<0		111
	6/5/2008	ND<0		111
	11/20/2008	ND<0		111

	6/11/2009	ND<-2.65926		111
	11/16/2009	ND<-2.65926		111
	6/30/2010	ND<-2.65926		111
	11/12/2010	ND<-2.65926	U	111
	7/5/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111

Rank Sum = 3441
Rank Mean = 111

MW-10	7/20/1995	ND<0		111
	8/24/1995	ND<0		111
	9/28/1995	ND<0		111
	10/26/1995	ND<0		111
	11/19/1996	ND<0		111
	12/19/1996	ND<0		111
	3/24/1997	ND<0		111
	9/24/1997	ND<0		111
	4/7/1998	ND<0		111
	9/23/1998	ND<0		111
	3/16/1999	ND<0		111
	9/23/1999	ND<0		111
	3/15/2000	ND<0		111
	9/24/2003	ND<0		111
	3/11/2004	ND<0		111
	10/12/2004	ND<0		111
	4/1/2005	ND<0		111
	10/25/2005	ND<0		111
	4/29/2006	ND<0		111
	11/18/2006	ND<0		111
	5/23/2007	ND<0		111
	11/28/2007	ND<0		111
	6/5/2008	ND<0		111
	11/20/2008	ND<0		111
	6/11/2009	ND<-2.65926		111
	11/16/2009	ND<-2.65926		111
	6/30/2010	ND<-2.65926		111
	11/12/2010	ND<-2.65926	U	111
	7/5/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111
	11/22/2011	ND<-2.65926	U	111

Rank Sum = 3441
Rank Mean = 111

Calculation Results:

Kruskal-Wallis H Statistic = 13.1205
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 47.7202
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
13.1205 < 15.5073 indicating no significant group difference at 5% significance level
47.7202 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 111

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	**117.429**	**6.42857**	**52.4134**
MW-9	**127.839**	**16.8387**	**48.231**
MW-12BR	**111**	**0**	**52.4134**
MW-6	**153.839**	**42.8387**	**48.231**

MW-11R	**146.161**	**35.1613**	**48.231**
MW-8	**111**	**0**	**48.5355**
MW-7	**111**	**0**	**48.231**
MW-10	**111**	**0**	**48.231**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 111

Well	Mean Rank	Dif from Bkg	Critical Value
MW-12AR	**117.429**	**6.42857**	**56.5994**
MW-9	**127.839**	**16.8387**	**52.0829**
MW-12BR	**111**	**0**	**56.5994**
MW-6	**153.839**	**42.8387**	**52.0829**
MW-11R	**146.161**	**35.1613**	**52.0829**
MW-8	**111**	**0**	**52.4118**
MW-7	**111**	**0**	**52.0829**
MW-10	**111**	**0**	**52.0829**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chloroform

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 89.8374%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 0
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-12AR	11/22/2011	2	-2.65926	FALSE
MW-9	11/22/2011	2	-2.65926	FALSE
MW-12BR	11/22/2011	2	-2.65926	FALSE
MW-6	11/22/2011	2	-1.34707	FALSE
MW-11R	11/22/2011	2	-1.30933	FALSE
MW-8	11/22/2011	2	-2.65926	FALSE
MW-7	11/22/2011	2	-2.65926	FALSE
MW-10	11/22/2011	2	-2.65926	FALSE

Concentrations (ppb)

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 152
Percent Non-Detects: 63.3333%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	11 (57.8947%)	3/16/1999	40	40
			9/23/1999	14 J	14 J
			3/15/2000	150	150
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	5.63 J	5.63 J
			11/20/2008	ND<20	ND<20
			6/11/2009	0.17 J	0.17 J
			11/16/2009	0.19 J	0.19 J
			6/30/2010	ND<0.16	ND<0.16
			11/12/2010	0.26 J	0.26 J
			7/5/2011	0.16 J	0.16 J

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-7	30	15 (50%)	7/20/1995	ND<20	ND<20
			8/24/1995	12.8 J	12.8 J
			9/28/1995	79.9	79.9
			10/26/1995	ND<20	ND<20
			11/19/1996	ND<20	ND<20
			12/19/1996	36.6	36.6
			3/24/1997	ND<20	ND<20
			9/24/1997	14 J	14 J
			4/7/1998	28	28
			9/23/1998	ND<20	ND<20
			3/16/1999	40	40
			9/23/1999	42	42
			3/15/2000	10 J	10 J
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	8.11 J	8.11 J
			11/20/2008	ND<20	ND<20

			6/11/2009	0.71 J	0.71 J	
			11/16/2009	0.67 J B	0.67 J B	
			6/30/2010	0.32 J H	0.32 J H	
			11/12/2010	0.51 J	0.51 J	
			7/5/2011 1.6	1.6		
			11/22/2011	0.54 J	0.54 J	
MW-8	29	19 (65.5172%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	56.2	56.2	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	30.1	30.1	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	18 J	18 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	32	32	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 7.9 J	7.9 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.2 J	0.2 J	
			6/30/2010	0.24 J H	0.24 J H	
			11/12/2010	0.24 J	0.24 J	
			7/5/2011 0.2 J	0.2 J		
			11/22/2011	0.87 J	0.87 J	
MW-6	30	21 (70%)	7/20/1995		12.4 J	12.4 J
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	13.8 J	13.8 J	
			11/19/1996	ND<20	ND<20	
			12/19/1996	16.1 J	16.1 J	
			3/24/1997	14 J	14 J	
			9/24/1997	ND<20	ND<20	
			4/7/1998 23	23		
			9/23/1998	14 J	14 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	32	32	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 5.12	5.12		
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.16		ND<0.16

			11/16/2009	ND<0.16	ND<0.16	
			6/30/2010	ND<0.16	ND<0.16	
			11/12/2010	ND<0.16 U	ND<0.16 U	
			7/5/2011	ND<0.16 U	ND<0.16 U	
			11/22/2011	0.19 J	0.19 J	
MW-11R	31	18 (58.0645%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	25.8	25.8	
			11/19/1996	ND<20	ND<20	
			12/19/1996	16 J	16 J	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	14 J	14 J	
			9/23/1998	ND<20	ND<20	
			3/16/1999	7 J	7 J	
			9/23/1999	11 J	11 J	
			3/15/2000	12 J	12 J	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	4.61 J	4.61 J	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.17 J	0.17 J	
			11/16/2009	0.22 J B	0.22 J B	
			6/30/2010	0.18 J H	0.18 J H	
			11/12/2010	ND<0.16 U	ND<0.16 U	
			7/5/2011	0.36 J	0.36 J	
			11/22/2011	0.33 J	0.33 J	
			11/22/2011	0.33 J	0.33 J	
MW-12A	R	20	11 (55%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20	
			3/15/2000	82	82	
			9/24/2003	ND<20	ND<20	
			3/11/2004	12 J	12 J	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	4.5 J	4.5 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.3 J	0.3 J	
			11/16/2009	0.74 J B	0.74 J B	
			6/30/2010	0.4 J	0.4 J	
			11/12/2010	0.6 J	0.6 J	
			7/5/2011	0.92 J	0.92 J	
			11/22/2011	0.71 J	0.71 J	
MW-9	31	24 (77.4194%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	

			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	11 J	11 J	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 5.2 J	5.2 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.62 J	0.62 J	
			11/16/2009	ND<0.16		ND<0.16
			6/30/2010	0.23 J H	0.23 J H	
			11/12/2010	ND<0.16 U		ND<0.16 U
			7/5/2011 3.5	3.5		
			11/22/2011	0.25 J	0.25 J	
			11/22/2011	0.25 J	0.25 J	
MW-10	30	20 (66.6667%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	15 J	15 J	
			3/24/1997	ND<20	ND<20	
			9/24/1997	14	14	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	29	29	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 3.11 J	3.11 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.22 J	0.22 J	
			11/16/2009	0.27 J B	0.27 J B	
			6/30/2010	0.16 J H	0.16 J H	
			11/12/2010	0.2 J	0.2 J	
			7/5/2011 0.16 U J	0.16 U J		
			11/22/2011	0.19 J	0.19 J	
MW-12BR		20	13 (65%)	3/16/1999	8 J	8 J
			9/23/1999	12 J	12 J	

3/15/2000	ND<20	ND<20	
9/24/2003	ND<20	ND<20	
3/11/2004	ND<20	ND<20	
10/12/2004	ND<20	ND<20	
4/1/2005 ND<20	ND<20		
10/25/2005	ND<20	ND<20	
4/29/2006	ND<20	ND<20	
11/18/2006	ND<20	ND<20	
5/23/2007	ND<20	ND<20	
11/28/2007	ND<20	ND<20	
6/5/2008 5.66 J	5.66 J		
11/20/2008	ND<20	ND<20	
6/11/2009	ND<0.16		ND<0.16
11/16/2009	ND<0.16		ND<0.16
6/30/2010	0.32 J	0.32 J	
11/12/2010	0.52 J	0.52 J	
7/5/2011 0.19 J	0.19 J		
11/22/2011	0.24 J	0.24 J	

There are 0 unused locations

Loc.	Meas. ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Chromium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.08	-2.65209	7.03356	-0.212167
2	0.08	-2.40892	12.8365	-0.404881
3	0.08	-2.25713	17.9311	-0.585451
4	0.08	-2.14441	22.5296	-0.757004
5	0.08	-2.05375	26.7475	-0.921304
6	0.08	-1.97737	30.6575	-1.07949
7	0.08	-1.8957	34.2511	-1.23115
8	0.08	-1.83843	37.6309	-1.37822
9	0.08	-1.78661	40.8229	-1.52115
10	0.08	-1.7392	43.8477	-1.66029
11	0.08	-1.6954	46.7221	-1.79592
12	0.16	-1.65463	49.4599	-2.06066
13	0.16	-1.61644	52.0728	-2.31929
14	0.16	-1.57179	54.5433	-2.57078
15	0.17	-1.5382	56.9093	-2.83227
16	0.17	-1.50626	59.1782	-3.08833
17	0.18	-1.47579	61.3561	-3.35398
18	0.19	-1.44663	63.4489	-3.62884
19	0.19	-1.41865	65.4614	-3.89838
20	0.19	-1.39175	67.3984	-4.16281
21	0.19	-1.35946	69.2465	-4.42111
22	0.2	-1.33462	71.0278	-4.68804
23	0.2	-1.31058	72.7454	-4.95015
24	0.2	-1.28727	74.4024	-5.20761
25	0.22	-1.26464	76.0018	-5.48583
26	0.22	-1.24264	77.5459	-5.75921
27	0.23	-1.21596	79.0245	-6.03888
28	0.24	-1.19522	80.453	-6.32573
29	0.24	-1.17499	81.8336	-6.60773
30	0.24	-1.15522	83.1682	-6.88498
31	0.25	-1.1359	84.4584	-7.16896
32	0.25	-1.11699	85.7061	-7.4482
33	0.26	-1.09847	86.9127	-7.7338
34	0.27	-1.07584	88.0701	-8.02428
35	0.3	-1.05812	89.1898	-8.34172
36	0.32	-1.04073	90.2729	-8.67475
37	0.32	-1.02365	91.3208	-9.00232
38	0.33	-1.00687	92.3345	-9.33459
39	0.33	-0.990356	93.3153	-9.6614
40	0.36	-0.974114	94.2642	-10.0121
41	0.4	-0.954165	95.1747	-10.3938
42	0.51	-0.938476	96.0554	-10.8724
43	0.52	-0.923014	96.9074	-11.3523
44	0.54	-0.907769	97.7314	-11.8425
45	0.6	-0.892733	98.5284	-12.3782
46	0.62	-0.877897	99.2991	-12.9225
47	0.67	-0.859618	100.038	-13.4984
48	0.71	-0.845198	100.752	-14.0985
49	0.71	-0.830953	101.443	-14.6885
50	0.74	-0.816874	102.11	-15.293
51	0.87	-0.802956	102.755	-15.9915

52	0.92	-0.789191	103.378	-16.7176
53	1.6	-0.775574	103.979	-17.9585
54	3.11	-0.758753	104.555	-20.3182
55	3.5	-0.745449	105.111	-22.9273
56	4.5	-0.732275	105.647	-26.2225
57	4.61	-0.719228	106.164	-29.5382
58	5.12	-0.706302	106.663	-33.1545
59	5.2	-0.693493	107.144	-36.7606
60	5.63	-0.680797	107.607	-40.5935
61	5.66	-0.665079	108.05	-44.3579
62	7	-0.652622	108.476	-48.9262
63	7.9	-0.640266	108.886	-53.9843
64	8	-0.628006	109.28	-59.0084
65	8.11	-0.615839	109.659	-64.0028
66	10	-0.603765	110.024	-70.0405
67	10	-0.588793	110.37	-75.9284
68	10	-0.576911	110.703	-81.6975
69	10	-0.565108	111.023	-87.3486
70	10	-0.553384	111.329	-92.8824
71	10	-0.541736	111.622	-98.2998
72	10	-0.530162	111.903	-103.601
73	10	-0.518658	112.172	-108.788
74	10	-0.504372	112.427	-113.832
75	10	-0.493018	112.67	-118.762
76	10	-0.481728	112.902	-123.579
77	10	-0.470498	113.123	-128.284
78	10	-0.459327	113.334	-132.877
79	10	-0.448213	113.535	-137.36
80	10	-0.437153	113.726	-141.731
81	10	-0.423405	113.906	-145.965
82	10	-0.412463	114.076	-150.09
83	10	-0.401571	114.237	-154.105
84	10	-0.390726	114.39	-158.013
85	10	-0.379927	114.534	-161.812
86	10	-0.369171	114.67	-165.504
87	10	-0.358459	114.799	-169.088
88	10	-0.345126	114.918	-172.54
89	10	-0.334503	115.03	-175.885
90	10	-0.323919	115.135	-179.124
91	10	-0.31337	115.233	-182.257
92	10	-0.302855	115.325	-185.286
93	10	-0.292375	115.41	-188.21
94	10	-0.279319	115.488	-191.003
95	10	-0.268908	115.56	-193.692
96	10	-0.258527	115.627	-196.277
97	10	-0.248174	115.689	-198.759
98	10	-0.237847	115.745	-201.137
99	10	-0.227545	115.797	-203.413
100	10	-0.217267	115.844	-205.586
101	10	-0.204452	115.886	-207.63
102	10	-0.194225	115.924	-209.572
103	10	-0.184017	115.958	-211.413
104	10	-0.173829	115.988	-213.151
105	10	-0.163659	116.015	-214.787
106	10	-0.153505	116.038	-216.322
107	10	-0.143367	116.059	-217.756
108	10	-0.130716	116.076	-219.063
109	10	-0.12061	116.091	-220.269
110	10	-0.110516	116.103	-221.375
111	10	-0.100433	116.113	-222.379
112	10	-0.0903606	116.121	-223.283
113	10	-0.0802981	116.127	-224.085

114	10	-0.0677301	116.132	-224.763
115	10	-0.0576847	116.135	-225.34
116	10	-0.0476439	116.138	-225.816
117	10	-0.0376076	116.139	-226.192
118	10	-0.0275759	116.14	-226.468
119	10	-0.0175476	116.14	-226.643
120	10	-0.00751925	116.14	-226.719
121	10	0.00751925	116.14	-226.643
122	10	0.0175476	116.141	-226.468
123	10	0.0275759	116.141	-226.192
124	10	0.0376076	116.143	-225.816
125	10	0.0476439	116.145	-225.34
126	10	0.0576847	116.148	-224.763
127	10	0.0677301	116.153	-224.085
128	10	0.0802981	116.159	-223.283
129	10	0.0903606	116.167	-222.379
130	10	0.100433	116.178	-221.375
131	10	0.110516	116.19	-220.269
132	10	0.12061	116.204	-219.063
133	10	0.130716	116.221	-217.756
134	10	0.143367	116.242	-216.322
135	10	0.153505	116.266	-214.787
136	10	0.163659	116.292	-213.151
137	10	0.173829	116.323	-211.413
138	10	0.184017	116.356	-209.572
139	10	0.194225	116.394	-207.63
140	10	0.204452	116.436	-205.586
141	10	0.217267	116.483	-203.413
142	10	0.227545	116.535	-201.137
143	10	0.237847	116.591	-198.759
144	10	0.248174	116.653	-196.277
145	10	0.258527	116.72	-193.692
146	10	0.268908	116.792	-191.003
147	10	0.279319	116.87	-188.21
148	10	0.292375	116.956	-185.286
149	10	0.302855	117.047	-182.257
150	10	0.31337	117.146	-179.124
151	10	0.323919	117.251	-175.885
152	10	0.334503	117.362	-172.54
153	10	0.345126	117.482	-169.088
154	10	0.358459	117.61	-165.504
155	10	0.369171	117.746	-161.812
156	10	0.379927	117.891	-158.013
157	10	0.390726	118.043	-154.105
158	10	0.401571	118.205	-150.09
159	10	0.412463	118.375	-145.965
160	10	0.423405	118.554	-141.731
161	10	0.437153	118.745	-137.36
162	10	0.448213	118.946	-132.877
163	10	0.459327	119.157	-128.284
164	10	0.470498	119.378	-123.579
165	10	0.481728	119.61	-118.762
166	10	0.493018	119.853	-113.832
167	10	0.504372	120.108	-108.788
168	10	0.518658	120.377	-103.601
169	10	0.530162	120.658	-98.2998
170	10	0.541736	120.951	-92.8824
171	10	0.553384	121.258	-87.3486
172	10	0.565108	121.577	-81.6975
173	10	0.576911	121.91	-75.9284
174	10	0.588793	122.257	-70.0405
175	10	0.603765	122.621	-64.0028

176	10	0.615839		123	-57.8444
177	10	0.628006		123.395	-51.5644
178	10	0.640266		123.805	-45.1617
179	10	0.652622		124.231	-38.6355
180	10	0.665079		124.673	-31.9847
181	10	0.680797		125.136	-25.1767
182	10	0.693493		125.617	-18.2418
183	10	0.706302		126.116	-11.1788
184	10	0.719228		126.633	-3.98649
185	10	0.732275		127.17	3.33627
186	10	0.745449		127.725	10.7908
187	10	0.758753		128.301	18.3783
188	10	0.775574		128.903	26.134
189	10	0.789191		129.525	34.0259
190	10	0.802956		130.17	42.0555
191	10	0.816874		130.837	50.2242
192	10	0.830953		131.528	58.5338
193	10	0.845198		132.242	66.9858
194	10	0.859618		132.981	75.5819
195	10	0.877897		133.752	84.3609
196	10	0.892733		134.549	93.2882
197	10	0.907769		135.373	102.366
198	10	0.923014		136.225	111.596
199	10	0.938476		137.106	120.981
200	10	0.954165		138.016	130.522
201	10	0.974114		138.965	140.264
202	10	0.990356		139.946	150.167
203	10	1.00687	140.96	160.236	
204	10	1.02365	142.007	170.472	
205	10	1.04073	143.091	180.88	
206	10	1.05812	144.21	191.461	
207	10	1.07584	145.368	202.219	
208	11	1.09847	146.574	214.302	
209	11	1.11699	147.822	226.589	
210	12	1.1359	149.112	240.22	
211	12	1.15522	150.447	254.083	
212	12	1.17499	151.827	268.183	
213	12.4	1.19522	153.256	283.003	
214	12.8	1.21596	154.734	298.568	
215	13.8	1.24264	156.279	315.716	
216	14	1.26464	157.878	333.421	
217	14	1.28727	159.535	351.443	
218	14	1.31058	161.253	369.791	
219	14	1.33462	163.034	388.476	
220	14	1.35946	164.882	407.508	
221	14	1.39175	166.819	426.993	
222	15	1.41865	168.831	448.272	
223	16	1.44663	170.924	471.418	
224	16.1	1.47579	173.102	495.179	
225	18	1.50626	175.371	522.291	
226	23	1.5382	177.737	557.67	
227	25.8	1.57179	180.208	598.222	
228	28	1.61644	182.82	643.482	
229	29	1.65463	185.558	691.467	
230	30.1	1.6954	188.433	742.498	
231	32	1.7392	191.457	798.152	
232	32	1.78661	194.649	855.324	
233	36.6	1.83843	198.029	922.61	
234	40	1.8957	201.623	998.438	
235	40	1.97737	205.533	1077.53	
236	42	2.05375	209.751	1163.79	
237	56.2	2.14441	214.349	1284.31	

238	79.9	2.25713	219.444	1464.65
239	82	2.40892	225.247	1662.18
240	150	2.65209	232.28	2060

Data Set Standard Deviation = 13.4616
Numerator = 4.24358e+006
Denominator = 1.00601e+007
W Statistic = 0.421821 = 4.24358e+006 / 1.00601e+007

5% Critical value of 0.976 exceeds 0.421821
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.421821
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chromium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.65791
0.65791 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.08	0.00414938	-2.65209	39.214	344.01	
2	0.08	0.00829876	-2.40892	39.214	332.136	
3	0.08	0.0124481	-2.25713	39.214	324.723	
4	0.08	0.0165975	-2.14441	39.214	319.219	
5	0.08	0.0207469	-2.05375	39.214	314.791	
6	0.08	0.0248963	-1.97737	39.214	311.062	
7	0.08	0.0290456	-1.8957	39.214	307.073	
8	0.08	0.033195	-1.83843	39.214	304.276	
9	0.08	0.0373444	-1.78661	39.214	301.746	
10	0.08	0.0414938	-1.7392	39.214	299.431	
11	0.08	0.0456432	-1.6954	39.214	297.292	
12	0.16	0.0497925	-1.65463	39.428	295.301	
13	0.16	0.0539419	-1.61644	39.428	293.436	
14	0.16	0.0580913	-1.57179	39.428	291.256	
15	0.17	0.0622407	-1.5382	39.4547	289.615	
16	0.17	0.06639	-1.50626	39.4547	288.056	
17	0.18	0.0705394	-1.47579	39.4815	286.568	
18	0.19	0.0746888	-1.44663	39.5082	285.144	
19	0.19	0.0788382	-1.41865	39.5082	283.778	
20	0.19	0.0829876	-1.39175	39.5082	282.464	
21	0.19	0.0871369	-1.35946	39.5082	280.887	
22	0.2	0.0912863	-1.33462	39.535	279.674	
23	0.2	0.0954357	-1.31058	39.535	278.5	
24	0.2	0.0995851	-1.28727	39.535	277.362	
25	0.22	0.103734	-1.26464	39.5885	276.257	
26	0.22	0.107884	-1.24264	39.5885	275.182	
27	0.23	0.112033	-1.21596	39.6153	273.879	
28	0.24	0.116183	-1.19522	39.642	272.867	
29	0.24	0.120332	-1.17499	39.642	271.879	
30	0.24	0.124481	-1.15522	39.642	270.913	
31	0.25	0.128631	-1.1359	39.6688	269.97	
32	0.25	0.13278	-1.11699	39.6688	269.046	
33	0.26	0.136929	-1.09847	39.6955	268.142	
34	0.27	0.141079	-1.07584	39.7223	267.037	
35	0.3	0.145228	-1.05812	39.8025	266.172	
36	0.32	0.149378	-1.04073	39.856	265.322	
37	0.32	0.153527	-1.02365	39.856	264.488	
38	0.33	0.157676	-1.00687	39.8828	263.669	
39	0.33	0.161826	-0.990356	39.8828	262.862	
40	0.36	0.165975	-0.974114	39.963	262.069	
41	0.4	0.170124	-0.954165	40.07	261.095	
42	0.51	0.174274	-0.938476	40.3642	260.329	
43	0.52	0.178423	-0.923014	40.391	259.574	
44	0.54	0.182573	-0.907769	40.4445	258.829	
45	0.6	0.186722	-0.892733	40.605	258.095	
46	0.62	0.190871	-0.877897	40.6585	257.371	
47	0.67	0.195021	-0.859618	40.7923	256.478	
48	0.71	0.19917	-0.845198	40.8993	255.774	

49	0.71	0.20332	-0.830953	40.8993	255.078	
50	0.74	0.207469	-0.816874		40.9795	254.391
51	0.87	0.211618	-0.802956		41.3272	253.711
52	0.92	0.215768	-0.789191		41.461	253.039
53	1.6	0.219917	-0.775574		43.28	252.374
54	3.11	0.224066	-0.758753		47.3192	251.552
55	3.5	0.228216	-0.745449		48.3625	250.903
56	4.5	0.232365	-0.732275		51.0375	250.259
57	4.61	0.236515	-0.719228		51.3318	249.622
58	5.12	0.240664	-0.706302		52.696	248.991
59	5.2	0.244813	-0.693493		52.91	248.366
60	5.63	0.248963	-0.680797		54.0602	247.746
61	5.66	0.253112	-0.665079		54.1405	246.978
62	7	0.257261	-0.652622		57.725	246.37
63	7.9	0.261411	-0.640266		60.1325	245.766
64	8	0.26556	-0.628006	60.4	245.168	
65	8.11	0.26971	-0.615839	60.6942	244.573	
66	10	0.273859	-0.603765		65.75	243.984
67	10	0.278008	-0.588793		65.75	243.253
68	10	0.282158	-0.576911		65.75	242.672
69	10	0.286307	-0.565108		65.75	242.096
70	10	0.290456	-0.553384		65.75	241.524
71	10	0.294606	-0.541736		65.75	240.955
72	10	0.298755	-0.530162		65.75	240.39
73	10	0.302905	-0.518658		65.75	239.828
74	10	0.307054	-0.504372		65.75	239.13
75	10	0.311203	-0.493018		65.75	238.576
76	10	0.315353	-0.481728		65.75	238.024
77	10	0.319502	-0.470498		65.75	237.476
78	10	0.323651	-0.459327		65.75	236.93
79	10	0.327801	-0.448213		65.75	236.388
80	10	0.33195	-0.437153	65.75	235.848	
81	10	0.3361	-0.423405	65.75	235.176	
82	10	0.340249	-0.412463		65.75	234.642
83	10	0.344398	-0.401571		65.75	234.11
84	10	0.348548	-0.390726		65.75	233.58
85	10	0.352697	-0.379927		65.75	233.053
86	10	0.356846	-0.369171		65.75	232.528
87	10	0.360996	-0.358459		65.75	232.005
88	10	0.365145	-0.345126		65.75	231.354
89	10	0.369295	-0.334503		65.75	230.835
90	10	0.373444	-0.323919		65.75	230.318
91	10	0.377593	-0.31337	65.75	229.803	
92	10	0.381743	-0.302855		65.75	229.289
93	10	0.385892	-0.292375		65.75	228.778
94	10	0.390041	-0.279319		65.75	228.14
95	10	0.394191	-0.268908		65.75	227.632
96	10	0.39834	-0.258527	65.75	227.125	
97	10	0.40249	-0.248174	65.75	226.619	
98	10	0.406639	-0.237847		65.75	226.115
99	10	0.410788	-0.227545		65.75	225.612
100	10	0.414938	-0.217267		65.75	225.11
101	10	0.419087	-0.204452		65.75	224.484
102	10	0.423237	-0.194225		65.75	223.985
103	10	0.427386	-0.184017		65.75	223.486
104	10	0.431535	-0.173829		65.75	222.989
105	10	0.435685	-0.163659		65.75	222.492
106	10	0.439834	-0.153505		65.75	221.996
107	10	0.443983	-0.143367		65.75	221.501
108	10	0.448133	-0.130716		65.75	220.883
109	10	0.452282	-0.12061	65.75	220.39	
110	10	0.456432	-0.110516		65.75	219.897

111	10	0.460581	-0.100433	65.75	219.404
112	10	0.46473	-0.0903606	65.75	218.913
113	10	0.46888	-0.0802981	65.75	218.421
114	10	0.473029	-0.0677301	65.75	217.807
115	10	0.477178	-0.0576847	65.75	217.317
116	10	0.481328	-0.0476439	65.75	216.827
117	10	0.485477	-0.0376076	65.75	216.337
118	10	0.489627	-0.0275759	65.75	215.847
119	10	0.493776	-0.0175476	65.75	215.357
120	10	0.497925	-0.00751925	65.75	214.867
121	10	0.502075	0.00751925	65.75	214.133
122	10	0.506224	0.0175476	65.75	213.643
123	10	0.510373	0.0275759	65.75	213.153
124	10	0.514523	0.0376076	65.75	212.663
125	10	0.518672	0.0476439	65.75	212.173
126	10	0.522822	0.0576847	65.75	211.683
127	10	0.526971	0.0677301	65.75	211.193
128	10	0.53112	0.0802981	65.75	210.579
129	10	0.53527	0.0903606	65.75	210.087
130	10	0.539419	0.100433	65.75	209.596
131	10	0.543568	0.110516	65.75	209.103
132	10	0.547718	0.12061	65.75	208.61
133	10	0.551867	0.130716	65.75	208.117
134	10	0.556017	0.143367	65.75	207.499
135	10	0.560166	0.153505	65.75	207.004
136	10	0.564315	0.163659	65.75	206.508
137	10	0.568465	0.173829	65.75	206.011
138	10	0.572614	0.184017	65.75	205.514
139	10	0.576763	0.194225	65.75	205.015
140	10	0.580913	0.204452	65.75	204.516
141	10	0.585062	0.217267	65.75	203.89
142	10	0.589212	0.227545	65.75	203.388
143	10	0.593361	0.237847	65.75	202.885
144	10	0.59751	0.248174	65.75	202.381
145	10	0.60166	0.258527	65.75	201.875
146	10	0.605809	0.268908	65.75	201.368
147	10	0.609959	0.279319	65.75	200.86
148	10	0.614108	0.292375	65.75	200.222
149	10	0.618257	0.302855	65.75	199.711
150	10	0.622407	0.31337	65.75	199.197
151	10	0.626556	0.323919	65.75	198.682
152	10	0.630705	0.334503	65.75	198.165
153	10	0.634855	0.345126	65.75	197.646
154	10	0.639004	0.358459	65.75	196.995
155	10	0.643154	0.369171	65.75	196.472
156	10	0.647303	0.379927	65.75	195.947
157	10	0.651452	0.390726	65.75	195.42
158	10	0.655602	0.401571	65.75	194.89
159	10	0.659751	0.412463	65.75	194.358
160	10	0.6639	0.423405	65.75	193.824
161	10	0.66805	0.437153	65.75	193.152
162	10	0.672199	0.448213	65.75	192.612
163	10	0.676349	0.459327	65.75	192.07
164	10	0.680498	0.470498	65.75	191.524
165	10	0.684647	0.481728	65.75	190.976
166	10	0.688797	0.493018	65.75	190.424
167	10	0.692946	0.504372	65.75	189.87
168	10	0.697095	0.518658	65.75	189.172
169	10	0.701245	0.530162	65.75	188.61
170	10	0.705394	0.541736	65.75	188.045
171	10	0.709544	0.553384	65.75	187.476
172	10	0.713693	0.565108	65.75	186.904

173	10	0.717842	0.576911		65.75	186.328
174	10	0.721992	0.588793		65.75	185.747
175	10	0.726141	0.603765		65.75	185.016
176	10	0.73029	0.615839	65.75	184.427	
177	10	0.73444	0.628006	65.75	183.832	
178	10	0.738589	0.640266		65.75	183.234
179	10	0.742739	0.652622		65.75	182.63
180	10	0.746888	0.665079		65.75	182.022
181	10	0.751037	0.680797		65.75	181.254
182	10	0.755187	0.693493		65.75	180.634
183	10	0.759336	0.706302		65.75	180.009
184	10	0.763485	0.719228		65.75	179.378
185	10	0.767635	0.732275		65.75	178.741
186	10	0.771784	0.745449		65.75	178.097
187	10	0.775934	0.758753		65.75	177.448
188	10	0.780083	0.775574		65.75	176.626
189	10	0.784232	0.789191		65.75	175.961
190	10	0.788382	0.802956		65.75	175.289
191	10	0.792531	0.816874		65.75	174.609
192	10	0.79668	0.830953	65.75	173.922	
193	10	0.80083	0.845198	65.75	173.226	
194	10	0.804979	0.859618		65.75	172.522
195	10	0.809129	0.877897		65.75	171.629
196	10	0.813278	0.892733		65.75	170.905
197	10	0.817427	0.907769		65.75	170.171
198	10	0.821577	0.923014		65.75	169.426
199	10	0.825726	0.938476		65.75	168.671
200	10	0.829876	0.954165		65.75	167.905
201	10	0.834025	0.974114		65.75	166.931
202	10	0.838174	0.990356		65.75	166.138
203	10	0.842324	1.00687	65.75	165.331	
204	10	0.846473	1.02365	65.75	164.512	
205	10	0.850622	1.04073	65.75	163.678	
206	10	0.854772	1.05812	65.75	162.828	
207	10	0.858921	1.07584	65.75	161.963	
208	11	0.863071	1.09847	68.425	160.858	
209	11	0.86722	1.11699	68.425	159.954	
210	12	0.871369	1.1359	71.1	159.03	
211	12	0.875519	1.15522	71.1	158.087	
212	12	0.879668	1.17499	71.1	157.121	
213	12.4	0.883817	1.19522	72.17	156.133	
214	12.8	0.887967	1.21596	73.24	155.121	
215	13.8	0.892116	1.24264	75.915	153.818	
216	14	0.896266	1.26464	76.45	152.743	
217	14	0.900415	1.28727	76.45	151.638	
218	14	0.904564	1.31058	76.45	150.5	
219	14	0.908714	1.33462	76.45	149.326	
220	14	0.912863	1.35946	76.45	148.113	
221	14	0.917012	1.39175	76.45	146.536	
222	15	0.921162	1.41865	79.125	145.222	
223	16	0.925311	1.44663	81.8	143.856	
224	16.1	0.929461	1.47579	82.0675	142.432	
225	18	0.93361	1.50626	87.15	140.944	
226	23	0.937759	1.5382	100.525	139.385	
227	25.8	0.941909	1.57179	108.015	137.744	
228	28	0.946058	1.61644	113.9	135.564	
229	29	0.950207	1.65463	116.575	133.699	
230	30.1	0.954357	1.6954	119.518	131.708	
231	32	0.958506	1.7392	124.6	129.569	
232	32	0.962656	1.78661	124.6	127.254	
233	36.6	0.966805	1.83843	136.905	124.724	
234	40	0.970954	1.8957	146	121.927	

235	40	0.975104	1.97737	146	117.938
236	42	0.979253	2.05375	151.35	114.209
237	56.2	0.983402	2.14441	189.335	109.781
238	79.9	0.987552	2.25713	252.733	104.277
239	82	0.991701	2.40892	258.35	96.8642
240	150	0.995851	2.65209	440.25	84.9898

Shapiro-Francia Test of Normality

Parameter: Chromium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.52573	-2.65209	7.03356	6.69845
2	-2.52573	-2.40892	12.8365	12.7827
3	-2.52573	-2.25713	17.9311	18.4836
4	-2.52573	-2.14441	22.5296	23.8998
5	-2.52573	-2.05375	26.7475	29.087
6	-2.52573	-1.97737	30.6575	34.0813
7	-2.52573	-1.8957	34.2511	38.8693
8	-2.52573	-1.83843	37.6309	43.5127
9	-2.52573	-1.78661	40.8229	48.0252
10	-2.52573	-1.7392	43.8477	52.418
11	-2.52573	-1.6954	46.7221	56.7001
12	-1.83258	-1.65463	49.4599	59.7323
13	-1.83258	-1.61644	52.0728	62.6946
14	-1.83258	-1.57179	54.5433	65.575
15	-1.77196	-1.5382	56.9093	68.3006
16	-1.77196	-1.50626	59.1782	70.9696
17	-1.7148	-1.47579	61.3561	73.5003
18	-1.66073	-1.44663	63.4489	75.9028
19	-1.66073	-1.41865	65.4614	78.2588
20	-1.66073	-1.39175	67.3984	80.5701
21	-1.66073	-1.35946	69.2465	82.8278
22	-1.60944	-1.33462	71.0278	84.9758
23	-1.60944	-1.31058	72.7454	87.0851
24	-1.60944	-1.28727	74.4024	89.1569
25	-1.51413	-1.26464	76.0018	91.0717
26	-1.51413	-1.24264	77.5459	92.9532
27	-1.46968	-1.21596	79.0245	94.7403
28	-1.42712	-1.19522	80.453	96.446
29	-1.42712	-1.17499	81.8336	98.1229
30	-1.42712	-1.15522	83.1682	99.7715
31	-1.38629	-1.1359	84.4584	101.346
32	-1.38629	-1.11699	85.7061	102.895
33	-1.34707	-1.09847	86.9127	104.374
34	-1.30933	-1.07584	88.0701	105.783
35	-1.20397	-1.05812	89.1898	107.057
36	-1.13943	-1.04073	90.2729	108.243
37	-1.13943	-1.02365	91.3208	109.409
38	-1.10866	-1.00687	92.3345	110.525
39	-1.10866	-0.990356	93.3153	111.623
40	-1.02165	-0.974114	94.2642	112.619
41	-0.916291	-0.954165	95.1747	113.493
42	-0.673345	-0.938476	96.0554	114.125
43	-0.653926	-0.923014	96.9074	114.728
44	-0.616186	-0.907769	97.7314	115.288
45	-0.510826	-0.892733	98.5284	115.744
46	-0.478036	-0.877897	99.2991	116.163
47	-0.400478	-0.859618	100.038	116.508
48	-0.34249	-0.845198	100.752	116.797
49	-0.34249	-0.830953	101.443	117.082
50	-0.301105	-0.816874	102.11	117.328
51	-0.139262	-0.802956	102.755	117.44

52	-0.0833816	-0.789191	103.378	117.505
53	0.470004	-0.775574	103.979	117.141
54	1.13462	-0.758753	104.555	116.28
55	1.25276	-0.745449	105.111	115.346
56	1.50408	-0.732275	105.647	114.245
57	1.52823	-0.719228	106.164	113.146
58	1.63315	-0.706302	106.663	111.992
59	1.64866	-0.693493	107.144	110.849
60	1.72811	-0.680797	107.607	109.672
61	1.73342	-0.665079	108.05	108.519
62	1.94591	-0.652622	108.476	107.249
63	2.06686	-0.640266	108.886	105.926
64	2.07944	-0.628006	109.28	104.62
65	2.0931	-0.615839	109.659	103.331
66	2.30259	-0.603765	110.024	101.941
67	2.30259	-0.588793	110.37	100.585
68	2.30259	-0.576911	110.703	99.2568
69	2.30259	-0.565108	111.023	97.9556
70	2.30259	-0.553384	111.329	96.6814
71	2.30259	-0.541736	111.622	95.434
72	2.30259	-0.530162	111.903	94.2133
73	2.30259	-0.518658	112.172	93.019
74	2.30259	-0.504372	112.427	91.8576
75	2.30259	-0.493018	112.67	90.7224
76	2.30259	-0.481728	112.902	89.6132
77	2.30259	-0.470498	113.123	88.5299
78	2.30259	-0.459327	113.334	87.4722
79	2.30259	-0.448213	113.535	86.4402
80	2.30259	-0.437153	113.726	85.4336
81	2.30259	-0.423405	113.906	84.4587
82	2.30259	-0.412463	114.076	83.5089
83	2.30259	-0.401571	114.237	82.5843
84	2.30259	-0.390726	114.39	81.6846
85	2.30259	-0.379927	114.534	80.8098
86	2.30259	-0.369171	114.67	79.9597
87	2.30259	-0.358459	114.799	79.1344
88	2.30259	-0.345126	114.918	78.3397
89	2.30259	-0.334503	115.03	77.5695
90	2.30259	-0.323919	115.135	76.8236
91	2.30259	-0.31337	115.233	76.102
92	2.30259	-0.302855	115.325	75.4047
93	2.30259	-0.292375	115.41	74.7315
94	2.30259	-0.279319	115.488	74.0883
95	2.30259	-0.268908	115.56	73.4691
96	2.30259	-0.258527	115.627	72.8738
97	2.30259	-0.248174	115.689	72.3024
98	2.30259	-0.237847	115.745	71.7547
99	2.30259	-0.227545	115.797	71.2308
100	2.30259	-0.217267	115.844	70.7305
101	2.30259	-0.204452	115.886	70.2598
102	2.30259	-0.194225	115.924	69.8125
103	2.30259	-0.184017	115.958	69.3888
104	2.30259	-0.173829	115.988	68.9886
105	2.30259	-0.163659	116.015	68.6117
106	2.30259	-0.153505	116.038	68.2583
107	2.30259	-0.143367	116.059	67.9282
108	2.30259	-0.130716	116.076	67.6272
109	2.30259	-0.12061	116.091	67.3495
110	2.30259	-0.110516	116.103	67.095
111	2.30259	-0.100433	116.113	66.8637
112	2.30259	-0.0903606	116.121	66.6557
113	2.30259	-0.0802981	116.127	66.4708

114	2.30259	-0.0677301	116.132	66.3148
115	2.30259	-0.0576847	116.135	66.182
116	2.30259	-0.0476439	116.138	66.0723
117	2.30259	-0.0376076	116.139	65.9857
118	2.30259	-0.0275759	116.14	65.9222
119	2.30259	-0.0175476	116.14	65.8818
120	2.30259	-0.00751925	116.14	65.8645
121	2.30259	0.00751925	116.14	65.8818
122	2.30259	0.0175476	116.141	65.9222
123	2.30259	0.0275759	116.141	65.9857
124	2.30259	0.0376076	116.143	66.0723
125	2.30259	0.0476439	116.145	66.182
126	2.30259	0.0576847	116.148	66.3148
127	2.30259	0.0677301	116.153	66.4708
128	2.30259	0.0802981	116.159	66.6557
129	2.30259	0.0903606	116.167	66.8637
130	2.30259	0.100433	116.178	67.095
131	2.30259	0.110516	116.19	67.3495
132	2.30259	0.12061	116.204	67.6272
133	2.30259	0.130716	116.221	67.9282
134	2.30259	0.143367	116.242	68.2583
135	2.30259	0.153505	116.266	68.6117
136	2.30259	0.163659	116.292	68.9886
137	2.30259	0.173829	116.323	69.3888
138	2.30259	0.184017	116.356	69.8125
139	2.30259	0.194225	116.394	70.2598
140	2.30259	0.204452	116.436	70.7305
141	2.30259	0.217267	116.483	71.2308
142	2.30259	0.227545	116.535	71.7547
143	2.30259	0.237847	116.591	72.3024
144	2.30259	0.248174	116.653	72.8738
145	2.30259	0.258527	116.72	73.4691
146	2.30259	0.268908	116.792	74.0883
147	2.30259	0.279319	116.87	74.7315
148	2.30259	0.292375	116.956	75.4047
149	2.30259	0.302855	117.047	76.102
150	2.30259	0.31337	117.146	76.8236
151	2.30259	0.323919	117.251	77.5695
152	2.30259	0.334503	117.362	78.3397
153	2.30259	0.345126	117.482	79.1344
154	2.30259	0.358459	117.61	79.9597
155	2.30259	0.369171	117.746	80.8098
156	2.30259	0.379927	117.891	81.6846
157	2.30259	0.390726	118.043	82.5843
158	2.30259	0.401571	118.205	83.5089
159	2.30259	0.412463	118.375	84.4587
160	2.30259	0.423405	118.554	85.4336
161	2.30259	0.437153	118.745	86.4402
162	2.30259	0.448213	118.946	87.4722
163	2.30259	0.459327	119.157	88.5299
164	2.30259	0.470498	119.378	89.6132
165	2.30259	0.481728	119.61	90.7224
166	2.30259	0.493018	119.853	91.8576
167	2.30259	0.504372	120.108	93.019
168	2.30259	0.518658	120.377	94.2133
169	2.30259	0.530162	120.658	95.434
170	2.30259	0.541736	120.951	96.6814
171	2.30259	0.553384	121.258	97.9556
172	2.30259	0.565108	121.577	99.2568
173	2.30259	0.576911	121.91	100.585
174	2.30259	0.588793	122.257	101.941
175	2.30259	0.603765	122.621	103.331

176	2.30259	0.615839		123	104.749
177	2.30259	0.628006		123.395	106.195
178	2.30259	0.640266		123.805	107.669
179	2.30259	0.652622		124.231	109.172
180	2.30259	0.665079		124.673	110.704
181	2.30259	0.680797		125.136	112.271
182	2.30259	0.693493		125.617	113.868
183	2.30259	0.706302		126.116	115.494
184	2.30259	0.719228		126.633	117.15
185	2.30259	0.732275		127.17	118.837
186	2.30259	0.745449		127.725	120.553
187	2.30259	0.758753		128.301	122.3
188	2.30259	0.775574		128.903	124.086
189	2.30259	0.789191		129.525	125.903
190	2.30259	0.802956		130.17	127.752
191	2.30259	0.816874		130.837	129.633
192	2.30259	0.830953		131.528	131.546
193	2.30259	0.845198		132.242	133.492
194	2.30259	0.859618		132.981	135.472
195	2.30259	0.877897		133.752	137.493
196	2.30259	0.892733		134.549	139.549
197	2.30259	0.907769		135.373	141.639
198	2.30259	0.923014		136.225	143.764
199	2.30259	0.938476		137.106	145.925
200	2.30259	0.954165		138.016	148.122
201	2.30259	0.974114		138.965	150.365
202	2.30259	0.990356		139.946	152.646
203	2.30259	1.00687	140.96	154.964	
204	2.30259	1.02365	142.007	157.321	
205	2.30259	1.04073	143.091	159.717	
206	2.30259	1.05812	144.21	162.154	
207	2.30259	1.07584	145.368	164.631	
208	2.3979	1.09847	146.574	167.265	
209	2.3979	1.11699	147.822	169.943	
210	2.48491	1.1359	149.112	172.766	
211	2.48491	1.15522	150.447	175.637	
212	2.48491	1.17499	151.827	178.556	
213	2.5177	1.19522	153.256	181.566	
214	2.54945	1.21596	154.734	184.666	
215	2.62467	1.24264	156.279	187.927	
216	2.63906	1.26464	157.878	191.265	
217	2.63906	1.28727	159.535	194.662	
218	2.63906	1.31058	161.253	198.121	
219	2.63906	1.33462	163.034	201.643	
220	2.63906	1.35946	164.882	205.23	
221	2.63906	1.39175	166.819	208.903	
222	2.70805	1.41865	168.831	212.745	
223	2.77259	1.44663	170.924	216.756	
224	2.77882	1.47579	173.102	220.857	
225	2.89037	1.50626	175.371	225.211	
226	3.13549	1.5382	177.737	230.034	
227	3.25037	1.57179	180.208	235.143	
228	3.3322	1.61644	182.82	240.529	
229	3.3673	1.65463	185.558	246.1	
230	3.40453	1.6954	188.433	251.872	
231	3.46574	1.7392	191.457	257.9	
232	3.46574	1.78661	194.649	264.092	
233	3.60005	1.83843	198.029	270.71	
234	3.68888	1.8957	201.623	277.703	
235	3.68888	1.97737	205.533	284.998	
236	3.73767	2.05375	209.751	292.674	
237	4.02892	2.14441	214.349	301.314	

238	4.38078	2.25713	219.444	311.202
239	4.40672	2.40892	225.247	321.817
240	5.01064	2.65209	232.28	335.106

Data Set Standard Deviation = 1.68594
Numerator = 112296
Denominator = 157796
W Statistic = 0.71165 = 112296 / 157796

5% Critical value of 0.976 exceeds 0.71165
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.71165
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Chromium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.843641
0.843641 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.52573	0.00414938	-2.65209	67.1928	344.01
2	-2.52573	0.00829876	-2.40892	67.1928	332.136
3	-2.52573	0.0124481	-2.25713	67.1928	324.723
4	-2.52573	0.0165975	-2.14441	67.1928	319.219
5	-2.52573	0.0207469	-2.05375	67.1928	314.791
6	-2.52573	0.0248963	-1.97737	67.1928	311.062
7	-2.52573	0.0290456	-1.8957	67.1928	307.073
8	-2.52573	0.033195	-1.83843	67.1928	304.276
9	-2.52573	0.0373444	-1.78661	67.1928	301.746
10	-2.52573	0.0414938	-1.7392	67.1928	299.431
11	-2.52573	0.0456432	-1.6954	67.1928	297.292
12	-1.83258	0.0497925	-1.65463	108.397	295.301
13	-1.83258	0.0539419	-1.61644	108.397	293.436
14	-1.83258	0.0580913	-1.57179	108.397	291.256
15	-1.77196	0.0622407	-1.5382	112	289.615
16	-1.77196	0.06639	-1.50626	112	288.056
17	-1.7148	0.0705394	-1.47579	115.398	286.568
18	-1.66073	0.0746888	-1.44663	118.612	285.144
19	-1.66073	0.0788382	-1.41865	118.612	283.778
20	-1.66073	0.0829876	-1.39175	118.612	282.464
21	-1.66073	0.0871369	-1.35946	118.612	280.887
22	-1.60944	0.0912863	-1.33462	121.661	279.674
23	-1.60944	0.0954357	-1.31058	121.661	278.5
24	-1.60944	0.0995851	-1.28727	121.661	277.362
25	-1.51413	0.103734	-1.26464	127.327	276.257
26	-1.51413	0.107884	-1.24264	127.327	275.182
27	-1.46968	0.112033	-1.21596	129.969	273.879
28	-1.42712	0.116183	-1.19522	132.499	272.867
29	-1.42712	0.120332	-1.17499	132.499	271.879
30	-1.42712	0.124481	-1.15522	132.499	270.913
31	-1.38629	0.128631	-1.1359	134.926	269.97
32	-1.38629	0.13278	-1.11699	134.926	269.046
33	-1.34707	0.136929	-1.09847	137.257	268.142
34	-1.30933	0.141079	-1.07584	139.501	267.037
35	-1.20397	0.145228	-1.05812	145.764	266.172
36	-1.13943	0.149378	-1.04073	149.6	265.322
37	-1.13943	0.153527	-1.02365	149.6	264.488
38	-1.10866	0.157676	-1.00687	151.429	263.669
39	-1.10866	0.161826	-0.990356	151.429	262.862
40	-1.02165	0.165975	-0.974114	156.602	262.069
41	-0.916291	0.170124	-0.954165	162.865	261.095
42	-0.673345	0.174274	-0.938476	177.307	260.329
43	-0.653926	0.178423	-0.923014	178.461	259.574
44	-0.616186	0.182573	-0.907769	180.704	258.829
45	-0.510826	0.186722	-0.892733	186.968	258.095
46	-0.478036	0.190871	-0.877897	188.917	257.371
47	-0.400478	0.195021	-0.859618	193.527	256.478
48	-0.34249	0.19917	-0.845198	196.974	255.774

49	-0.34249	0.20332	-0.830953	196.974	255.078		
50	-0.301105	0.207469	-0.816874	199.434	254.391		
51	-0.139262	0.211618	-0.802956	209.055	253.711		
52	-0.0833816	0.215768	-0.789191	212.377	253.039		
53	0.470004	0.219917	-0.775574	245.272	252.374		
54	1.13462	0.224066	-0.758753	284.78	251.552		
55	1.25276	0.228216	-0.745449	291.803	250.903		
56	1.50408	0.232365	-0.732275	306.742	250.259		
57	1.52823	0.236515	-0.719228	308.178	249.622		
58	1.63315	0.240664	-0.706302	314.415	248.991		
59	1.64866	0.244813	-0.693493	315.337	248.366		
60	1.72811	0.248963	-0.680797	320.06	247.746		
61	1.73342	0.253112	-0.665079	320.376	246.978		
62	1.94591	0.257261	-0.652622	333.007	246.37		
63	2.06686	0.261411	-0.640266	340.197	245.766		
64	2.07944	0.26556	-0.628006	340.945	245.168		
65	2.0931	0.26971	-0.615839	341.756	244.573		
66	2.30259	0.273859	-0.603765	354.209	243.984		
67	2.30259	0.278008	-0.588793	354.209	243.253		
68	2.30259	0.282158	-0.576911	354.209	242.672		
69	2.30259	0.286307	-0.565108	354.209	242.096		
70	2.30259	0.290456	-0.553384	354.209	241.524		
71	2.30259	0.294606	-0.541736	354.209	240.955		
72	2.30259	0.298755	-0.530162	354.209	240.39		
73	2.30259	0.302905	-0.518658	354.209	239.828		
74	2.30259	0.307054	-0.504372	354.209	239.13		
75	2.30259	0.311203	-0.493018	354.209	238.576		
76	2.30259	0.315353	-0.481728	354.209	238.024		
77	2.30259	0.319502	-0.470498	354.209	237.476		
78	2.30259	0.323651	-0.459327	354.209	236.93		
79	2.30259	0.327801	-0.448213	354.209	236.388		
80	2.30259	0.33195	-0.437153	354.209	235.848		
81	2.30259	0.3361	-0.423405	354.209	235.176		
82	2.30259	0.340249	-0.412463	354.209	234.642		
83	2.30259	0.344398	-0.401571	354.209	234.11		
84	2.30259	0.348548	-0.390726	354.209	233.58		
85	2.30259	0.352697	-0.379927	354.209	233.053		
86	2.30259	0.356846	-0.369171	354.209	232.528		
87	2.30259	0.360996	-0.358459	354.209	232.005		
88	2.30259	0.365145	-0.345126	354.209	231.354		
89	2.30259	0.369295	-0.334503	354.209	230.835		
90	2.30259	0.373444	-0.323919	354.209	230.318		
91	2.30259	0.377593	-0.31337	354.209	229.803		
92	2.30259	0.381743	-0.302855	354.209	229.289		
93	2.30259	0.385892	-0.292375	354.209	228.778		
94	2.30259	0.390041	-0.279319	354.209	228.14		
95	2.30259	0.394191	-0.268908	354.209	227.632		
96	2.30259	0.39834	-0.258527	354.209	227.125		
97	2.30259	0.40249	-0.248174	354.209	226.619		
98	2.30259	0.406639	-0.237847	354.209	226.115		
99	2.30259	0.410788	-0.227545	354.209	225.612		
100	2.30259	0.414938	-0.217267	354.209	225.11		
101	2.30259	0.419087	-0.204452	354.209	224.484		
102	2.30259	0.423237	-0.194225	354.209	223.985		
103	2.30259	0.427386	-0.184017	354.209	223.486		
104	2.30259	0.431535	-0.173829	354.209	222.989		
105	2.30259	0.435685	-0.163659	354.209	222.492		
106	2.30259	0.439834	-0.153505	354.209	221.996		
107	2.30259	0.443983	-0.143367	354.209	221.501		
108	2.30259	0.448133	-0.130716	354.209	220.883		
109	2.30259	0.452282	-0.12061	354.209	220.39		
110	2.30259	0.456432	-0.110516	354.209	219.897		

111	2.30259	0.460581	-0.100433	354.209	219.404
112	2.30259	0.46473	-0.0903606	354.209	218.913
113	2.30259	0.46888	-0.0802981	354.209	218.421
114	2.30259	0.473029	-0.0677301	354.209	217.807
115	2.30259	0.477178	-0.0576847	354.209	217.317
116	2.30259	0.481328	-0.0476439	354.209	216.827
117	2.30259	0.485477	-0.0376076	354.209	216.337
118	2.30259	0.489627	-0.0275759	354.209	215.847
119	2.30259	0.493776	-0.0175476	354.209	215.357
120	2.30259	0.497925	-0.00751925	354.209	214.867
121	2.30259	0.502075	0.00751925	354.209	214.133
122	2.30259	0.506224	0.0175476	354.209	213.643
123	2.30259	0.510373	0.0275759	354.209	213.153
124	2.30259	0.514523	0.0376076	354.209	212.663
125	2.30259	0.518672	0.0476439	354.209	212.173
126	2.30259	0.522822	0.0576847	354.209	211.683
127	2.30259	0.526971	0.0677301	354.209	211.193
128	2.30259	0.53112	0.0802981	354.209	210.579
129	2.30259	0.53527	0.0903606	354.209	210.087
130	2.30259	0.539419	0.100433	354.209	209.596
131	2.30259	0.543568	0.110516	354.209	209.103
132	2.30259	0.547718	0.12061	354.209	208.61
133	2.30259	0.551867	0.130716	354.209	208.117
134	2.30259	0.556017	0.143367	354.209	207.499
135	2.30259	0.560166	0.153505	354.209	207.004
136	2.30259	0.564315	0.163659	354.209	206.508
137	2.30259	0.568465	0.173829	354.209	206.011
138	2.30259	0.572614	0.184017	354.209	205.514
139	2.30259	0.576763	0.194225	354.209	205.015
140	2.30259	0.580913	0.204452	354.209	204.516
141	2.30259	0.585062	0.217267	354.209	203.89
142	2.30259	0.589212	0.227545	354.209	203.388
143	2.30259	0.593361	0.237847	354.209	202.885
144	2.30259	0.59751	0.248174	354.209	202.381
145	2.30259	0.60166	0.258527	354.209	201.875
146	2.30259	0.605809	0.268908	354.209	201.368
147	2.30259	0.609959	0.279319	354.209	200.86
148	2.30259	0.614108	0.292375	354.209	200.222
149	2.30259	0.618257	0.302855	354.209	199.711
150	2.30259	0.622407	0.31337	354.209	199.197
151	2.30259	0.626556	0.323919	354.209	198.682
152	2.30259	0.630705	0.334503	354.209	198.165
153	2.30259	0.634855	0.345126	354.209	197.646
154	2.30259	0.639004	0.358459	354.209	196.995
155	2.30259	0.643154	0.369171	354.209	196.472
156	2.30259	0.647303	0.379927	354.209	195.947
157	2.30259	0.651452	0.390726	354.209	195.42
158	2.30259	0.655602	0.401571	354.209	194.89
159	2.30259	0.659751	0.412463	354.209	194.358
160	2.30259	0.6639	0.423405	354.209	193.824
161	2.30259	0.66805	0.437153	354.209	193.152
162	2.30259	0.672199	0.448213	354.209	192.612
163	2.30259	0.676349	0.459327	354.209	192.07
164	2.30259	0.680498	0.470498	354.209	191.524
165	2.30259	0.684647	0.481728	354.209	190.976
166	2.30259	0.688797	0.493018	354.209	190.424
167	2.30259	0.692946	0.504372	354.209	189.87
168	2.30259	0.697095	0.518658	354.209	189.172
169	2.30259	0.701245	0.530162	354.209	188.61
170	2.30259	0.705394	0.541736	354.209	188.045
171	2.30259	0.709544	0.553384	354.209	187.476
172	2.30259	0.713693	0.565108	354.209	186.904

173	2.30259	0.717842		0.576911	354.209	186.328
174	2.30259	0.721992		0.588793	354.209	185.747
175	2.30259	0.726141		0.603765	354.209	185.016
176	2.30259	0.73029	0.615839		354.209	184.427
177	2.30259	0.73444	0.628006		354.209	183.832
178	2.30259	0.738589		0.640266	354.209	183.234
179	2.30259	0.742739		0.652622	354.209	182.63
180	2.30259	0.746888		0.665079	354.209	182.022
181	2.30259	0.751037		0.680797	354.209	181.254
182	2.30259	0.755187		0.693493	354.209	180.634
183	2.30259	0.759336		0.706302	354.209	180.009
184	2.30259	0.763485		0.719228	354.209	179.378
185	2.30259	0.767635		0.732275	354.209	178.741
186	2.30259	0.771784		0.745449	354.209	178.097
187	2.30259	0.775934		0.758753	354.209	177.448
188	2.30259	0.780083		0.775574	354.209	176.626
189	2.30259	0.784232		0.789191	354.209	175.961
190	2.30259	0.788382		0.802956	354.209	175.289
191	2.30259	0.792531		0.816874	354.209	174.609
192	2.30259	0.79668	0.830953		354.209	173.922
193	2.30259	0.80083	0.845198		354.209	173.226
194	2.30259	0.804979		0.859618	354.209	172.522
195	2.30259	0.809129		0.877897	354.209	171.629
196	2.30259	0.813278		0.892733	354.209	170.905
197	2.30259	0.817427		0.907769	354.209	170.171
198	2.30259	0.821577		0.923014	354.209	169.426
199	2.30259	0.825726		0.938476	354.209	168.671
200	2.30259	0.829876		0.954165	354.209	167.905
201	2.30259	0.834025		0.974114	354.209	166.931
202	2.30259	0.838174		0.990356	354.209	166.138
203	2.30259	0.842324		1.00687	354.209	165.331
204	2.30259	0.846473		1.02365	354.209	164.512
205	2.30259	0.850622		1.04073	354.209	163.678
206	2.30259	0.854772		1.05812	354.209	162.828
207	2.30259	0.858921		1.07584	354.209	161.963
208	2.3979	0.863071		1.09847	359.875	160.858
209	2.3979	0.86722	1.11699	359.875	159.954	
210	2.48491	0.871369		1.1359	365.047	159.03
211	2.48491	0.875519		1.15522	365.047	158.087
212	2.48491	0.879668		1.17499	365.047	157.121
213	2.5177	0.883817		1.19522	366.996	156.133
214	2.54945	0.887967		1.21596	368.884	155.121
215	2.62467	0.892116		1.24264	373.355	153.818
216	2.63906	0.896266		1.26464	374.211	152.743
217	2.63906	0.900415		1.28727	374.211	151.638
218	2.63906	0.904564		1.31058	374.211	150.5
219	2.63906	0.908714		1.33462	374.211	149.326
220	2.63906	0.912863		1.35946	374.211	148.113
221	2.63906	0.917012		1.39175	374.211	146.536
222	2.70805	0.921162		1.41865	378.312	145.222
223	2.77259	0.925311		1.44663	382.148	143.856
224	2.77882	0.929461		1.47579	382.519	142.432
225	2.89037	0.93361	1.50626	389.15	140.944	
226	3.13549	0.937759		1.5382	403.721	139.385
227	3.25037	0.941909		1.57179	410.55	137.744
228	3.3322	0.946058		1.61644	415.414	135.564
229	3.3673	0.950207		1.65463	417.5	133.699
230	3.40453	0.954357		1.6954	419.713	131.708
231	3.46574	0.958506		1.7392	423.352	129.569
232	3.46574	0.962656		1.78661	423.352	127.254
233	3.60005	0.966805		1.83843	431.336	124.724
234	3.68888	0.970954		1.8957	436.617	121.927

235	3.68888	0.975104	1.97737	436.617	117.938
236	3.73767	0.979253	2.05375	439.517	114.209
237	4.02892	0.983402	2.14441	456.83	109.781
238	4.38078	0.987552	2.25713	477.746	104.277
239	4.40672	0.991701	2.40892	479.288	96.8642
240	5.01064	0.995851	2.65209	515.188	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Chromium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	3.68888	234
	9/23/1999	2.63906 J	216
	3/15/2000	5.01064	240
	9/24/2003	ND<2.30259	76.5
	3/11/2004	ND<2.30259	76.5
	10/12/2004	ND<2.30259	76.5
	4/1/2005	ND<2.30259	76.5
	10/25/2005	ND<2.30259	76.5
	4/29/2006	ND<2.30259	76.5
	11/18/2006	ND<2.30259	76.5
	5/23/2007	ND<2.30259	76.5
	11/28/2007	ND<2.30259	76.5
	6/5/2008	1.72811 J	201
	11/20/2008	ND<2.30259	76.5
	6/11/2009	-1.77196 J	156
	11/16/2009	-1.66073 J	159
	6/30/2010	ND<-2.52573	76.5
	11/12/2010	-1.34707 J	174
	7/5/2011	-1.83258 J	153

Rank Sum = 2374.5
Rank Mean = 124.974

Background Rank Sum = 2374.5
Background Rank Mean = 124.974

Compliance Locations

Loc. ID	Date	Value	Rank
MW-7	7/20/1995	ND<2.30259	76.5
	8/24/1995	2.54945 J	214
	9/28/1995	4.38078	238
	10/26/1995	ND<2.30259	76.5
	11/19/1996	ND<2.30259	76.5
	12/19/1996	3.60005	233
	3/24/1997	ND<2.30259	76.5
	9/24/1997	2.63906 J	217
	4/7/1998	3.3322	228
	9/23/1998	ND<2.30259	76.5
	3/16/1999	3.68888	235
	9/23/1999	3.73767	236
	3/15/2000	2.30259 J	207
	9/24/2003	ND<2.30259	76.5
	3/11/2004	ND<2.30259	76.5
	10/12/2004	ND<2.30259	76.5
	4/1/2005	ND<2.30259	76.5
	10/25/2005	ND<2.30259	76.5
	4/29/2006	ND<2.30259	76.5
	11/18/2006	ND<2.30259	76.5
	5/23/2007	ND<2.30259	76.5

	11/28/2007	ND<2.30259		76.5
	6/5/2008	2.0931	J	206
	11/20/2008	ND<2.30259		76.5
	6/11/2009	-0.34249	J	189
	11/16/2009	-0.400478	J B	188
	6/30/2010	-1.13943	J H	177
	11/12/2010	-0.673345	J	183
	7/5/2011	0.470004		194
	11/22/2011	-0.616186	J	185

Rank Sum = 4277.5
Rank Mean = 142.583

MW-8	7/20/1995	ND<2.30259		76.5
	8/24/1995	ND<2.30259		76.5
	9/28/1995	4.02892		237
	10/26/1995	ND<2.30259		76.5
	11/19/1996	ND<2.30259		76.5
	12/19/1996	3.40453		230
	3/24/1997	ND<2.30259		76.5
	9/24/1997	ND<2.30259		76.5
	4/7/1998	ND<2.30259		76.5
	9/23/1998	2.89037	J	225
	3/16/1999	ND<2.30259		76.5
	9/23/1999	3.46574		231
	3/15/2000	ND<2.30259		76.5
	9/24/2003	ND<2.30259		76.5
	3/11/2004	ND<2.30259		76.5
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5
	4/29/2006	ND<2.30259		76.5
	11/18/2006	ND<2.30259		76.5
	5/23/2007	ND<2.30259		76.5
	11/28/2007	ND<2.30259		76.5
	6/5/2008	2.06686	J	204
	11/20/2008	ND<2.30259		76.5
	6/11/2009	-1.60944	J	163
	6/30/2010	-1.42712	J H	169
	11/12/2010	-1.42712	J	170
	7/5/2011	-1.60944	J	164
	11/22/2011	-0.139262	J	192

Rank Sum = 3438.5
Rank Mean = 118.569

MW-6	7/20/1995	2.5177	J	213
	8/24/1995	ND<2.30259		76.5
	9/28/1995	ND<2.30259		76.5
	10/26/1995	2.62467	J	215
	11/19/1996	ND<2.30259		76.5
	12/19/1996	2.77882	J	224
	3/24/1997	2.63906	J	218
	9/24/1997	ND<2.30259		76.5
	4/7/1998	3.13549		226
	9/23/1998	2.63906	J	219
	3/16/1999	ND<2.30259		76.5
	9/23/1999	ND<2.30259		76.5
	3/15/2000	3.46574		232
	9/24/2003	ND<2.30259		76.5
	3/11/2004	ND<2.30259		76.5
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5

	4/29/2006	ND<2.30259		76.5
	11/18/2006	ND<2.30259		76.5
	5/23/2007	ND<2.30259		76.5
	11/28/2007	ND<2.30259		76.5
	6/5/2008	1.63315		199
	11/20/2008	ND<2.30259		76.5
	6/11/2009	ND<-2.52573		76.5
	11/16/2009	ND<-2.52573		76.5
	6/30/2010	ND<-2.52573		76.5
	11/12/2010	ND<-2.52573	U	76.5
	7/5/2011	ND<-2.52573	U	76.5
	11/22/2011	-1.66073	J	160

Rank Sum = 3512.5
Rank Mean = 117.083

MW-11R	7/20/1995	ND<2.30259		76.5
	8/24/1995	ND<2.30259		76.5
	9/28/1995	ND<2.30259		76.5
	10/26/1995	3.25037		227
	11/19/1996	ND<2.30259		76.5
	12/19/1996	2.77259	J	223
	3/24/1997	ND<2.30259		76.5
	9/24/1997	ND<2.30259		76.5
	4/7/1998	2.63906	J	220
	9/23/1998	ND<2.30259		76.5
	3/16/1999	1.94591	J	203
	9/23/1999	2.3979	J	208
	3/15/2000	2.48491	J	210
	9/24/2003	ND<2.30259		76.5
	3/11/2004	ND<2.30259		76.5
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5
	4/29/2006	ND<2.30259		76.5
	11/18/2006	ND<2.30259		76.5
	5/23/2007	1.52823	J	198
	11/28/2007	ND<2.30259		76.5
	6/5/2008	ND<2.30259		76.5
	11/20/2008	ND<2.30259		76.5
	6/11/2009	-1.77196	J	157
	11/16/2009	-1.51413	J B	166
	6/30/2010	-1.7148	J H	158
	11/12/2010	ND<-2.52573	U	76.5
	7/5/2011	-1.02165	J	181
	11/22/2011	-1.10866	J	179
	11/22/2011	-1.10866	J	180

Rank Sum = 3887
Rank Mean = 125.387

MW-12A	R	3/16/1999	ND<2.30259	76.5
	9/23/1999	ND<2.30259		76.5
	3/15/2000	4.40672		239
	9/24/2003	ND<2.30259		76.5
	3/11/2004	2.48491	J	211
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5
	4/29/2006	ND<2.30259		76.5
	11/18/2006	ND<2.30259		76.5
	5/23/2007	ND<2.30259		76.5
	11/28/2007	ND<2.30259		76.5
	6/5/2008	1.50408	J	197

	11/20/2008	ND<2.30259		76.5
	6/11/2009	-1.20397	J	176
	11/16/2009	-0.301105	J B	191
	6/30/2010	-0.916291	J	182
	11/12/2010	-0.510826	J	186
	7/5/2011	-0.083381	6 J	193
	11/22/2011	-0.34249	J	190

Rank Sum = 2606.5
Rank Mean = 130.325

MW-9	7/20/1995	ND<2.30259		76.5
	8/24/1995	ND<2.30259		76.5
	9/28/1995	ND<2.30259		76.5
	10/26/1995	ND<2.30259		76.5
	11/19/1996	ND<2.30259		76.5
	12/19/1996	ND<2.30259		76.5
	3/24/1997	ND<2.30259		76.5
	9/24/1997	ND<2.30259		76.5
	4/7/1998	ND<2.30259		76.5
	9/23/1998	ND<2.30259		76.5
	3/16/1999	ND<2.30259		76.5
	9/23/1999	2.3979	J	209
	3/15/2000	ND<2.30259		76.5
	9/24/2003	ND<2.30259		76.5
	3/11/2004	ND<2.30259		76.5
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5
	4/29/2006	ND<2.30259		76.5
	11/18/2006	ND<2.30259		76.5
	5/23/2007	ND<2.30259		76.5
	11/28/2007	ND<2.30259		76.5
	6/5/2008	1.64866	J	200
	11/20/2008	ND<2.30259		76.5
	6/11/2009	-0.478036	J	187
	11/16/2009	ND<-2.52573		76.5
	6/30/2010	-1.46968	J H	168
	11/12/2010	ND<-2.52573	U	76.5
	7/5/2011	1.25276		196
	11/22/2011	-1.38629	J	172
	11/22/2011	-1.38629	J	173

Rank Sum = 3141
Rank Mean = 101.323

MW-10	7/20/1995	ND<2.30259		76.5
	8/24/1995	ND<2.30259		76.5
	9/28/1995	ND<2.30259		76.5
	10/26/1995	ND<2.30259		76.5
	11/19/1996	ND<2.30259		76.5
	12/19/1996	2.70805	J	222
	3/24/1997	ND<2.30259		76.5
	9/24/1997	2.63906		221
	4/7/1998	ND<2.30259		76.5
	9/23/1998	ND<2.30259		76.5
	3/16/1999	ND<2.30259		76.5
	9/23/1999	3.3673		229
	3/15/2000	ND<2.30259		76.5
	9/24/2003	ND<2.30259		76.5
	3/11/2004	ND<2.30259		76.5
	10/12/2004	ND<2.30259		76.5
	4/1/2005	ND<2.30259		76.5
	10/25/2005	ND<2.30259		76.5

	4/29/2006	ND<2.30259		76.5	
	11/18/2006	ND<2.30259		76.5	
	5/23/2007	ND<2.30259		76.5	
	11/28/2007	ND<2.30259		76.5	
	6/5/2008	1.13462	J	195	
	11/20/2008	ND<2.30259		76.5	
	6/11/2009	-1.51413	J	167	
	11/16/2009	-1.30933	J B	175	
	6/30/2010	-1.83258	J H	154	
	11/12/2010	-1.60944	J	165	
	7/5/2011	-1.83258	U J	155	
	11/22/2011	-1.66073	J	161	

Rank Sum = 3374
Rank Mean = 112.467

MW-12BR	3/16/1999	2.07944	J	205	
	9/23/1999	2.48491	J	212	
	3/15/2000	ND<2.30259		76.5	
	9/24/2003	ND<2.30259		76.5	
	3/11/2004	ND<2.30259		76.5	
	10/12/2004	ND<2.30259		76.5	
	4/1/2005	ND<2.30259		76.5	
	10/25/2005	ND<2.30259		76.5	
	4/29/2006	ND<2.30259		76.5	
	11/18/2006	ND<2.30259		76.5	
	5/23/2007	ND<2.30259		76.5	
	11/28/2007	ND<2.30259		76.5	
	6/5/2008	1.73342	J	202	
	11/20/2008	ND<2.30259		76.5	
	6/11/2009	ND<-2.52573		76.5	
	11/16/2009	ND<-2.52573		76.5	
	6/30/2010	-1.13943	J	178	
	11/12/2010	-0.653926	J	184	
	7/5/2011	-1.66073	J	162	
	11/22/2011	-1.42712	J	171	

Rank Sum = 2308.5
Rank Mean = 115.425

Calculation Results:

Kruskal-Wallis H Statistic = 6.63733
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 8.89759
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
6.63733 < 15.5073 indicating no significant group difference at 5% significance level
8.89759 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 238
Total Non-Detect: 131
Percent Non-Detects: 55.042%
Total Background Measurements: 18
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	18	18 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.15	ND<0.15
			6/30/2010	ND<0.15	ND<0.15
			11/12/2010	ND<0.15 U	ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	30	30 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.15	ND<0.15

			6/30/2010	ND<0.15	ND<0.15	
			11/12/2010	ND<0.15 U	ND<0.15 U	
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
MW-8	30	2 (6.66667%)	7/20/1995	1.1 J	1.1 J	
			8/24/1995	20	20	
			9/28/1995	17	17	
			10/26/1995	2	2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	130	130	
			3/24/1997	160	160	
			9/24/1997	280	280	
			4/7/1998	180	180	
			9/23/1998	360	360	
			3/16/1999	159	159	
			9/23/1999	139	139	
			3/15/2000	330	330	
			9/24/2003	35	35	
			3/11/2004	130	130	
			10/12/2004	140	140	
			4/1/2005	55.9	55.9	
			10/25/2005	105	105	
			4/29/2006	42.5	42.5	
			11/18/2006	42.4	42.4	
			5/23/2007	25	25	
			11/28/2007	60.9	60.9	
			6/5/2008	ND<2	ND<2	
			11/20/2008	35	35	
			6/11/2009	39	39	
			6/30/2010	43	43	
			11/12/2010	58	58	
			7/5/2011	83	83	
			11/22/2011	65	65	
			11/22/2011	65	65	
MW-9	30	12 (40%)	7/20/1995	1.2 J	1.2 J	
			8/24/1995	1.1 J	1.1 J	
			9/28/1995	1 J	1 J	
			10/26/1995	1 J	1 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	64	64	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.78 J	1.78 J	
			10/25/2005	1.26 J	1.26 J	
			4/29/2006	0.88 J	0.88 J	
			11/18/2006	0.71 J	0.71 J	
			5/23/2007	3	3	
			11/28/2007	ND<0 J	ND<0 J	
			6/5/2008	0.5 J	0.5 J	
			11/20/2008	1.79 J	1.79 J	
			6/11/2009	2.3	2.3	

			6/30/2010	2.3	2.3	
			11/12/2010	1.8	1.8	
			7/5/2011	1.2	1.2	
			11/22/2011	1.7 Q	1.7 Q	
			11/22/2011	1.7 Q	1.7 Q	
MW-7	30	29 (96.6667%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.21 J	0.21 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.15	ND<0.15	
			6/30/2010	ND<0.15	ND<0.15	
			11/12/2010	ND<0.15 U	ND<0.15 U	
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
MW-11R	30	8 (26.6667%)	7/20/1995	5.4	5.4	
			8/24/1995	11	11	
			9/28/1995	10	10	
			10/26/1995	15	15	
			11/19/1996	ND<2	ND<2	
			12/19/1996	16	16	
			3/24/1997	12	12	
			9/24/1997	ND<2	ND<2	
			4/7/1998	5.2	5.2	
			9/23/1998	13	13	
			3/16/1999	11.1	11.1	
			9/23/1999	ND<2	ND<2	
			3/15/2000	12	12	
			9/24/2003	10	10	
			3/11/2004	11	11	
			10/12/2004	ND<2	ND<2	
			4/1/2005	9.47	9.47	
			10/25/2005	4.56	4.56	
			4/29/2006	2.88	2.88	
			11/18/2006	1.71 J	1.71 J	
			5/23/2007	5.7	5.7	
			11/28/2007	3.24	3.24	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	1.3	1.3	

			6/30/2010	1.6	1.6	
			11/12/2010	ND<0.15 U		ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	0.22 J Q	0.22 J Q	
			11/22/2011	0.22 J Q	0.22 J Q	
MW-12BR	20	18 (90%)	3/16/1999		14.8	14.8
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	10.7	10.7	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.15		ND<0.15
			6/30/2010	ND<0.15		ND<0.15
			11/12/2010	ND<0.15 U		ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U
			11/22/2011	ND<0.15 U		ND<0.15 U
MW-12AR	20	10 (50%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	14	14	
			9/24/2003	10	10	
			3/11/2004	10	10	
			10/12/2004	9.4	9.4	
			4/1/2005	ND<2	ND<2	
			10/25/2005	2.9	2.9	
			4/29/2006	3.19	3.19	
			11/18/2006	1.09 J	1.09 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	1.22 J	1.22 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.83 J	0.83 J	
			6/11/2009	ND<0.15		ND<0.15
			6/30/2010	ND<0.15		ND<0.15
			11/12/2010	0.92 J	0.92 J	
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U
			11/22/2011	ND<0.15 U		ND<0.15 U
MW-10	30	4 (13.3333%)	7/20/1995		4	4
			8/24/1995	15	15	
			9/28/1995	32	32	
			10/26/1995	26	26	
			11/19/1996	ND<2	ND<2	
			12/19/1996	40	40	
			3/24/1997	26	26	
			9/24/1997	38	38	
			4/7/1998	7.6	7.6	
			9/23/1998	32	32	
			3/16/1999	42.7	42.7	
			9/23/1999	24.9	24.9	
			3/15/2000	11	11	
			9/24/2003	11	11	

3/11/2004		7.1	7.1
10/12/2004		ND<2	ND<2
4/1/2005	ND<2	ND<2	
10/25/2005		13.4	13.4
4/29/2006		15.8	15.8
11/18/2006		8.96	8.96
5/23/2007		9.1	9.1
11/28/2007		13.6	13.6
6/5/2008	13.5	13.5	
11/20/2008		ND<2	ND<2
6/11/2009		9	9
6/30/2010		5.8	5.8
11/12/2010		8.6	8.6
7/5/2011	12	12	
11/22/2011		10	10
11/22/2011		10	10

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: cis-1,2-Dichloroethene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 238

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.65209	7.03356	0
2	0.075	-2.40892	12.8365	-0.180669
3	0.075	-2.25713	17.9311	-0.349954
4	0.075	-2.14441	22.5296	-0.510785
5	0.075	-2.05375	26.7475	-0.664816
6	0.075	-1.95996	30.5889	-0.811813
7	0.075	-1.8957	34.1826	-0.95399
8	0.075	-1.83843	37.5624	-1.09187
9	0.075	-1.78661	40.7544	-1.22587
10	0.075	-1.7392	43.7792	-1.35631
11	0.075	-1.68494	46.6182	-1.48268
12	0.075	-1.64485	49.3237	-1.60604
13	0.075	-1.60725	51.907	-1.72659
14	0.075	-1.57179	54.3775	-1.84447
15	0.075	-1.5382	56.7436	-1.95984
16	0.075	-1.50626	59.0124	-2.0728
17	0.075	-1.46838	61.1686	-2.18293
18	0.075	-1.43953	63.2408	-2.2909
19	0.075	-1.41183	65.2341	-2.39679
20	0.075	-1.38517	67.1528	-2.50067
21	0.075	-1.35946	69.0009	-2.60263
22	0.075	-1.32854	70.7659	-2.70227
23	0.075	-1.30469	72.4681	-2.80012
24	0.075	-1.28155	74.1105	-2.89624
25	0.075	-1.25908	75.6958	-2.99067
26	0.075	-1.23724	77.2265	-3.08347
27	0.075	-1.21596	78.7051	-3.17466
28	0.075	-1.19012	80.1215	-3.26392
29	0.075	-1.17	81.4904	-3.35167
30	0.075	-1.15035	82.8137	-3.43795
31	0.21	-1.13113	84.0932	-3.67549
32	0.22	-1.11232	85.3304	-3.9202
33	0.22	-1.08935	86.5171	-4.15985
34	0.5	-1.07138	87.6649	-4.69554
35	0.71	-1.05375	88.7753	-5.4437
36	0.83	-1.03643	89.8495	-6.30394
37	0.88	-1.01943	90.8888	-7.20104
38	0.92	-1.00271	91.8942	-8.12353
39	1	-0.982202	92.8589	-9.10573
40	1	-0.966088	93.7922	-10.0718
41	1	-0.950222	94.6951	-11.022
42	1	-0.93459	95.5686	-11.9566
43	1	-0.919183	96.4135	-12.8758
44	1	-0.900227	97.2239	-13.776
45	1	-0.885291	98.0077	-14.6613
46	1	-0.87055	98.7655	-15.5319
47	1	-0.855996	99.4982	-16.3879
48	1	-0.841621	100.207	-17.2295
49	1	-0.823893	100.885	-18.0534
50	1	-0.809896	101.541	-18.8633
51	1	-0.796056	102.175	-19.6593

52	1	-0.782366	102.787	-20.4417
53	1	-0.768821	103.378	-21.2105
54	1	-0.755415	103.949	-21.9659
55	1	-0.738846	104.495	-22.7048
56	1	-0.725736	105.021	-23.4305
57	1	-0.712751	105.529	-24.1433
58	1	-0.699883	106.019	-24.8432
59	1	-0.687131	106.491	-25.5303
60	1	-0.671346	106.942	-26.2016
61	1	-0.658838	107.376	-26.8605
62	1	-0.646431	107.794	-27.5069
63	1	-0.634124	108.196	-28.141
64	1	-0.621911	108.583	-28.7629
65	1	-0.609791	108.955	-29.3727
66	1	-0.594766	109.309	-29.9675
67	1	-0.582841	109.648	-30.5503
68	1	-0.570999	109.974	-31.1213
69	1	-0.559237	110.287	-31.6806
70	1	-0.547551	110.587	-32.2281
71	1	-0.533048	110.871	-32.7612
72	1	-0.521527	111.143	-33.2827
73	1	-0.510074	111.403	-33.7928
74	1	-0.498687	111.652	-34.2915
75	1	-0.487364	111.889	-34.7788
76	1	-0.476105	112.116	-35.2549
77	1	-0.462114	112.33	-35.717
78	1	-0.450985	112.533	-36.168
79	1	-0.439913	112.727	-36.6079
80	1	-0.428895	112.91	-37.0368
81	1	-0.417928	113.085	-37.4548
82	1	-0.40429	113.249	-37.8591
83	1	-0.393433	113.403	-38.2525
84	1	-0.382622	113.55	-38.6351
85	1	-0.371856	113.688	-39.007
86	1	-0.361133	113.818	-39.3681
87	1	-0.347787	113.939	-39.7159
88	1	-0.337155	114.053	-40.053
89	1	-0.326561	114.16	-40.3796
90	1	-0.316004	114.26	-40.6956
91	1	-0.305481	114.353	-41.0011
92	1	-0.294992	114.44	-41.2961
93	1	-0.281926	114.519	-41.578
94	1	-0.271509	114.593	-41.8495
95	1	-0.26112	114.661	-42.1106
96	1	-0.250759	114.724	-42.3614
97	1	-0.240426	114.782	-42.6018
98	1	-0.227545	114.834	-42.8294
99	1	-0.217267	114.881	-43.0466
100	1	-0.207012	114.924	-43.2537
101	1	-0.196779	114.963	-43.4504
102	1	-0.186567	114.997	-43.637
103	1	-0.176374	115.028	-43.8134
104	1	-0.163659	115.055	-43.977
105	1	-0.153505	115.079	-44.1305
106	1	-0.143367	115.099	-44.2739
107	1	-0.133244	115.117	-44.4071
108	1	-0.123135	115.132	-44.5303
109	1	-0.110516	115.144	-44.6408
110	1	-0.100433	115.155	-44.7412
111	1	-0.0903606	115.163	-44.8316
112	1	-0.0802981	115.169	-44.9119
113	1	-0.0702426	115.174	-44.9821

114	1	-0.0601949	115.178	-45.0423
115	1	-0.0476439	115.18	-45.09
116	1	-0.0376076	115.181	-45.1276
117	1	-0.0275759	115.182	-45.1552
118	1	-0.0175476	115.183	-45.1727
119	1	-0.00751925	115.183	-45.1802
120	1	0.00751925	115.183	-45.1727
121	1	0.0175476	115.183	-45.1552
122	1	0.0275759	115.184	-45.1276
123	1	0.0376076	115.185	-45.09
124	1	0.0476439	115.187	-45.0423
125	1	0.0601949	115.191	-44.9821
126	1	0.0702426	115.196	-44.9119
127	1	0.0802981	115.202	-44.8316
128	1	0.0903606	115.211	-44.7412
129	1	0.100433	115.221	-44.6408
130	1	0.110516	115.233	-44.5303
131	1	0.123135	115.248	-44.4071
132	1	0.133244	115.266	-44.2739
133	1	0.143367	115.286	-44.1305
134	1	0.153505	115.31	-43.977
135	1	0.163659	115.337	-43.8134
136	1	0.176374	115.368	-43.637
137	1	0.186567	115.403	-43.4504
138	1	0.196779	115.441	-43.2537
139	1	0.207012	115.484	-43.0466
140	1	0.217267	115.531	-42.8294
141	1	0.227545	115.583	-42.6018
142	1.09	0.240426	115.641	-42.3398
143	1.1	0.250759	115.704	-42.0639
144	1.1	0.26112	115.772	-41.7767
145	1.2	0.271509	115.846	-41.4509
146	1.2	0.281926	115.925	-41.1126
147	1.22	0.294992	116.012	-40.7527
148	1.26	0.305481	116.106	-40.3678
149	1.3	0.316004	116.205	-39.957
150	1.6	0.326561	116.312	-39.4345
151	1.7	0.337155	116.426	-38.8613
152	1.7	0.347787	116.547	-38.2701
153	1.71	0.361133	116.677	-37.6525
154	1.78	0.371856	116.815	-36.9906
155	1.79	0.382622	116.962	-36.3057
156	1.8	0.393433	117.117	-35.5976
157	2	0.40429	117.28	-34.789
158	2.3	0.417928	117.455	-33.8277
159	2.3	0.428895	117.639	-32.8413
160	2.88	0.439913	117.832	-31.5743
161	2.9	0.450985	118.036	-30.2665
162	3	0.462114	118.249	-28.8801
163	3.19	0.476105	118.476	-27.3614
164	3.24	0.487364	118.713	-25.7823
165	4	0.498687	118.962	-23.7876
166	4.56	0.510074	119.222	-21.4616
167	5.2	0.521527	119.494	-18.7497
168	5.4	0.533048	119.778	-15.8712
169	5.7	0.547551	120.078	-12.7502
170	5.8	0.559237	120.391	-9.5066
171	7.1	0.570999	120.717	-5.4525
172	7.6	0.582841	121.057	-1.02292
173	8.6	0.594766	121.41	4.09207
174	8.96	0.609791	121.782	9.5558
175	9	0.621911	122.169	15.153

176	9.1	0.634124		122.571	20.9235
177	9.4	0.646431		122.989	27
178	9.47	0.658838		123.423	33.2392
179	10	0.671346		123.874	39.9526
180	10	0.687131		124.346	46.824
181	10	0.699883		124.836	53.8228
182	10	0.712751		125.344	60.9503
183	10	0.725736		125.87	68.2076
184	10	0.738846		126.416	75.5961
185	10.7	0.755415		126.987	83.6791
186	11	0.768821		127.578	92.1361
187	11	0.782366		128.19	100.742
188	11	0.796056		128.824	109.499
189	11	0.809896		129.48	118.408
190	11.1	0.823893		130.159	127.553
191	12	0.841621		130.867	137.652
192	12	0.855996		131.6	147.924
193	12	0.87055	132.357	158.371	
194	13	0.885291		133.141	169.88
195	13.4	0.900227		133.952	181.943
196	13.5	0.919183		134.797	194.352
197	13.6	0.93459	135.67	207.062	
198	14	0.950222		136.573	220.365
199	14.8	0.966088		137.506	234.663
200	15	0.982202		138.471	249.396
201	15	1.00271	139.476	264.437	
202	15.8	1.01943	140.516	280.544	
203	16	1.03643	141.59	297.127	
204	17	1.05375	142.7	315.04	
205	20	1.07138	143.848	336.468	
206	24.9	1.08935	145.035	363.593	
207	25	1.11232	146.272	391.401	
208	26	1.13113	147.551	420.81	
209	26	1.15035	148.875	450.719	
210	32	1.17	150.244	488.159	
211	32	1.19012	151.66	526.243	
212	35	1.21596	153.139	568.802	
213	35	1.23724	154.669	612.105	
214	38	1.25908	156.255	659.95	
215	39	1.28155	157.897	709.931	
216	40	1.30469	159.599	762.118	
217	42.4	1.32854	161.364	818.448	
218	42.5	1.35946	163.212	876.225	
219	42.7	1.38517	165.131	935.372	
220	43	1.41183	167.124	996.081	
221	55.9	1.43953	169.197	1076.55	
222	58	1.46838	171.353	1161.72	
223	60.9	1.50626	173.622	1253.45	
224	64	1.5382	175.988	1351.89	
225	65	1.57179	178.458	1454.06	
226	65	1.60725	181.041	1558.53	
227	83	1.64485	183.747	1695.05	
228	105	1.68494	186.586	1871.97	
229	130	1.7392	189.611	2098.07	
230	130	1.78661	192.803	2330.33	
231	139	1.83843	196.183	2585.87	
232	140	1.8957	199.776	2851.27	
233	159	1.95996	203.618	3162.9	
234	160	2.05375	207.836	3491.5	
235	180	2.14441	212.434	3877.49	
236	280	2.25713	217.529	4509.49	
237	330	2.40892	223.332	5304.43	

238	360	2.65209	230.365	6259.19

Data Set Standard Deviation = 45.0485
Numerator = 3.91774e+007
Denominator = 1.10796e+008
W Statistic = 0.353598 = 3.91774e+007 / 1.10796e+008

5% Critical value of 0.976 exceeds 0.353598
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.353598
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.600378
0.600378 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.0041841	-2.65209	39	344.01	
2	0.075	0.0083682	-2.40892	39.1003	332.136	
3	0.075	0.0125523	-2.25713	39.1003	324.723	
4	0.075	0.0167364	-2.14441	39.1003	319.219	
5	0.075	0.0209205	-2.05375	39.1003	314.791	
6	0.075	0.0251046	-1.95996	39.1003	310.211	
7	0.075	0.0292887	-1.8957	39.1003	307.073	
8	0.075	0.0334728	-1.83843	39.1003	304.276	
9	0.075	0.0376569	-1.78661	39.1003	301.746	
10	0.075	0.041841	-1.7392	39.1003	299.431	
11	0.075	0.0460251	-1.68494	39.1003	296.781	
12	0.075	0.0502092	-1.64485	39.1003	294.824	
13	0.075	0.0543933	-1.60725	39.1003	292.987	
14	0.075	0.0585774	-1.57179	39.1003	291.256	
15	0.075	0.0627615	-1.5382	39.1003	289.615	
16	0.075	0.0669456	-1.50626	39.1003	288.056	
17	0.075	0.0711297	-1.46838	39.1003	286.206	
18	0.075	0.0753138	-1.43953	39.1003	284.797	
19	0.075	0.0794979	-1.41183	39.1003	283.444	
20	0.075	0.083682	-1.38517	39.1003	282.143	
21	0.075	0.0878661	-1.35946	39.1003	280.887	
22	0.075	0.0920502	-1.32854	39.1003	279.377	
23	0.075	0.0962343	-1.30469	39.1003	278.212	
24	0.075	0.100418	-1.28155	39.1003	277.082	
25	0.075	0.104603	-1.25908	39.1003	275.985	
26	0.075	0.108787	-1.23724	39.1003	274.918	
27	0.075	0.112971	-1.21596	39.1003	273.879	
28	0.075	0.117155	-1.19012	39.1003	272.617	
29	0.075	0.121339	-1.17	39.1003	271.635	
30	0.075	0.125523	-1.15035	39.1003	270.675	
31	0.21	0.129707	-1.13113	39.2809	269.737	
32	0.22	0.133891	-1.11232	39.2942	268.818	
33	0.22	0.138075	-1.08935	39.2942	267.697	
34	0.5	0.142259	-1.07138	39.6688	266.819	
35	0.71	0.146444	-1.05375	39.9496	265.958	
36	0.83	0.150628	-1.03643	40.1101	265.112	
37	0.88	0.154812	-1.01943	40.177	264.282	
38	0.92	0.158996	-1.00271	40.2305	263.466	
39	1	0.16318	-0.982202	40.3375	262.464	
40	1	0.167364	-0.966088	40.3375	261.677	
41	1	0.171548	-0.950222	40.3375	260.903	
42	1	0.175732	-0.93459	40.3375	260.139	
43	1	0.179916	-0.919183	40.3375	259.387	
44	1	0.1841	-0.900227	40.3375	258.461	
45	1	0.188285	-0.885291	40.3375	257.732	
46	1	0.192469	-0.87055	40.3375	257.012	
47	1	0.196653	-0.855996	40.3375	256.301	
48	1	0.200837	-0.841621	40.3375	255.599	

49	1	0.205021	-0.823893	40.3375	254.733
50	1	0.209205	-0.809896	40.3375	254.05
51	1	0.213389	-0.796056	40.3375	253.374
52	1	0.217573	-0.782366	40.3375	252.706
53	1	0.221757	-0.768821	40.3375	252.044
54	1	0.225941	-0.755415	40.3375	251.389
55	1	0.230126	-0.738846	40.3375	250.58
56	1	0.23431	-0.725736	40.3375	249.94
57	1	0.238494	-0.712751	40.3375	249.306
58	1	0.242678	-0.699883	40.3375	248.678
59	1	0.246862	-0.687131	40.3375	248.055
60	1	0.251046	-0.671346	40.3375	247.284
61	1	0.25523	-0.658838	40.3375	246.673
62	1	0.259414	-0.646431	40.3375	246.067
63	1	0.263598	-0.634124	40.3375	245.466
64	1	0.267782	-0.621911	40.3375	244.87
65	1	0.271967	-0.609791	40.3375	244.278
66	1	0.276151	-0.594766	40.3375	243.544
67	1	0.280335	-0.582841	40.3375	242.962
68	1	0.284519	-0.570999	40.3375	242.384
69	1	0.288703	-0.559237	40.3375	241.809
70	1	0.292887	-0.547551	40.3375	241.239
71	1	0.297071	-0.533048	40.3375	240.531
72	1	0.301255	-0.521527	40.3375	239.968
73	1	0.305439	-0.510074	40.3375	239.409
74	1	0.309623	-0.498687	40.3375	238.853
75	1	0.313808	-0.487364	40.3375	238.3
76	1	0.317992	-0.476105	40.3375	237.75
77	1	0.322176	-0.462114	40.3375	237.067
78	1	0.32636	-0.450985	40.3375	236.523
79	1	0.330544	-0.439913	40.3375	235.982
80	1	0.334728	-0.428895	40.3375	235.444
81	1	0.338912	-0.417928	40.3375	234.909
82	1	0.343096	-0.40429	40.3375	234.243
83	1	0.34728	-0.393433	40.3375	233.713
84	1	0.351464	-0.382622	40.3375	233.185
85	1	0.355649	-0.371856	40.3375	232.659
86	1	0.359833	-0.361133	40.3375	232.135
87	1	0.364017	-0.347787	40.3375	231.484
88	1	0.368201	-0.337155	40.3375	230.964
89	1	0.372385	-0.326561	40.3375	230.447
90	1	0.376569	-0.316004	40.3375	229.932
91	1	0.380753	-0.305481	40.3375	229.418
92	1	0.384937	-0.294992	40.3375	228.905
93	1	0.389121	-0.281926	40.3375	228.267
94	1	0.393305	-0.271509	40.3375	227.759
95	1	0.39749	-0.26112	40.3375	227.251
96	1	0.401674	-0.250759	40.3375	226.745
97	1	0.405858	-0.240426	40.3375	226.241
98	1	0.410042	-0.227545	40.3375	225.612
99	1	0.414226	-0.217267	40.3375	225.11
100	1	0.41841	-0.207012	40.3375	224.609
101	1	0.422594	-0.196779	40.3375	224.109
102	1	0.426778	-0.186567	40.3375	223.611
103	1	0.430962	-0.176374	40.3375	223.113
104	1	0.435146	-0.163659	40.3375	222.492
105	1	0.439331	-0.153505	40.3375	221.996
106	1	0.443515	-0.143367	40.3375	221.501
107	1	0.447699	-0.133244	40.3375	221.007
108	1	0.451883	-0.123135	40.3375	220.513
109	1	0.456067	-0.110516	40.3375	219.897
110	1	0.460251	-0.100433	40.3375	219.404

111	1	0.464435	-0.0903606	40.3375	218.913
112	1	0.468619	-0.0802981	40.3375	218.421
113	1	0.472803	-0.0702426	40.3375	217.93
114	1	0.476987	-0.0601949	40.3375	217.44
115	1	0.481172	-0.0476439	40.3375	216.827
116	1	0.485356	-0.0376076	40.3375	216.337
117	1	0.48954	-0.0275759	40.3375	215.847
118	1	0.493724	-0.0175476	40.3375	215.357
119	1	0.497908	-0.00751925	40.3375	214.867
120	1	0.502092	0.00751925	40.3375	214.133
121	1	0.506276	0.0175476	40.3375	213.643
122	1	0.51046	0.0275759	40.3375	213.153
123	1	0.514644	0.0376076	40.3375	212.663
124	1	0.518828	0.0476439	40.3375	212.173
125	1	0.523013	0.0601949	40.3375	211.56
126	1	0.527197	0.0702426	40.3375	211.07
127	1	0.531381	0.0802981	40.3375	210.579
128	1	0.535565	0.0903606	40.3375	210.087
129	1	0.539749	0.100433	40.3375	209.596
130	1	0.543933	0.110516	40.3375	209.103
131	1	0.548117	0.123135	40.3375	208.487
132	1	0.552301	0.133244	40.3375	207.993
133	1	0.556485	0.143367	40.3375	207.499
134	1	0.560669	0.153505	40.3375	207.004
135	1	0.564854	0.163659	40.3375	206.508
136	1	0.569038	0.176374	40.3375	205.887
137	1	0.573222	0.186567	40.3375	205.389
138	1	0.577406	0.196779	40.3375	204.891
139	1	0.58159	0.207012	40.3375	204.391
140	1	0.585774	0.217267	40.3375	203.89
141	1	0.589958	0.227545	40.3375	203.388
142	1.09	0.594142	0.240426	40.4579	202.759
143	1.1	0.598326	0.250759	40.4712	202.255
144	1.1	0.60251	0.26112	40.4712	201.749
145	1.2	0.606695	0.271509	40.605	201.241
146	1.2	0.610879	0.281926	40.605	200.733
147	1.22	0.615063	0.294992	40.6317	200.095
148	1.26	0.619247	0.305481	40.6852	199.582
149	1.3	0.623431	0.316004	40.7388	199.068
150	1.6	0.627615	0.326561	41.14	198.553
151	1.7	0.631799	0.337155	41.2738	198.036
152	1.7	0.635983	0.347787	41.2738	197.516
153	1.71	0.640167	0.361133	41.2871	196.865
154	1.78	0.644351	0.371856	41.3807	196.341
155	1.79	0.648536	0.382622	41.3941	195.815
156	1.8	0.65272	0.393433	41.4075	195.287
157	2	0.656904	0.40429	41.675	194.757
158	2.3	0.661088	0.417928	42.0763	194.091
159	2.3	0.665272	0.428895	42.0763	193.556
160	2.88	0.669456	0.439913	42.852	193.018
161	2.9	0.67364	0.450985	42.8787	192.477
162	3	0.677824	0.462114	43.0125	191.933
163	3.19	0.682008	0.476105	43.2666	191.25
164	3.24	0.686192	0.487364	43.3335	190.7
165	4	0.690377	0.498687	44.35	190.147
166	4.56	0.694561	0.510074	45.099	189.591
167	5.2	0.698745	0.521527	45.955	189.032
168	5.4	0.702929	0.533048	46.2225	188.469
169	5.7	0.707113	0.547551	46.6238	187.761
170	5.8	0.711297	0.559237	46.7575	187.191
171	7.1	0.715481	0.570999	48.4963	186.616
172	7.6	0.719665	0.582841	49.165	186.038

173	8.6	0.723849	0.594766		50.5025	185.456
174	8.96	0.728033	0.609791		50.984	184.722
175	9	0.732218	0.621911		51.0375	184.13
176	9.1	0.736402	0.634124		51.1713	183.534
177	9.4	0.740586	0.646431		51.5725	182.933
178	9.47	0.74477	0.658838	51.6661	182.327	
179	10	0.748954	0.671346		52.375	181.716
180	10	0.753138	0.687131		52.375	180.945
181	10	0.757322	0.699883		52.375	180.322
182	10	0.761506	0.712751		52.375	179.694
183	10	0.76569	0.725736	52.375	179.06	
184	10	0.769874	0.738846		52.375	178.42
185	10.7	0.774059	0.755415		53.3113	177.611
186	11	0.778243	0.768821		53.7125	176.956
187	11	0.782427	0.782366		53.7125	176.294
188	11	0.786611	0.796056		53.7125	175.626
189	11	0.790795	0.809896		53.7125	174.95
190	11.1	0.794979	0.823893		53.8462	174.267
191	12	0.799163	0.841621		55.05	173.401
192	12	0.803347	0.855996		55.05	172.699
193	12	0.807531	0.87055	55.05	171.988	
194	13	0.811715	0.885291		56.3875	171.268
195	13.4	0.8159	0.900227	56.9225	170.539	
196	13.5	0.820084	0.919183		57.0563	169.613
197	13.6	0.824268	0.93459	57.19	168.861	
198	14	0.828452	0.950222		57.725	168.097
199	14.8	0.832636	0.966088		58.795	167.323
200	15	0.83682	0.982202	59.0625	166.536	
201	15	0.841004	1.00271	59.0625	165.534	
202	15.8	0.845188	1.01943	60.1325	164.718	
203	16	0.849372	1.03643	60.4	163.888	
204	17	0.853556	1.05375	61.7375	163.042	
205	20	0.857741	1.07138	65.75	162.181	
206	24.9	0.861925	1.08935	72.3038	161.303	
207	25	0.866109	1.11232	72.4375	160.182	
208	26	0.870293	1.13113	73.775	159.263	
209	26	0.874477	1.15035	73.775	158.325	
210	32	0.878661	1.17	81.8	157.365	
211	32	0.882845	1.19012	81.8	156.383	
212	35	0.887029	1.21596	85.8125	155.121	
213	35	0.891213	1.23724	85.8125	154.082	
214	38	0.895397	1.25908	89.825	153.015	
215	39	0.899582	1.28155	91.1625	151.918	
216	40	0.903766	1.30469	92.5	150.788	
217	42.4	0.90795	1.32854	95.71	149.623	
218	42.5	0.912134	1.35946	95.8438	148.113	
219	42.7	0.916318	1.38517	96.1113	146.857	
220	43	0.920502	1.41183	96.5125	145.556	
221	55.9	0.924686	1.43953	113.766	144.203	
222	58	0.92887	1.46838	116.575	142.794	
223	60.9	0.933054	1.50626	120.454	140.944	
224	64	0.937238	1.5382	124.6	139.385	
225	65	0.941423	1.57179	125.938	137.744	
226	65	0.945607	1.60725	125.938	136.013	
227	83	0.949791	1.64485	150.012	134.176	
228	105	0.953975	1.68494	179.438	132.219	
229	130	0.958159	1.7392	212.875	129.569	
230	130	0.962343	1.78661	212.875	127.254	
231	139	0.966527	1.83843	224.912	124.724	
232	140	0.970711	1.8957	226.25	121.927	
233	159	0.974895	1.95996	251.663	118.789	
234	160	0.979079	2.05375	253	114.209	

235	180	0.983264	2.14441	279.75	109.781
236	280	0.987448	2.25713	413.5	104.277
237	330	0.991632	2.40892	480.375	96.8642
238	360	0.995816	2.65209	520.5	84.9898

Shapiro-Francia Test of Normality

Parameter: cis-1,2-Dichloroethene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 238

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.59027	-2.65209	7.03356	6.86961
2	-2.59027	-2.40892	12.8365	13.1094
3	-2.59027	-2.25713	17.9311	18.9559
4	-2.59027	-2.14441	22.5296	24.5105
5	-2.59027	-2.05375	26.7475	29.8303
6	-2.59027	-1.95996	30.5889	34.9071
7	-2.59027	-1.8957	34.1826	39.8175
8	-2.59027	-1.83843	37.5624	44.5795
9	-2.59027	-1.78661	40.7544	49.2073
10	-2.59027	-1.7392	43.7792	53.7123
11	-2.59027	-1.68494	46.6182	58.0767
12	-2.59027	-1.64485	49.3237	62.3373
13	-2.59027	-1.60725	51.907	66.5005
14	-2.59027	-1.57179	54.3775	70.5719
15	-2.59027	-1.5382	56.7436	74.5562
16	-2.59027	-1.50626	59.0124	78.4578
17	-2.59027	-1.46838	61.1686	82.2614
18	-2.59027	-1.43953	63.2408	85.9901
19	-2.59027	-1.41183	65.2341	89.6471
20	-2.59027	-1.38517	67.1528	93.2351
21	-2.59027	-1.35946	69.0009	96.7565
22	-2.59027	-1.32854	70.7659	100.198
23	-2.59027	-1.30469	72.4681	103.577
24	-2.59027	-1.28155	74.1105	106.897
25	-2.59027	-1.25908	75.6958	110.158
26	-2.59027	-1.23724	77.2265	113.363
27	-2.59027	-1.21596	78.7051	116.513
28	-2.59027	-1.19012	80.1215	119.595
29	-2.59027	-1.17	81.4904	122.626
30	-1.56065	-1.15035	82.8137	124.421
31	-1.51413	-1.13113	84.0932	126.134
32	-1.51413	-1.11232	85.3304	127.818
33	-0.693147	-1.08935	86.5171	128.573
34	-0.34249	-1.07138	87.6649	128.94
35	-0.18633	-1.05375	88.7753	129.136
36	-0.127833	-1.03643	89.8495	129.269
37	-0.0833816	-1.01943	90.8888	129.354
38	0	-1.00271	91.8942	129.354
39	0	-0.982202	92.8589	129.354
40	0	-0.966088	93.7922	129.354
41	0	-0.950222	94.6951	129.354
42	0	-0.93459	95.5686	129.354
43	0	-0.919183	96.4135	129.354
44	0	-0.900227	97.2239	129.354
45	0	-0.885291	98.0077	129.354
46	0	-0.87055	98.7655	129.354
47	0	-0.855996	99.4982	129.354
48	0	-0.841621	100.207	129.354
49	0	-0.823893	100.885	129.354
50	0	-0.809896	101.541	129.354
51	0	-0.796056	102.175	129.354

52	0	-0.782366	102.787	129.354
53	0	-0.768821	103.378	129.354
54	0	-0.755415	103.949	129.354
55	0	-0.738846	104.495	129.354
56	0	-0.725736	105.021	129.354
57	0	-0.712751	105.529	129.354
58	0	-0.699883	106.019	129.354
59	0	-0.687131	106.491	129.354
60	0	-0.671346	106.942	129.354
61	0	-0.658838	107.376	129.354
62	0	-0.646431	107.794	129.354
63	0	-0.634124	108.196	129.354
64	0	-0.621911	108.583	129.354
65	0	-0.609791	108.955	129.354
66	0	-0.594766	109.309	129.354
67	0	-0.582841	109.648	129.354
68	0	-0.570999	109.974	129.354
69	0	-0.559237	110.287	129.354
70	0	-0.547551	110.587	129.354
71	0	-0.533048	110.871	129.354
72	0	-0.521527	111.143	129.354
73	0	-0.510074	111.403	129.354
74	0	-0.498687	111.652	129.354
75	0	-0.487364	111.889	129.354
76	0	-0.476105	112.116	129.354
77	0	-0.462114	112.33	129.354
78	0	-0.450985	112.533	129.354
79	0	-0.439913	112.727	129.354
80	0	-0.428895	112.91	129.354
81	0	-0.417928	113.085	129.354
82	0	-0.40429	113.249	129.354
83	0	-0.393433	113.403	129.354
84	0	-0.382622	113.55	129.354
85	0	-0.371856	113.688	129.354
86	0	-0.361133	113.818	129.354
87	0	-0.347787	113.939	129.354
88	0	-0.337155	114.053	129.354
89	0	-0.326561	114.16	129.354
90	0	-0.316004	114.26	129.354
91	0	-0.305481	114.353	129.354
92	0	-0.294992	114.44	129.354
93	0	-0.281926	114.519	129.354
94	0	-0.271509	114.593	129.354
95	0	-0.26112	114.661	129.354
96	0	-0.250759	114.724	129.354
97	0	-0.240426	114.782	129.354
98	0	-0.227545	114.834	129.354
99	0	-0.217267	114.881	129.354
100	0	-0.207012	114.924	129.354
101	0	-0.196779	114.963	129.354
102	0	-0.186567	114.997	129.354
103	0	-0.176374	115.028	129.354
104	0	-0.163659	115.055	129.354
105	0	-0.153505	115.079	129.354
106	0	-0.143367	115.099	129.354
107	0	-0.133244	115.117	129.354
108	0	-0.123135	115.132	129.354
109	0	-0.110516	115.144	129.354
110	0	-0.100433	115.155	129.354
111	0	-0.0903606	115.163	129.354
112	0	-0.0802981	115.169	129.354
113	0	-0.0702426	115.174	129.354

114	0	-0.0601949	115.178	129.354	
115	0	-0.0476439	115.18	129.354	
116	0	-0.0376076	115.181	129.354	
117	0	-0.0275759	115.182	129.354	
118	0	-0.0175476	115.183	129.354	
119	0	-0.00751925	115.183	129.354	
120	0	0.00751925	115.183	129.354	
121	0	0.0175476	115.183	129.354	
122	0	0.0275759	115.184	129.354	
123	0	0.0376076	115.185	129.354	
124	0	0.0476439	115.187	129.354	
125	0	0.0601949	115.191	129.354	
126	0	0.0702426	115.196	129.354	
127	0	0.0802981	115.202	129.354	
128	0	0.0903606	115.211	129.354	
129	0	0.100433	115.221	129.354	
130	0	0.110516	115.233	129.354	
131	0	0.123135	115.248	129.354	
132	0	0.133244	115.266	129.354	
133	0	0.143367	115.286	129.354	
134	0	0.153505	115.31	129.354	
135	0	0.163659	115.337	129.354	
136	0	0.176374	115.368	129.354	
137	0	0.186567	115.403	129.354	
138	0	0.196779	115.441	129.354	
139	0	0.207012	115.484	129.354	
140	0	0.217267	115.531	129.354	
141	0	0.227545	115.583	129.354	
142	0.0861777	0.240426	115.641	129.375	
143	0.0953102	0.250759	115.704	129.399	
144	0.0953102	0.26112	115.772	129.423	
145	0.182322	0.271509	115.846	129.473	
146	0.182322	0.281926	115.925	129.524	
147	0.198851	0.294992	116.012	129.583	
148	0.231112	0.305481	116.106	129.654	
149	0.262364	0.316004	116.205	129.737	
150	0.470004	0.326561	116.312	129.89	
151	0.530628	0.337155	116.426	130.069	
152	0.530628	0.347787	116.547	130.253	
153	0.536493	0.361133	116.677	130.447	
154	0.576613	0.371856	116.815	130.662	
155	0.582216	0.382622	116.962	130.884	
156	0.587787	0.393433	117.117	131.116	
157	0.693147	0.40429	117.28	131.396	
158	0.832909	0.417928	117.455	131.744	
159	0.832909	0.428895	117.639	132.101	
160	1.05779	0.439913	117.832	132.567	
161	1.06471	0.450985	118.036	133.047	
162	1.09861	0.462114	118.249	133.554	
163	1.16002	0.476105	118.476	134.107	
164	1.17557	0.487364	118.713	134.68	
165	1.38629	0.498687	118.962	135.371	
166	1.51732	0.510074	119.222	136.145	
167	1.64866	0.521527	119.494	137.005	
168	1.6864	0.533048	119.778	137.904	
169	1.74047	0.547551	120.078	138.857	
170	1.75786	0.559237	120.391	139.84	
171	1.96009	0.570999	120.717	140.959	
172	2.02815	0.582841	121.057	142.141	
173	2.15176	0.594766	121.41	143.421	
174	2.19277	0.609791	121.782	144.758	
175	2.19722	0.621911	122.169	146.124	

176	2.20827	0.634124		122.571	147.525
177	2.24071	0.646431		122.989	148.973
178	2.24813	0.658838		123.423	150.454
179	2.30259	0.671346		123.874	152
180	2.30259	0.687131		124.346	153.582
181	2.30259	0.699883		124.836	155.194
182	2.30259	0.712751		125.344	156.835
183	2.30259	0.725736		125.87	158.506
184	2.30259	0.738846		126.416	160.207
185	2.37024	0.755415		126.987	161.998
186	2.3979	0.768821		127.578	163.841
187	2.3979	0.782366		128.19	165.717
188	2.3979	0.796056		128.824	167.626
189	2.3979	0.809896		129.48	169.568
190	2.40695	0.823893		130.159	171.551
191	2.48491	0.841621		130.867	173.643
192	2.48491	0.855996		131.6	175.77
193	2.48491	0.87055	132.357	177.933	
194	2.56495	0.885291		133.141	180.204
195	2.59525	0.900227		133.952	182.54
196	2.60269	0.919183		134.797	184.933
197	2.61007	0.93459	135.67	187.372	
198	2.63906	0.950222		136.573	189.88
199	2.69463	0.966088		137.506	192.483
200	2.70805	0.982202		138.471	195.143
201	2.70805	1.00271	139.476	197.858	
202	2.76001	1.01943	140.516	200.672	
203	2.77259	1.03643	141.59	203.545	
204	2.83321	1.05375	142.7	206.531	
205	2.99573	1.07138	143.848	209.74	
206	3.21487	1.08935	145.035	213.242	
207	3.21888	1.11232	146.272	216.823	
208	3.2581	1.13113	147.551	220.508	
209	3.2581	1.15035	148.875	224.256	
210	3.46574	1.17	150.244	228.311	
211	3.46574	1.19012	151.66	232.436	
212	3.55535	1.21596	153.139	236.759	
213	3.55535	1.23724	154.669	241.158	
214	3.63759	1.25908	156.255	245.738	
215	3.66356	1.28155	157.897	250.433	
216	3.68888	1.30469	159.599	255.246	
217	3.74715	1.32854	161.364	260.224	
218	3.7495	1.35946	163.212	265.321	
219	3.7542	1.38517	165.131	270.521	
220	3.7612	1.41183	167.124	275.831	
221	4.02356	1.43953	169.197	281.624	
222	4.06044	1.46838	171.353	287.586	
223	4.10923	1.50626	173.622	293.775	
224	4.15888	1.5382	175.988	300.173	
225	4.17439	1.57179	178.458	306.734	
226	4.17439	1.60725	181.041	313.443	
227	4.41884	1.64485	183.747	320.711	
228	4.65396	1.68494	186.586	328.553	
229	4.86753	1.7392	189.611	337.019	
230	4.86753	1.78661	192.803	345.715	
231	4.93447	1.83843	196.183	354.787	
232	4.94164	1.8957	199.776	364.155	
233	5.0689	1.95996	203.618	374.089	
234	5.07517	2.05375	207.836	384.513	
235	5.19296	2.14441	212.434	395.648	
236	5.63479	2.25713	217.529	408.367	
237	5.79909	2.40892	223.332	422.336	

238	5.8861	2.65209	230.365	437.947

Data Set Standard Deviation = 1.97885
Numerator = 191797
Denominator = 213791
W Statistic = 0.897126 = 191797 / 213791

5% Critical value of 0.976 exceeds 0.897126
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.897126
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.946354
0.946354 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.0041841	-2.65209	63.3563	344.01
2	-2.59027	0.0083682	-2.40892	63.3563	332.136
3	-2.59027	0.0125523	-2.25713	63.3563	324.723
4	-2.59027	0.0167364	-2.14441	63.3563	319.219
5	-2.59027	0.0209205	-2.05375	63.3563	314.791
6	-2.59027	0.0251046	-1.95996	63.3563	310.211
7	-2.59027	0.0292887	-1.8957	63.3563	307.073
8	-2.59027	0.0334728	-1.83843	63.3563	304.276
9	-2.59027	0.0376569	-1.78661	63.3563	301.746
10	-2.59027	0.041841	-1.7392	63.3563	299.431
11	-2.59027	0.0460251	-1.68494	63.3563	296.781
12	-2.59027	0.0502092	-1.64485	63.3563	294.824
13	-2.59027	0.0543933	-1.60725	63.3563	292.987
14	-2.59027	0.0585774	-1.57179	63.3563	291.256
15	-2.59027	0.0627615	-1.5382	63.3563	289.615
16	-2.59027	0.0669456	-1.50626	63.3563	288.056
17	-2.59027	0.0711297	-1.46838	63.3563	286.206
18	-2.59027	0.0753138	-1.43953	63.3563	284.797
19	-2.59027	0.0794979	-1.41183	63.3563	283.444
20	-2.59027	0.083682	-1.38517	63.3563	282.143
21	-2.59027	0.0878661	-1.35946	63.3563	280.887
22	-2.59027	0.0920502	-1.32854	63.3563	279.377
23	-2.59027	0.0962343	-1.30469	63.3563	278.212
24	-2.59027	0.100418	-1.28155	63.3563	277.082
25	-2.59027	0.104603	-1.25908	63.3563	275.985
26	-2.59027	0.108787	-1.23724	63.3563	274.918
27	-2.59027	0.112971	-1.21596	63.3563	273.879
28	-2.59027	0.117155	-1.19012	63.3563	272.617
29	-2.59027	0.121339	-1.17	63.3563	271.635
30	-1.56065	0.125523	-1.15035	124.561	270.675
31	-1.51413	0.129707	-1.13113	127.327	269.737
32	-1.51413	0.133891	-1.11232	127.327	268.818
33	-0.693147	0.138075	-1.08935	176.13	267.697
34	-0.34249	0.142259	-1.07138	196.974	266.819
35	-0.18633	0.146444	-1.05375	206.257	265.958
36	-0.127833	0.150628	-1.03643	209.734	265.112
37	-0.083381 6	0.154812	-1.01943	212.377	264.282
38	0	0.158996	-1.00271	217.333	263.466
39	0	0.16318	-0.982202	217.333	262.464
40	0	0.167364	-0.966088	217.333	261.677
41	0	0.171548	-0.950222	217.333	260.903
42	0	0.175732	-0.93459	217.333	260.139
43	0	0.179916	-0.919183	217.333	259.387
44	0	0.1841	-0.900227	217.333	258.461
45	0	0.188285	-0.885291	217.333	257.732
46	0	0.192469	-0.87055	217.333	257.012
47	0	0.196653	-0.855996	217.333	256.301
48	0	0.200837	-0.841621	217.333	255.599

49	0	0.205021	-0.823893	217.333	254.733
50	0	0.209205	-0.809896	217.333	254.05
51	0	0.213389	-0.796056	217.333	253.374
52	0	0.217573	-0.782366	217.333	252.706
53	0	0.221757	-0.768821	217.333	252.044
54	0	0.225941	-0.755415	217.333	251.389
55	0	0.230126	-0.738846	217.333	250.58
56	0	0.23431	-0.725736	217.333	249.94
57	0	0.238494	-0.712751	217.333	249.306
58	0	0.242678	-0.699883	217.333	248.678
59	0	0.246862	-0.687131	217.333	248.055
60	0	0.251046	-0.671346	217.333	247.284
61	0	0.25523	-0.658838	217.333	246.673
62	0	0.259414	-0.646431	217.333	246.067
63	0	0.263598	-0.634124	217.333	245.466
64	0	0.267782	-0.621911	217.333	244.87
65	0	0.271967	-0.609791	217.333	244.278
66	0	0.276151	-0.594766	217.333	243.544
67	0	0.280335	-0.582841	217.333	242.962
68	0	0.284519	-0.570999	217.333	242.384
69	0	0.288703	-0.559237	217.333	241.809
70	0	0.292887	-0.547551	217.333	241.239
71	0	0.297071	-0.533048	217.333	240.531
72	0	0.301255	-0.521527	217.333	239.968
73	0	0.305439	-0.510074	217.333	239.409
74	0	0.309623	-0.498687	217.333	238.853
75	0	0.313808	-0.487364	217.333	238.3
76	0	0.317992	-0.476105	217.333	237.75
77	0	0.322176	-0.462114	217.333	237.067
78	0	0.32636	-0.450985	217.333	236.523
79	0	0.330544	-0.439913	217.333	235.982
80	0	0.334728	-0.428895	217.333	235.444
81	0	0.338912	-0.417928	217.333	234.909
82	0	0.343096	-0.40429	217.333	234.243
83	0	0.34728	-0.393433	217.333	233.713
84	0	0.351464	-0.382622	217.333	233.185
85	0	0.355649	-0.371856	217.333	232.659
86	0	0.359833	-0.361133	217.333	232.135
87	0	0.364017	-0.347787	217.333	231.484
88	0	0.368201	-0.337155	217.333	230.964
89	0	0.372385	-0.326561	217.333	230.447
90	0	0.376569	-0.316004	217.333	229.932
91	0	0.380753	-0.305481	217.333	229.418
92	0	0.384937	-0.294992	217.333	228.905
93	0	0.389121	-0.281926	217.333	228.267
94	0	0.393305	-0.271509	217.333	227.759
95	0	0.39749	-0.26112	217.333	227.251
96	0	0.401674	-0.250759	217.333	226.745
97	0	0.405858	-0.240426	217.333	226.241
98	0	0.410042	-0.227545	217.333	225.612
99	0	0.414226	-0.217267	217.333	225.11
100	0	0.41841	-0.207012	217.333	224.609
101	0	0.422594	-0.196779	217.333	224.109
102	0	0.426778	-0.186567	217.333	223.611
103	0	0.430962	-0.176374	217.333	223.113
104	0	0.435146	-0.163659	217.333	222.492
105	0	0.439331	-0.153505	217.333	221.996
106	0	0.443515	-0.143367	217.333	221.501
107	0	0.447699	-0.133244	217.333	221.007
108	0	0.451883	-0.123135	217.333	220.513
109	0	0.456067	-0.110516	217.333	219.897
110	0	0.460251	-0.100433	217.333	219.404

111	0	0.464435	-0.0903606	217.333	218.913	
112	0	0.468619	-0.0802981	217.333	218.421	
113	0	0.472803	-0.0702426	217.333	217.93	
114	0	0.476987	-0.0601949	217.333	217.44	
115	0	0.481172	-0.0476439	217.333	216.827	
116	0	0.485356	-0.0376076	217.333	216.337	
117	0	0.48954	-0.0275759	217.333	215.847	
118	0	0.493724	-0.0175476	217.333	215.357	
119	0	0.497908	-0.00751925	217.333	214.867	
120	0	0.502092	0.00751925	217.333	214.133	
121	0	0.506276	0.0175476	217.333	213.643	
122	0	0.51046	0.0275759	217.333	213.153	
123	0	0.514644	0.0376076	217.333	212.663	
124	0	0.518828	0.0476439	217.333	212.173	
125	0	0.523013	0.0601949	217.333	211.56	
126	0	0.527197	0.0702426	217.333	211.07	
127	0	0.531381	0.0802981	217.333	210.579	
128	0	0.535565	0.0903606	217.333	210.087	
129	0	0.539749	0.100433	217.333	209.596	
130	0	0.543933	0.110516	217.333	209.103	
131	0	0.548117	0.123135	217.333	208.487	
132	0	0.552301	0.133244	217.333	207.993	
133	0	0.556485	0.143367	217.333	207.499	
134	0	0.560669	0.153505	217.333	207.004	
135	0	0.564854	0.163659	217.333	206.508	
136	0	0.569038	0.176374	217.333	205.887	
137	0	0.573222	0.186567	217.333	205.389	
138	0	0.577406	0.196779	217.333	204.891	
139	0	0.58159	0.207012	217.333	204.391	
140	0	0.585774	0.217267	217.333	203.89	
141	0	0.589958	0.227545	217.333	203.388	
142	0.0861777	0.594142	0.240426	222.456	202.759	
143	0.0953102	0.598326	0.250759	222.999	202.255	
144	0.0953102	0.60251	0.26112	222.999	201.749	
145	0.182322	0.606695	0.271509	228.171	201.241	
146	0.182322	0.610879	0.281926	228.171	200.733	
147	0.198851	0.615063	0.294992	229.154	200.095	
148	0.231112	0.619247	0.305481	231.072	199.582	
149	0.262364	0.623431	0.316004	232.929	199.068	
150	0.470004	0.627615	0.326561	245.272	198.553	
151	0.530628	0.631799	0.337155	248.876	198.036	
152	0.530628	0.635983	0.347787	248.876	197.516	
153	0.536493	0.640167	0.361133	249.225	196.865	
154	0.576613	0.644351	0.371856	251.61	196.341	
155	0.582216	0.648536	0.382622	251.943	195.815	
156	0.587787	0.65272	0.393433	252.274	195.287	
157	0.693147	0.656904	0.40429	258.537	194.757	
158	0.832909	0.661088	0.417928	266.845	194.091	
159	0.832909	0.665272	0.428895	266.845	193.556	
160	1.05779	0.669456	0.439913	280.213	193.018	
161	1.06471	0.67364	0.450985	280.624	192.477	
162	1.09861	0.677824	0.462114	282.64	191.933	
163	1.16002	0.682008	0.476105	286.29	191.25	
164	1.17557	0.686192	0.487364	287.215	190.7	
165	1.38629	0.690377	0.498687	299.741	190.147	
166	1.51732	0.694561	0.510074	307.53	189.591	
167	1.64866	0.698745	0.521527	315.337	189.032	
168	1.6864	0.702929	0.533048	317.58	188.469	
169	1.74047	0.707113	0.547551	320.794	187.761	
170	1.75786	0.711297	0.559237	321.828	187.191	
171	1.96009	0.715481	0.570999	333.85	186.616	
172	2.02815	0.719665	0.582841	337.895	186.038	

173	2.15176	0.723849	0.594766	345.244	185.456
174	2.19277	0.728033	0.609791	347.681	184.722
175	2.19722	0.732218	0.621911	347.946	184.13
176	2.20827	0.736402	0.634124	348.603	183.534
177	2.24071	0.740586	0.646431	350.531	182.933
178	2.24813	0.74477	0.658838	350.972	182.327
179	2.30259	0.748954	0.671346	354.209	181.716
180	2.30259	0.753138	0.687131	354.209	180.945
181	2.30259	0.757322	0.699883	354.209	180.322
182	2.30259	0.761506	0.712751	354.209	179.694
183	2.30259	0.76569	0.725736	354.209	179.06
184	2.30259	0.769874	0.738846	354.209	178.42
185	2.37024	0.774059	0.755415	358.231	177.611
186	2.3979	0.778243	0.768821	359.875	176.956
187	2.3979	0.782427	0.782366	359.875	176.294
188	2.3979	0.786611	0.796056	359.875	175.626
189	2.3979	0.790795	0.809896	359.875	174.95
190	2.40695	0.794979	0.823893	360.413	174.267
191	2.48491	0.799163	0.841621	365.047	173.401
192	2.48491	0.803347	0.855996	365.047	172.699
193	2.48491	0.807531	0.87055	365.047	171.988
194	2.56495	0.811715	0.885291	369.805	171.268
195	2.59525	0.8159	0.900227	371.607	170.539
196	2.60269	0.820084	0.919183	372.049	169.613
197	2.61007	0.824268	0.93459	372.487	168.861
198	2.63906	0.828452	0.950222	374.211	168.097
199	2.69463	0.832636	0.966088	377.514	167.323
200	2.70805	0.83682	0.982202	378.312	166.536
201	2.70805	0.841004	1.00271	378.312	165.534
202	2.76001	0.845188	1.01943	381.401	164.718
203	2.77259	0.849372	1.03643	382.148	163.888
204	2.83321	0.853556	1.05375	385.752	163.042
205	2.99573	0.857741	1.07138	395.413	162.181
206	3.21487	0.861925	1.08935	408.439	161.303
207	3.21888	0.866109	1.11232	408.678	160.182
208	3.2581	0.870293	1.13113	411.009	159.263
209	3.2581	0.874477	1.15035	411.009	158.325
210	3.46574	0.878661	1.17	423.352	157.365
211	3.46574	0.882845	1.19012	423.352	156.383
212	3.55535	0.887029	1.21596	428.679	155.121
213	3.55535	0.891213	1.23724	428.679	154.082
214	3.63759	0.895397	1.25908	433.568	153.015
215	3.66356	0.899582	1.28155	435.112	151.918
216	3.68888	0.903766	1.30469	436.617	150.788
217	3.74715	0.90795	1.32854	440.08	149.623
218	3.7495	0.912134	1.35946	440.221	148.113
219	3.7542	0.916318	1.38517	440.5	146.857
220	3.7612	0.920502	1.41183	440.916	145.556
221	4.02356	0.924686	1.43953	456.512	144.203
222	4.06044	0.92887	1.46838	458.704	142.794
223	4.10923	0.933054	1.50626	461.604	140.944
224	4.15888	0.937238	1.5382	464.556	139.385
225	4.17439	0.941423	1.57179	465.477	137.744
226	4.17439	0.945607	1.60725	465.477	136.013
227	4.41884	0.949791	1.64485	480.009	134.176
228	4.65396	0.953975	1.68494	493.985	132.219
229	4.86753	0.958159	1.7392	506.681	129.569
230	4.86753	0.962343	1.78661	506.681	127.254
231	4.93447	0.966527	1.83843	510.66	124.724
232	4.94164	0.970711	1.8957	511.087	121.927
233	5.0689	0.974895	1.95996	518.652	118.789
234	5.07517	0.979079	2.05375	519.024	114.209

235	5.19296	0.983264	2.14441	526.026	109.781
236	5.63479	0.987448	2.25713	552.29	104.277
237	5.79909	0.991632	2.40892	562.057	96.8642
238	5.8861	0.995816	2.65209	567.23	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	66
	9/23/1999	ND<0	66
	3/15/2000	ND<0	66
	9/24/2003	ND<0	66
	3/11/2004	ND<0	66
	10/12/2004	ND<0	66
	4/1/2005	ND<0	66
	10/25/2005	ND<0	66
	4/29/2006	ND<0	66
	11/18/2006	ND<0	66
	5/23/2007	ND<0	66
	11/28/2007	ND<0	66
	6/5/2008	ND<0	66
	11/20/2008	ND<0	66
	6/11/2009	ND<-2.59027	66
	6/30/2010	ND<-2.59027	66
	11/12/2010	ND<-2.59027 U	66
	7/5/2011	ND<-2.59027 U	66

Rank Sum = 1188
Rank Mean = 66

Background Rank Sum = 1188
Background Rank Mean = 66

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	66
	8/24/1995	ND<0	66
	9/28/1995	ND<0	66
	10/26/1995	ND<0	66
	11/19/1996	ND<0	66
	12/19/1996	ND<0	66
	3/24/1997	ND<0	66
	9/24/1997	ND<0	66
	4/7/1998	ND<0	66
	9/23/1998	ND<0	66
	3/16/1999	ND<0	66
	9/23/1999	ND<0	66
	3/15/2000	ND<0	66
	9/24/2003	ND<0	66
	3/11/2004	ND<0	66
	10/12/2004	ND<0	66
	4/1/2005	ND<0	66
	10/25/2005	ND<0	66
	4/29/2006	ND<0	66
	11/18/2006	ND<0	66
	5/23/2007	ND<0	66
	11/28/2007	ND<0	66

	6/5/2008	ND<0		66
	11/20/2008	ND<0		66
	6/11/2009	ND<-2.59027		66
	6/30/2010	ND<-2.59027		66
	11/12/2010	ND<-2.59027	U	66
	7/5/2011	ND<-2.59027	U	66
	11/22/2011	ND<-2.59027	U	66
	11/22/2011	ND<-2.59027	U	66

Rank Sum = 1980
Rank Mean = 66

MW-8	7/20/1995	0.095310	2 J	143
	8/24/1995	2.9957	3	205
	9/28/1995	2.8332	1	204
	10/26/1995	0.69314	7	157
	11/19/1996	ND<0	66	
	12/19/1996	4.8675	3	229
	3/24/1997	5.0751	7	234
	9/24/1997	5.6347	9	236
	4/7/1998	5.19296	235	
	9/23/1998	5.8861	238	
	3/16/1999	5.0689	233	
	9/23/1999	4.9344	7	231
	3/15/2000	5.7990	9	237
	9/24/2003	3.5553	5	212
	3/11/2004	4.8675	3	230
	10/12/2004	4.9416	4	232
	4/1/2005	4.02356	221	
	10/25/2005	4.6539	6	228
	4/29/2006	3.7495	218	
	11/18/2006	3.7471	5	217
	5/23/2007	3.2188	8	207
	11/28/2007	4.1092	3	223
	6/5/2008	ND<0	66	
	11/20/2008	3.5553	5	213
	6/11/2009	3.6635	6	215
	6/30/2010	3.7612	220	
	11/12/2010	4.0604	4	222
	7/5/2011	4.41884	227	
	11/22/2011	4.1743	9	225
	11/22/2011	4.1743	9	226

Rank Sum = 6250
Rank Mean = 208.333

MW-9	7/20/1995	0.182322	J	145
	8/24/1995	0.095310	2 J	144
	9/28/1995	0 J	140	
	10/26/1995	0 J	141	
	11/19/1996	ND<0	66	
	12/19/1996	ND<0	66	
	3/24/1997	ND<0	66	
	9/24/1997	ND<0	66	
	4/7/1998	ND<0	66	
	9/23/1998	ND<0	66	
	3/16/1999	ND<0	66	
	9/23/1999	ND<0	66	
	3/15/2000	ND<0	66	
	9/24/2003	ND<0	66	
	3/11/2004	4.1588	8	224
	10/12/2004	ND<0	66	
	4/1/2005	0.576613	J	154
	10/25/2005	0.231112	J	148

	4/29/2006	-0.127833	J	138
	11/18/2006	-0.34249	J	136
	5/23/2007	1.09861		162
	11/28/2007	ND<0	J	66
	6/5/2008	-0.693147	J	135
	11/20/2008	0.582216	J	155
	6/11/2009	0.832909		158
	6/30/2010	0.832909		159
	11/12/2010	0.587787		156
	7/5/2011	0.182322		146
	11/22/2011	0.530628	Q	151
	11/22/2011	0.530628	Q	152

Rank Sum = 3536
Rank Mean = 117.867

MW-7	7/20/1995	ND<0		66
	8/24/1995	ND<0		66
	9/28/1995	ND<0		66
	10/26/1995	ND<0		66
	11/19/1996	ND<0		66
	12/19/1996	ND<0		66
	3/24/1997	ND<0		66
	9/24/1997	ND<0		66
	4/7/1998	ND<0		66
	9/23/1998	ND<0		66
	3/16/1999	ND<0		66
	9/23/1999	ND<0		66
	3/15/2000	ND<0		66
	9/24/2003	ND<0		66
	3/11/2004	ND<0		66
	10/12/2004	ND<0		66
	4/1/2005	-1.56065	J	132
	10/25/2005	ND<0		66
	4/29/2006	ND<0		66
	11/18/2006	ND<0		66
	5/23/2007	ND<0		66
	11/28/2007	ND<0		66
	6/5/2008	ND<0		66
	11/20/2008	ND<0		66
	6/11/2009	ND<-2.59027		66
	6/30/2010	ND<-2.59027		66
	11/12/2010	ND<-2.59027	U	66
	7/5/2011	ND<-2.59027	U	66
	11/22/2011	ND<-2.59027	U	66
	11/22/2011	ND<-2.59027	U	66

Rank Sum = 2046
Rank Mean = 68.2

MW-11R	7/20/1995	1.6864		168
	8/24/1995	2.3979		186
	9/28/1995	2.30259		179
	10/26/1995	2.70805		200
	11/19/1996	ND<0		66
	12/19/1996	2.77259		203
	3/24/1997	2.48491		191
	9/24/1997	ND<0		66
	4/7/1998	1.64866		167
	9/23/1998	2.56495		194
	3/16/1999	2.40695		190
	9/23/1999	ND<0		66
	3/15/2000	2.48491		192
	9/24/2003	2.30259		180

	3/11/2004	2.3979	187	
	10/12/2004	ND<0	66	
	4/1/2005	2.24813	178	
	10/25/2005	1.51732		166
	4/29/2006	1.05779		160
	11/18/2006	0.536493 J		153
	5/23/2007	1.74047		169
	11/28/2007	1.17557		164
	6/5/2008	ND<0	66	
	11/20/2008	ND<0	66	
	6/11/2009	0.262364		149
	6/30/2010	0.470004		150
	11/12/2010	ND<-2.59027 U		66
	7/5/2011	ND<-2.59027 U	66	
	11/22/2011	-1.51413 J Q		133
	11/22/2011	-1.51413 J Q		134

Rank Sum = 4321
Rank Mean = 144.033

MW-12BR	3/16/1999	2.69463		199
	9/23/1999	ND<0	66	
	3/15/2000	ND<0	66	
	9/24/2003	ND<0	66	
	3/11/2004	ND<0	66	
	10/12/2004	ND<0	66	
	4/1/2005	2.37024	185	
	10/25/2005	ND<0	66	
	4/29/2006	ND<0	66	
	11/18/2006	ND<0	66	
	5/23/2007	ND<0	66	
	11/28/2007	ND<0	66	
	6/5/2008	ND<0	66	
	11/20/2008	ND<0	66	
	6/11/2009	ND<-2.59027		66
	6/30/2010	ND<-2.59027		66
	11/12/2010	ND<-2.59027 U		66
	7/5/2011	ND<-2.59027 U	66	
	11/22/2011	ND<-2.59027 U		66
	11/22/2011	ND<-2.59027 U		66

Rank Sum = 1572
Rank Mean = 78.6

MW-12AR	3/16/1999	ND<0	66	
	9/23/1999	ND<0	66	
	3/15/2000	2.63906		198
	9/24/2003	2.30259		181
	3/11/2004	2.30259		182
	10/12/2004	2.24071		177
	4/1/2005	ND<0	66	
	10/25/2005	1.06471		161
	4/29/2006	1.16002		163
	11/18/2006	0.0861777 J		142
	5/23/2007	ND<0	66	
	11/28/2007	0.198851 J		147
	6/5/2008	ND<0	66	
	11/20/2008	-0.18633 J		137
	6/11/2009	ND<-2.59027		66
	6/30/2010	ND<-2.59027		66
	11/12/2010	-0.0833816 J		139
	7/5/2011	ND<-2.59027 U	66	
	11/22/2011	ND<-2.59027 U		66
	11/22/2011	ND<-2.59027 U		66

Rank Sum = 2287
Rank Mean = 114.35

MW-10	7/20/1995	1.38629		165
	8/24/1995	2.70805		201
	9/28/1995	3.46574		210
	10/26/1995	3.2581	208	
	11/19/1996	ND<0	66	
	12/19/1996	3.68888		216
	3/24/1997	3.2581	209	
	9/24/1997	3.63759		214
	4/7/1998	2.02815	172	
	9/23/1998	3.46574		211
	3/16/1999	3.7542	219	
	9/23/1999	3.21487		206
	3/15/2000	2.3979	188	
	9/24/2003	2.3979	189	
	3/11/2004	1.96009		171
	10/12/2004	ND<0	66	
	4/1/2005	ND<0	66	
	10/25/2005	2.59525		195
	4/29/2006	2.76001		202
	11/18/2006	2.19277		174
	5/23/2007	2.20827		176
	11/28/2007	2.61007		197
	6/5/2008	2.60269	196	
	11/20/2008	ND<0	66	
	6/11/2009	2.19722		175
	6/30/2010	1.75786		170
	11/12/2010	2.15176		173
	7/5/2011	2.48491	193	
	11/22/2011	2.30259		183
	11/22/2011	2.30259		184

Rank Sum = 5261
Rank Mean = 175.367

Calculation Results:

Kruskal-Wallis H Statistic = 126.332
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 151.614
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
126.332 > 15.5073 indicating a significant group difference at 5% significance level
151.614 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 66

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**66**	**0**	**47.7523**
MW-8	**208.333**	**142.333**	**47.7523**
MW-9	**117.867**	**51.8667**	**47.7523**
MW-7	**68.2**	**2.2**	**47.7523**
MW-11R	**144.033**	**78.0333**	**47.7523**
MW-12BR	**78.6**	**12.6**	**52.0368**
MW-12AR	**114.35**	**48.35**	**52.0368**
MW-10	**175.367**	**109.367**	**47.7523**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213
Mean background rank is 66

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-6	**66**	**0**	**51.566**	
MW-8	**208.333**	**142.333**	**51.566**	
MW-9	**117.867**	**51.8667**	**51.566**	
MW-7	**68.2**	**2.2**	**51.566**	
MW-11R	**144.033**	**78.0333**	**51.566**	
MW-12BR		**78.6**	**12.6**	**56.1927**
MW-12AR		**114.35**	**48.35**	**56.1927**
MW-10	**175.367**	**109.367**	**51.566**	

Shewhart-CUSUM Control Chart

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.91416
Baseline Std Dev = 1.95959
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997		5.07517	0.613101	1.6131
3/24/1997		5.07517	0.613101	1.6131
9/24/1997		5.63479	1.51178	1.89868
9/24/1997		5.63479	1.51178	1.89868
4/7/1998	5.19296	2.18499	1.67321	
4/7/1998	5.19296	2.18499	1.67321	
9/23/1998		5.8861	3.21191	2.02693
9/23/1998		5.8861	3.21191	2.02693
3/16/1999		5.0689	3.82182	1.6099
3/16/1999		5.0689	3.82182	1.6099
9/23/1999		4.93447	4.36312	1.5413
9/23/1999		4.93447	4.36312	1.5413
3/15/2000		5.79909	5.34564	1.98252
3/15/2000		5.79909	5.34564	1.98252
9/24/2003		3.55535	5.18316	0.837518
9/24/2003		3.55535	5.18316	0.837518
3/11/2004		4.86753	5.6903	1.50714
3/11/2004		4.86753	5.6903	1.50714
10/12/2004		4.94164	6.23526	1.54496
10/12/2004		4.94164	6.23526	1.54496
4/1/2005	4.02356	6.31171	1.07645	
4/1/2005	4.02356	6.31171	1.07645	
10/25/2005		4.65396	6.70986	1.39815
10/25/2005		4.65396	6.70986	1.39815
4/29/2006		3.7495	6.64646	0.936598
4/29/2006		3.7495	6.64646	0.936598
11/18/2006		3.74715	6.58186	0.935396
11/18/2006		3.74715	6.58186	0.935396
5/23/2007		3.21888	6.24767	0.665812
5/23/2007		3.21888	6.24767	0.665812
11/28/2007		4.10923	6.36784	1.12017
11/28/2007		4.10923	6.36784	1.12017
6/5/2008	0	4.39103	-0.976814	
6/5/2008	0	4.39103	-0.976814	
11/20/2008		3.55535	4.22854	0.837518
11/20/2008		3.55535	4.22854	0.837518
6/11/2009		3.66356	4.12128	0.89274
6/11/2009		3.66356	4.12128	0.89274
6/30/2010		3.7612	4.06385	0.942566
6/30/2010		3.7612	4.06385	0.942566
11/12/2010		4.06044	4.15912	1.09527
11/12/2010		4.06044	4.15912	1.09527
7/5/2011	4.41884	4.43729	1.27817	
7/5/2011	4.41884	4.43729	1.27817	
11/22/2011		4.17439	5.06847	1.63118

11/22/2011	4.17439	5.06847	1.63118

Shewhart-CUSUM Control Chart

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.046272
Baseline Std Dev = 0.0767836
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-0.602628
3/24/1997	0	0	-0.602628
9/24/1997	0	0	-0.602628
9/24/1997	0	0	-0.602628
4/7/1998	0	0	-0.602628
4/7/1998	0	0	-0.602628
9/23/1998	0	0	-0.602628
9/23/1998	0	0	-0.602628
3/16/1999	0	0	-0.602628
3/16/1999	0	0	-0.602628
9/23/1999	0	0	-0.602628
9/23/1999	0	0	-0.602628
3/15/2000	0	0	-0.602628
3/15/2000	0	0	-0.602628
9/24/2003	0	0	-0.602628
9/24/2003	0	0	-0.602628
3/11/2004	4.15888	52.5611	53.5611
3/11/2004	4.15888	52.5611	53.5611
10/12/2004	0	50.9584	-0.602628
10/12/2004	0	50.9584	-0.602628
4/1/2005	0.576613	56.8654	6.90696
4/1/2005	0.576613	56.8654	6.90696
10/25/2005	0.231112	58.2727	2.40728
10/25/2005	0.231112	58.2727	2.40728
4/29/2006	-0.127833	55.0052	-2.26748
4/29/2006	-0.127833	55.0052	-2.26748
11/18/2006	-0.34249	48.9421	-5.06309
11/18/2006	-0.34249	48.9421	-5.06309
5/23/2007	1.09861	61.6474	13.7053
5/23/2007	1.09861	61.6474	13.7053
11/28/2007	0	60.0447	-0.602628
11/28/2007	0	60.0447	-0.602628
6/5/2008	-0.693147	49.4148	-9.62991
6/5/2008	-0.693147	49.4148	-9.62991
11/20/2008	0.582216	55.3948	6.97992
11/20/2008	0.582216	55.3948	6.97992
6/11/2009	0.832909	64.6396	10.2449
6/11/2009	0.832909	64.6396	10.2449
6/30/2010	0.832909	73.8845	10.2449
6/30/2010	0.832909	73.8845	10.2449
11/12/2010	0.587787	79.9369	7.05248
11/12/2010	0.587787	79.9369	7.05248
7/5/2011	0.182322	80.7088	1.77186
7/5/2011	0.182322	80.7088	1.77186
11/22/2011	0.530628	88.6298	8.92096

11/22/2011	0.530628	88.6298	8.92096

Shewhart-CUSUM Control Chart

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.97792
Baseline Std Dev = 1.04341
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	2.48491	0	0.485894
3/24/1997	2.48491	0	0.485894
9/24/1997	0	0	-1.89563
9/24/1997	0	0	-1.89563
4/7/1998	1.64866	0	-0.315562
4/7/1998	1.64866	0	-0.315562
9/23/1998	2.56495	0	0.562607
9/23/1998	2.56495	0	0.562607
3/16/1999	2.40695	0	0.411176
3/16/1999	2.40695	0	0.411176
9/23/1999	0	0	-1.89563
9/23/1999	0	0	-1.89563
3/15/2000	2.48491	0	0.485894
3/15/2000	2.48491	0	0.485894
9/24/2003	2.30259	0	0.311158
9/24/2003	2.30259	0	0.311158
3/11/2004	2.3979	0	0.402503
3/11/2004	2.3979	0	0.402503
10/12/2004	0	0	-1.89563
10/12/2004	0	0	-1.89563
4/1/2005	2.24813	0	0.258967
4/1/2005	2.24813	0	0.258967
10/25/2005	1.51732	0	-0.441434
10/25/2005	1.51732	0	-0.441434
4/29/2006	1.05779	0	-0.881848
4/29/2006	1.05779	0	-0.881848
11/18/2006	0.536493	0	-1.38146
11/18/2006	0.536493	0	-1.38146
5/23/2007	1.74047	0	-0.227574
5/23/2007	1.74047	0	-0.227574
11/28/2007	1.17557	0	-0.768965
11/28/2007	1.17557	0	-0.768965
6/5/2008	0	0	-1.89563
6/5/2008	0	0	-1.89563
11/20/2008	0	0	-1.89563
11/20/2008	0	0	-1.89563
6/11/2009	0.262364	0	-1.64418
6/11/2009	0.262364	0	-1.64418
6/30/2010	0.470004	0	-1.44518
6/30/2010	0.470004	0	-1.44518
11/12/2010	-2.59027	0	-4.37813
11/12/2010	-2.59027	0	-4.37813
7/5/2011	-2.59027	0	-4.37813
7/5/2011	-2.59027	0	-4.37813
11/22/2011	-1.51413	0	-4.73304

11/22/2011	-1.514130	-4.73304

Shewhart-CUSUM Control Chart

Parameter: cis-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.41784
Baseline Std Dev = 1.44319
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	3.2581	0	0.582222
3/24/1997	3.2581	0	0.582222
9/24/1997	3.63759	0	0.845175
9/24/1997	3.63759	0	0.845175
4/7/1998	2.02815	0	-0.270024
4/7/1998	2.02815	0	-0.270024
9/23/1998	3.46574	0	0.726098
9/23/1998	3.46574	0	0.726098
3/16/1999	3.7542	0	0.925977
3/16/1999	3.7542	0	0.925977
9/23/1999	3.21487	0	0.552268
9/23/1999	3.21487	0	0.552268
3/15/2000	2.3979	0	-0.0138218
3/15/2000	2.3979	0	-0.0138218
9/24/2003	2.3979	0	-0.0138218
9/24/2003	2.3979	0	-0.0138218
3/11/2004	1.96009	0	-0.317179
3/11/2004	1.96009	0	-0.317179
10/12/2004	0	0	-1.67535
10/12/2004	0	0	-1.67535
4/1/2005	0	0	-1.67535
4/1/2005	0	0	-1.67535
10/25/2005	2.59525	0	0.122931
10/25/2005	2.59525	0	0.122931
4/29/2006	2.76001	0	0.237092
4/29/2006	2.76001	0	0.237092
11/18/2006	2.19277	0	-0.155955
11/18/2006	2.19277	0	-0.155955
5/23/2007	2.20827	0	-0.145212
5/23/2007	2.20827	0	-0.145212
11/28/2007	2.61007	0	0.133196
11/28/2007	2.61007	0	0.133196
6/5/2008	2.60269	0	0.128083
6/5/2008	2.60269	0	0.128083
11/20/2008	0	0	-1.67535
11/20/2008	0	0	-1.67535
6/11/2009	2.19722	0	-0.152869
6/11/2009	2.19722	0	-0.152869
6/30/2010	1.75786	0	-0.457311
6/30/2010	1.75786	0	-0.457311
11/12/2010	2.15176	0	-0.18437
11/12/2010	2.15176	0	-0.18437
7/5/2011	2.48491	0	0.0464694
7/5/2011	2.48491	0	0.0464694
11/22/2011	2.30259	0	-0.112944

11/22/2011	2.30259	0	-0.112944

Sen's Slope Analysis
Parameter: cis-1,2-Dichloroethene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
2.99573	(8/24/1995)	0.0953102 J (7/20/1995)		(2.99573 - 0.0953102)/(2 - 1)
2.90042				
2.83321	(9/28/1995)	0.0953102 J (7/20/1995)		(2.83321 - 0.0953102)/(3 - 1)
1.36895				
0.693147	(10/26/1995)	0.0953102 J (7/20/1995)		(0.693147 - 0.0953102)/(4 - 1)
0.199279				
ND<0	(11/19/1996)	0.0953102 J (7/20/1995)		(0 - 0.0953102)/(5 - 1)
-0.0238275				
4.86753	(12/19/1996)	0.0953102 J (7/20/1995)		(4.86753 - 0.0953102)/(6 - 1)
0.954445				
5.07517	(3/24/1997)	0.0953102 J (7/20/1995)		(5.07517 - 0.0953102)/(7 - 1)
0.829977				
5.63479	(9/24/1997)	0.0953102 J (7/20/1995)		(5.63479 - 0.0953102)/(8 - 1)
0.791354				
5.19296	(4/7/1998)	0.0953102 J (7/20/1995)		(5.19296 - 0.0953102)/(9 - 1)
0.637206				
5.8861	(9/23/1998)	0.0953102 J (7/20/1995)		(5.8861 - 0.0953102)/(10 - 1)
0.643422				
5.0689	(3/16/1999)	0.0953102 J (7/20/1995)		(5.0689 - 0.0953102)/(11 - 1)
0.497359				
4.93447	(9/23/1999)	0.0953102 J (7/20/1995)		(4.93447 - 0.0953102)/(12 - 1)
0.439924				
5.79909	(3/15/2000)	0.0953102 J (7/20/1995)		(5.79909 - 0.0953102)/(13 - 1)
0.475315				
3.55535	(9/24/2003)	0.0953102 J (7/20/1995)		(3.55535 - 0.0953102)/(14 - 1)
0.266157				
4.86753	(3/11/2004)	0.0953102 J (7/20/1995)		(4.86753 - 0.0953102)/(15 - 1)
0.340873				
4.94164	(10/12/2004)	0.0953102 J (7/20/1995)		(4.94164 - 0.0953102)/(16 - 1)
0.323089				
4.02356	(4/1/2005)	0.0953102 J (7/20/1995)		(4.02356 - 0.0953102)/(17 - 1)
0.245516				
4.65396	(10/25/2005)	0.0953102 J (7/20/1995)		(4.65396 - 0.0953102)/(18 - 1)
0.268156				
3.7495	(4/29/2006)	0.0953102 J (7/20/1995)		(3.7495 - 0.0953102)/(19 - 1)
0.203011				
3.74715	(11/18/2006)	0.0953102 J (7/20/1995)		(3.74715 - 0.0953102)/(20 - 1)
0.192202				
3.21888	(5/23/2007)	0.0953102 J (7/20/1995)		(3.21888 - 0.0953102)/(21 - 1)
0.156178				
4.10923	(11/28/2007)	0.0953102 J (7/20/1995)		(4.10923 - 0.0953102)/(22 - 1)
0.191139				
ND<0	(6/5/2008)	0.0953102 J (7/20/1995)		(0 - 0.0953102)/(23 - 1)
-0.00433228				
3.55535	(11/20/2008)	0.0953102 J (7/20/1995)		(3.55535 - 0.0953102)/(24 - 1)
0.150436				
3.66356	(6/11/2009)	0.0953102 J (7/20/1995)		(3.66356 - 0.0953102)/(25 - 1)
0.148677				
3.7612	(6/30/2010)	0.0953102 J (7/20/1995)		(3.7612 - 0.0953102)/(26 - 1)
0.146636				

4.06044 (11/12/2010)	0.0953102 J (7/20/1995)	(4.06044 - 0.0953102)/(27 - 1)
0.152505		
4.41884 (7/5/2011)	0.0953102 J (7/20/1995)	(4.41884 - 0.0953102)/(28 - 1)
0.160131		
4.17439 (11/22/2011)	0.0953102 J (7/20/1995)	(4.17439 - 0.0953102)/(29 - 1)
0.145681		
4.17439 (11/22/2011)	0.0953102 J (7/20/1995)	(4.17439 - 0.0953102)/(29 - 1)
0.145681		
2.83321 (9/28/1995)	2.99573 (8/24/1995)	(2.83321 - 2.99573)/(3 - 2)
-0.162519		
0.693147 (10/26/1995)	2.99573 (8/24/1995)	(0.693147 - 2.99573)/(4 - 2)
-1.15129		
ND<0 (11/19/1996)	2.99573 (8/24/1995)	(0 - 2.99573)/(5 - 2)
-0.998577		
4.86753 (12/19/1996)	2.99573 (8/24/1995)	(4.86753 - 2.99573)/(6 - 2)
0.467951		
5.07517 (3/24/1997)	2.99573 (8/24/1995)	(5.07517 - 2.99573)/(7 - 2)
0.415888		
5.63479 (9/24/1997)	2.99573 (8/24/1995)	(5.63479 - 2.99573)/(8 - 2)
0.439843		
5.19296 (4/7/1998)	2.99573 (8/24/1995)	(5.19296 - 2.99573)/(9 - 2)
0.313889		
5.8861 (9/23/1998)	2.99573 (8/24/1995)	(5.8861 - 2.99573)/(10 - 2)
0.361296		
5.0689 (3/16/1999)	2.99573 (8/24/1995)	(5.0689 - 2.99573)/(11 - 2)
0.230352		
4.93447 (9/23/1999)	2.99573 (8/24/1995)	(4.93447 - 2.99573)/(12 - 2)
0.193874		
5.79909 (3/15/2000)	2.99573 (8/24/1995)	(5.79909 - 2.99573)/(13 - 2)
0.254851		
3.55535 (9/24/2003)	2.99573 (8/24/1995)	(3.55535 - 2.99573)/(14 - 2)
0.0466346		
4.86753 (3/11/2004)	2.99573 (8/24/1995)	(4.86753 - 2.99573)/(15 - 2)
0.143985		
4.94164 (10/12/2004)	2.99573 (8/24/1995)	(4.94164 - 2.99573)/(16 - 2)
0.138994		
4.02356 (4/1/2005)	2.99573 (8/24/1995)	(4.02356 - 2.99573)/(17 - 2)
0.0685221		
4.65396 (10/25/2005)	2.99573 (8/24/1995)	(4.65396 - 2.99573)/(18 - 2)
0.103639		
3.7495 (4/29/2006)	2.99573 (8/24/1995)	(3.7495 - 2.99573)/(19 - 2)
0.0443395		
3.74715 (11/18/2006)	2.99573 (8/24/1995)	(3.74715 - 2.99573)/(20 - 2)
0.0417453		
3.21888 (5/23/2007)	2.99573 (8/24/1995)	(3.21888 - 2.99573)/(21 - 2)
0.0117444		
4.10923 (11/28/2007)	2.99573 (8/24/1995)	(4.10923 - 2.99573)/(22 - 2)
0.055675		
ND<0 (6/5/2008)	2.99573 (8/24/1995)	(0 - 2.99573)/(23 - 2)
-0.142654		
3.55535 (11/20/2008)	2.99573 (8/24/1995)	(3.55535 - 2.99573)/(24 - 2)
0.0254371		
3.66356 (6/11/2009)	2.99573 (8/24/1995)	(3.66356 - 2.99573)/(25 - 2)
0.0290361		
3.7612 (6/30/2010)	2.99573 (8/24/1995)	(3.7612 - 2.99573)/(26 - 2)
0.0318945		
4.06044 (11/12/2010)	2.99573 (8/24/1995)	(4.06044 - 2.99573)/(27 - 2)
0.0425884		
4.41884 (7/5/2011)	2.99573 (8/24/1995)	(4.41884 - 2.99573)/(28 - 2)
0.0547349		

4.17439 (11/22/2011)	2.99573 (8/24/1995)	(4.17439 - 2.99573)/(29 - 2)		
0.0436539				
4.17439 (11/22/2011)	2.99573 (8/24/1995)	(4.17439 - 2.99573)/(29 - 2)		
0.0436539				
0.693147 (10/26/1995)	2.83321 (9/28/1995)	(0.693147 - 2.83321)/(4 - 3)		
-2.14007				
ND<0 (11/19/1996)	2.83321 (9/28/1995)	(0 - 2.83321)/(5 - 3)	-1.41661	
4.86753 (12/19/1996)	2.83321 (9/28/1995)	(4.86753 - 2.83321)/(6 - 3)		
0.678107				
5.07517 (3/24/1997)	2.83321 (9/28/1995)	(5.07517 - 2.83321)/(7 - 3)	0.56049	
5.63479 (9/24/1997)	2.83321 (9/28/1995)	(5.63479 - 2.83321)/(8 - 3)		
0.560315				
5.19296 (4/7/1998)	2.83321 (9/28/1995)	(5.19296 - 2.83321)/(9 - 3)		
0.393291				
5.8861 (9/23/1998)	2.83321 (9/28/1995)	(5.8861 - 2.83321)/(10 - 3)		
0.436127				
5.0689 (3/16/1999)	2.83321 (9/28/1995)	(5.0689 - 2.83321)/(11 - 3)		
0.279461				
4.93447 (9/23/1999)	2.83321 (9/28/1995)	(4.93447 - 2.83321)/(12 - 3)		
0.233473				
5.79909 (3/15/2000)	2.83321 (9/28/1995)	(5.79909 - 2.83321)/(13 - 3)		
0.296588				
3.55535 (9/24/2003)	2.83321 (9/28/1995)	(3.55535 - 2.83321)/(14 - 3)		
0.0656486				
4.86753 (3/11/2004)	2.83321 (9/28/1995)	(4.86753 - 2.83321)/(15 - 3)		
0.169527				
4.94164 (10/12/2004)	2.83321 (9/28/1995)	(4.94164 - 2.83321)/(16 - 3)		
0.162187				
4.02356 (4/1/2005)	2.83321 (9/28/1995)	(4.02356 - 2.83321)/(17 - 3)		
0.0850251				
4.65396 (10/25/2005)	2.83321 (9/28/1995)	(4.65396 - 2.83321)/(18 - 3)		
0.121383				
3.7495 (4/29/2006)	2.83321 (9/28/1995)	(3.7495 - 2.83321)/(19 - 3)		
0.0572682				
3.74715 (11/18/2006)	2.83321 (9/28/1995)	(3.74715 - 2.83321)/(20 - 3)		
0.0537609				
3.21888 (5/23/2007)	2.83321 (9/28/1995)	(3.21888 - 2.83321)/(21 - 3)		
0.0214257				
4.10923 (11/28/2007)	2.83321 (9/28/1995)	(4.10923 - 2.83321)/(22 - 3)		
0.0671589				
ND<0 (6/5/2008)	2.83321 (9/28/1995)	(0 - 2.83321)/(23 - 3)		
-0.141661				
3.55535 (11/20/2008)	2.83321 (9/28/1995)	(3.55535 - 2.83321)/(24 - 3)		
0.0343874				
3.66356 (6/11/2009)	2.83321 (9/28/1995)	(3.66356 - 2.83321)/(25 - 3)		
0.0377431				
3.7612 (6/30/2010)	2.83321 (9/28/1995)	(3.7612 - 2.83321)/(26 - 3)		
0.0403473				
4.06044 (11/12/2010)	2.83321 (9/28/1995)	(4.06044 - 2.83321)/(27 - 3)		
0.0511346				
4.41884 (7/5/2011)	2.83321 (9/28/1995)	(4.41884 - 2.83321)/(28 - 3)		
0.0634251				
4.17439 (11/22/2011)	2.83321 (9/28/1995)	(4.17439 - 2.83321)/(29 - 3)		
0.0515836				
4.17439 (11/22/2011)	2.83321 (9/28/1995)	(4.17439 - 2.83321)/(29 - 3)		
0.0515836				
ND<0 (11/19/1996)	0.693147 (10/26/1995)	(0 - 0.693147)/(5 - 4)		
-0.693147				
4.86753 (12/19/1996)	0.693147 (10/26/1995)	(4.86753 - 0.693147)/(6 - 4)		
2.08719				

5.07517	(3/24/1997)	0.693147	(10/26/1995)	(5.07517 - 0.693147)/(7 - 4)	
1.46068					
5.63479	(9/24/1997)	0.693147	(10/26/1995)	(5.63479 - 0.693147)/(8 - 4)	
1.23541					
5.19296	(4/7/1998)	0.693147	(10/26/1995)	(5.19296 - 0.693147)/(9 - 4)	
0.899962					
5.8861	(9/23/1998)	0.693147	(10/26/1995)	(5.8861 - 0.693147)/(10 - 4)	
0.865493					
5.0689	(3/16/1999)	0.693147	(10/26/1995)	(5.0689 - 0.693147)/(11 - 4)	
0.625108					
4.93447	(9/23/1999)	0.693147	(10/26/1995)	(4.93447 - 0.693147)/(12 - 4)	
0.530166					
5.79909	(3/15/2000)	0.693147	(10/26/1995)	(5.79909 - 0.693147)/(13 - 4)	
0.567327					
3.55535	(9/24/2003)	0.693147	(10/26/1995)	(3.55535 - 0.693147)/(14 - 4)	
0.28622					
4.86753	(3/11/2004)	0.693147	(10/26/1995)	(4.86753 - 0.693147)/(15 - 4)	
0.37949					
4.94164	(10/12/2004)	0.693147	(10/26/1995)	(4.94164 - 0.693147)/(16 - 4)	
0.354041					
4.02356	(4/1/2005)	0.693147	(10/26/1995)	(4.02356 - 0.693147)/(17 - 4)	
0.256186					
4.65396	(10/25/2005)	0.693147	(10/26/1995)	(4.65396 - 0.693147)/(18 - 4)	
0.282915					
3.7495	(4/29/2006)	0.693147	(10/26/1995)	(3.7495 - 0.693147)/(19 - 4)	
0.203757					
3.74715	(11/18/2006)	0.693147	(10/26/1995)	(3.74715 - 0.693147)/(20 - 4)	
0.190875					
3.21888	(5/23/2007)	0.693147	(10/26/1995)	(3.21888 - 0.693147)/(21 - 4)	
0.148572					
4.10923	(11/28/2007)	0.693147	(10/26/1995)	(4.10923 - 0.693147)/(22 - 4)	
0.189783					
ND<0	(6/5/2008)	0.693147	(10/26/1995)	(0 - 0.693147)/(23 - 4)	
-0.0364814					
3.55535	(11/20/2008)	0.693147	(10/26/1995)	(3.55535 - 0.693147)/(24 - 4)	
0.14311					
3.66356	(6/11/2009)	0.693147	(10/26/1995)	(3.66356 - 0.693147)/(25 - 4)	
0.141448					
3.7612	(6/30/2010)	0.693147	(10/26/1995)	(3.7612 - 0.693147)/(26 - 4)	
0.139457					
4.06044	(11/12/2010)	0.693147	(10/26/1995)	(4.06044 - 0.693147)/(27 - 4)	
0.146404					
4.41884	(7/5/2011)	0.693147	(10/26/1995)	(4.41884 - 0.693147)/(28 - 4)	
0.155237					
4.17439	(11/22/2011)	0.693147	(10/26/1995)	(4.17439 - 0.693147)/(29 - 4)	
0.13925					
4.17439	(11/22/2011)	0.693147	(10/26/1995)	(4.17439 - 0.693147)/(29 - 4)	
0.13925					

4.86753	(12/19/1996)	ND<0	(11/19/1996)	(4.86753 - 0)/(6 - 5)	4.86753
5.07517	(3/24/1997)	ND<0	(11/19/1996)	(5.07517 - 0)/(7 - 5)	2.53759
5.63479	(9/24/1997)	ND<0	(11/19/1996)	(5.63479 - 0)/(8 - 5)	1.87826
5.19296	(4/7/1998)	ND<0	(11/19/1996)	(5.19296 - 0)/(9 - 5)	1.29824
5.8861	(9/23/1998)	ND<0	(11/19/1996)	(5.8861 - 0)/(10 - 5)	1.17722
5.0689	(3/16/1999)	ND<0	(11/19/1996)	(5.0689 - 0)/(11 - 5)	
0.844817					
4.93447	(9/23/1999)	ND<0	(11/19/1996)	(4.93447 - 0)/(12 - 5)	
0.704925					
5.79909	(3/15/2000)	ND<0	(11/19/1996)	(5.79909 - 0)/(13 - 5)	
0.724887					
3.55535	(9/24/2003)	ND<0	(11/19/1996)	(3.55535 - 0)/(14 - 5)	
0.395039					

4.86753	(3/11/2004)	ND<0	(11/19/1996)	(4.86753 - 0)/(15 - 5)		
0.486753						
4.94164	(10/12/2004)	ND<0	(11/19/1996)	(4.94164 - 0)/(16 - 5)		0.44924
4.02356	(4/1/2005)	ND<0	(11/19/1996)	(4.02356 - 0)/(17 - 5)		
0.335297						
4.65396	(10/25/2005)	ND<0	(11/19/1996)	(4.65396 - 0)/(18 - 5)		
0.357997						
3.7495	(4/29/2006)	ND<0	(11/19/1996)	(3.7495 - 0)/(19 - 5)		
0.267822						
3.74715	(11/18/2006)	ND<0	(11/19/1996)	(3.74715 - 0)/(20 - 5)		0.24981
3.21888	(5/23/2007)	ND<0	(11/19/1996)	(3.21888 - 0)/(21 - 5)		0.20118
4.10923	(11/28/2007)	ND<0	(11/19/1996)	(4.10923 - 0)/(22 - 5)		0.24172
ND<0	(6/5/2008)	ND<0	(11/19/1996)	(0 - 0)/(23 - 5)	0	
3.55535	(11/20/2008)	ND<0	(11/19/1996)	(3.55535 - 0)/(24 - 5)		
0.187124						
3.66356	(6/11/2009)	ND<0	(11/19/1996)	(3.66356 - 0)/(25 - 5)		
0.183178						
3.7612	(6/30/2010)	ND<0	(11/19/1996)	(3.7612 - 0)/(26 - 5)		
0.179105						
4.06044	(11/12/2010)	ND<0	(11/19/1996)	(4.06044 - 0)/(27 - 5)		
0.184566						
4.41884	(7/5/2011)	ND<0	(11/19/1996)	(4.41884 - 0)/(28 - 5)		
0.192124						
4.17439	(11/22/2011)	ND<0	(11/19/1996)	(4.17439 - 0)/(29 - 5)		
0.173933						
4.17439	(11/22/2011)	ND<0	(11/19/1996)	(4.17439 - 0)/(29 - 5)		
0.173933						
5.07517	(3/24/1997)	4.86753	(12/19/1996)	(5.07517 - 4.86753)/(7 - 6)		
0.207639						
5.63479	(9/24/1997)	4.86753	(12/19/1996)	(5.63479 - 4.86753)/(8 - 6)		
0.383628						
5.19296	(4/7/1998)	4.86753	(12/19/1996)	(5.19296 - 4.86753)/(9 - 6)		
0.108474						
5.8861	(9/23/1998)	4.86753	(12/19/1996)	(5.8861 - 4.86753)/(10 - 6)		
0.254642						
5.0689	(3/16/1999)	4.86753	(12/19/1996)	(5.0689 - 4.86753)/(11 - 6)		
0.040274						
4.93447	(9/23/1999)	4.86753	(12/19/1996)	(4.93447 - 4.86753)/(12 - 6)		
0.0111566						
5.79909	(3/15/2000)	4.86753	(12/19/1996)	(5.79909 - 4.86753)/(13 - 6)		
0.13308						
3.55535	(9/24/2003)	4.86753	(12/19/1996)	(3.55535 - 4.86753)/(14 - 6)		
-0.164023						
4.86753	(3/11/2004)	4.86753	(12/19/1996)	(4.86753 - 4.86753)/(15 - 6)		
0						
4.94164	(10/12/2004)	4.86753	(12/19/1996)	(4.94164 - 4.86753)/(16 - 6)		
0.0074108						
4.02356	(4/1/2005)	4.86753	(12/19/1996)	(4.02356 - 4.86753)/(17 - 6)		
-0.0767246						
4.65396	(10/25/2005)	4.86753	(12/19/1996)	(4.65396 - 4.86753)/(18 - 6)		
-0.0177978						
3.7495	(4/29/2006)	4.86753	(12/19/1996)	(3.7495 - 4.86753)/(19 - 6)		
-0.0860023						
3.74715	(11/18/2006)	4.86753	(12/19/1996)	(3.74715 - 4.86753)/(20 - 6)		
-0.0800276						
3.21888	(5/23/2007)	4.86753	(12/19/1996)	(3.21888 - 4.86753)/(21 - 6)		
-0.109911						
4.10923	(11/28/2007)	4.86753	(12/19/1996)	(4.10923 - 4.86753)/(22 - 6)		
-0.0473938						
ND<0	(6/5/2008)	4.86753	(12/19/1996)	(0 - 4.86753)/(23 - 6)		
-0.286326						

3.55535	(11/20/2008)	4.86753	(12/19/1996)	(3.55535 - 4.86753)/(24 - 6)	
-0.0728992					
3.66356	(6/11/2009)	4.86753	(12/19/1996)	(3.66356 - 4.86753)/(25 - 6)	
-0.063367					
3.7612	(6/30/2010)	4.86753	(12/19/1996)	(3.7612 - 4.86753)/(26 - 6)	
-0.0553167					
4.06044	(11/12/2010)	4.86753	(12/19/1996)	(4.06044 - 4.86753)/(27 - 6)	
-0.0384329					
4.41884	(7/5/2011)	4.86753	(12/19/1996)	(4.41884 - 4.86753)/(28 - 6)	
-0.0203952					
4.17439	(11/22/2011)	4.86753	(12/19/1996)	(4.17439 - 4.86753)/(29 - 6)	
-0.0301368					
4.17439	(11/22/2011)	4.86753	(12/19/1996)	(4.17439 - 4.86753)/(29 - 6)	
-0.0301368					
5.63479	(9/24/1997)	5.07517	(3/24/1997)	(5.63479 - 5.07517)/(8 - 7)	
0.559616					
5.19296	(4/7/1998)	5.07517	(3/24/1997)	(5.19296 - 5.07517)/(9 - 7)	
0.0588915					
5.8861	(9/23/1998)	5.07517	(3/24/1997)	(5.8861 - 5.07517)/(10 - 7)	0.27031
5.0689	(3/16/1999)	5.07517	(3/24/1997)	(5.0689 - 5.07517)/(11 - 7)	
-0.0015674					
4.93447	(9/23/1999)	5.07517	(3/24/1997)	(4.93447 - 5.07517)/(12 - 7)	
-0.02814					
5.79909	(3/15/2000)	5.07517	(3/24/1997)	(5.79909 - 5.07517)/(13 - 7)	
0.120653					
3.55535	(9/24/2003)	5.07517	(3/24/1997)	(3.55535 - 5.07517)/(14 - 7)	
-0.217118					
4.86753	(3/11/2004)	5.07517	(3/24/1997)	(4.86753 - 5.07517)/(15 - 7)	
-0.0259549					
4.94164	(10/12/2004)	5.07517	(3/24/1997)	(4.94164 - 5.07517)/(16 - 7)	
-0.0148368					
4.02356	(4/1/2005)	5.07517	(3/24/1997)	(4.02356 - 5.07517)/(17 - 7)	
-0.105161					
4.65396	(10/25/2005)	5.07517	(3/24/1997)	(4.65396 - 5.07517)/(18 - 7)	
-0.0382921					
3.7495	(4/29/2006)	5.07517	(3/24/1997)	(3.7495 - 5.07517)/(19 - 7)	
-0.110472					
3.74715	(11/18/2006)	5.07517	(3/24/1997)	(3.74715 - 5.07517)/(20 - 7)	
-0.102156					
3.21888	(5/23/2007)	5.07517	(3/24/1997)	(3.21888 - 5.07517)/(21 - 7)	
-0.132593					
4.10923	(11/28/2007)	5.07517	(3/24/1997)	(4.10923 - 5.07517)/(22 - 7)	
-0.064396					
ND<0	(6/5/2008)	5.07517	(3/24/1997)	(0 - 5.07517)/(23 - 7)	
-0.317198					
3.55535	(11/20/2008)	5.07517	(3/24/1997)	(3.55535 - 5.07517)/(24 - 7)	
-0.0894015					
3.66356	(6/11/2009)	5.07517	(3/24/1997)	(3.66356 - 5.07517)/(25 - 7)	
-0.0784229					
3.7612	(6/30/2010)	5.07517	(3/24/1997)	(3.7612 - 5.07517)/(26 - 7)	
-0.0691565					
4.06044	(11/12/2010)	5.07517	(3/24/1997)	(4.06044 - 5.07517)/(27 - 7)	
-0.0507365					
4.41884	(7/5/2011)	5.07517	(3/24/1997)	(4.41884 - 5.07517)/(28 - 7)	
-0.031254					
4.17439	(11/22/2011)	5.07517	(3/24/1997)	(4.17439 - 5.07517)/(29 - 7)	
-0.0409448					
4.17439	(11/22/2011)	5.07517	(3/24/1997)	(4.17439 - 5.07517)/(29 - 7)	
-0.0409448					

5.19296	(4/7/1998)	5.63479	(9/24/1997)	(5.19296 - 5.63479)/(9 - 8)	
-0.441833					
5.8861	(9/23/1998)	5.63479	(9/24/1997)	(5.8861 - 5.63479)/(10 - 8)	
0.125657					
5.0689	(3/16/1999)	5.63479	(9/24/1997)	(5.0689 - 5.63479)/(11 - 8)	
-0.188628					
4.93447	(9/23/1999)	5.63479	(9/24/1997)	(4.93447 - 5.63479)/(12 - 8)	
-0.175079					
5.79909	(3/15/2000)	5.63479	(9/24/1997)	(5.79909 - 5.63479)/(13 - 8)	
0.0328606					
3.55535	(9/24/2003)	5.63479	(9/24/1997)	(3.55535 - 5.63479)/(14 - 8)	
-0.346574					
4.86753	(3/11/2004)	5.63479	(9/24/1997)	(4.86753 - 5.63479)/(15 - 8)	
-0.109608					
4.94164	(10/12/2004)	5.63479	(9/24/1997)	(4.94164 - 5.63479)/(16 - 8)	
-0.0866434					
4.02356	(4/1/2005)	5.63479	(9/24/1997)	(4.02356 - 5.63479)/(17 - 8)	
-0.179025					
4.65396	(10/25/2005)	5.63479	(9/24/1997)	(4.65396 - 5.63479)/(18 - 8)	
-0.0980829					
3.7495	(4/29/2006)	5.63479	(9/24/1997)	(3.7495 - 5.63479)/(19 - 8)	-0.17139
3.74715	(11/18/2006)	5.63479	(9/24/1997)	(3.74715 - 5.63479)/(20 - 8)	
-0.157303					
3.21888	(5/23/2007)	5.63479	(9/24/1997)	(3.21888 - 5.63479)/(21 - 8)	
-0.18584					
4.10923	(11/28/2007)	5.63479	(9/24/1997)	(4.10923 - 5.63479)/(22 - 8)	
-0.108968					
ND<0	(6/5/2008)	5.63479	(9/24/1997)	(0 - 5.63479)/(23 - 8)	
-0.375653					
3.55535	(11/20/2008)	5.63479	(9/24/1997)	(3.55535 - 5.63479)/(24 - 8)	
-0.129965					
3.66356	(6/11/2009)	5.63479	(9/24/1997)	(3.66356 - 5.63479)/(25 - 8)	
-0.115955					
3.7612	(6/30/2010)	5.63479	(9/24/1997)	(3.7612 - 5.63479)/(26 - 8)	
-0.104088					
4.06044	(11/12/2010)	5.63479	(9/24/1997)	(4.06044 - 5.63479)/(27 - 8)	
-0.0828603					
4.41884	(7/5/2011)	5.63479	(9/24/1997)	(4.41884 - 5.63479)/(28 - 8)	
-0.0607974					
4.17439	(11/22/2011)	5.63479	(9/24/1997)	(4.17439 - 5.63479)/(29 - 8)	
-0.069543					
4.17439	(11/22/2011)	5.63479	(9/24/1997)	(4.17439 - 5.63479)/(29 - 8)	
-0.069543					
5.8861	(9/23/1998)	5.19296	(4/7/1998)	(5.8861 - 5.19296)/(10 - 9)	
0.693147					
5.0689	(3/16/1999)	5.19296	(4/7/1998)	(5.0689 - 5.19296)/(11 - 9)	
-0.0620263					
4.93447	(9/23/1999)	5.19296	(4/7/1998)	(4.93447 - 5.19296)/(12 - 9)	
-0.086161					
5.79909	(3/15/2000)	5.19296	(4/7/1998)	(5.79909 - 5.19296)/(13 - 9)	
0.151534					
3.55535	(9/24/2003)	5.19296	(4/7/1998)	(3.55535 - 5.19296)/(14 - 9)	
-0.327522					
4.86753	(3/11/2004)	5.19296	(4/7/1998)	(4.86753 - 5.19296)/(15 - 9)	
-0.0542371					
4.94164	(10/12/2004)	5.19296	(4/7/1998)	(4.94164 - 5.19296)/(16 - 9)	
-0.0359021					
4.02356	(4/1/2005)	5.19296	(4/7/1998)	(4.02356 - 5.19296)/(17 - 9)	
-0.146174					
4.65396	(10/25/2005)	5.19296	(4/7/1998)	(4.65396 - 5.19296)/(18 - 9)	
-0.0598885					

3.7495	(4/29/2006)	5.19296	(4/7/1998)	(3.7495 - 5.19296)/(19 - 9)		
	-0.144345					
3.74715	(11/18/2006)	5.19296	(4/7/1998)	(3.74715 - 5.19296)/(20 - 9)		
	-0.131437					
3.21888	(5/23/2007)	5.19296	(4/7/1998)	(3.21888 - 5.19296)/(21 - 9)		
	-0.164507					
4.10923	(11/28/2007)	5.19296	(4/7/1998)	(4.10923 - 5.19296)/(22 - 9)		
	-0.0833634					
ND<0	(6/5/2008)	5.19296	(4/7/1998)	(0 - 5.19296)/(23 - 9)		
	-0.370925					
3.55535	(11/20/2008)	5.19296	(4/7/1998)	(3.55535 - 5.19296)/(24 - 9)		
	-0.109174					
3.66356	(6/11/2009)	5.19296	(4/7/1998)	(3.66356 - 5.19296)/(25 - 9)		
	-0.0955872					
3.7612	(6/30/2010)	5.19296	(4/7/1998)	(3.7612 - 5.19296)/(26 - 9)		
	-0.084221					
4.06044	(11/12/2010)	5.19296	(4/7/1998)	(4.06044 - 5.19296)/(27 - 9)		
	-0.0629174					
4.41884	(7/5/2011)	5.19296	(4/7/1998)	(4.41884 - 5.19296)/(28 - 9)		
	-0.040743					
4.17439	(11/22/2011)	5.19296	(4/7/1998)	(4.17439 - 5.19296)/(29 - 9)		
	-0.0509285					
4.17439	(11/22/2011)	5.19296	(4/7/1998)	(4.17439 - 5.19296)/(29 - 9)		
	-0.0509285					
5.0689	(3/16/1999)	5.8861	(9/23/1998)	(5.0689 - 5.8861)/(11 - 10)	-0.8172	
4.93447	(9/23/1999)	5.8861	(9/23/1998)	(4.93447 - 5.8861)/(12 - 10)		
	-0.475815					
5.79909	(3/15/2000)	5.8861	(9/23/1998)	(5.79909 - 5.8861)/(13 - 10)		
	-0.0290038					
3.55535	(9/24/2003)	5.8861	(9/23/1998)	(3.55535 - 5.8861)/(14 - 10)		
	-0.582689					
4.86753	(3/11/2004)	5.8861	(9/23/1998)	(4.86753 - 5.8861)/(15 - 10)		
	-0.203714					
4.94164	(10/12/2004)	5.8861	(9/23/1998)	(4.94164 - 5.8861)/(16 - 10)		
	-0.15741					
4.02356	(4/1/2005)	5.8861	(9/23/1998)	(4.02356 - 5.8861)/(17 - 10)		
	-0.266077					
4.65396	(10/25/2005)	5.8861	(9/23/1998)	(4.65396 - 5.8861)/(18 - 10)		
	-0.154018					
3.7495	(4/29/2006)	5.8861	(9/23/1998)	(3.7495 - 5.8861)/(19 - 10)	-0.2374	
3.74715	(11/18/2006)	5.8861	(9/23/1998)	(3.74715 - 5.8861)/(20 - 10)		
	-0.213896					
3.21888	(5/23/2007)	5.8861	(9/23/1998)	(3.21888 - 5.8861)/(21 - 10)		
	-0.242475					
4.10923	(11/28/2007)	5.8861	(9/23/1998)	(4.10923 - 5.8861)/(22 - 10)		
	-0.148073					
ND<0	(6/5/2008)	5.8861	(9/23/1998)	(0 - 5.8861)/(23 - 10)		
	-0.452777					
3.55535	(11/20/2008)	5.8861	(9/23/1998)	(3.55535 - 5.8861)/(24 - 10)		
	-0.166483					
3.66356	(6/11/2009)	5.8861	(9/23/1998)	(3.66356 - 5.8861)/(25 - 10)		
	-0.148169					
3.7612	(6/30/2010)	5.8861	(9/23/1998)	(3.7612 - 5.8861)/(26 - 10)		
	-0.132806					
4.06044	(11/12/2010)	5.8861	(9/23/1998)	(4.06044 - 5.8861)/(27 - 10)		
	-0.107392					
4.41884	(7/5/2011)	5.8861	(9/23/1998)	(4.41884 - 5.8861)/(28 - 10)		
	-0.0815146					
4.17439	(11/22/2011)	5.8861	(9/23/1998)	(4.17439 - 5.8861)/(29 - 10)		
	-0.0900904					

4.17439	(11/22/2011)	5.8861	(9/23/1998)	(4.17439 - 5.8861)/(29 - 10)
-0.0900904				
4.93447	(9/23/1999)	5.0689	(3/16/1999)	(4.93447 - 5.0689)/(12 - 11)
-0.13443				
5.79909	(3/15/2000)	5.0689	(3/16/1999)	(5.79909 - 5.0689)/(13 - 11)
0.365094				
3.55535	(9/24/2003)	5.0689	(3/16/1999)	(3.55535 - 5.0689)/(14 - 11)
-0.504519				
4.86753	(3/11/2004)	5.0689	(3/16/1999)	(4.86753 - 5.0689)/(15 - 11)
-0.0503424				
4.94164	(10/12/2004)	5.0689	(3/16/1999)	(4.94164 - 5.0689)/(16 - 11)
-0.0254524				
4.02356	(4/1/2005)	5.0689	(3/16/1999)	(4.02356 - 5.0689)/(17 - 11)
-0.174223				
4.65396	(10/25/2005)	5.0689	(3/16/1999)	(4.65396 - 5.0689)/(18 - 11)
-0.0592777				
3.7495	(4/29/2006)	5.0689	(3/16/1999)	(3.7495 - 5.0689)/(19 - 11)
-0.164925				
3.74715	(11/18/2006)	5.0689	(3/16/1999)	(3.74715 - 5.0689)/(20 - 11)
-0.146862				
3.21888	(5/23/2007)	5.0689	(3/16/1999)	(3.21888 - 5.0689)/(21 - 11)
-0.185003				
4.10923	(11/28/2007)	5.0689	(3/16/1999)	(4.10923 - 5.0689)/(22 - 11)
-0.0872428				
ND<0	(6/5/2008)	5.0689	(3/16/1999)	(0 - 5.0689)/(23 - 11)
-0.422409				
3.55535	(11/20/2008)	5.0689	(3/16/1999)	(3.55535 - 5.0689)/(24 - 11)
-0.116427				
3.66356	(6/11/2009)	5.0689	(3/16/1999)	(3.66356 - 5.0689)/(25 - 11)
-0.100382				
3.7612	(6/30/2010)	5.0689	(3/16/1999)	(3.7612 - 5.0689)/(26 - 11)
-0.0871803				
4.06044	(11/12/2010)	5.0689	(3/16/1999)	(4.06044 - 5.0689)/(27 - 11)
-0.0630288				
4.41884	(7/5/2011)	5.0689	(3/16/1999)	(4.41884 - 5.0689)/(28 - 11)
-0.038239				
4.17439	(11/22/2011)	5.0689	(3/16/1999)	(4.17439 - 5.0689)/(29 - 11)
-0.0496954				
4.17439	(11/22/2011)	5.0689	(3/16/1999)	(4.17439 - 5.0689)/(29 - 11)
-0.0496954				
5.79909	(3/15/2000)	4.93447	(9/23/1999)	(5.79909 - 4.93447)/(13 - 12)
0.864619				
3.55535	(9/24/2003)	4.93447	(9/23/1999)	(3.55535 - 4.93447)/(14 - 12)
-0.689563				
4.86753	(3/11/2004)	4.93447	(9/23/1999)	(4.86753 - 4.93447)/(15 - 12)
-0.0223132				
4.94164	(10/12/2004)	4.93447	(9/23/1999)	(4.94164 - 4.93447)/(16 - 12)
0.00179212				
4.02356	(4/1/2005)	4.93447	(9/23/1999)	(4.02356 - 4.93447)/(17 - 12)
-0.182182				
4.65396	(10/25/2005)	4.93447	(9/23/1999)	(4.65396 - 4.93447)/(18 - 12)
-0.0467523				
3.7495	(4/29/2006)	4.93447	(9/23/1999)	(3.7495 - 4.93447)/(19 - 12)
-0.169281				
3.74715	(11/18/2006)	4.93447	(9/23/1999)	(3.74715 - 4.93447)/(20 - 12)
-0.148416				
3.21888	(5/23/2007)	4.93447	(9/23/1999)	(3.21888 - 4.93447)/(21 - 12)
-0.190622				
4.10923	(11/28/2007)	4.93447	(9/23/1999)	(4.10923 - 4.93447)/(22 - 12)
-0.0825241				

ND<0	(6/5/2008)	4.93447	(9/23/1999)	(0 - 4.93447)/(23 - 12)	-0.448589
3.55535	(11/20/2008)	4.93447	(9/23/1999)	(3.55535 - 4.93447)/(24 - 12)	-0.114927
3.66356	(6/11/2009)	4.93447	(9/23/1999)	(3.66356 - 4.93447)/(25 - 12)	-0.0977625
3.7612	(6/30/2010)	4.93447	(9/23/1999)	(3.7612 - 4.93447)/(26 - 12)	-0.0838053
4.06044	(11/12/2010)	4.93447	(9/23/1999)	(4.06044 - 4.93447)/(27 - 12)	-0.0582687
4.41884	(7/5/2011)	4.93447	(9/23/1999)	(4.41884 - 4.93447)/(28 - 12)	-0.0322271
4.17439	(11/22/2011)	4.93447	(9/23/1999)	(4.17439 - 4.93447)/(29 - 12)	-0.044711
4.17439	(11/22/2011)	4.93447	(9/23/1999)	(4.17439 - 4.93447)/(29 - 12)	-0.044711
3.55535	(9/24/2003)	5.79909	(3/15/2000)	(3.55535 - 5.79909)/(14 - 13)	-2.24374
4.86753	(3/11/2004)	5.79909	(3/15/2000)	(4.86753 - 5.79909)/(15 - 13)	-0.465779
4.94164	(10/12/2004)	5.79909	(3/15/2000)	(4.94164 - 5.79909)/(16 - 13)	-0.285817
4.02356	(4/1/2005)	5.79909	(3/15/2000)	(4.02356 - 5.79909)/(17 - 13)	-0.443882
4.65396	(10/25/2005)	5.79909	(3/15/2000)	(4.65396 - 5.79909)/(18 - 13)	-0.229026
3.7495	(4/29/2006)	5.79909	(3/15/2000)	(3.7495 - 5.79909)/(19 - 13)	-0.341598
3.74715	(11/18/2006)	5.79909	(3/15/2000)	(3.74715 - 5.79909)/(20 - 13)	-0.293135
3.21888	(5/23/2007)	5.79909	(3/15/2000)	(3.21888 - 5.79909)/(21 - 13)	-0.322527
4.10923	(11/28/2007)	5.79909	(3/15/2000)	(4.10923 - 5.79909)/(22 - 13)	-0.187762
ND<0	(6/5/2008)	5.79909	(3/15/2000)	(0 - 5.79909)/(23 - 13)	-0.579909
3.55535	(11/20/2008)	5.79909	(3/15/2000)	(3.55535 - 5.79909)/(24 - 13)	-0.203977
3.66356	(6/11/2009)	5.79909	(3/15/2000)	(3.66356 - 5.79909)/(25 - 13)	-0.177961
3.7612	(6/30/2010)	5.79909	(3/15/2000)	(3.7612 - 5.79909)/(26 - 13)	-0.156761
4.06044	(11/12/2010)	5.79909	(3/15/2000)	(4.06044 - 5.79909)/(27 - 13)	-0.124189
4.41884	(7/5/2011)	5.79909	(3/15/2000)	(4.41884 - 5.79909)/(28 - 13)	-0.0920168
4.17439	(11/22/2011)	5.79909	(3/15/2000)	(4.17439 - 5.79909)/(29 - 13)	-0.101544
4.17439	(11/22/2011)	5.79909	(3/15/2000)	(4.17439 - 5.79909)/(29 - 13)	-0.101544
4.86753	(3/11/2004)	3.55535	(9/24/2003)	(4.86753 - 3.55535)/(15 - 14)	1.31219
4.94164	(10/12/2004)	3.55535	(9/24/2003)	(4.94164 - 3.55535)/(16 - 14)	0.693147
4.02356	(4/1/2005)	3.55535	(9/24/2003)	(4.02356 - 3.55535)/(17 - 14)	0.156072
4.65396	(10/25/2005)	3.55535	(9/24/2003)	(4.65396 - 3.55535)/(18 - 14)	0.274653
3.7495	(4/29/2006)	3.55535	(9/24/2003)	(3.7495 - 3.55535)/(19 - 14)	0.0388312

3.74715	(11/18/2006)	3.55535	(9/24/2003)	(3.74715 - 3.55535)/(20 - 14)	0.0319667
3.21888	(5/23/2007)	3.55535	(9/24/2003)	(3.21888 - 3.55535)/(21 - 14)	-0.0480675
4.10923	(11/28/2007)	3.55535	(9/24/2003)	(4.10923 - 3.55535)/(22 - 14)	0.0692356
ND<0	(6/5/2008)	3.55535	(9/24/2003)	(0 - 3.55535)/(23 - 14)	-0.395039
3.55535	(11/20/2008)	3.55535	(9/24/2003)	(3.55535 - 3.55535)/(24 - 14)	0
3.66356	(6/11/2009)	3.55535	(9/24/2003)	(3.66356 - 3.55535)/(25 - 14)	0.0098376
3.7612	(6/30/2010)	3.55535	(9/24/2003)	(3.7612 - 3.55535)/(26 - 14)	0.0171543
4.06044	(11/12/2010)	3.55535	(9/24/2003)	(4.06044 - 3.55535)/(27 - 14)	0.0388535
4.41884	(7/5/2011)	3.55535	(9/24/2003)	(4.41884 - 3.55535)/(28 - 14)	0.061678
4.17439	(11/22/2011)	3.55535	(9/24/2003)	(4.17439 - 3.55535)/(29 - 14)	0.0412693
4.17439	(11/22/2011)	3.55535	(9/24/2003)	(4.17439 - 3.55535)/(29 - 14)	0.0412693
4.94164	(10/12/2004)	4.86753	(3/11/2004)	(4.94164 - 4.86753)/(16 - 15)	0.074108
4.02356	(4/1/2005)	4.86753	(3/11/2004)	(4.02356 - 4.86753)/(17 - 15)	-0.421985
4.65396	(10/25/2005)	4.86753	(3/11/2004)	(4.65396 - 4.86753)/(18 - 15)	-0.0711914
3.7495	(4/29/2006)	4.86753	(3/11/2004)	(3.7495 - 4.86753)/(19 - 15)	-0.279508
3.74715	(11/18/2006)	4.86753	(3/11/2004)	(3.74715 - 4.86753)/(20 - 15)	-0.224077
3.21888	(5/23/2007)	4.86753	(3/11/2004)	(3.21888 - 4.86753)/(21 - 15)	-0.274776
4.10923	(11/28/2007)	4.86753	(3/11/2004)	(4.10923 - 4.86753)/(22 - 15)	-0.108329
ND<0	(6/5/2008)	4.86753	(3/11/2004)	(0 - 4.86753)/(23 - 15)	-0.608442
3.55535	(11/20/2008)	4.86753	(3/11/2004)	(3.55535 - 4.86753)/(24 - 15)	-0.145798
3.66356	(6/11/2009)	4.86753	(3/11/2004)	(3.66356 - 4.86753)/(25 - 15)	-0.120397
3.7612	(6/30/2010)	4.86753	(3/11/2004)	(3.7612 - 4.86753)/(26 - 15)	-0.100576
4.06044	(11/12/2010)	4.86753	(3/11/2004)	(4.06044 - 4.86753)/(27 - 15)	-0.0672576
4.41884	(7/5/2011)	4.86753	(3/11/2004)	(4.41884 - 4.86753)/(28 - 15)	-0.0345149
4.17439	(11/22/2011)	4.86753	(3/11/2004)	(4.17439 - 4.86753)/(29 - 15)	-0.0495105
4.17439	(11/22/2011)	4.86753	(3/11/2004)	(4.17439 - 4.86753)/(29 - 15)	-0.0495105
4.02356	(4/1/2005)	4.94164	(10/12/2004)	(4.02356 - 4.94164)/(17 - 16)	-0.918078
4.65396	(10/25/2005)	4.94164	(10/12/2004)	(4.65396 - 4.94164)/(18 - 16)	-0.143841
3.7495	(4/29/2006)	4.94164	(10/12/2004)	(3.7495 - 4.94164)/(19 - 16)	-0.397379
3.74715	(11/18/2006)	4.94164	(10/12/2004)	(3.74715 - 4.94164)/(20 - 16)	-0.298624

3.21888	(5/23/2007)	4.94164	(10/12/2004)	(3.21888 - 4.94164)/(21 - 16)
-0.344553				
4.10923	(11/28/2007)	4.94164	(10/12/2004)	(4.10923 - 4.94164)/(22 - 16)
-0.138735				
ND<0	(6/5/2008)	4.94164	(10/12/2004)	(0 - 4.94164)/(23 - 16)
-0.705949				
3.55535	(11/20/2008)	4.94164	(10/12/2004)	(3.55535 - 4.94164)/(24 - 16)
-0.173287				
3.66356	(6/11/2009)	4.94164	(10/12/2004)	(3.66356 - 4.94164)/(25 - 16)
-0.142009				
3.7612	(6/30/2010)	4.94164	(10/12/2004)	(3.7612 - 4.94164)/(26 - 16)
-0.118044				
4.06044	(11/12/2010)	4.94164	(10/12/2004)	(4.06044 - 4.94164)/(27 - 16)
-0.080109				
4.41884	(7/5/2011)	4.94164	(10/12/2004)	(4.41884 - 4.94164)/(28 - 16)
-0.0435668				
4.17439	(11/22/2011)	4.94164	(10/12/2004)	(4.17439 - 4.94164)/(29 - 16)
-0.0590196				
4.17439	(11/22/2011)	4.94164	(10/12/2004)	(4.17439 - 4.94164)/(29 - 16)
-0.0590196				
4.65396	(10/25/2005)	4.02356	(4/1/2005)	(4.65396 - 4.02356)/(18 - 17)
0.630396				
3.7495	(4/29/2006)	4.02356	(4/1/2005)	(3.7495 - 4.02356)/(19 - 17)
-0.13703				
3.74715	(11/18/2006)	4.02356	(4/1/2005)	(3.74715 - 4.02356)/(20 - 17)
-0.0921387				
3.21888	(5/23/2007)	4.02356	(4/1/2005)	(3.21888 - 4.02356)/(21 - 17)
-0.201172				
4.10923	(11/28/2007)	4.02356	(4/1/2005)	(4.10923 - 4.02356)/(22 - 17)
0.0171338				
ND<0	(6/5/2008)	4.02356	(4/1/2005)	(0 - 4.02356)/(23 - 17)
-0.670594				
3.55535	(11/20/2008)	4.02356	(4/1/2005)	(3.55535 - 4.02356)/(24 - 17)
-0.066888				
3.66356	(6/11/2009)	4.02356	(4/1/2005)	(3.66356 - 4.02356)/(25 - 17)
-0.0450003				
3.7612	(6/30/2010)	4.02356	(4/1/2005)	(3.7612 - 4.02356)/(26 - 17)
-0.0291516				
4.06044	(11/12/2010)	4.02356	(4/1/2005)	(4.06044 - 4.02356)/(27 - 17)
0.00368786				
4.41884	(7/5/2011)	4.02356	(4/1/2005)	(4.41884 - 4.02356)/(28 - 17)
0.0359342				
4.17439	(11/22/2011)	4.02356	(4/1/2005)	(4.17439 - 4.02356)/(29 - 17)
0.0125686				
4.17439	(11/22/2011)	4.02356	(4/1/2005)	(4.17439 - 4.02356)/(29 - 17)
0.0125686				
3.7495	(4/29/2006)	4.65396	(10/25/2005)	(3.7495 - 4.65396)/(19 - 18)
-0.904456				
3.74715	(11/18/2006)	4.65396	(10/25/2005)	(3.74715 - 4.65396)/(20 - 18)
-0.453406				
3.21888	(5/23/2007)	4.65396	(10/25/2005)	(3.21888 - 4.65396)/(21 - 18)
-0.478362				
4.10923	(11/28/2007)	4.65396	(10/25/2005)	(4.10923 - 4.65396)/(22 - 18)
-0.136182				
ND<0	(6/5/2008)	4.65396	(10/25/2005)	(0 - 4.65396)/(23 - 18)
-0.930792				
3.55535	(11/20/2008)	4.65396	(10/25/2005)	(3.55535 - 4.65396)/(24 - 18)
-0.183102				
3.66356	(6/11/2009)	4.65396	(10/25/2005)	(3.66356 - 4.65396)/(25 - 18)
-0.141486				

3.7612	(6/30/2010)	4.65396	(10/25/2005)	(3.7612 - 4.65396)/(26 - 18)	
-0.111595					
4.06044	(11/12/2010)	4.65396	(10/25/2005)	(4.06044 - 4.65396)/(27 - 18)	
-0.0659464					
4.41884	(7/5/2011)	4.65396	(10/25/2005)	(4.41884 - 4.65396)/(28 - 18)	
-0.023512					
4.17439	(11/22/2011)	4.65396	(10/25/2005)	(4.17439 - 4.65396)/(29 - 18)	
-0.0435976					
4.17439	(11/22/2011)	4.65396	(10/25/2005)	(4.17439 - 4.65396)/(29 - 18)	
-0.0435976					
3.74715	(11/18/2006)	3.7495	(4/29/2006)	(3.74715 - 3.7495)/(20 - 19)	
-0.00235571					
3.21888	(5/23/2007)	3.7495	(4/29/2006)	(3.21888 - 3.7495)/(21 - 19)	
-0.265314					
4.10923	(11/28/2007)	3.7495	(4/29/2006)	(4.10923 - 3.7495)/(22 - 19)	
0.11991					
ND<0	(6/5/2008)	3.7495	(4/29/2006)	(0 - 3.7495)/(23 - 19)	
-0.937376					
3.55535	(11/20/2008)	3.7495	(4/29/2006)	(3.55535 - 3.7495)/(24 - 19)	
-0.0388312					
3.66356	(6/11/2009)	3.7495	(4/29/2006)	(3.66356 - 3.7495)/(25 - 19)	
-0.0143237					
3.7612	(6/30/2010)	3.7495	(4/29/2006)	(3.7612 - 3.7495)/(26 - 19)	
0.00167086					
4.06044	(11/12/2010)	3.7495	(4/29/2006)	(4.06044 - 3.7495)/(27 - 19)	
0.0388674					
4.41884	(7/5/2011)	3.7495	(4/29/2006)	(4.41884 - 3.7495)/(28 - 19)	
0.0743707					
4.17439	(11/22/2011)	3.7495	(4/29/2006)	(4.17439 - 3.7495)/(29 - 19)	
0.0424883					
4.17439	(11/22/2011)	3.7495	(4/29/2006)	(4.17439 - 3.7495)/(29 - 19)	
0.0424883					
3.21888	(5/23/2007)	3.74715	(11/18/2006)	(3.21888 - 3.74715)/(21 - 20)	
-0.528273					
4.10923	(11/28/2007)	3.74715	(11/18/2006)	(4.10923 - 3.74715)/(22 - 20)	
0.181042					
ND<0	(6/5/2008)	3.74715	(11/18/2006)	(0 - 3.74715)/(23 - 20)	-1.24905
3.55535	(11/20/2008)	3.74715	(11/18/2006)	(3.55535 - 3.74715)/(24 - 20)	
-0.0479501					
3.66356	(6/11/2009)	3.74715	(11/18/2006)	(3.66356 - 3.74715)/(25 - 20)	
-0.0167173					
3.7612	(6/30/2010)	3.74715	(11/18/2006)	(3.7612 - 3.74715)/(26 - 20)	
0.00234196					
4.06044	(11/12/2010)	3.74715	(11/18/2006)	(4.06044 - 3.74715)/(27 - 20)	
0.0447564					
4.41884	(7/5/2011)	3.74715	(11/18/2006)	(4.41884 - 3.74715)/(28 - 20)	
0.0839615					
4.17439	(11/22/2011)	3.74715	(11/18/2006)	(4.17439 - 3.74715)/(29 - 20)	
0.047471					
4.17439	(11/22/2011)	3.74715	(11/18/2006)	(4.17439 - 3.74715)/(29 - 20)	
0.047471					
4.10923	(11/28/2007)	3.21888	(5/23/2007)	(4.10923 - 3.21888)/(22 - 21)	
0.890357					
ND<0	(6/5/2008)	3.21888	(5/23/2007)	(0 - 3.21888)/(23 - 21)	-1.60944
3.55535	(11/20/2008)	3.21888	(5/23/2007)	(3.55535 - 3.21888)/(24 - 21)	
0.112157					
3.66356	(6/11/2009)	3.21888	(5/23/2007)	(3.66356 - 3.21888)/(25 - 21)	
0.111171					

3.7612	(6/30/2010)	3.21888	(5/23/2007)	(3.7612 - 3.21888)/(26 - 21)		
0.108465						
4.06044	(11/12/2010)	3.21888	(5/23/2007)	(4.06044 - 3.21888)/(27 - 21)		
0.140261						
4.41884	(7/5/2011)	3.21888	(5/23/2007)	(4.41884 - 3.21888)/(28 - 21)		
0.171424						
4.17439	(11/22/2011)	3.21888	(5/23/2007)	(4.17439 - 3.21888)/(29 - 21)		
0.119439						
4.17439	(11/22/2011)	3.21888	(5/23/2007)	(4.17439 - 3.21888)/(29 - 21)		
0.119439						
ND<0	(6/5/2008)	4.10923	(11/28/2007)	(0 - 4.10923)/(23 - 22)		-4.10923
3.55535	(11/20/2008)	4.10923	(11/28/2007)	(3.55535 - 4.10923)/(24 - 22)		
-0.276943						
3.66356	(6/11/2009)	4.10923	(11/28/2007)	(3.66356 - 4.10923)/(25 - 22)		
-0.148557						
3.7612	(6/30/2010)	4.10923	(11/28/2007)	(3.7612 - 4.10923)/(26 - 22)		
-0.0870083						
4.06044	(11/12/2010)	4.10923	(11/28/2007)	(4.06044 - 4.10923)/(27 - 22)		
-0.00975803						
4.41884	(7/5/2011)	4.10923	(11/28/2007)	(4.41884 - 4.10923)/(28 - 22)		
0.0516012						
4.17439	(11/22/2011)	4.10923	(11/28/2007)	(4.17439 - 4.10923)/(29 - 22)		
0.00930773						
4.17439	(11/22/2011)	4.10923	(11/28/2007)	(4.17439 - 4.10923)/(29 - 22)		
0.00930773						
3.55535	(11/20/2008)	ND<0	(6/5/2008)	(3.55535 - 0)/(24 - 23)		3.55535
3.66356	(6/11/2009)	ND<0	(6/5/2008)	(3.66356 - 0)/(25 - 23)		1.83178
3.7612	(6/30/2010)	ND<0	(6/5/2008)	(3.7612 - 0)/(26 - 23)		1.25373
4.06044	(11/12/2010)	ND<0	(6/5/2008)	(4.06044 - 0)/(27 - 23)		1.01511
4.41884	(7/5/2011)	ND<0	(6/5/2008)	(4.41884 - 0)/(28 - 23)		
0.883768						
4.17439	(11/22/2011)	ND<0	(6/5/2008)	(4.17439 - 0)/(29 - 23)		
0.695731						
4.17439	(11/22/2011)	ND<0	(6/5/2008)	(4.17439 - 0)/(29 - 23)		
0.695731						
3.66356	(6/11/2009)	3.55535	(11/20/2008)	(3.66356 - 3.55535)/(25 - 24)		
0.108214						
3.7612	(6/30/2010)	3.55535	(11/20/2008)	(3.7612 - 3.55535)/(26 - 24)		
0.102926						
4.06044	(11/12/2010)	3.55535	(11/20/2008)	(4.06044 - 3.55535)/(27 - 24)		
0.168365						
4.41884	(7/5/2011)	3.55535	(11/20/2008)	(4.41884 - 3.55535)/(28 - 24)		
0.215873						
4.17439	(11/22/2011)	3.55535	(11/20/2008)	(4.17439 - 3.55535)/(29 - 24)		
0.123808						
4.17439	(11/22/2011)	3.55535	(11/20/2008)	(4.17439 - 3.55535)/(29 - 24)		
0.123808						
3.7612	(6/30/2010)	3.66356	(6/11/2009)	(3.7612 - 3.66356)/(26 - 25)		
0.0976385						
4.06044	(11/12/2010)	3.66356	(6/11/2009)	(4.06044 - 3.66356)/(27 - 25)		
0.198441						
4.41884	(7/5/2011)	3.66356	(6/11/2009)	(4.41884 - 3.66356)/(28 - 25)		
0.25176						
4.17439	(11/22/2011)	3.66356	(6/11/2009)	(4.17439 - 3.66356)/(29 - 25)		
0.127706						
4.17439	(11/22/2011)	3.66356	(6/11/2009)	(4.17439 - 3.66356)/(29 - 25)		
0.127706						

4.06044	(11/12/2010)	3.7612	(6/30/2010)	(4.06044 - 3.7612)/(27 - 26)	
	0.299243				
4.41884	(7/5/2011)	3.7612	(6/30/2010)	(4.41884 - 3.7612)/(28 - 26)	
	0.32882				
4.17439	(11/22/2011)	3.7612	(6/30/2010)	(4.17439 - 3.7612)/(29 - 26)	
	0.137729				
4.17439	(11/22/2011)	3.7612	(6/30/2010)	(4.17439 - 3.7612)/(29 - 26)	
	0.137729				
4.41884	(7/5/2011)	4.06044	(11/12/2010)	(4.41884 - 4.06044)/(28 - 27)	
	0.358398				
4.17439	(11/22/2011)	4.06044	(11/12/2010)	(4.17439 - 4.06044)/(29 - 27)	
	0.0569721				
4.17439	(11/22/2011)	4.06044	(11/12/2010)	(4.17439 - 4.06044)/(29 - 27)	
	0.0569721				
4.17439	(11/22/2011)	4.41884	(7/5/2011)	(4.17439 - 4.41884)/(29 - 28)	
	-0.244453				
4.17439	(11/22/2011)	4.41884	(7/5/2011)	(4.17439 - 4.41884)/(29 - 28)	
	-0.244453				
4.17439	(11/22/2011)	4.17439	(11/22/2011)	(4.17439 - 4.17439)/(29 - 29)	
	Same Date				

Number of Q values = 434

Ordered Q Values

n	Q
1	-4.10923
2	-2.24374
3	-2.14007
4	-1.60944
5	-1.41661
6	-1.24905
7	-1.15129
8	-0.998577
9	-0.937376
10	-0.930792
11	-0.918078
12	-0.904456
13	-0.8172
14	-0.705949
15	-0.693147
16	-0.689563
17	-0.670594
18	-0.608442
19	-0.582689
20	-0.579909
21	-0.528273
22	-0.504519
23	-0.478362
24	-0.475815
25	-0.465779
26	-0.453406
27	-0.452777
28	-0.448589
29	-0.443882
30	-0.441833
31	-0.422409
32	-0.421985

33	-0.397379
34	-0.395039
35	-0.375653
36	-0.370925
37	-0.346574
38	-0.344553
39	-0.341598
40	-0.327522
41	-0.322527
42	-0.317198
43	-0.298624
44	-0.293135
45	-0.286326
46	-0.285817
47	-0.279508
48	-0.276943
49	-0.274776
50	-0.266077
51	-0.265314
52	-0.244453
53	-0.244453
54	-0.242475
55	-0.2374
56	-0.229026
57	-0.224077
58	-0.217118
59	-0.213896
60	-0.203977
61	-0.203714
62	-0.201172
63	-0.190622
64	-0.188628
65	-0.187762
66	-0.18584
67	-0.185003
68	-0.183102
69	-0.182182
70	-0.179025
71	-0.177961
72	-0.175079
73	-0.174223
74	-0.173287
75	-0.17139
76	-0.169281
77	-0.166483
78	-0.164925
79	-0.164507
80	-0.164023
81	-0.162519
82	-0.15741
83	-0.157303
84	-0.156761
85	-0.154018
86	-0.148557
87	-0.148416
88	-0.148169
89	-0.148073
90	-0.146862
91	-0.146174
92	-0.145798
93	-0.144345
94	-0.143841

95	-0.142654
96	-0.142009
97	-0.141661
98	-0.141486
99	-0.138735
100	-0.13703
101	-0.136182
102	-0.13443
103	-0.132806
104	-0.132593
105	-0.131437
106	-0.129965
107	-0.124189
108	-0.120397
109	-0.118044
110	-0.116427
111	-0.115955
112	-0.114927
113	-0.111595
114	-0.110472
115	-0.109911
116	-0.109608
117	-0.109174
118	-0.108968
119	-0.108329
120	-0.107392
121	-0.105161
122	-0.104088
123	-0.102156
124	-0.101544
125	-0.101544
126	-0.100576
127	-0.100382
128	-0.0980829
129	-0.0977625
130	-0.0955872
131	-0.0921387
132	-0.0920168
133	-0.0900904
134	-0.0900904
135	-0.0894015
136	-0.0872428
137	-0.0871803
138	-0.0870083
139	-0.0866434
140	-0.086161
141	-0.0860023
142	-0.084221
143	-0.0838053
144	-0.0833634
145	-0.0828603
146	-0.0825241
147	-0.0815146
148	-0.080109
149	-0.0800276
150	-0.0784229
151	-0.0767246
152	-0.0728992
153	-0.0711914
154	-0.069543
155	-0.069543
156	-0.0691565

157	-0.0672576
158	-0.066888
159	-0.0659464
160	-0.064396
161	-0.063367
162	-0.0630288
163	-0.0629174
164	-0.0620263
165	-0.0607974
166	-0.0598885
167	-0.0592777
168	-0.0590196
169	-0.0590196
170	-0.0582687
171	-0.0553167
172	-0.0542371
173	-0.0509285
174	-0.0509285
175	-0.0507365
176	-0.0503424
177	-0.0496954
178	-0.0496954
179	-0.0495105
180	-0.0495105
181	-0.0480675
182	-0.0479501
183	-0.0473938
184	-0.0467523
185	-0.0450003
186	-0.044711
187	-0.044711
188	-0.0435976
189	-0.0435976
190	-0.0435668
191	-0.0409448
192	-0.0409448
193	-0.040743
194	-0.0388312
195	-0.0384329
196	-0.0382921
197	-0.038239
198	-0.0364814
199	-0.0359021
200	-0.0345149
201	-0.0322271
202	-0.031254
203	-0.0301368
204	-0.0301368
205	-0.0291516
206	-0.0290038
207	-0.02814
208	-0.0259549
209	-0.0254524
210	-0.0238275
211	-0.023512
212	-0.0223132
213	-0.0203952
214	-0.0177978
215	-0.0167173
216	-0.0148368
217	-0.0143237
218	-0.00975803

219	-0.00433228
220	-0.00235571
221	-0.0015674
222	0
223	0
224	0
225	0.00167086
226	0.00179212
227	0.00234196
228	0.00368786
229	0.0074108
230	0.00930773
231	0.00930773
232	0.0098376
233	0.0111566
234	0.0117444
235	0.0125686
236	0.0125686
237	0.0171338
238	0.0171543
239	0.0214257
240	0.0254371
241	0.0290361
242	0.0318945
243	0.0319667
244	0.0328606
245	0.0343874
246	0.0359342
247	0.0377431
248	0.0388312
249	0.0388535
250	0.0388674
251	0.040274
252	0.0403473
253	0.0412693
254	0.0412693
255	0.0417453
256	0.0424883
257	0.0424883
258	0.0425884
259	0.0436539
260	0.0436539
261	0.0443395
262	0.0447564
263	0.0466346
264	0.047471
265	0.047471
266	0.0511346
267	0.0515836
268	0.0515836
269	0.0516012
270	0.0537609
271	0.0547349
272	0.055675
273	0.0569721
274	0.0569721
275	0.0572682
276	0.0588915
277	0.061678
278	0.0634251
279	0.0656486
280	0.0671589

281	0.0685221
282	0.0692356
283	0.074108
284	0.0743707
285	0.0839615
286	0.0850251
287	0.0976385
288	0.102926
289	0.103639
290	0.108214
291	0.108465
292	0.108474
293	0.111171
294	0.112157
295	0.119439
296	0.119439
297	0.11991
298	0.120653
299	0.121383
300	0.123808
301	0.123808
302	0.125657
303	0.127706
304	0.127706
305	0.13308
306	0.137729
307	0.137729
308	0.138994
309	0.13925
310	0.13925
311	0.139457
312	0.140261
313	0.141448
314	0.14311
315	0.143985
316	0.145681
317	0.145681
318	0.146404
319	0.146636
320	0.148572
321	0.148677
322	0.150436
323	0.151534
324	0.152505
325	0.155237
326	0.156072
327	0.156178
328	0.160131
329	0.162187
330	0.168365
331	0.169527
332	0.171424
333	0.173933
334	0.173933
335	0.179105
336	0.181042
337	0.183178
338	0.184566
339	0.187124
340	0.189783
341	0.190875
342	0.191139

343	0.192124
344	0.192202
345	0.193874
346	0.198441
347	0.199279
348	0.20118
349	0.203011
350	0.203757
351	0.207639
352	0.215873
353	0.230352
354	0.233473
355	0.24172
356	0.245516
357	0.24981
358	0.25176
359	0.254642
360	0.254851
361	0.256186
362	0.266157
363	0.267822
364	0.268156
365	0.27031
366	0.274653
367	0.279461
368	0.282915
369	0.28622
370	0.296588
371	0.299243
372	0.313889
373	0.323089
374	0.32882
375	0.335297
376	0.340873
377	0.354041
378	0.357997
379	0.358398
380	0.361296
381	0.365094
382	0.37949
383	0.383628
384	0.393291
385	0.395039
386	0.415888
387	0.436127
388	0.439843
389	0.439924
390	0.44924
391	0.467951
392	0.475315
393	0.486753
394	0.497359
395	0.530166
396	0.559616
397	0.560315
398	0.56049
399	0.567327
400	0.625108
401	0.630396
402	0.637206
403	0.643422
404	0.678107

405	0.693147
406	0.693147
407	0.695731
408	0.695731
409	0.704925
410	0.724887
411	0.791354
412	0.829977
413	0.844817
414	0.864619
415	0.865493
416	0.883768
417	0.890357
418	0.899962
419	0.954445
420	1.01511
421	1.17722
422	1.23541
423	1.25373
424	1.29824
425	1.31219
426	1.36895
427	1.46068
428	1.83178
429	1.87826
430	2.08719
431	2.53759
432	2.90042
433	3.55535
434	4.86753

Sen's Estimator (Median Q) is -0.0120409

Tied Group	Value	Members
1	0	2
2	4.86753	2
3	3.55535	2
4	4.17439	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1

6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 72
B = 18
C = 0
D = 0
E = 8
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3136.68
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.1217
M1 = (434 - 92.1217)/2.0 = 170.939
M2 = (434 + 92.1217)/2.0 + 1 = 264.061
Lower limit is -0.0553167 = Q(171)
Upper limit is 0.047471 = Q(264)
-0.0553167 < 0 < 0.047471 indicating no trend in data.

Sen's Slope Analysis
Parameter: cis-1,2-Dichloroethene
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
0.0953102 J (8/24/1995)	0.182322 J (7/20/1995)	(0.0953102 - 0.182322)/(2 - 1)	-0.0870114
0 J (9/28/1995)	0.182322 J (7/20/1995)	(0 - 0.182322)/(3 - 1)	-0.0911608
0 J (10/26/1995)	0.182322 J (7/20/1995)	(0 - 0.182322)/(4 - 1)	-0.0607739
ND<0 (11/19/1996)	0.182322 J (7/20/1995)	(0 - 0.182322)/(5 - 1)	-0.0455804
ND<0 (12/19/1996)	0.182322 J (7/20/1995)	(0 - 0.182322)/(6 - 1)	-0.0364643
ND<0 (3/24/1997)	0.182322 J (7/20/1995)	(0 - 0.182322)/(7 - 1)	-0.0303869
ND<0 (9/24/1997)	0.182322 J (7/20/1995)	(0 - 0.182322)/(8 - 1)	-0.0260459
ND<0 (4/7/1998)	0.182322 J (7/20/1995)	(0 - 0.182322)/(9 - 1)	-0.0227902
ND<0 (9/23/1998)	0.182322 J (7/20/1995)	(0 - 0.182322)/(10 - 1)	-0.020258
ND<0 (3/16/1999)	0.182322 J (7/20/1995)	(0 - 0.182322)/(11 - 1)	-0.0182322
ND<0 (9/23/1999)	0.182322 J (7/20/1995)	(0 - 0.182322)/(12 - 1)	-0.0165747
ND<0 (3/15/2000)	0.182322 J (7/20/1995)	(0 - 0.182322)/(13 - 1)	-0.0151935
ND<0 (9/24/2003)	0.182322 J (7/20/1995)	(0 - 0.182322)/(14 - 1)	-0.0140247
4.15888 (3/11/2004)	0.182322 J (7/20/1995)	(4.15888 - 0.182322)/(15 - 1)	0.28404
ND<0 (10/12/2004)	0.182322 J (7/20/1995)	(0 - 0.182322)/(16 - 1)	-0.0121548
0.576613 J (4/1/2005)	0.182322 J (7/20/1995)	(0.576613 - 0.182322)/(17 - 1)	0.0246432
0.231112 J (10/25/2005)	0.182322 J (7/20/1995)	(0.231112 - 0.182322)/(18 - 1)	0.00287001
-0.127833 J (4/29/2006)	0.182322 J (7/20/1995)	(-0.127833 - 0.182322)/(19 - 1)	-0.0172308
-0.34249 J (11/18/2006)	0.182322 J (7/20/1995)	(-0.34249 - 0.182322)/(20 - 1)	-0.0276217
1.09861 (5/23/2007)	0.182322 J (7/20/1995)	(1.09861 - 0.182322)/(21 - 1)	0.0458145
ND<0 J (11/28/2007)	0.182322 J (7/20/1995)	(0 - 0.182322)/(22 - 1)	-0.00868198
-0.693147 J (6/5/2008)	0.182322 J (7/20/1995)	(-0.693147 - 0.182322)/(23 - 1)	-0.039794
0.582216 J (11/20/2008)	0.182322 J (7/20/1995)	(0.582216 - 0.182322)/(24 - 1)	0.0173867
0.832909 (6/11/2009)	0.182322 J (7/20/1995)	(0.832909 - 0.182322)/(25 - 1)	0.0271078
0.832909 (6/30/2010)	0.182322 J (7/20/1995)	(0.832909 - 0.182322)/(26 - 1)	0.0260235
0.587787 (11/12/2010)	0.182322 J (7/20/1995)	(0.587787 - 0.182322)/(27 - 1)	0.0155948

0.182322 (7/5/2011)	0.182322 J (7/20/1995)	(0.182322 - 0.182322)/(28 - 1)		
0				
0.530628 Q (11/22/2011)	0.182322 J (7/20/1995)	(0.530628 - 0.182322)/(29 - 1)		
0.0124395				
0.530628 Q (11/22/2011)	0.182322 J (7/20/1995)	(0.530628 - 0.182322)/(29 - 1)		
0.0124395				
0 J (9/28/1995)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(3 - 2)	-0.0953102	
0 J (10/26/1995)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(4 - 2)	-0.0476551	
ND<0 (11/19/1996)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(5 - 2)		
-0.0317701				
ND<0 (12/19/1996)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(6 - 2)		
-0.0238275				
ND<0 (3/24/1997)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(7 - 2)		
-0.019062				
ND<0 (9/24/1997)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(8 - 2)		
-0.015885				
ND<0 (4/7/1998)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(9 - 2)		
-0.0136157				
ND<0 (9/23/1998)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(10 - 2)		
-0.0119138				
ND<0 (3/16/1999)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(11 - 2)		-0.01059
ND<0 (9/23/1999)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(12 - 2)		
-0.00953102				
ND<0 (3/15/2000)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(13 - 2)		
-0.00866456				
ND<0 (9/24/2003)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(14 - 2)		
-0.00794251				
4.15888 (3/11/2004)	0.0953102 J (8/24/1995)	(4.15888 - 0.0953102)/(15 - 2)		
0.312583				
ND<0 (10/12/2004)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(16 - 2)		
-0.00680787				
0.576613 J (4/1/2005)	0.0953102 J (8/24/1995)	(0.576613 - 0.0953102)/(17 - 2)		
0.0320869				
0.231112 J (10/25/2005)	0.0953102 J (8/24/1995)	(0.231112 - 0.0953102)/(18 - 2)		
0.0084876				
-0.127833 J (4/29/2006)	0.0953102 J (8/24/1995)	(-0.127833 - 0.0953102)/(19 - 2)		
-0.0131261				
-0.34249 J (11/18/2006)	0.0953102 J (8/24/1995)	(-0.34249 - 0.0953102)/(20 - 2)		
-0.0243222				
1.09861 (5/23/2007)	0.0953102 J (8/24/1995)	(1.09861 - 0.0953102)/(21 - 2)		
0.0528054				
ND<0 J (11/28/2007)	0.0953102 J (8/24/1995)	(0 - 0.0953102)/(22 - 2)		
-0.00476551				
-0.693147 J (6/5/2008)	0.0953102 J (8/24/1995)	(-0.693147 - 0.0953102)/(23 - 2)		
-0.0375456				
0.582216 J (11/20/2008)	0.0953102 J (8/24/1995)	(0.582216 - 0.0953102)/(24 - 2)		
0.0221321				
0.832909 (6/11/2009)	0.0953102 J (8/24/1995)	(0.832909 - 0.0953102)/(25 - 2)		
0.0320695				
0.832909 (6/30/2010)	0.0953102 J (8/24/1995)	(0.832909 - 0.0953102)/(26 - 2)		
0.0307333				
0.587787 (11/12/2010)	0.0953102 J (8/24/1995)	(0.587787 - 0.0953102)/(27 - 2)		
0.0196991				
0.182322 (7/5/2011)	0.0953102 J (8/24/1995)	(0.182322 - 0.0953102)/(28 - 2)		
0.00334659				
0.530628 Q (11/22/2011)	0.0953102 J (8/24/1995)	(0.530628 - 0.0953102)/(29 - 2)		
0.0161229				
0.530628 Q (11/22/2011)	0.0953102 J (8/24/1995)	(0.530628 - 0.0953102)/(29 - 2)		
0.0161229				
0 J (10/26/1995)	0 J (9/28/1995)	(0 - 0)/(4 - 3)	0	

ND<0 (11/19/1996)	0 J (9/28/1995)	(0 - 0)/(5 - 3)	0	
ND<0 (12/19/1996)	0 J (9/28/1995)	(0 - 0)/(6 - 3)	0	
ND<0 (3/24/1997)	0 J (9/28/1995)	(0 - 0)/(7 - 3)	0	
ND<0 (9/24/1997)	0 J (9/28/1995)	(0 - 0)/(8 - 3)	0	
ND<0 (4/7/1998)	0 J (9/28/1995)	(0 - 0)/(9 - 3)	0	
ND<0 (9/23/1998)	0 J (9/28/1995)	(0 - 0)/(10 - 3)	0	
ND<0 (3/16/1999)	0 J (9/28/1995)	(0 - 0)/(11 - 3)	0	
ND<0 (9/23/1999)	0 J (9/28/1995)	(0 - 0)/(12 - 3)	0	
ND<0 (3/15/2000)	0 J (9/28/1995)	(0 - 0)/(13 - 3)	0	
ND<0 (9/24/2003)	0 J (9/28/1995)	(0 - 0)/(14 - 3)	0	
4.15888 (3/11/2004)	0 J (9/28/1995)	(4.15888 - 0)/(15 - 3)		0.346574
ND<0 (10/12/2004)	0 J (9/28/1995)	(0 - 0)/(16 - 3)	0	
0.576613 J (4/1/2005)	0 J (9/28/1995)	(0.576613 - 0)/(17 - 3)		0.0411867
0.231112 J (10/25/2005)	0 J (9/28/1995)	(0.231112 - 0)/(18 - 3)		0.0154074
-0.127833 J (4/29/2006)	0 J (9/28/1995)	(-0.127833 - 0)/(19 - 3)		-0.00798959
-0.34249 J (11/18/2006)	0 J (9/28/1995)	(-0.34249 - 0)/(20 - 3)		-0.0201465
1.09861 (5/23/2007)	0 J (9/28/1995)	(1.09861 - 0)/(21 - 3)		0.061034
ND<0 J (11/28/2007)	0 J (9/28/1995)	(0 - 0)/(22 - 3)	0	
-0.693147 J (6/5/2008)	0 J (9/28/1995)	(-0.693147 - 0)/(23 - 3)		-0.0346574
0.582216 J (11/20/2008)	0 J (9/28/1995)	(0.582216 - 0)/(24 - 3)		0.0277246
0.832909 (6/11/2009)	0 J (9/28/1995)	(0.832909 - 0)/(25 - 3)		0.0378595
0.832909 (6/30/2010)	0 J (9/28/1995)	(0.832909 - 0)/(26 - 3)		0.0362134
0.587787 (11/12/2010)	0 J (9/28/1995)	(0.587787 - 0)/(27 - 3)		0.0244911
0.182322 (7/5/2011)	0 J (9/28/1995)	(0.182322 - 0)/(28 - 3)		0.00729286
0.530628 Q (11/22/2011)	0 J (9/28/1995)	(0.530628 - 0)/(29 - 3)		0.0204088
0.530628 Q (11/22/2011)	0 J (9/28/1995)	(0.530628 - 0)/(29 - 3)		0.0204088

ND<0 (11/19/1996)	0 J (10/26/1995)	(0 - 0)/(5 - 4)	0	
ND<0 (12/19/1996)	0 J (10/26/1995)	(0 - 0)/(6 - 4)	0	
ND<0 (3/24/1997)	0 J (10/26/1995)	(0 - 0)/(7 - 4)	0	
ND<0 (9/24/1997)	0 J (10/26/1995)	(0 - 0)/(8 - 4)	0	
ND<0 (4/7/1998)	0 J (10/26/1995)	(0 - 0)/(9 - 4)	0	
ND<0 (9/23/1998)	0 J (10/26/1995)	(0 - 0)/(10 - 4)	0	
ND<0 (3/16/1999)	0 J (10/26/1995)	(0 - 0)/(11 - 4)	0	
ND<0 (9/23/1999)	0 J (10/26/1995)	(0 - 0)/(12 - 4)	0	
ND<0 (3/15/2000)	0 J (10/26/1995)	(0 - 0)/(13 - 4)	0	
ND<0 (9/24/2003)	0 J (10/26/1995)	(0 - 0)/(14 - 4)	0	
4.15888 (3/11/2004)	0 J (10/26/1995)	(4.15888 - 0)/(15 - 4)		0.37808
ND<0 (10/12/2004)	0 J (10/26/1995)	(0 - 0)/(16 - 4)	0	
0.576613 J (4/1/2005)	0 J (10/26/1995)	(0.576613 - 0)/(17 - 4)		0.0443549
0.231112 J (10/25/2005)	0 J (10/26/1995)	(0.231112 - 0)/(18 - 4)		0.016508
-0.127833 J (4/29/2006)	0 J (10/26/1995)	(-0.127833 - 0)/(19 - 4)		-0.00852222
-0.34249 J (11/18/2006)	0 J (10/26/1995)	(-0.34249 - 0)/(20 - 4)		-0.0214056
1.09861 (5/23/2007)	0 J (10/26/1995)	(1.09861 - 0)/(21 - 4)		0.0646243
ND<0 J (11/28/2007)	0 J (10/26/1995)	(0 - 0)/(22 - 4)	0	
-0.693147 J (6/5/2008)	0 J (10/26/1995)	(-0.693147 - 0)/(23 - 4)		-0.0364814
0.582216 J (11/20/2008)	0 J (10/26/1995)	(0.582216 - 0)/(24 - 4)		0.0291108
0.832909 (6/11/2009)	0 J (10/26/1995)	(0.832909 - 0)/(25 - 4)		0.0396623
0.832909 (6/30/2010)	0 J (10/26/1995)	(0.832909 - 0)/(26 - 4)		0.0378595
0.587787 (11/12/2010)	0 J (10/26/1995)	(0.587787 - 0)/(27 - 4)		0.0255559
0.182322 (7/5/2011)	0 J (10/26/1995)	(0.182322 - 0)/(28 - 4)		0.00759673
0.530628 Q (11/22/2011)	0 J (10/26/1995)	(0.530628 - 0)/(29 - 4)		0.0212251
0.530628 Q (11/22/2011)	0 J (10/26/1995)	(0.530628 - 0)/(29 - 4)		0.0212251

ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0

ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
4.15888 (3/11/2004)	ND<0 (11/19/1996)	(4.15888 - 0)/(15 - 5)	
0.415888			
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
0.576613 J (4/1/2005)	ND<0 (11/19/1996)	(0.576613 - 0)/(17 - 5)	
0.0480511			
0.231112 J (10/25/2005)	ND<0 (11/19/1996)	(0.231112 - 0)/(18 - 5)	
0.0177778			
-0.127833 J (4/29/2006)	ND<0 (11/19/1996)	(-0.127833 - 0)/(19 - 5)	
-0.00913096			
-0.34249 J (11/18/2006)	ND<0 (11/19/1996)	(-0.34249 - 0)/(20 - 5)	
-0.0228327			
1.09861 (5/23/2007)	ND<0 (11/19/1996)	(1.09861 - 0)/(21 - 5)	
0.0686633			
ND<0 J (11/28/2007)	ND<0 (11/19/1996)	(0 - 0)/(22 - 5)	0
-0.693147 J (6/5/2008)	ND<0 (11/19/1996)	(-0.693147 - 0)/(23 - 5)	
-0.0385082			
0.582216 J (11/20/2008)	ND<0 (11/19/1996)	(0.582216 - 0)/(24 - 5)	
0.0306429			
0.832909 (6/11/2009)	ND<0 (11/19/1996)	(0.832909 - 0)/(25 - 5)	
0.0416455			
0.832909 (6/30/2010)	ND<0 (11/19/1996)	(0.832909 - 0)/(26 - 5)	
0.0396623			
0.587787 (11/12/2010)	ND<0 (11/19/1996)	(0.587787 - 0)/(27 - 5)	
0.0267176			
0.182322 (7/5/2011)	ND<0 (11/19/1996)	(0.182322 - 0)/(28 - 5)	
0.00792702			
0.530628 Q (11/22/2011)	ND<0 (11/19/1996)	(0.530628 - 0)/(29 - 5)	
0.0221095			
0.530628 Q (11/22/2011)	ND<0 (11/19/1996)	(0.530628 - 0)/(29 - 5)	
0.0221095			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
4.15888 (3/11/2004)	ND<0 (12/19/1996)	(4.15888 - 0)/(15 - 6)	
0.462098			
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
0.576613 J (4/1/2005)	ND<0 (12/19/1996)	(0.576613 - 0)/(17 - 6)	
0.0524194			
0.231112 J (10/25/2005)	ND<0 (12/19/1996)	(0.231112 - 0)/(18 - 6)	
0.0192593			
-0.127833 J (4/29/2006)	ND<0 (12/19/1996)	(-0.127833 - 0)/(19 - 6)	
-0.00983334			
-0.34249 J (11/18/2006)	ND<0 (12/19/1996)	(-0.34249 - 0)/(20 - 6)	
-0.0244636			
1.09861 (5/23/2007)	ND<0 (12/19/1996)	(1.09861 - 0)/(21 - 6)	
0.0732408			
ND<0 J (11/28/2007)	ND<0 (12/19/1996)	(0 - 0)/(22 - 6)	0
-0.693147 J (6/5/2008)	ND<0 (12/19/1996)	(-0.693147 - 0)/(23 - 6)	
-0.0407734			
0.582216 J (11/20/2008)	ND<0 (12/19/1996)	(0.582216 - 0)/(24 - 6)	
0.0323453			
0.832909 (6/11/2009)	ND<0 (12/19/1996)	(0.832909 - 0)/(25 - 6)	
0.0438373			
0.832909 (6/30/2010)	ND<0 (12/19/1996)	(0.832909 - 0)/(26 - 6)	
0.0416455			

0.587787 (11/12/2010)	ND<0 (12/19/1996)	(0.587787 - 0)/(27 - 6)		
0.0279898				
0.182322 (7/5/2011)	ND<0 (12/19/1996)	(0.182322 - 0)/(28 - 6)		
0.00828734				
0.530628 Q (11/22/2011)	ND<0 (12/19/1996)	(0.530628 - 0)/(29 - 6)		
0.0230708				
0.530628 Q (11/22/2011)	ND<0 (12/19/1996)	(0.530628 - 0)/(29 - 6)		
0.0230708				
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0	
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0	
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0	
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0	
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0	
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0	
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0	
4.15888 (3/11/2004)	ND<0 (3/24/1997)	(4.15888 - 0)/(15 - 7)		0.51986
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0	
0.576613 J (4/1/2005)	ND<0 (3/24/1997)	(0.576613 - 0)/(17 - 7)		
0.0576613				
0.231112 J (10/25/2005)	ND<0 (3/24/1997)	(0.231112 - 0)/(18 - 7)		
0.0210102				
-0.127833 J (4/29/2006)	ND<0 (3/24/1997)	(-0.127833 - 0)/(19 - 7)		
-0.0106528				
-0.34249 J (11/18/2006)	ND<0 (3/24/1997)	(-0.34249 - 0)/(20 - 7)		
-0.0263454				
1.09861 (5/23/2007)	ND<0 (3/24/1997)	(1.09861 - 0)/(21 - 7)		
0.0784723				
ND<0 J (11/28/2007)	ND<0 (3/24/1997)	(0 - 0)/(22 - 7)	0	
-0.693147 J (6/5/2008)	ND<0 (3/24/1997)	(-0.693147 - 0)/(23 - 7)		
-0.0433217				
0.582216 J (11/20/2008)	ND<0 (3/24/1997)	(0.582216 - 0)/(24 - 7)		
0.034248				
0.832909 (6/11/2009)	ND<0 (3/24/1997)	(0.832909 - 0)/(25 - 7)		
0.0462727				
0.832909 (6/30/2010)	ND<0 (3/24/1997)	(0.832909 - 0)/(26 - 7)		
0.0438373				
0.587787 (11/12/2010)	ND<0 (3/24/1997)	(0.587787 - 0)/(27 - 7)		
0.0293893				
0.182322 (7/5/2011)	ND<0 (3/24/1997)	(0.182322 - 0)/(28 - 7)		
0.00868198				
0.530628 Q (11/22/2011)	ND<0 (3/24/1997)	(0.530628 - 0)/(29 - 7)		
0.0241195				
0.530628 Q (11/22/2011)	ND<0 (3/24/1997)	(0.530628 - 0)/(29 - 7)		
0.0241195				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0	
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0	
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
4.15888 (3/11/2004)	ND<0 (9/24/1997)	(4.15888 - 0)/(15 - 8)		
0.594126				
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
0.576613 J (4/1/2005)	ND<0 (9/24/1997)	(0.576613 - 0)/(17 - 8)		
0.0640682				
0.231112 J (10/25/2005)	ND<0 (9/24/1997)	(0.231112 - 0)/(18 - 8)		
0.0231112				
-0.127833 J (4/29/2006)	ND<0 (9/24/1997)	(-0.127833 - 0)/(19 - 8)		
-0.0116212				

-0.34249 J (11/18/2006)	ND<0 (9/24/1997)	(-0.34249 - 0)/(20 - 8)	
-0.0285409			
1.09861 (5/23/2007)	ND<0 (9/24/1997)	(1.09861 - 0)/(21 - 8)	
0.0845086			
ND<0 J (11/28/2007)	ND<0 (9/24/1997)	(0 - 0)/(22 - 8)	0
-0.693147 J (6/5/2008)	ND<0 (9/24/1997)	(-0.693147 - 0)/(23 - 8)	
-0.0462098			
0.582216 J (11/20/2008)	ND<0 (9/24/1997)	(0.582216 - 0)/(24 - 8)	
0.0363885			
0.832909 (6/11/2009)	ND<0 (9/24/1997)	(0.832909 - 0)/(25 - 8)	
0.0489947			
0.832909 (6/30/2010)	ND<0 (9/24/1997)	(0.832909 - 0)/(26 - 8)	
0.0462727			
0.587787 (11/12/2010)	ND<0 (9/24/1997)	(0.587787 - 0)/(27 - 8)	
0.0309361			
0.182322 (7/5/2011)	ND<0 (9/24/1997)	(0.182322 - 0)/(28 - 8)	
0.00911608			
0.530628 Q (11/22/2011)	ND<0 (9/24/1997)	(0.530628 - 0)/(29 - 8)	
0.025268			
0.530628 Q (11/22/2011)	ND<0 (9/24/1997)	(0.530628 - 0)/(29 - 8)	
0.025268			
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
4.15888 (3/11/2004)	ND<0 (4/7/1998)	(4.15888 - 0)/(15 - 9)	
0.693147			
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
0.576613 J (4/1/2005)	ND<0 (4/7/1998)	(0.576613 - 0)/(17 - 9)	
0.0720767			
0.231112 J (10/25/2005)	ND<0 (4/7/1998)	(0.231112 - 0)/(18 - 9)	
0.0256791			
-0.127833 J (4/29/2006)	ND<0 (4/7/1998)	(-0.127833 - 0)/(19 - 9)	
-0.0127833			
-0.34249 J (11/18/2006)	ND<0 (4/7/1998)	(-0.34249 - 0)/(20 - 9)	
-0.0311355			
1.09861 (5/23/2007)	ND<0 (4/7/1998)	(1.09861 - 0)/(21 - 9)	
0.091551			
ND<0 J (11/28/2007)	ND<0 (4/7/1998)	(0 - 0)/(22 - 9)	0
-0.693147 J (6/5/2008)	ND<0 (4/7/1998)	(-0.693147 - 0)/(23 - 9)	
-0.0495105			
0.582216 J (11/20/2008)	ND<0 (4/7/1998)	(0.582216 - 0)/(24 - 9)	
0.0388144			
0.832909 (6/11/2009)	ND<0 (4/7/1998)	(0.832909 - 0)/(25 - 9)	
0.0520568			
0.832909 (6/30/2010)	ND<0 (4/7/1998)	(0.832909 - 0)/(26 - 9)	
0.0489947			
0.587787 (11/12/2010)	ND<0 (4/7/1998)	(0.587787 - 0)/(27 - 9)	
0.0326548			
0.182322 (7/5/2011)	ND<0 (4/7/1998)	(0.182322 - 0)/(28 - 9)	
0.00959587			
0.530628 Q (11/22/2011)	ND<0 (4/7/1998)	(0.530628 - 0)/(29 - 9)	
0.0265314			
0.530628 Q (11/22/2011)	ND<0 (4/7/1998)	(0.530628 - 0)/(29 - 9)	
0.0265314			
ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0

4.15888 (3/11/2004)	ND<0 (9/23/1998)	(4.15888 - 0)/(15 - 10)		
0.831777				
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
0.576613 J (4/1/2005)	ND<0 (9/23/1998)	(0.576613 - 0)/(17 - 10)		
0.0823733				
0.231112 J (10/25/2005)	ND<0 (9/23/1998)	(0.231112 - 0)/(18 - 10)		
0.028889				
-0.127833 J (4/29/2006)	ND<0 (9/23/1998)	(-0.127833 - 0)/(19 - 10)		
-0.0142037				
-0.34249 J (11/18/2006)	ND<0 (9/23/1998)	(-0.34249 - 0)/(20 - 10)		
-0.034249				
1.09861 (5/23/2007)	ND<0 (9/23/1998)	(1.09861 - 0)/(21 - 10)		
0.0998738				
ND<0 J (11/28/2007)	ND<0 (9/23/1998)	(0 - 0)/(22 - 10)	0	
-0.693147 J (6/5/2008)	ND<0 (9/23/1998)	(-0.693147 - 0)/(23 - 10)		
-0.053319				
0.582216 J (11/20/2008)	ND<0 (9/23/1998)	(0.582216 - 0)/(24 - 10)		
0.0415868				
0.832909 (6/11/2009)	ND<0 (9/23/1998)	(0.832909 - 0)/(25 - 10)		
0.0555273				
0.832909 (6/30/2010)	ND<0 (9/23/1998)	(0.832909 - 0)/(26 - 10)		
0.0520568				
0.587787 (11/12/2010)	ND<0 (9/23/1998)	(0.587787 - 0)/(27 - 10)		
0.0345757				
0.182322 (7/5/2011)	ND<0 (9/23/1998)	(0.182322 - 0)/(28 - 10)		
0.010129				
0.530628 Q (11/22/2011)	ND<0 (9/23/1998)	(0.530628 - 0)/(29 - 10)		
0.0279278				
0.530628 Q (11/22/2011)	ND<0 (9/23/1998)	(0.530628 - 0)/(29 - 10)		
0.0279278				
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0	
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0	
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0	
4.15888 (3/11/2004)	ND<0 (3/16/1999)	(4.15888 - 0)/(15 - 11)		1.03972
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0	
0.576613 J (4/1/2005)	ND<0 (3/16/1999)	(0.576613 - 0)/(17 - 11)		
0.0961022				
0.231112 J (10/25/2005)	ND<0 (3/16/1999)	(0.231112 - 0)/(18 - 11)		
0.033016				
-0.127833 J (4/29/2006)	ND<0 (3/16/1999)	(-0.127833 - 0)/(19 - 11)		
-0.0159792				
-0.34249 J (11/18/2006)	ND<0 (3/16/1999)	(-0.34249 - 0)/(20 - 11)		
-0.0380545				
1.09861 (5/23/2007)	ND<0 (3/16/1999)	(1.09861 - 0)/(21 - 11)		
0.109861				
ND<0 J (11/28/2007)	ND<0 (3/16/1999)	(0 - 0)/(22 - 11)	0	
-0.693147 J (6/5/2008)	ND<0 (3/16/1999)	(-0.693147 - 0)/(23 - 11)		
-0.0577623				
0.582216 J (11/20/2008)	ND<0 (3/16/1999)	(0.582216 - 0)/(24 - 11)		
0.0447858				
0.832909 (6/11/2009)	ND<0 (3/16/1999)	(0.832909 - 0)/(25 - 11)		
0.0594935				
0.832909 (6/30/2010)	ND<0 (3/16/1999)	(0.832909 - 0)/(26 - 11)		
0.0555273				
0.587787 (11/12/2010)	ND<0 (3/16/1999)	(0.587787 - 0)/(27 - 11)		
0.0367367				
0.182322 (7/5/2011)	ND<0 (3/16/1999)	(0.182322 - 0)/(28 - 11)		
0.0107248				
0.530628 Q (11/22/2011)	ND<0 (3/16/1999)	(0.530628 - 0)/(29 - 11)		
0.0294793				

0.530628 Q (11/22/2011)	ND<0 (3/16/1999)	(0.530628 - 0)/(29 - 11)		
0.0294793				
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
4.15888 (3/11/2004)	ND<0 (9/23/1999)	(4.15888 - 0)/(15 - 12)		1.38629
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
0.576613 J (4/1/2005)	ND<0 (9/23/1999)	(0.576613 - 0)/(17 - 12)		
0.115323				
0.231112 J (10/25/2005)	ND<0 (9/23/1999)	(0.231112 - 0)/(18 - 12)		
0.0385186				
-0.127833 J (4/29/2006)	ND<0 (9/23/1999)	(-0.127833 - 0)/(19 - 12)		
-0.0182619				
-0.34249 J (11/18/2006)	ND<0 (9/23/1999)	(-0.34249 - 0)/(20 - 12)		
-0.0428113				
1.09861 (5/23/2007)	ND<0 (9/23/1999)	(1.09861 - 0)/(21 - 12)		
0.122068				
ND<0 J (11/28/2007)	ND<0 (9/23/1999)	(0 - 0)/(22 - 12)	0	
-0.693147 J (6/5/2008)	ND<0 (9/23/1999)	(-0.693147 - 0)/(23 - 12)		
-0.0630134				
0.582216 J (11/20/2008)	ND<0 (9/23/1999)	(0.582216 - 0)/(24 - 12)		
0.048518				
0.832909 (6/11/2009)	ND<0 (9/23/1999)	(0.832909 - 0)/(25 - 12)		
0.0640699				
0.832909 (6/30/2010)	ND<0 (9/23/1999)	(0.832909 - 0)/(26 - 12)		
0.0594935				
0.587787 (11/12/2010)	ND<0 (9/23/1999)	(0.587787 - 0)/(27 - 12)		
0.0391858				
0.182322 (7/5/2011)	ND<0 (9/23/1999)	(0.182322 - 0)/(28 - 12)		
0.0113951				
0.530628 Q (11/22/2011)	ND<0 (9/23/1999)	(0.530628 - 0)/(29 - 12)		
0.0312134				
0.530628 Q (11/22/2011)	ND<0 (9/23/1999)	(0.530628 - 0)/(29 - 12)		
0.0312134				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
4.15888 (3/11/2004)	ND<0 (3/15/2000)	(4.15888 - 0)/(15 - 13)		2.07944
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
0.576613 J (4/1/2005)	ND<0 (3/15/2000)	(0.576613 - 0)/(17 - 13)		
0.144153				
0.231112 J (10/25/2005)	ND<0 (3/15/2000)	(0.231112 - 0)/(18 - 13)		
0.0462223				
-0.127833 J (4/29/2006)	ND<0 (3/15/2000)	(-0.127833 - 0)/(19 - 13)		
-0.0213056				
-0.34249 J (11/18/2006)	ND<0 (3/15/2000)	(-0.34249 - 0)/(20 - 13)		
-0.0489272				
1.09861 (5/23/2007)	ND<0 (3/15/2000)	(1.09861 - 0)/(21 - 13)		
0.137327				
ND<0 J (11/28/2007)	ND<0 (3/15/2000)	(0 - 0)/(22 - 13)	0	
-0.693147 J (6/5/2008)	ND<0 (3/15/2000)	(-0.693147 - 0)/(23 - 13)		
-0.0693147				
0.582216 J (11/20/2008)	ND<0 (3/15/2000)	(0.582216 - 0)/(24 - 13)		
0.0529287				
0.832909 (6/11/2009)	ND<0 (3/15/2000)	(0.832909 - 0)/(25 - 13)		
0.0694091				
0.832909 (6/30/2010)	ND<0 (3/15/2000)	(0.832909 - 0)/(26 - 13)		
0.0640699				
0.587787 (11/12/2010)	ND<0 (3/15/2000)	(0.587787 - 0)/(27 - 13)		
0.0419848				
0.182322 (7/5/2011)	ND<0 (3/15/2000)	(0.182322 - 0)/(28 - 13)		
0.0121548				

0.530628 Q (11/22/2011)	ND<0 (3/15/2000)	(0.530628 - 0)/(29 - 13)		
0.0331643				
0.530628 Q (11/22/2011)	ND<0 (3/15/2000)	(0.530628 - 0)/(29 - 13)		
0.0331643				
4.15888 (3/11/2004)	ND<0 (9/24/2003)	(4.15888 - 0)/(15 - 14)		4.15888
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
0.576613 J (4/1/2005)	ND<0 (9/24/2003)	(0.576613 - 0)/(17 - 14)		
0.192204				
0.231112 J (10/25/2005)	ND<0 (9/24/2003)	(0.231112 - 0)/(18 - 14)		
0.0577779				
-0.127833 J (4/29/2006)	ND<0 (9/24/2003)	(-0.127833 - 0)/(19 - 14)		
-0.0255667				
-0.34249 J (11/18/2006)	ND<0 (9/24/2003)	(-0.34249 - 0)/(20 - 14)		
-0.0570817				
1.09861 (5/23/2007)	ND<0 (9/24/2003)	(1.09861 - 0)/(21 - 14)		
0.156945				
ND<0 J (11/28/2007)	ND<0 (9/24/2003)	(0 - 0)/(22 - 14)	0	
-0.693147 J (6/5/2008)	ND<0 (9/24/2003)	(-0.693147 - 0)/(23 - 14)		
-0.0770164				
0.582216 J (11/20/2008)	ND<0 (9/24/2003)	(0.582216 - 0)/(24 - 14)		
0.0582216				
0.832909 (6/11/2009)	ND<0 (9/24/2003)	(0.832909 - 0)/(25 - 14)		
0.075719				
0.832909 (6/30/2010)	ND<0 (9/24/2003)	(0.832909 - 0)/(26 - 14)		
0.0694091				
0.587787 (11/12/2010)	ND<0 (9/24/2003)	(0.587787 - 0)/(27 - 14)		
0.0452144				
0.182322 (7/5/2011)	ND<0 (9/24/2003)	(0.182322 - 0)/(28 - 14)		
0.013023				
0.530628 Q (11/22/2011)	ND<0 (9/24/2003)	(0.530628 - 0)/(29 - 14)		
0.0353752				
0.530628 Q (11/22/2011)	ND<0 (9/24/2003)	(0.530628 - 0)/(29 - 14)		
0.0353752				
ND<0 (10/12/2004)	4.15888 (3/11/2004)	(0 - 4.15888)/(16 - 15)		-4.15888
0.576613 J (4/1/2005)	4.15888 (3/11/2004)	(0.576613 - 4.15888)/(17 - 15)		
-1.79113				
0.231112 J (10/25/2005)	4.15888 (3/11/2004)	(0.231112 - 4.15888)/(18 - 15)		
-1.30926				
-0.127833 J (4/29/2006)	4.15888 (3/11/2004)	(-0.127833 - 4.15888)/(19 - 15)		
-1.07168				
-0.34249 J (11/18/2006)	4.15888 (3/11/2004)	(-0.34249 - 4.15888)/(20 - 15)		
-0.900275				
1.09861 (5/23/2007)	4.15888 (3/11/2004)	(1.09861 - 4.15888)/(21 - 15)		
-0.510045				
ND<0 J (11/28/2007)	4.15888 (3/11/2004)	(0 - 4.15888)/(22 - 15)		
-0.594126				
-0.693147 J (6/5/2008)	4.15888 (3/11/2004)	(-0.693147 - 4.15888)/(23 - 15)		
-0.606504				
0.582216 J (11/20/2008)	4.15888 (3/11/2004)	(0.582216 - 4.15888)/(24 - 15)		
-0.397407				
0.832909 (6/11/2009)	4.15888 (3/11/2004)	(0.832909 - 4.15888)/(25 - 15)		
-0.332597				
0.832909 (6/30/2010)	4.15888 (3/11/2004)	(0.832909 - 4.15888)/(26 - 15)		
-0.302361				
0.587787 (11/12/2010)	4.15888 (3/11/2004)	(0.587787 - 4.15888)/(27 - 15)		
-0.297591				
0.182322 (7/5/2011)	4.15888 (3/11/2004)	(0.182322 - 4.15888)/(28 - 15)		
-0.305889				
0.530628 Q (11/22/2011)	4.15888 (3/11/2004)	(0.530628 - 4.15888)/(29 - 15)		
-0.259161				

0.530628 Q (11/22/2011)	4.15888 (3/11/2004)	(0.530628 - 4.15888)/(29 - 15)	
-0.259161			
0.576613 J (4/1/2005)	ND<0 (10/12/2004)	(0.576613 - 0)/(17 - 16)	
0.576613			
0.231112 J (10/25/2005)	ND<0 (10/12/2004)	(0.231112 - 0)/(18 - 16)	
0.115556			
-0.127833 J (4/29/2006)	ND<0 (10/12/2004)	(-0.127833 - 0)/(19 - 16)	
-0.0426111			
-0.34249 J (11/18/2006)	ND<0 (10/12/2004)	(-0.34249 - 0)/(20 - 16)	
-0.0856226			
1.09861 (5/23/2007)	ND<0 (10/12/2004)	(1.09861 - 0)/(21 - 16)	
0.219722			
ND<0 J (11/28/2007)	ND<0 (10/12/2004)	(0 - 0)/(22 - 16)	0
-0.693147 J (6/5/2008)	ND<0 (10/12/2004)	(-0.693147 - 0)/(23 - 16)	
-0.099021			
0.582216 J (11/20/2008)	ND<0 (10/12/2004)	(0.582216 - 0)/(24 - 16)	
0.072777			
0.832909 (6/11/2009)	ND<0 (10/12/2004)	(0.832909 - 0)/(25 - 16)	
0.0925455			
0.832909 (6/30/2010)	ND<0 (10/12/2004)	(0.832909 - 0)/(26 - 16)	
0.0832909			
0.587787 (11/12/2010)	ND<0 (10/12/2004)	(0.587787 - 0)/(27 - 16)	
0.0534352			
0.182322 (7/5/2011)	ND<0 (10/12/2004)	(0.182322 - 0)/(28 - 16)	
0.0151935			
0.530628 Q (11/22/2011)	ND<0 (10/12/2004)	(0.530628 - 0)/(29 - 16)	
0.0408176			
0.530628 Q (11/22/2011)	ND<0 (10/12/2004)	(0.530628 - 0)/(29 - 16)	
0.0408176			
0.231112 J (10/25/2005)	0.576613 J (4/1/2005)	(0.231112 - 0.576613)/(18 - 17)	
-0.345502			
-0.127833 J (4/29/2006)	0.576613 J (4/1/2005)	(-0.127833 - 0.576613)/(19 - 17)	
-0.352223			
-0.34249 J (11/18/2006)	0.576613 J (4/1/2005)	(-0.34249 - 0.576613)/(20 - 17)	
-0.306368			
1.09861 (5/23/2007)	0.576613 J (4/1/2005)	(1.09861 - 0.576613)/(21 - 17)	
0.1305			
ND<0 J (11/28/2007)	0.576613 J (4/1/2005)	(0 - 0.576613)/(22 - 17)	
-0.115323			
-0.693147 J (6/5/2008)	0.576613 J (4/1/2005)	(-0.693147 - 0.576613)/(23 - 17)	
-0.211627			
0.582216 J (11/20/2008)	0.576613 J (4/1/2005)	(0.582216 - 0.576613)/(24 - 17)	
0.000800322			
0.832909 (6/11/2009)	0.576613 J (4/1/2005)	(0.832909 - 0.576613)/(25 - 17)	
0.032037			
0.832909 (6/30/2010)	0.576613 J (4/1/2005)	(0.832909 - 0.576613)/(26 - 17)	
0.0284773			
0.587787 (11/12/2010)	0.576613 J (4/1/2005)	(0.587787 - 0.576613)/(27 - 17)	
0.00111733			
0.182322 (7/5/2011)	0.576613 J (4/1/2005)	(0.182322 - 0.576613)/(28 - 17)	
-0.0358447			
0.530628 Q (11/22/2011)	0.576613 J (4/1/2005)	(0.530628 - 0.576613)/(29 - 17)	
-0.00383209			
0.530628 Q (11/22/2011)	0.576613 J (4/1/2005)	(0.530628 - 0.576613)/(29 - 17)	
-0.00383209			
-0.127833 J (4/29/2006)	0.231112 J (10/25/2005)	(-0.127833 - 0.231112)/(19 - 18)	
-0.358945			
-0.34249 J (11/18/2006)	0.231112 J (10/25/2005)	(-0.34249 - 0.231112)/(20 - 18)	
-0.286801			

1.09861 (5/23/2007)	0.231112 J (10/25/2005)	(1.09861 - 0.231112)/(21 - 18)	0.289167
ND<0 J (11/28/2007)	0.231112 J (10/25/2005)	(0 - 0.231112)/(22 - 18)	-0.0577779
-0.693147 J (6/5/2008)	0.231112 J (10/25/2005)	(-0.693147 - 0.231112)/(23 - 18)	-0.184852
0.582216 J (11/20/2008)	0.231112 J (10/25/2005)	(0.582216 - 0.231112)/(24 - 18)	0.0585173
0.832909 (6/11/2009)	0.231112 J (10/25/2005)	(0.832909 - 0.231112)/(25 - 18)	0.0859711
0.832909 (6/30/2010)	0.231112 J (10/25/2005)	(0.832909 - 0.231112)/(26 - 18)	0.0752247
0.587787 (11/12/2010)	0.231112 J (10/25/2005)	(0.587787 - 0.231112)/(27 - 18)	0.0396305
0.182322 (7/5/2011)	0.231112 J (10/25/2005)	(0.182322 - 0.231112)/(28 - 18)	-0.00487902
0.530628 Q (11/22/2011)	0.231112 J (10/25/2005)	(0.530628 - 0.231112)/(29 - 18)	0.0272288
0.530628 Q (11/22/2011)	0.231112 J (10/25/2005)	(0.530628 - 0.231112)/(29 - 18)	0.0272288
-0.34249 J (11/18/2006)	-0.127833 J (4/29/2006)	(-0.34249 - -0.127833)/(20 - 19)	-0.214657
1.09861 (5/23/2007)	-0.127833 J (4/29/2006)	(1.09861 - -0.127833)/(21 - 19)	0.613223
ND<0 J (11/28/2007)	-0.127833 J (4/29/2006)	(0 - -0.127833)/(22 - 19)	0.0426111
-0.693147 J (6/5/2008)	-0.127833 J (4/29/2006)	(-0.693147 - -0.127833)/(23 - 19)	-0.141328
0.582216 J (11/20/2008)	-0.127833 J (4/29/2006)	(0.582216 - -0.127833)/(24 - 19)	0.14201
0.832909 (6/11/2009)	-0.127833 J (4/29/2006)	(0.832909 - -0.127833)/(25 - 19)	0.160124
0.832909 (6/30/2010)	-0.127833 J (4/29/2006)	(0.832909 - -0.127833)/(26 - 19)	0.137249
0.587787 (11/12/2010)	-0.127833 J (4/29/2006)	(0.587787 - -0.127833)/(27 - 19)	0.0894525
0.182322 (7/5/2011)	-0.127833 J (4/29/2006)	(0.182322 - -0.127833)/(28 - 19)	0.0344617
0.530628 Q (11/22/2011)	-0.127833 J (4/29/2006)	(0.530628 - -0.127833)/(29 - 19)	0.0658462
0.530628 Q (11/22/2011)	-0.127833 J (4/29/2006)	(0.530628 - -0.127833)/(29 - 19)	0.0658462
1.09861 (5/23/2007)	-0.34249 J (11/18/2006)	(1.09861 - -0.34249)/(21 - 20)	1.4411
ND<0 J (11/28/2007)	-0.34249 J (11/18/2006)	(0 - -0.34249)/(22 - 20)	0.171245
-0.693147 J (6/5/2008)	-0.34249 J (11/18/2006)	(-0.693147 - -0.34249)/(23 - 20)	-0.116886
0.582216 J (11/20/2008)	-0.34249 J (11/18/2006)	(0.582216 - -0.34249)/(24 - 20)	0.231176
0.832909 (6/11/2009)	-0.34249 J (11/18/2006)	(0.832909 - -0.34249)/(25 - 20)	0.23508
0.832909 (6/30/2010)	-0.34249 J (11/18/2006)	(0.832909 - -0.34249)/(26 - 20)	0.1959
0.587787 (11/12/2010)	-0.34249 J (11/18/2006)	(0.587787 - -0.34249)/(27 - 20)	0.132897
0.182322 (7/5/2011)	-0.34249 J (11/18/2006)	(0.182322 - -0.34249)/(28 - 20)	0.0656015
0.530628 Q (11/22/2011)	-0.34249 J (11/18/2006)	(0.530628 - -0.34249)/(29 - 20)	0.0970132

0.530628 Q (11/22/2011)	-0.34249 J (11/18/2006)	(0.530628 - -0.34249)/(29 - 20)	
0.0970132			
ND<0 J (11/28/2007)	1.09861 (5/23/2007)	(0 - 1.09861)/(22 - 21)	-1.09861
-0.693147 J (6/5/2008)	1.09861 (5/23/2007)	(-0.693147 - 1.09861)/(23 - 21)	
-0.89588			
0.582216 J (11/20/2008)	1.09861 (5/23/2007)	(0.582216 - 1.09861)/(24 - 21)	
-0.172132			
0.832909 (6/11/2009)	1.09861 (5/23/2007)	(0.832909 - 1.09861)/(25 - 21)	
-0.0664258			
0.832909 (6/30/2010)	1.09861 (5/23/2007)	(0.832909 - 1.09861)/(26 - 21)	
-0.0531406			
0.587787 (11/12/2010)	1.09861 (5/23/2007)	(0.587787 - 1.09861)/(27 - 21)	
-0.0851376			
0.182322 (7/5/2011)	1.09861 (5/23/2007)	(0.182322 - 1.09861)/(28 - 21)	
-0.130899			
0.530628 Q (11/22/2011)	1.09861 (5/23/2007)	(0.530628 - 1.09861)/(29 - 21)	
-0.070998			
0.530628 Q (11/22/2011)	1.09861 (5/23/2007)	(0.530628 - 1.09861)/(29 - 21)	
-0.070998			
-0.693147 J (6/5/2008)	ND<0 J (11/28/2007)	(-0.693147 - 0)/(23 - 22)	
-0.693147			
0.582216 J (11/20/2008)	ND<0 J (11/28/2007)	(0.582216 - 0)/(24 - 22)	
0.291108			
0.832909 (6/11/2009)	ND<0 J (11/28/2007)	(0.832909 - 0)/(25 - 22)	
0.277636			
0.832909 (6/30/2010)	ND<0 J (11/28/2007)	(0.832909 - 0)/(26 - 22)	
0.208227			
0.587787 (11/12/2010)	ND<0 J (11/28/2007)	(0.587787 - 0)/(27 - 22)	
0.117557			
0.182322 (7/5/2011)	ND<0 J (11/28/2007)	(0.182322 - 0)/(28 - 22)	
0.0303869			
0.530628 Q (11/22/2011)	ND<0 J (11/28/2007)	(0.530628 - 0)/(29 - 22)	
0.075804			
0.530628 Q (11/22/2011)	ND<0 J (11/28/2007)	(0.530628 - 0)/(29 - 22)	
0.075804			
0.582216 J (11/20/2008)	-0.693147 J (6/5/2008)	(0.582216 - -0.693147)/(24 - 23)	
1.27536			
0.832909 (6/11/2009)	-0.693147 J (6/5/2008)	(0.832909 - -0.693147)/(25 - 23)	
0.763028			
0.832909 (6/30/2010)	-0.693147 J (6/5/2008)	(0.832909 - -0.693147)/(26 - 23)	
0.508685			
0.587787 (11/12/2010)	-0.693147 J (6/5/2008)	(0.587787 - -0.693147)/(27 - 23)	
0.320233			
0.182322 (7/5/2011)	-0.693147 J (6/5/2008)	(0.182322 - -0.693147)/(28 - 23)	
0.175094			
0.530628 Q (11/22/2011)	-0.693147 J (6/5/2008)	(0.530628 - -0.693147)/(29 - 23)	
0.203963			
0.530628 Q (11/22/2011)	-0.693147 J (6/5/2008)	(0.530628 - -0.693147)/(29 - 23)	
0.203963			
0.832909 (6/11/2009)	0.582216 J (11/20/2008)	(0.832909 - 0.582216)/(25 - 24)	
0.250694			
0.832909 (6/30/2010)	0.582216 J (11/20/2008)	(0.832909 - 0.582216)/(26 - 24)	
0.125347			
0.587787 (11/12/2010)	0.582216 J (11/20/2008)	(0.587787 - 0.582216)/(27 - 24)	
0.00185702			
0.182322 (7/5/2011)	0.582216 J (11/20/2008)	(0.182322 - 0.582216)/(28 - 24)	
-0.0999735			

0.530628 Q (11/22/2011)	0.582216 J (11/20/2008)	(0.530628 - 0.582216)/(29 - 24)
-0.0103175		
0.530628 Q (11/22/2011)	0.582216 J (11/20/2008)	(0.530628 - 0.582216)/(29 - 24)
-0.0103175		
0.832909 (6/30/2010)	0.832909 (6/11/2009)	(0.832909 - 0.832909)/(26 - 25)
0		
0.587787 (11/12/2010)	0.832909 (6/11/2009)	(0.587787 - 0.832909)/(27 - 25)
-0.122561		
0.182322 (7/5/2011)	0.832909 (6/11/2009)	(0.182322 - 0.832909)/(28 - 25)
-0.216863		
0.530628 Q (11/22/2011)	0.832909 (6/11/2009)	(0.530628 - 0.832909)/(29 - 25)
-0.0755702		
0.530628 Q (11/22/2011)	0.832909 (6/11/2009)	(0.530628 - 0.832909)/(29 - 25)
-0.0755702		
0.587787 (11/12/2010)	0.832909 (6/30/2010)	(0.587787 - 0.832909)/(27 - 26)
-0.245122		
0.182322 (7/5/2011)	0.832909 (6/30/2010)	(0.182322 - 0.832909)/(28 - 26)
-0.325294		
0.530628 Q (11/22/2011)	0.832909 (6/30/2010)	(0.530628 - 0.832909)/(29 - 26)
-0.10076		
0.530628 Q (11/22/2011)	0.832909 (6/30/2010)	(0.530628 - 0.832909)/(29 - 26)
-0.10076		
0.182322 (7/5/2011)	0.587787 (11/12/2010)	(0.182322 - 0.587787)/(28 - 27)
-0.405465		
0.530628 Q (11/22/2011)	0.587787 (11/12/2010)	(0.530628 - 0.587787)/(29 - 27)
-0.0285792		
0.530628 Q (11/22/2011)	0.587787 (11/12/2010)	(0.530628 - 0.587787)/(29 - 27)
-0.0285792		
0.530628 Q (11/22/2011)	0.182322 (7/5/2011)	(0.530628 - 0.182322)/(29 - 28)
0.348307		
0.530628 Q (11/22/2011)	0.182322 (7/5/2011)	(0.530628 - 0.182322)/(29 - 28)
0.348307		
0.530628 Q (11/22/2011)	0.530628 Q (11/22/2011)	(0.530628 - 0.530628)/(29 - 29)
Same Date		

Number of Q values = 434

Ordered Q Values

n	Q
1	-4.15888
2	-1.79113
3	-1.30926
4	-1.09861
5	-1.07168
6	-0.900275
7	-0.89588
8	-0.693147
9	-0.606504
10	-0.594126
11	-0.510045
12	-0.405465
13	-0.397407
14	-0.358945
15	-0.352223
16	-0.345502

17	-0.332597
18	-0.325294
19	-0.306368
20	-0.305889
21	-0.302361
22	-0.297591
23	-0.286801
24	-0.259161
25	-0.259161
26	-0.245122
27	-0.216863
28	-0.214657
29	-0.211627
30	-0.184852
31	-0.172132
32	-0.141328
33	-0.130899
34	-0.122561
35	-0.116886
36	-0.115323
37	-0.10076
38	-0.10076
39	-0.0999735
40	-0.099021
41	-0.0953102
42	-0.0911608
43	-0.0870114
44	-0.0856226
45	-0.0851376
46	-0.0770164
47	-0.0755702
48	-0.0755702
49	-0.070998
50	-0.070998
51	-0.0693147
52	-0.0664258
53	-0.0630134
54	-0.0607739
55	-0.0577779
56	-0.0577623
57	-0.0570817
58	-0.053319
59	-0.0531406
60	-0.0495105
61	-0.0489272
62	-0.0476551
63	-0.0462098
64	-0.0455804
65	-0.0433217
66	-0.0428113
67	-0.0426111
68	-0.0407734
69	-0.039794
70	-0.0385082
71	-0.0380545
72	-0.0375456
73	-0.0364814
74	-0.0364643
75	-0.0358447
76	-0.0346574
77	-0.034249
78	-0.0317701

79	-0.0311355
80	-0.0303869
81	-0.0285792
82	-0.0285792
83	-0.0285409
84	-0.0276217
85	-0.0263454
86	-0.0260459
87	-0.0255667
88	-0.0244636
89	-0.0243222
90	-0.0238275
91	-0.0228327
92	-0.0227902
93	-0.0214056
94	-0.0213056
95	-0.020258
96	-0.0201465
97	-0.019062
98	-0.0182619
99	-0.0182322
100	-0.0172308
101	-0.0165747
102	-0.0159792
103	-0.015885
104	-0.0151935
105	-0.0142037
106	-0.0140247
107	-0.0136157
108	-0.0131261
109	-0.0127833
110	-0.0121548
111	-0.0119138
112	-0.0116212
113	-0.0106528
114	-0.01059
115	-0.0103175
116	-0.0103175
117	-0.00983334
118	-0.00953102
119	-0.00913096
120	-0.00868198
121	-0.00866456
122	-0.00852222
123	-0.00798959
124	-0.00794251
125	-0.00680787
126	-0.00487902
127	-0.00476551
128	-0.00383209
129	-0.00383209
130	0
131	0
132	0
133	0
134	0
135	0
136	0
137	0
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219	0
220	0
221	0
222	0
223	0.000800322
224	0.00111733
225	0.00185702
226	0.00287001
227	0.00334659
228	0.00729286
229	0.00759673
230	0.00792702
231	0.00828734
232	0.0084876
233	0.00868198
234	0.00911608
235	0.00959587
236	0.010129
237	0.0107248
238	0.0113951
239	0.0121548
240	0.0124395
241	0.0124395
242	0.013023
243	0.0151935
244	0.0154074
245	0.0155948
246	0.0161229
247	0.0161229
248	0.016508
249	0.0173867
250	0.0177778
251	0.0192593
252	0.0196991
253	0.0204088
254	0.0204088
255	0.0210102
256	0.0212251
257	0.0212251
258	0.0221095
259	0.0221095
260	0.0221321
261	0.0230708
262	0.0230708
263	0.0231112
264	0.0241195

265	0.0241195
266	0.0244911
267	0.0246432
268	0.025268
269	0.025268
270	0.0255559
271	0.0256791
272	0.0260235
273	0.0265314
274	0.0265314
275	0.0267176
276	0.0271078
277	0.0272288
278	0.0272288
279	0.0277246
280	0.0279278
281	0.0279278
282	0.0279898
283	0.0284773
284	0.028889
285	0.0291108
286	0.0293893
287	0.0294793
288	0.0294793
289	0.0303869
290	0.0306429
291	0.0307333
292	0.0309361
293	0.0312134
294	0.0312134
295	0.032037
296	0.0320695
297	0.0320869
298	0.0323453
299	0.0326548
300	0.033016
301	0.0331643
302	0.0331643
303	0.034248
304	0.0344617
305	0.0345757
306	0.0353752
307	0.0353752
308	0.0362134
309	0.0363885
310	0.0367367
311	0.0378595
312	0.0378595
313	0.0385186
314	0.0388144
315	0.0391858
316	0.0396305
317	0.0396623
318	0.0396623
319	0.0408176
320	0.0408176
321	0.0411867
322	0.0415868
323	0.0416455
324	0.0416455
325	0.0419848
326	0.0426111

327	0.0438373
328	0.0438373
329	0.0443549
330	0.0447858
331	0.0452144
332	0.0458145
333	0.0462223
334	0.0462727
335	0.0462727
336	0.0480511
337	0.048518
338	0.0489947
339	0.0489947
340	0.0520568
341	0.0520568
342	0.0524194
343	0.0528054
344	0.0529287
345	0.0534352
346	0.0555273
347	0.0555273
348	0.0576613
349	0.0577779
350	0.0582216
351	0.0585173
352	0.0594935
353	0.0594935
354	0.061034
355	0.0640682
356	0.0640699
357	0.0640699
358	0.0646243
359	0.0656015
360	0.0658462
361	0.0658462
362	0.0686633
363	0.0694091
364	0.0694091
365	0.0720767
366	0.072777
367	0.0732408
368	0.0752247
369	0.075719
370	0.075804
371	0.075804
372	0.0784723
373	0.0823733
374	0.0832909
375	0.0845086
376	0.0859711
377	0.0894525
378	0.091551
379	0.0925455
380	0.0961022
381	0.0970132
382	0.0970132
383	0.0998738
384	0.109861
385	0.115323
386	0.115556
387	0.117557
388	0.122068

389	0.125347
390	0.1305
391	0.132897
392	0.137249
393	0.137327
394	0.14201
395	0.144153
396	0.156945
397	0.160124
398	0.171245
399	0.175094
400	0.192204
401	0.1959
402	0.203963
403	0.203963
404	0.208227
405	0.219722
406	0.231176
407	0.23508
408	0.250694
409	0.277636
410	0.28404
411	0.289167
412	0.291108
413	0.312583
414	0.320233
415	0.346574
416	0.348307
417	0.348307
418	0.37808
419	0.415888
420	0.462098
421	0.508685
422	0.51986
423	0.576613
424	0.594126
425	0.613223
426	0.693147
427	0.763028
428	0.831777
429	1.03972
430	1.27536
431	1.38629
432	1.4411
433	2.07944
434	4.15888

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0.182322	2
2	0	14
3	0.832909	2
4	0.530628	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1

3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 6060
B = 18
C = 2184
D = 0
E = 188
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 2804.22
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 87.1029
M1 = (434 - 87.1029)/2.0 = 173.449
M2 = (434 + 87.1029)/2.0 + 1 = 261.551
Lower limit is 0 = Q(173)
Upper limit is 0.0230708 = Q(262)
0 < 0 < 0.0230708 indicating no trend in data.

Sen's Slope Analysis
Parameter: cis-1,2-Dichloroethene
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
2.3979	(8/24/1995)	1.6864 (7/20/1995)	(2.3979 - 1.6864)/(2 - 1)
0.711496			
2.30259	(9/28/1995)	1.6864 (7/20/1995)	(2.30259 - 1.6864)/(3 - 1)
0.308093			
2.70805	(10/26/1995)	1.6864 (7/20/1995)	(2.70805 - 1.6864)/(4 - 1) 0.34055
ND<0	(11/19/1996)	1.6864 (7/20/1995)	(0 - 1.6864)/(5 - 1) -0.4216
2.77259	(12/19/1996)	1.6864 (7/20/1995)	(2.77259 - 1.6864)/(6 - 1)
0.217238			
2.48491	(3/24/1997)	1.6864 (7/20/1995)	(2.48491 - 1.6864)/(7 - 1)
0.133085			
ND<0	(9/24/1997)	1.6864 (7/20/1995)	(0 - 1.6864)/(8 - 1)
-0.240914			
1.64866	(4/7/1998)	1.6864 (7/20/1995)	(1.64866 - 1.6864)/(9 - 1)
-0.00471754			
2.56495	(9/23/1998)	1.6864 (7/20/1995)	(2.56495 - 1.6864)/(10 - 1)
0.0976167			
2.40695	(3/16/1999)	1.6864 (7/20/1995)	(2.40695 - 1.6864)/(11 - 1)
0.0720546			
ND<0	(9/23/1999)	1.6864 (7/20/1995)	(0 - 1.6864)/(12 - 1)
-0.153309			
2.48491	(3/15/2000)	1.6864 (7/20/1995)	(2.48491 - 1.6864)/(13 - 1)
0.0665423			
2.30259	(9/24/2003)	1.6864 (7/20/1995)	(2.30259 - 1.6864)/(14 - 1)
0.0473989			
2.3979	(3/11/2004)	1.6864 (7/20/1995)	(2.3979 - 1.6864)/(15 - 1)
0.0508212			
ND<0	(10/12/2004)	1.6864 (7/20/1995)	(0 - 1.6864)/(16 - 1)
-0.112427			
2.24813	(4/1/2005)	1.6864 (7/20/1995)	(2.24813 - 1.6864)/(17 - 1)
0.0351081			
1.51732	(10/25/2005)	1.6864 (7/20/1995)	(1.51732 - 1.6864)/(18 - 1)
-0.00994567			
1.05779	(4/29/2006)	1.6864 (7/20/1995)	(1.05779 - 1.6864)/(19 - 1)
-0.0349227			
0.536493 J	(11/18/2006)	1.6864 (7/20/1995)	(0.536493 - 1.6864)/(20 - 1)
-0.0605213			
1.74047	(5/23/2007)	1.6864 (7/20/1995)	(1.74047 - 1.6864)/(21 - 1)
0.00270336			
1.17557	(11/28/2007)	1.6864 (7/20/1995)	(1.17557 - 1.6864)/(22 - 1)
-0.024325			
ND<0	(6/5/2008)	1.6864 (7/20/1995)	(0 - 1.6864)/(23 - 1)
-0.0766545			
ND<0	(11/20/2008)	1.6864 (7/20/1995)	(0 - 1.6864)/(24 - 1)
-0.0733217			
0.262364	(6/11/2009)	1.6864 (7/20/1995)	(0.262364 - 1.6864)/(25 - 1)
-0.0593348			
0.470004	(6/30/2010)	1.6864 (7/20/1995)	(0.470004 - 1.6864)/(26 - 1)
-0.0486558			
ND<-2.59027 U	(11/12/2010)	1.6864 (7/20/1995)	(-2.59027 - 1.6864)/(27 - 1)
-0.164487			

ND<-2.59027 U (7/5/2011)	1.6864 (7/20/1995)	(-2.59027 - 1.6864)/(28 - 1)		
-0.158395				
-1.51413 J Q (11/22/2011)	1.6864 (7/20/1995)	(-1.51413 - 1.6864)/(29 - 1)		
-0.114305				
-1.51413 J Q (11/22/2011)	1.6864 (7/20/1995)	(-1.51413 - 1.6864)/(29 - 1)		
-0.114305				
2.30259 (9/28/1995)	2.3979 (8/24/1995)	(2.30259 - 2.3979)/(3 - 2)		
-0.0953102				
2.70805 (10/26/1995)	2.3979 (8/24/1995)	(2.70805 - 2.3979)/(4 - 2)		
0.155077				
ND<0 (11/19/1996)	2.3979 (8/24/1995)	(0 - 2.3979)/(5 - 2)		
-0.799298				
2.77259 (12/19/1996)	2.3979 (8/24/1995)	(2.77259 - 2.3979)/(6 - 2)		
0.0936734				
2.48491 (3/24/1997)	2.3979 (8/24/1995)	(2.48491 - 2.3979)/(7 - 2)		
0.0174023				
ND<0 (9/24/1997)	2.3979 (8/24/1995)	(0 - 2.3979)/(8 - 2)		
-0.399649				
1.64866 (4/7/1998)	2.3979 (8/24/1995)	(1.64866 - 2.3979)/(9 - 2)		
-0.107034				
2.56495 (9/23/1998)	2.3979 (8/24/1995)	(2.56495 - 2.3979)/(10 - 2)		
0.0208818				
2.40695 (3/16/1999)	2.3979 (8/24/1995)	(2.40695 - 2.3979)/(11 - 2)		
0.00100554				
ND<0 (9/23/1999)	2.3979 (8/24/1995)	(0 - 2.3979)/(12 - 2)	-0.23979	
2.48491 (3/15/2000)	2.3979 (8/24/1995)	(2.48491 - 2.3979)/(13 - 2)		
0.00791013				
2.30259 (9/24/2003)	2.3979 (8/24/1995)	(2.30259 - 2.3979)/(14 - 2)		
-0.00794251				
2.3979 (3/11/2004)	2.3979 (8/24/1995)	(2.3979 - 2.3979)/(15 - 2)	0	
ND<0 (10/12/2004)	2.3979 (8/24/1995)	(0 - 2.3979)/(16 - 2)		
-0.171278				
2.24813 (4/1/2005)	2.3979 (8/24/1995)	(2.24813 - 2.3979)/(17 - 2)		
-0.00998442				
1.51732 (10/25/2005)	2.3979 (8/24/1995)	(1.51732 - 2.3979)/(18 - 2)		
-0.0550358				
1.05779 (4/29/2006)	2.3979 (8/24/1995)	(1.05779 - 2.3979)/(19 - 2)		
-0.0788297				
0.536493 J (11/18/2006)	2.3979 (8/24/1995)	(0.536493 - 2.3979)/(20 - 2)		
-0.103411				
1.74047 (5/23/2007)	2.3979 (8/24/1995)	(1.74047 - 2.3979)/(21 - 2)		
-0.0346015				
1.17557 (11/28/2007)	2.3979 (8/24/1995)	(1.17557 - 2.3979)/(22 - 2)		
-0.0611161				
ND<0 (6/5/2008)	2.3979 (8/24/1995)	(0 - 2.3979)/(23 - 2)		
-0.114185				
ND<0 (11/20/2008)	2.3979 (8/24/1995)	(0 - 2.3979)/(24 - 2)		
-0.108995				
0.262364 (6/11/2009)	2.3979 (8/24/1995)	(0.262364 - 2.3979)/(25 - 2)		
-0.0928492				
0.470004 (6/30/2010)	2.3979 (8/24/1995)	(0.470004 - 2.3979)/(26 - 2)		
-0.0803288				
ND<-2.59027 U (11/12/2010)	2.3979 (8/24/1995)	(-2.59027 - 2.3979)/(27 - 2)		
-0.199526				
ND<-2.59027 U (7/5/2011)	2.3979 (8/24/1995)	(-2.59027 - 2.3979)/(28 - 2)		
-0.191852				
-1.51413 J Q (11/22/2011)	2.3979 (8/24/1995)	(-1.51413 - 2.3979)/(29 - 2)		
-0.14489				
-1.51413 J Q (11/22/2011)	2.3979 (8/24/1995)	(-1.51413 - 2.3979)/(29 - 2)		
-0.14489				

2.70805 (10/26/1995) 2.30259 (9/28/1995) (2.70805 - 2.30259)/(4 - 3)
0.405465
ND<0 (11/19/1996) 2.30259 (9/28/1995) (0 - 2.30259)/(5 - 3) -1.15129
2.77259 (12/19/1996) 2.30259 (9/28/1995) (2.77259 - 2.30259)/(6 - 3)
0.156668
2.48491 (3/24/1997) 2.30259 (9/28/1995) (2.48491 - 2.30259)/(7 - 3)
0.0455804
ND<0 (9/24/1997) 2.30259 (9/28/1995) (0 - 2.30259)/(8 - 3)
-0.460517
1.64866 (4/7/1998) 2.30259 (9/28/1995) (1.64866 - 2.30259)/(9 - 3)
-0.108988
2.56495 (9/23/1998) 2.30259 (9/28/1995) (2.56495 - 2.30259)/(10 - 3)
0.0374806
2.40695 (3/16/1999) 2.30259 (9/28/1995) (2.40695 - 2.30259)/(11 - 3)
0.013045
ND<0 (9/23/1999) 2.30259 (9/28/1995) (0 - 2.30259)/(12 - 3)
-0.255843
2.48491 (3/15/2000) 2.30259 (9/28/1995) (2.48491 - 2.30259)/(13 - 3)
0.0182322
2.30259 (9/24/2003) 2.30259 (9/28/1995) (2.30259 - 2.30259)/(14 - 3)
0
2.3979 (3/11/2004) 2.30259 (9/28/1995) (2.3979 - 2.30259)/(15 - 3)
0.00794251
ND<0 (10/12/2004) 2.30259 (9/28/1995) (0 - 2.30259)/(16 - 3)
-0.177122
2.24813 (4/1/2005) 2.30259 (9/28/1995) (2.24813 - 2.30259)/(17 - 3)
-0.00388973
1.51732 (10/25/2005) 2.30259 (9/28/1995) (1.51732 - 2.30259)/(18 - 3)
-0.0523508
1.05779 (4/29/2006) 2.30259 (9/28/1995) (1.05779 - 2.30259)/(19 - 3)
-0.0777997
0.536493 J (11/18/2006) 2.30259 (9/28/1995) (0.536493 - 2.30259)/(20 - 3)
-0.103888
1.74047 (5/23/2007) 2.30259 (9/28/1995) (1.74047 - 2.30259)/(21 - 3)
-0.0312288
1.17557 (11/28/2007) 2.30259 (9/28/1995) (1.17557 - 2.30259)/(22 - 3)
-0.0593164
ND<0 (6/5/2008) 2.30259 (9/28/1995) (0 - 2.30259)/(23 - 3)
-0.115129
ND<0 (11/20/2008) 2.30259 (9/28/1995) (0 - 2.30259)/(24 - 3)
-0.109647
0.262364 (6/11/2009) 2.30259 (9/28/1995) (0.262364 - 2.30259)/(25 - 3)
-0.0927373
0.470004 (6/30/2010) 2.30259 (9/28/1995) (0.470004 - 2.30259)/(26 - 3)
-0.0796775
ND<-2.59027 U (11/12/2010) 2.30259 (9/28/1995) (-2.59027 - 2.30259)/(27 - 3)
-0.203869
ND<-2.59027 U (7/5/2011) 2.30259 (9/28/1995) (-2.59027 - 2.30259)/(28 - 3)
-0.195714
-1.51413 J Q (11/22/2011) 2.30259 (9/28/1995) (-1.51413 - 2.30259)/(29 - 3)
-0.146797
-1.51413 J Q (11/22/2011) 2.30259 (9/28/1995) (-1.51413 - 2.30259)/(29 - 3)
-0.146797

ND<0 (11/19/1996) 2.70805 (10/26/1995) (0 - 2.70805)/(5 - 4) -2.70805
2.77259 (12/19/1996) 2.70805 (10/26/1995) (2.77259 - 2.70805)/(6 - 4)
0.0322693
2.48491 (3/24/1997) 2.70805 (10/26/1995) (2.48491 - 2.70805)/(7 - 4)
-0.0743812
ND<0 (9/24/1997) 2.70805 (10/26/1995) (0 - 2.70805)/(8 - 4)
-0.677013

1.64866 (4/7/1998)	2.70805 (10/26/1995)	(1.64866 - 2.70805)/(9 - 4)	
-0.211878			
2.56495 (9/23/1998)	2.70805 (10/26/1995)	(2.56495 - 2.70805)/(10 - 4)	
-0.0238501			
2.40695 (3/16/1999)	2.70805 (10/26/1995)	(2.40695 - 2.70805)/(11 - 4)	
-0.043015			
ND<0 (9/23/1999)	2.70805 (10/26/1995)	(0 - 2.70805)/(12 - 4)	
-0.338506			
2.48491 (3/15/2000)	2.70805 (10/26/1995)	(2.48491 - 2.70805)/(13 - 4)	
-0.0247937			
2.30259 (9/24/2003)	2.70805 (10/26/1995)	(2.30259 - 2.70805)/(14 - 4)	
-0.0405465			
2.3979 (3/11/2004)	2.70805 (10/26/1995)	(2.3979 - 2.70805)/(15 - 4)	
-0.0281959			
ND<0 (10/12/2004)	2.70805 (10/26/1995)	(0 - 2.70805)/(16 - 4)	
-0.225671			
2.24813 (4/1/2005)	2.70805 (10/26/1995)	(2.24813 - 2.70805)/(17 - 4)	
-0.0353786			
1.51732 (10/25/2005)	2.70805 (10/26/1995)	(1.51732 - 2.70805)/(18 - 4)	
-0.085052			
1.05779 (4/29/2006)	2.70805 (10/26/1995)	(1.05779 - 2.70805)/(19 - 4)	
-0.110017			
0.536493 J (11/18/2006)	2.70805 (10/26/1995)	(0.536493 - 2.70805)/(20 - 4)	
-0.135722			
1.74047 (5/23/2007)	2.70805 (10/26/1995)	(1.74047 - 2.70805)/(21 - 4)	
-0.0569167			
1.17557 (11/28/2007)	2.70805 (10/26/1995)	(1.17557 - 2.70805)/(22 - 4)	
-0.0851376			
ND<0 (6/5/2008)	2.70805 (10/26/1995)	(0 - 2.70805)/(23 - 4)	
-0.142529			
ND<0 (11/20/2008)	2.70805 (10/26/1995)	(0 - 2.70805)/(24 - 4)	
-0.135403			
0.262364 (6/11/2009)	2.70805 (10/26/1995)	(0.262364 - 2.70805)/(25 - 4)	
-0.116461			
0.470004 (6/30/2010)	2.70805 (10/26/1995)	(0.470004 - 2.70805)/(26 - 4)	
-0.101729			
ND<-2.59027 U (11/12/2010)	2.70805 (10/26/1995)	(-2.59027 - 2.70805)/(27 - 4)	
-0.230362			
ND<-2.59027 U (7/5/2011)	2.70805 (10/26/1995)	(-2.59027 - 2.70805)/(28 - 4)	
-0.220763			
-1.51413 J Q (11/22/2011)	2.70805 (10/26/1995)	(-1.51413 - 2.70805)/(29 - 4)	
-0.168887			
-1.51413 J Q (11/22/2011)	2.70805 (10/26/1995)	(-1.51413 - 2.70805)/(29 - 4)	
-0.168887			

2.77259 (12/19/1996)	ND<0 (11/19/1996)	(2.77259 - 0)/(6 - 5)		2.77259
2.48491 (3/24/1997)	ND<0 (11/19/1996)	(2.48491 - 0)/(7 - 5)		1.24245
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
1.64866 (4/7/1998)	ND<0 (11/19/1996)	(1.64866 - 0)/(9 - 5)		
0.412165				
2.56495 (9/23/1998)	ND<0 (11/19/1996)	(2.56495 - 0)/(10 - 5)		0.51299
2.40695 (3/16/1999)	ND<0 (11/19/1996)	(2.40695 - 0)/(11 - 5)		
0.401158				
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
2.48491 (3/15/2000)	ND<0 (11/19/1996)	(2.48491 - 0)/(13 - 5)		
0.310613				
2.30259 (9/24/2003)	ND<0 (11/19/1996)	(2.30259 - 0)/(14 - 5)		
0.255843				
2.3979 (3/11/2004)	ND<0 (11/19/1996)	(2.3979 - 0)/(15 - 5)		0.23979
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
2.24813 (4/1/2005)	ND<0 (11/19/1996)	(2.24813 - 0)/(17 - 5)		
0.187344				

1.51732 (10/25/2005)	ND<0 (11/19/1996)	(1.51732 - 0)/(18 - 5)		
0.116717				
1.05779 (4/29/2006)	ND<0 (11/19/1996)	(1.05779 - 0)/(19 - 5)		
0.0755564				
0.536493 J (11/18/2006)	ND<0 (11/19/1996)	(0.536493 - 0)/(20 - 5)		
0.0357662				
1.74047 (5/23/2007)	ND<0 (11/19/1996)	(1.74047 - 0)/(21 - 5)		
0.108779				
1.17557 (11/28/2007)	ND<0 (11/19/1996)	(1.17557 - 0)/(22 - 5)		
0.0691514				
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0	
ND<0 (11/20/2008)	ND<0 (11/19/1996)	(0 - 0)/(24 - 5)	0	
0.262364 (6/11/2009)	ND<0 (11/19/1996)	(0.262364 - 0)/(25 - 5)		
0.0131182				
0.470004 (6/30/2010)	ND<0 (11/19/1996)	(0.470004 - 0)/(26 - 5)		
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ND<-2.59027 U (11/12/2010)	ND<0 (11/19/1996)	(-2.59027 - 0)/(27 - 5)		
-0.117739				
ND<-2.59027 U (7/5/2011)	ND<0 (11/19/1996)	(-2.59027 - 0)/(28 - 5)		-0.11262
-1.51413 J Q (11/22/2011)	ND<0 (11/19/1996)	(-1.51413 - 0)/(29 - 5)		
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2.48491 (3/24/1997)	2.77259 (12/19/1996)	(2.48491 - 2.77259)/(7 - 6)		
-0.287682				
ND<0 (9/24/1997)	2.77259 (12/19/1996)	(0 - 2.77259)/(8 - 6)		-1.38629
1.64866 (4/7/1998)	2.77259 (12/19/1996)	(1.64866 - 2.77259)/(9 - 6)		
-0.374643				
2.56495 (9/23/1998)	2.77259 (12/19/1996)	(2.56495 - 2.77259)/(10 - 6)		
-0.0519098				
2.40695 (3/16/1999)	2.77259 (12/19/1996)	(2.40695 - 2.77259)/(11 - 6)		
-0.0731287				
ND<0 (9/23/1999)	2.77259 (12/19/1996)	(0 - 2.77259)/(12 - 6)		
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2.48491 (3/15/2000)	2.77259 (12/19/1996)	(2.48491 - 2.77259)/(13 - 6)		
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2.30259 (9/24/2003)	2.77259 (12/19/1996)	(2.30259 - 2.77259)/(14 - 6)		
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2.3979 (3/11/2004)	2.77259 (12/19/1996)	(2.3979 - 2.77259)/(15 - 6)		
-0.0416326				
ND<0 (10/12/2004)	2.77259 (12/19/1996)	(0 - 2.77259)/(16 - 6)		
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2.24813 (4/1/2005)	2.77259 (12/19/1996)	(2.24813 - 2.77259)/(17 - 6)		
-0.0476782				
1.51732 (10/25/2005)	2.77259 (12/19/1996)	(1.51732 - 2.77259)/(18 - 6)		
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1.05779 (4/29/2006)	2.77259 (12/19/1996)	(1.05779 - 2.77259)/(19 - 6)		
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0.536493 J (11/18/2006)	2.77259 (12/19/1996)	(0.536493 - 2.77259)/(20 - 6)		
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1.74047 (5/23/2007)	2.77259 (12/19/1996)	(1.74047 - 2.77259)/(21 - 6)		
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1.17557 (11/28/2007)	2.77259 (12/19/1996)	(1.17557 - 2.77259)/(22 - 6)		
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ND<0 (6/5/2008)	2.77259 (12/19/1996)	(0 - 2.77259)/(23 - 6)		
-0.163093				
ND<0 (11/20/2008)	2.77259 (12/19/1996)	(0 - 2.77259)/(24 - 6)		
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ND<-2.59027 U (7/5/2011) 2.48491 (3/24/1997) (-2.59027 - 2.48491)/(28 - 7)
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1.64866 (4/7/1998) ND<0 (9/24/1997) (1.64866 - 0)/(9 - 8) 1.64866
2.56495 (9/23/1998) ND<0 (9/24/1997) (2.56495 - 0)/(10 - 8) 1.28247
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ND<-2.59027 U (7/5/2011) ND<0 (9/24/1997) (-2.59027 - 0)/(28 - 8)
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0.536493 J (11/18/2006) 1.64866 (4/7/1998) (0.536493 - 1.64866)/(20 - 9)
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1.74047 (5/23/2007) 1.64866 (4/7/1998) (1.74047 - 1.64866)/(21 - 9)
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1.17557 (11/28/2007) 1.64866 (4/7/1998) (1.17557 - 1.64866)/(22 - 9)
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ND<-2.59027 U (7/5/2011) 1.64866 (4/7/1998) (-2.59027 - 1.64866)/(28 - 9)
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1.74047 (5/23/2007) 2.56495 (9/23/1998) (1.74047 - 2.56495)/(21 - 10)
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1.17557 (11/28/2007) 2.56495 (9/23/1998) (1.17557 - 2.56495)/(22 - 10)
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0.262364 (6/11/2009) 2.56495 (9/23/1998) (0.262364 - 2.56495)/(25 - 10)
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0.470004 (6/30/2010) 2.56495 (9/23/1998) (0.470004 - 2.56495)/(26 - 10)
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ND<0 (9/23/1999) 2.40695 (3/16/1999) (0 - 2.40695)/(12 - 11) -2.40695
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2.3979 (3/11/2004) 2.40695 (3/16/1999) (2.3979 - 2.40695)/(15 - 11)
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2.24813 (4/1/2005)	2.40695 (3/16/1999)	(2.24813 - 2.40695)/(17 - 11)		
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1.51732 (10/25/2005)	2.40695 (3/16/1999)	(1.51732 - 2.40695)/(18 - 11)		
-0.127089				
1.05779 (4/29/2006)	2.40695 (3/16/1999)	(1.05779 - 2.40695)/(19 - 11)		
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0.536493 J (11/18/2006)	2.40695 (3/16/1999)	(0.536493 - 2.40695)/(20 - 11)		
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1.74047 (5/23/2007)	2.40695 (3/16/1999)	(1.74047 - 2.40695)/(21 - 11)		
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1.17557 (11/28/2007)	2.40695 (3/16/1999)	(1.17557 - 2.40695)/(22 - 11)		
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ND<0 (6/5/2008)	2.40695 (3/16/1999)	(0 - 2.40695)/(23 - 11)		
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ND<0 (11/20/2008)	2.40695 (3/16/1999)	(0 - 2.40695)/(24 - 11)		-0.18515
0.262364 (6/11/2009)	2.40695 (3/16/1999)	(0.262364 - 2.40695)/(25 - 11)		
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0.470004 (6/30/2010)	2.40695 (3/16/1999)	(0.470004 - 2.40695)/(26 - 11)		
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ND<-2.59027 U (11/12/2010)	2.40695 (3/16/1999)	(-2.59027 - 2.40695)/(27 - 11)		
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ND<-2.59027 U (7/5/2011)	2.40695 (3/16/1999)	(-2.59027 - 2.40695)/(28 - 11)		
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2.48491 (3/15/2000)	ND<0 (9/23/1999)	(2.48491 - 0)/(13 - 12)		2.48491
2.30259 (9/24/2003)	ND<0 (9/23/1999)	(2.30259 - 0)/(14 - 12)		1.15129
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ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
2.24813 (4/1/2005)	ND<0 (9/23/1999)	(2.24813 - 0)/(17 - 12)		
0.449626				
1.51732 (10/25/2005)	ND<0 (9/23/1999)	(1.51732 - 0)/(18 - 12)		
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1.05779 (4/29/2006)	ND<0 (9/23/1999)	(1.05779 - 0)/(19 - 12)		
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0.536493 J (11/18/2006)	ND<0 (9/23/1999)	(0.536493 - 0)/(20 - 12)		
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1.74047 (5/23/2007)	ND<0 (9/23/1999)	(1.74047 - 0)/(21 - 12)		
0.193385				
1.17557 (11/28/2007)	ND<0 (9/23/1999)	(1.17557 - 0)/(22 - 12)		
0.117557				
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0	
ND<0 (11/20/2008)	ND<0 (9/23/1999)	(0 - 0)/(24 - 12)	0	
0.262364 (6/11/2009)	ND<0 (9/23/1999)	(0.262364 - 0)/(25 - 12)		
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0.470004 (6/30/2010)	ND<0 (9/23/1999)	(0.470004 - 0)/(26 - 12)		
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ND<-2.59027 U (11/12/2010)	ND<0 (9/23/1999)	(-2.59027 - 0)/(27 - 12)		
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ND<-2.59027 U (7/5/2011)	ND<0 (9/23/1999)	(-2.59027 - 0)/(28 - 12)		
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ND<0 (11/20/2008) 2.48491 (3/15/2000) (0 - 2.48491)/(24 - 13)
-0.225901
0.262364 (6/11/2009) 2.48491 (3/15/2000) (0.262364 - 2.48491)/(25 - 13)
-0.185212
0.470004 (6/30/2010) 2.48491 (3/15/2000) (0.470004 - 2.48491)/(26 - 13)
-0.154993
ND<-2.59027 U (11/12/2010) 2.48491 (3/15/2000) (-2.59027 - 2.48491)/(27 - 13)
-0.362512
ND<-2.59027 U (7/5/2011) 2.48491 (3/15/2000) (-2.59027 - 2.48491)/(28 - 13)
-0.338345
-1.51413 J Q (11/22/2011) 2.48491 (3/15/2000) (-1.51413 - 2.48491)/(29 - 13)
-0.24994
-1.51413 J Q (11/22/2011) 2.48491 (3/15/2000) (-1.51413 - 2.48491)/(29 - 13)
-0.24994

2.3979 (3/11/2004) 2.30259 (9/24/2003) (2.3979 - 2.30259)/(15 - 14)
0.0953102
ND<0 (10/12/2004) 2.30259 (9/24/2003) (0 - 2.30259)/(16 - 14) -1.15129
2.24813 (4/1/2005) 2.30259 (9/24/2003) (2.24813 - 2.30259)/(17 - 14)
-0.0181521
1.51732 (10/25/2005) 2.30259 (9/24/2003) (1.51732 - 2.30259)/(18 - 14)
-0.196316
1.05779 (4/29/2006) 2.30259 (9/24/2003) (1.05779 - 2.30259)/(19 - 14)
-0.248959
0.536493 J (11/18/2006) 2.30259 (9/24/2003) (0.536493 - 2.30259)/(20 - 14)
-0.294349
1.74047 (5/23/2007) 2.30259 (9/24/2003) (1.74047 - 2.30259)/(21 - 14)
-0.0803027
1.17557 (11/28/2007) 2.30259 (9/24/2003) (1.17557 - 2.30259)/(22 - 14)
-0.140876
ND<0 (6/5/2008) 2.30259 (9/24/2003) (0 - 2.30259)/(23 - 14)
-0.255843
ND<0 (11/20/2008) 2.30259 (9/24/2003) (0 - 2.30259)/(24 - 14)
-0.230259
0.262364 (6/11/2009) 2.30259 (9/24/2003) (0.262364 - 2.30259)/(25 - 14)
-0.185475
0.470004 (6/30/2010) 2.30259 (9/24/2003) (0.470004 - 2.30259)/(26 - 14)
-0.152715
ND<-2.59027 U (11/12/2010) 2.30259 (9/24/2003) (-2.59027 - 2.30259)/(27 - 14)
-0.376373
ND<-2.59027 U (7/5/2011) 2.30259 (9/24/2003) (-2.59027 - 2.30259)/(28 - 14)
-0.349489

-1.51413 J Q (11/22/2011) 2.30259 (9/24/2003) (-1.51413 - 2.30259)/(29 - 14)
-0.254448
-1.51413 J Q (11/22/2011) 2.30259 (9/24/2003) (-1.51413 - 2.30259)/(29 - 14)
-0.254448

ND<0 (10/12/2004) 2.3979 (3/11/2004) (0 - 2.3979)/(16 - 15) -2.3979
2.24813 (4/1/2005) 2.3979 (3/11/2004) (2.24813 - 2.3979)/(17 - 15)
-0.0748832
1.51732 (10/25/2005) 2.3979 (3/11/2004) (1.51732 - 2.3979)/(18 - 15)
-0.293524
1.05779 (4/29/2006) 2.3979 (3/11/2004) (1.05779 - 2.3979)/(19 - 15)
-0.335026
0.536493 J (11/18/2006) 2.3979 (3/11/2004) (0.536493 - 2.3979)/(20 - 15)
-0.37228
1.74047 (5/23/2007) 2.3979 (3/11/2004) (1.74047 - 2.3979)/(21 - 15)
-0.109572
1.17557 (11/28/2007) 2.3979 (3/11/2004) (1.17557 - 2.3979)/(22 - 15)
-0.174617
ND<0 (6/5/2008) 2.3979 (3/11/2004) (0 - 2.3979)/(23 - 15)
-0.299737
ND<0 (11/20/2008) 2.3979 (3/11/2004) (0 - 2.3979)/(24 - 15)
-0.266433
0.262364 (6/11/2009) 2.3979 (3/11/2004) (0.262364 - 2.3979)/(25 - 15)
-0.213553
0.470004 (6/30/2010) 2.3979 (3/11/2004) (0.470004 - 2.3979)/(26 - 15)
-0.175263
ND<-2.59027 U (11/12/2010) 2.3979 (3/11/2004) (-2.59027 - 2.3979)/(27 - 15)
-0.41568
ND<-2.59027 U (7/5/2011) 2.3979 (3/11/2004) (-2.59027 - 2.3979)/(28 - 15)
-0.383705
-1.51413 J Q (11/22/2011) 2.3979 (3/11/2004) (-1.51413 - 2.3979)/(29 - 15)
-0.27943
-1.51413 J Q (11/22/2011) 2.3979 (3/11/2004) (-1.51413 - 2.3979)/(29 - 15)
-0.27943

2.24813 (4/1/2005) ND<0 (10/12/2004) (2.24813 - 0)/(17 - 16) 2.24813
1.51732 (10/25/2005) ND<0 (10/12/2004) (1.51732 - 0)/(18 - 16)
0.758661
1.05779 (4/29/2006) ND<0 (10/12/2004) (1.05779 - 0)/(19 - 16)
0.352597
0.536493 J (11/18/2006) ND<0 (10/12/2004) (0.536493 - 0)/(20 - 16)
0.134123
1.74047 (5/23/2007) ND<0 (10/12/2004) (1.74047 - 0)/(21 - 16)
0.348093
1.17557 (11/28/2007) ND<0 (10/12/2004) (1.17557 - 0)/(22 - 16)
0.195929
ND<0 (6/5/2008) ND<0 (10/12/2004) (0 - 0)/(23 - 16) 0
ND<0 (11/20/2008) ND<0 (10/12/2004) (0 - 0)/(24 - 16) 0
0.262364 (6/11/2009) ND<0 (10/12/2004) (0.262364 - 0)/(25 - 16)
0.0291516
0.470004 (6/30/2010) ND<0 (10/12/2004) (0.470004 - 0)/(26 - 16)
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ND<-2.59027 U (11/12/2010) ND<0 (10/12/2004) (-2.59027 - 0)/(27 - 16)
-0.235479
ND<-2.59027 U (7/5/2011) ND<0 (10/12/2004) (-2.59027 - 0)/(28 - 16)
-0.215856
-1.51413 J Q (11/22/2011) ND<0 (10/12/2004) (-1.51413 - 0)/(29 - 16)
-0.116471
-1.51413 J Q (11/22/2011) ND<0 (10/12/2004) (-1.51413 - 0)/(29 - 16)
-0.116471

1.51732 (10/25/2005) 2.24813 (4/1/2005) (1.51732 - 2.24813)/(18 - 17)
-0.730806
1.05779 (4/29/2006) 2.24813 (4/1/2005) (1.05779 - 2.24813)/(19 - 17)
-0.595169
0.536493 J (11/18/2006) 2.24813 (4/1/2005) (0.536493 - 2.24813)/(20 - 17)
-0.570545
1.74047 (5/23/2007) 2.24813 (4/1/2005) (1.74047 - 2.24813)/(21 - 17)
-0.126916
1.17557 (11/28/2007) 2.24813 (4/1/2005) (1.17557 - 2.24813)/(22 - 17)
-0.214511
ND<0 (6/5/2008) 2.24813 (4/1/2005) (0 - 2.24813)/(23 - 17)
-0.374688
ND<0 (11/20/2008) 2.24813 (4/1/2005) (0 - 2.24813)/(24 - 17)
-0.321161
0.262364 (6/11/2009) 2.24813 (4/1/2005) (0.262364 - 2.24813)/(25 - 17)
-0.248221
0.470004 (6/30/2010) 2.24813 (4/1/2005) (0.470004 - 2.24813)/(26 - 17)
-0.197569
ND<-2.59027 U (11/12/2010) 2.24813 (4/1/2005) (-2.59027 - 2.24813)/(27 - 17)
-0.48384
ND<-2.59027 U (7/5/2011) 2.24813 (4/1/2005) (-2.59027 - 2.24813)/(28 - 17)
-0.439854
-1.51413 J Q (11/22/2011) 2.24813 (4/1/2005) (-1.51413 - 2.24813)/(29 - 17)
-0.313521
-1.51413 J Q (11/22/2011) 2.24813 (4/1/2005) (-1.51413 - 2.24813)/(29 - 17)
-0.313521

1.05779 (4/29/2006) 1.51732 (10/25/2005) (1.05779 - 1.51732)/(19 - 18)
-0.459532
0.536493 J (11/18/2006) 1.51732 (10/25/2005) (0.536493 - 1.51732)/(20 - 18)
-0.490415
1.74047 (5/23/2007) 1.51732 (10/25/2005) (1.74047 - 1.51732)/(21 - 18)
0.0743812
1.17557 (11/28/2007) 1.51732 (10/25/2005) (1.17557 - 1.51732)/(22 - 18)
-0.0854373
ND<0 (6/5/2008) 1.51732 (10/25/2005) (0 - 1.51732)/(23 - 18)
-0.303465
ND<0 (11/20/2008) 1.51732 (10/25/2005) (0 - 1.51732)/(24 - 18)
-0.252887
0.262364 (6/11/2009) 1.51732 (10/25/2005) (0.262364 - 1.51732)/(25 - 18)
-0.17928
0.470004 (6/30/2010) 1.51732 (10/25/2005) (0.470004 - 1.51732)/(26 - 18)
-0.130915
ND<-2.59027 U (11/12/2010) 1.51732 (10/25/2005) (-2.59027 - 1.51732)/(27 - 18)
-0.456399
ND<-2.59027 U (7/5/2011) 1.51732 (10/25/2005) (-2.59027 - 1.51732)/(28 - 18)
-0.410759
-1.51413 J Q (11/22/2011) 1.51732 (10/25/2005) (-1.51413 - 1.51732)/(29 - 18)
-0.275586
-1.51413 J Q (11/22/2011) 1.51732 (10/25/2005) (-1.51413 - 1.51732)/(29 - 18)
-0.275586

0.536493 J (11/18/2006) 1.05779 (4/29/2006) (0.536493 - 1.05779)/(20 - 19)
-0.521297
1.74047 (5/23/2007) 1.05779 (4/29/2006) (1.74047 - 1.05779)/(21 - 19)
0.341338
1.17557 (11/28/2007) 1.05779 (4/29/2006) (1.17557 - 1.05779)/(22 - 19)
0.039261
ND<0 (6/5/2008) 1.05779 (4/29/2006) (0 - 1.05779)/(23 - 19)
-0.264448
ND<0 (11/20/2008) 1.05779 (4/29/2006) (0 - 1.05779)/(24 - 19)
-0.211558

0.262364 (6/11/2009) 1.05779 (4/29/2006) (0.262364 - 1.05779)/(25 - 19)
-0.132571
0.470004 (6/30/2010) 1.05779 (4/29/2006) (0.470004 - 1.05779)/(26 - 19)
-0.0839695
ND<-2.59027 U (11/12/2010) 1.05779 (4/29/2006) (-2.59027 - 1.05779)/(27 - 19)
-0.456007
ND<-2.59027 U (7/5/2011) 1.05779 (4/29/2006) (-2.59027 - 1.05779)/(28 - 19)
-0.40534
-1.51413 J Q (11/22/2011) 1.05779 (4/29/2006) (-1.51413 - 1.05779)/(29 - 19)
-0.257192
-1.51413 J Q (11/22/2011) 1.05779 (4/29/2006) (-1.51413 - 1.05779)/(29 - 19)
-0.257192

1.74047 (5/23/2007) 0.536493 J (11/18/2006) (1.74047 - 0.536493)/(21 - 20)
1.20397
1.17557 (11/28/2007) 0.536493 J (11/18/2006) (1.17557 - 0.536493)/(22 - 20)
0.31954
ND<0 (6/5/2008) 0.536493 J (11/18/2006) (0 - 0.536493)/(23 - 20)
-0.178831
ND<0 (11/20/2008) 0.536493 J (11/18/2006) (0 - 0.536493)/(24 - 20)
-0.134123
0.262364 (6/11/2009) 0.536493 J (11/18/2006) (0.262364 - 0.536493)/(25 - 20)
-0.0548258
0.470004 (6/30/2010) 0.536493 J (11/18/2006) (0.470004 - 0.536493)/(26 - 20)
-0.0110816
ND<-2.59027 U (11/12/2010) 0.536493 J (11/18/2006) (-2.59027 - 0.536493)/(27 - 20)
-0.44668
ND<-2.59027 U (7/5/2011) 0.536493 J (11/18/2006) (-2.59027 - 0.536493)/(28 - 20)
-0.390845
-1.51413 J Q (11/22/2011) 0.536493 J (11/18/2006) (-1.51413 - 0.536493)/(29 - 20)
-0.227847
-1.51413 J Q (11/22/2011) 0.536493 J (11/18/2006) (-1.51413 - 0.536493)/(29 - 20)
-0.227847

1.17557 (11/28/2007) 1.74047 (5/23/2007) (1.17557 - 1.74047)/(22 - 21)
-0.564893
ND<0 (6/5/2008) 1.74047 (5/23/2007) (0 - 1.74047)/(23 - 21)
-0.870233
ND<0 (11/20/2008) 1.74047 (5/23/2007) (0 - 1.74047)/(24 - 21)
-0.580155
0.262364 (6/11/2009) 1.74047 (5/23/2007) (0.262364 - 1.74047)/(25 - 21)
-0.369525
0.470004 (6/30/2010) 1.74047 (5/23/2007) (0.470004 - 1.74047)/(26 - 21)
-0.254093
ND<-2.59027 U (11/12/2010) 1.74047 (5/23/2007) (-2.59027 - 1.74047)/(27 - 21)
-0.721789
ND<-2.59027 U (7/5/2011) 1.74047 (5/23/2007) (-2.59027 - 1.74047)/(28 - 21)
-0.618676
-1.51413 J Q (11/22/2011) 1.74047 (5/23/2007) (-1.51413 - 1.74047)/(29 - 21)
-0.406824
-1.51413 J Q (11/22/2011) 1.74047 (5/23/2007) (-1.51413 - 1.74047)/(29 - 21)
-0.406824

ND<0 (6/5/2008) 1.17557 (11/28/2007) (0 - 1.17557)/(23 - 22) -1.17557
ND<0 (11/20/2008) 1.17557 (11/28/2007) (0 - 1.17557)/(24 - 22)
-0.587787
0.262364 (6/11/2009) 1.17557 (11/28/2007) (0.262364 - 1.17557)/(25 - 22)
-0.304403
0.470004 (6/30/2010) 1.17557 (11/28/2007) (0.470004 - 1.17557)/(26 - 22)
-0.176392
ND<-2.59027 U (11/12/2010) 1.17557 (11/28/2007) (-2.59027 - 1.17557)/(27 - 22)
-0.753168

ND<-2.59027 U (7/5/2011) 1.17557 (11/28/2007) (-2.59027 - 1.17557)/(28 - 22)
-0.62764
-1.51413 J Q (11/22/2011) 1.17557 (11/28/2007) (-1.51413 - 1.17557)/(29 - 22)
-0.384243
-1.51413 J Q (11/22/2011) 1.17557 (11/28/2007) (-1.51413 - 1.17557)/(29 - 22)
-0.384243

ND<0 (11/20/2008) ND<0 (6/5/2008) (0 - 0)/(24 - 23) 0
0.262364 (6/11/2009) ND<0 (6/5/2008) (0.262364 - 0)/(25 - 23)
0.131182
0.470004 (6/30/2010) ND<0 (6/5/2008) (0.470004 - 0)/(26 - 23)
0.156668
ND<-2.59027 U (11/12/2010) ND<0 (6/5/2008) (-2.59027 - 0)/(27 - 23)
-0.647567
ND<-2.59027 U (7/5/2011) ND<0 (6/5/2008) (-2.59027 - 0)/(28 - 23)
-0.518053
-1.51413 J Q (11/22/2011) ND<0 (6/5/2008) (-1.51413 - 0)/(29 - 23)
-0.252355
-1.51413 J Q (11/22/2011) ND<0 (6/5/2008) (-1.51413 - 0)/(29 - 23)
-0.252355

0.262364 (6/11/2009) ND<0 (11/20/2008) (0.262364 - 0)/(25 - 24)
0.262364
0.470004 (6/30/2010) ND<0 (11/20/2008) (0.470004 - 0)/(26 - 24)
0.235002
ND<-2.59027 U (11/12/2010) ND<0 (11/20/2008) (-2.59027 - 0)/(27 - 24)
-0.863422
ND<-2.59027 U (7/5/2011) ND<0 (11/20/2008) (-2.59027 - 0)/(28 - 24)
-0.647567
-1.51413 J Q (11/22/2011) ND<0 (11/20/2008) (-1.51413 - 0)/(29 - 24)
-0.302826
-1.51413 J Q (11/22/2011) ND<0 (11/20/2008) (-1.51413 - 0)/(29 - 24)
-0.302826

0.470004 (6/30/2010) 0.262364 (6/11/2009) (0.470004 - 0.262364)/(26 - 25)
0.207639
ND<-2.59027 U (11/12/2010) 0.262364 (6/11/2009) (-2.59027 - 0.262364)/(27 - 25)
-1.42632
ND<-2.59027 U (7/5/2011) 0.262364 (6/11/2009) (-2.59027 - 0.262364)/(28 - 25)
-0.950877
-1.51413 J Q (11/22/2011) 0.262364 (6/11/2009) (-1.51413 - 0.262364)/(29 - 25)
-0.444123
-1.51413 J Q (11/22/2011) 0.262364 (6/11/2009) (-1.51413 - 0.262364)/(29 - 25)
-0.444123

ND<-2.59027 U (11/12/2010) 0.470004 (6/30/2010) (-2.59027 - 0.470004)/(27 - 26)
-3.06027
ND<-2.59027 U (7/5/2011) 0.470004 (6/30/2010) (-2.59027 - 0.470004)/(28 - 26)
-1.53014
-1.51413 J Q (11/22/2011) 0.470004 (6/30/2010) (-1.51413 - 0.470004)/(29 - 26)
-0.661377
-1.51413 J Q (11/22/2011) 0.470004 (6/30/2010) (-1.51413 - 0.470004)/(29 - 26)
-0.661377

ND<-2.59027 U (7/5/2011) ND<-2.59027 U (11/12/2010) (-2.59027 - -2.59027)/(28 - 27)
0
-1.51413 J Q (11/22/2011) ND<-2.59027 U (11/12/2010) (-1.51413 - -2.59027)/(29 - 27)
0.53807
-1.51413 J Q (11/22/2011) ND<-2.59027 U (11/12/2010) (-1.51413 - -2.59027)/(29 - 27)
0.53807

-1.51413 J Q (11/22/2011)	ND<-2.59027 U (7/5/2011)	(-1.51413 - -2.59027)/(29 - 28)
1.07614		
-1.51413 J Q (11/22/2011)	ND<-2.59027 U (7/5/2011)	(-1.51413 - -2.59027)/(29 - 28)
1.07614		
-1.51413 J Q (11/22/2011)	-1.51413 J Q (11/22/2011)	(-1.51413 - -1.51413)/(29 - 29)
Same Date		

Number of Q values = 434

Ordered Q Values

n	Q
1	-3.06027
2	-2.70805
3	-2.48491
4	-2.40695
5	-2.3979
6	-1.53014
7	-1.42632
8	-1.38629
9	-1.28247
10	-1.17557
11	-1.15129
12	-1.15129
13	-0.950877
14	-0.870233
15	-0.863422
16	-0.828302
17	-0.799298
18	-0.753168
19	-0.730806
20	-0.721789
21	-0.677013
22	-0.661377
23	-0.661377
24	-0.647567
25	-0.647567
26	-0.62764
27	-0.618676
28	-0.595169
29	-0.587787
30	-0.580155
31	-0.570545
32	-0.564893
33	-0.549553
34	-0.521297
35	-0.518053
36	-0.496981
37	-0.490415
38	-0.48384
39	-0.481389
40	-0.462098
41	-0.460517
42	-0.459532
43	-0.456399
44	-0.456007
45	-0.44668
46	-0.444123
47	-0.444123
48	-0.439854

49	-0.427492
50	-0.4216
51	-0.418124
52	-0.41568
53	-0.410759
54	-0.406824
55	-0.406824
56	-0.40534
57	-0.399649
58	-0.390845
59	-0.384243
60	-0.384243
61	-0.383705
62	-0.376373
63	-0.374688
64	-0.374643
65	-0.37228
66	-0.369525
67	-0.362512
68	-0.349489
69	-0.338506
70	-0.338345
71	-0.335026
72	-0.321161
73	-0.313521
74	-0.313521
75	-0.312326
76	-0.304403
77	-0.303465
78	-0.303248
79	-0.302826
80	-0.302826
81	-0.299737
82	-0.294349
83	-0.293954
84	-0.293524
85	-0.287682
86	-0.286401
87	-0.27943
88	-0.27943
89	-0.278345
90	-0.277259
91	-0.276101
92	-0.275586
93	-0.275586
94	-0.266433
95	-0.264448
96	-0.257192
97	-0.257192
98	-0.255843
99	-0.255843
100	-0.255374
101	-0.254448
102	-0.254448
103	-0.254093
104	-0.253759
105	-0.252887
106	-0.252355
107	-0.252355
108	-0.24994
109	-0.24994
110	-0.248959

111	-0.248491
112	-0.248221
113	-0.243766
114	-0.241675
115	-0.240914
116	-0.23979
117	-0.237853
118	-0.235523
119	-0.235496
120	-0.235479
121	-0.230362
122	-0.230259
123	-0.227847
124	-0.227847
125	-0.225901
126	-0.225671
127	-0.223101
128	-0.220763
129	-0.217837
130	-0.217837
131	-0.215856
132	-0.214688
133	-0.214688
134	-0.214511
135	-0.213553
136	-0.211878
137	-0.211558
138	-0.207828
139	-0.203869
140	-0.202846
141	-0.200579
142	-0.199526
143	-0.197569
144	-0.197304
145	-0.196316
146	-0.195714
147	-0.193517
148	-0.191852
149	-0.186379
150	-0.186379
151	-0.185475
152	-0.185212
153	-0.18515
154	-0.183211
155	-0.182322
156	-0.181774
157	-0.181774
158	-0.17928
159	-0.178831
160	-0.177122
161	-0.176392
162	-0.175263
163	-0.174617
164	-0.172684
165	-0.171278
166	-0.168887
167	-0.168887
168	-0.168644
169	-0.167462
170	-0.164487
171	-0.163093
172	-0.161892

173	-0.159721
174	-0.158395
175	-0.158139
176	-0.158139
177	-0.158004
178	-0.155307
179	-0.154993
180	-0.154033
181	-0.153506
182	-0.153309
183	-0.153184
184	-0.152715
185	-0.149878
186	-0.146797
187	-0.146797
188	-0.146171
189	-0.145481
190	-0.14489
191	-0.14489
192	-0.142529
193	-0.140876
194	-0.13633
195	-0.135722
196	-0.135403
197	-0.134123
198	-0.132571
199	-0.132117
200	-0.131908
201	-0.130953
202	-0.130934
203	-0.130915
204	-0.129513
205	-0.129129
206	-0.127089
207	-0.126916
208	-0.123475
209	-0.118926
210	-0.117761
211	-0.117739
212	-0.116471
213	-0.116471
214	-0.116461
215	-0.115781
216	-0.115129
217	-0.115129
218	-0.114305
219	-0.114305
220	-0.114185
221	-0.11262
222	-0.112427
223	-0.111943
224	-0.110017
225	-0.109911
226	-0.109647
227	-0.109572
228	-0.108995
229	-0.108988
230	-0.107034
231	-0.106048
232	-0.104606
233	-0.103888
234	-0.103411

235	-0.101729
236	-0.101106
237	-0.0998135
238	-0.0953102
239	-0.0930551
240	-0.0928492
241	-0.0927373
242	-0.0890663
243	-0.0890663
244	-0.0879622
245	-0.0872889
246	-0.0866434
247	-0.0854373
248	-0.0851376
249	-0.085052
250	-0.0839695
251	-0.0803288
252	-0.0803027
253	-0.0796775
254	-0.0788297
255	-0.0777997
256	-0.0766545
257	-0.074953
258	-0.0748832
259	-0.0743812
260	-0.0733217
261	-0.0731287
262	-0.0721013
263	-0.0721013
264	-0.0693326
265	-0.0688082
266	-0.0666479
267	-0.0655911
268	-0.0630887
269	-0.0630887
270	-0.0611161
271	-0.0605213
272	-0.0593348
273	-0.0593164
274	-0.0591944
275	-0.0590868
276	-0.0587505
277	-0.0569167
278	-0.0550358
279	-0.0548258
280	-0.0531743
281	-0.0523508
282	-0.0519098
283	-0.0486558
284	-0.0476782
285	-0.0452601
286	-0.0435057
287	-0.043015
288	-0.0416326
289	-0.0410974
290	-0.0405465
291	-0.0363912
292	-0.0353786
293	-0.0349227
294	-0.0347867
295	-0.0346015
296	-0.0334108

297	-0.0312288
298	-0.0281959
299	-0.0266809
300	-0.0264694
301	-0.0260459
302	-0.0247937
303	-0.024325
304	-0.0238501
305	-0.0236778
306	-0.0194904
307	-0.0181521
308	-0.0145929
309	-0.0110816
310	-0.0108764
311	-0.00998442
312	-0.00994567
313	-0.00794251
314	-0.00471754
315	-0.00388973
316	-0.00226246
317	0
318	0
319	0
320	0
321	0
322	0
323	0
324	0
325	0
326	0
327	0
328	0
329	0
330	0
331	0
332	0
333	0
334	0
335	0
336	0.00100554
337	0.00270336
338	0.00765063
339	0.00791013
340	0.00794251
341	0.013045
342	0.0131182
343	0.0154332
344	0.0174023
345	0.0182322
346	0.0201819
347	0.0208818
348	0.0223811
349	0.0261113
350	0.0266809
351	0.0291516
352	0.0322693
353	0.0335717
354	0.0351081
355	0.0357662
356	0.0374806
357	0.0389808
358	0.039261

359	0.0447078
360	0.0455804
361	0.0470004
362	0.0473989
363	0.0508212
364	0.0665423
365	0.0670617
366	0.0691514
367	0.0720546
368	0.0743812
369	0.0749338
370	0.0755564
371	0.0839695
372	0.0936734
373	0.0953102
374	0.0961628
375	0.0976167
376	0.108779
377	0.116717
378	0.117557
379	0.124873
380	0.130785
381	0.131182
382	0.133085
383	0.133882
384	0.134123
385	0.151113
386	0.151732
387	0.155077
388	0.156668
389	0.156668
390	0.187344
391	0.193385
392	0.195929
393	0.207639
394	0.209062
395	0.217238
396	0.235002
397	0.23979
398	0.249792
399	0.252887
400	0.255843
401	0.262364
402	0.308093
403	0.310613
404	0.31954
405	0.34055
406	0.341338
407	0.342556
408	0.348093
409	0.352597
410	0.379143
411	0.383764
412	0.401158
413	0.405465
414	0.412165
415	0.449626
416	0.496981
417	0.51299
418	0.53807
419	0.53807
420	0.711496

421	0.758661
422	0.799298
423	0.802315
424	0.916291
425	1.07614
426	1.07614
427	1.15129
428	1.20397
429	1.24245
430	1.28247
431	1.64866
432	2.24813
433	2.48491
434	2.77259

Sen's Estimator (Median Q) is -0.114717

Tied Group	Value	Members
1	2.3979	2
2	2.30259	2
3	0	6
4	2.48491	2
5	-2.59027	2
6	-1.51413	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 600
B = 18
C = 120
D = 0
E = 40

F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3107.38
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.6905
M1 = (434 - 91.6905)/2.0 = 171.155
M2 = (434 + 91.6905)/2.0 + 1 = 263.845
Lower limit is -0.163093 = Q(171)
Upper limit is -0.0693326 = Q(264)
-0.0693326 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: cis-1,2-Dichloroethene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
2.70805	(8/24/1995)	1.38629 (7/20/1995)	(2.70805 - 1.38629)/(2 - 1) 1.32176
3.46574	(9/28/1995)	1.38629 (7/20/1995)	(3.46574 - 1.38629)/(3 - 1) 1.03972
3.2581	(10/26/1995)	1.38629 (7/20/1995)	(3.2581 - 1.38629)/(4 - 1) 0.623934
ND<0	(11/19/1996)	1.38629 (7/20/1995)	(0 - 1.38629)/(5 - 1) -0.346574
3.68888	(12/19/1996)	1.38629 (7/20/1995)	(3.68888 - 1.38629)/(6 - 1) 0.460517
3.2581	(3/24/1997)	1.38629 (7/20/1995)	(3.2581 - 1.38629)/(7 - 1) 0.311967
3.63759	(9/24/1997)	1.38629 (7/20/1995)	(3.63759 - 1.38629)/(8 - 1) 0.321613
2.02815	(4/7/1998)	1.38629 (7/20/1995)	(2.02815 - 1.38629)/(9 - 1) 0.0802317
3.46574	(9/23/1998)	1.38629 (7/20/1995)	(3.46574 - 1.38629)/(10 - 1) 0.231049
3.7542	(3/16/1999)	1.38629 (7/20/1995)	(3.7542 - 1.38629)/(11 - 1) 0.23679
3.21487	(9/23/1999)	1.38629 (7/20/1995)	(3.21487 - 1.38629)/(12 - 1) 0.166234
2.3979	(3/15/2000)	1.38629 (7/20/1995)	(2.3979 - 1.38629)/(13 - 1) 0.0843001
2.3979	(9/24/2003)	1.38629 (7/20/1995)	(2.3979 - 1.38629)/(14 - 1) 0.0778155
1.96009	(3/11/2004)	1.38629 (7/20/1995)	(1.96009 - 1.38629)/(15 - 1) 0.0409857
ND<0	(10/12/2004)	1.38629 (7/20/1995)	(0 - 1.38629)/(16 - 1) -0.0924196
ND<0	(4/1/2005)	1.38629 (7/20/1995)	(0 - 1.38629)/(17 - 1) -0.0866434
2.59525	(10/25/2005)	1.38629 (7/20/1995)	(2.59525 - 1.38629)/(18 - 1) 0.0711153
2.76001	(4/29/2006)	1.38629 (7/20/1995)	(2.76001 - 1.38629)/(19 - 1) 0.0763175
2.19277	(11/18/2006)	1.38629 (7/20/1995)	(2.19277 - 1.38629)/(20 - 1) 0.0424461
2.20827	(5/23/2007)	1.38629 (7/20/1995)	(2.20827 - 1.38629)/(21 - 1) 0.041099
2.61007	(11/28/2007)	1.38629 (7/20/1995)	(2.61007 - 1.38629)/(22 - 1) 0.058275
2.60269	(6/5/2008)	1.38629 (7/20/1995)	(2.60269 - 1.38629)/(23 - 1) 0.0552907
ND<0	(11/20/2008)	1.38629 (7/20/1995)	(0 - 1.38629)/(24 - 1) -0.0602737
2.19722	(6/11/2009)	1.38629 (7/20/1995)	(2.19722 - 1.38629)/(25 - 1) 0.0337888
1.75786	(6/30/2010)	1.38629 (7/20/1995)	(1.75786 - 1.38629)/(26 - 1) 0.0148625
2.15176	(11/12/2010)	1.38629 (7/20/1995)	(2.15176 - 1.38629)/(27 - 1) 0.0294411
2.48491	(7/5/2011)	1.38629 (7/20/1995)	(2.48491 - 1.38629)/(28 - 1) 0.0406893

2.30259	(11/22/2011)	1.38629	(7/20/1995)	(2.30259 - 1.38629)/(29 - 1)
0.0327247				
2.30259	(11/22/2011)	1.38629	(7/20/1995)	(2.30259 - 1.38629)/(29 - 1)
0.0327247				
3.46574	(9/28/1995)	2.70805	(8/24/1995)	(3.46574 - 2.70805)/(3 - 2)
0.757686				
3.2581	(10/26/1995)	2.70805	(8/24/1995)	(3.2581 - 2.70805)/(4 - 2)
0.275023				
ND<0	(11/19/1996)	2.70805	(8/24/1995)	(0 - 2.70805)/(5 - 2)
-0.902683				
3.68888	(12/19/1996)	2.70805	(8/24/1995)	(3.68888 - 2.70805)/(6 - 2)
0.245207				
3.2581	(3/24/1997)	2.70805	(8/24/1995)	(3.2581 - 2.70805)/(7 - 2)
0.110009				
3.63759	(9/24/1997)	2.70805	(8/24/1995)	(3.63759 - 2.70805)/(8 - 2)
0.154923				
2.02815	(4/7/1998)	2.70805	(8/24/1995)	(2.02815 - 2.70805)/(9 - 2)
-0.0971289				
3.46574	(9/23/1998)	2.70805	(8/24/1995)	(3.46574 - 2.70805)/(10 - 2)
0.0947107				
3.7542	(3/16/1999)	2.70805	(8/24/1995)	(3.7542 - 2.70805)/(11 - 2)
0.116239				
3.21487	(9/23/1999)	2.70805	(8/24/1995)	(3.21487 - 2.70805)/(12 - 2)
0.0506818				
2.3979	(3/15/2000)	2.70805	(8/24/1995)	(2.3979 - 2.70805)/(13 - 2)
-0.0281959				
2.3979	(9/24/2003)	2.70805	(8/24/1995)	(2.3979 - 2.70805)/(14 - 2)
-0.0258462				
1.96009	(3/11/2004)	2.70805	(8/24/1995)	(1.96009 - 2.70805)/(15 - 2)
-0.057535				
ND<0	(10/12/2004)	2.70805	(8/24/1995)	(0 - 2.70805)/(16 - 2)
-0.193432				
ND<0	(4/1/2005)	2.70805	(8/24/1995)	(0 - 2.70805)/(17 - 2)
-0.180537				
2.59525	(10/25/2005)	2.70805	(8/24/1995)	(2.59525 - 2.70805)/(18 - 2)
-0.00704972				
2.76001	(4/29/2006)	2.70805	(8/24/1995)	(2.76001 - 2.70805)/(19 - 2)
0.00305646				
2.19277	(11/18/2006)	2.70805	(8/24/1995)	(2.19277 - 2.70805)/(20 - 2)
-0.0286267				
2.20827	(5/23/2007)	2.70805	(8/24/1995)	(2.20827 - 2.70805)/(21 - 2)
-0.026304				
2.61007	(11/28/2007)	2.70805	(8/24/1995)	(2.61007 - 2.70805)/(22 - 2)
-0.00489902				
2.60269	(6/5/2008)	2.70805	(8/24/1995)	(2.60269 - 2.70805)/(23 - 2)
-0.00501717				
ND<0	(11/20/2008)	2.70805	(8/24/1995)	(0 - 2.70805)/(24 - 2)
-0.123093				
2.19722	(6/11/2009)	2.70805	(8/24/1995)	(2.19722 - 2.70805)/(25 - 2)
-0.0222098				
1.75786	(6/30/2010)	2.70805	(8/24/1995)	(1.75786 - 2.70805)/(26 - 2)
-0.0395913				
2.15176	(11/12/2010)	2.70805	(8/24/1995)	(2.15176 - 2.70805)/(27 - 2)
-0.0222515				
2.48491	(7/5/2011)	2.70805	(8/24/1995)	(2.48491 - 2.70805)/(28 - 2)
-0.00858244				
2.30259	(11/22/2011)	2.70805	(8/24/1995)	(2.30259 - 2.70805)/(29 - 2)
-0.0150172				
2.30259	(11/22/2011)	2.70805	(8/24/1995)	(2.30259 - 2.70805)/(29 - 2)
-0.0150172				

3.2581	(10/26/1995)	3.46574	(9/28/1995)	(3.2581 - 3.46574)/(4 - 3)		
	-0.207639					
ND<0	(11/19/1996)	3.46574	(9/28/1995)	(0 - 3.46574)/(5 - 3)		-1.73287
3.68888	(12/19/1996)	3.46574	(9/28/1995)	(3.68888 - 3.46574)/(6 - 3)		
	0.0743812					
3.2581	(3/24/1997)	3.46574	(9/28/1995)	(3.2581 - 3.46574)/(7 - 3)		
	-0.0519098					
3.63759	(9/24/1997)	3.46574	(9/28/1995)	(3.63759 - 3.46574)/(8 - 3)		
	0.0343701					
2.02815	(4/7/1998)	3.46574	(9/28/1995)	(2.02815 - 3.46574)/(9 - 3)		
	-0.239598					
3.46574	(9/23/1998)	3.46574	(9/28/1995)	(3.46574 - 3.46574)/(10 - 3)		
	0					
3.7542	(3/16/1999)	3.46574	(9/28/1995)	(3.7542 - 3.46574)/(11 - 3)		
	0.0360579					
3.21487	(9/23/1999)	3.46574	(9/28/1995)	(3.21487 - 3.46574)/(12 - 3)		
	-0.0278742					
2.3979	(3/15/2000)	3.46574	(9/28/1995)	(2.3979 - 3.46574)/(13 - 3)		
	-0.106784					
2.3979	(9/24/2003)	3.46574	(9/28/1995)	(2.3979 - 3.46574)/(14 - 3)		
	-0.0970764					
1.96009	(3/11/2004)	3.46574	(9/28/1995)	(1.96009 - 3.46574)/(15 - 3)		
	-0.12547					
ND<0	(10/12/2004)	3.46574	(9/28/1995)	(0 - 3.46574)/(16 - 3)		
	-0.266595					
ND<0	(4/1/2005)	3.46574	(9/28/1995)	(0 - 3.46574)/(17 - 3)		
	-0.247553					
2.59525	(10/25/2005)	3.46574	(9/28/1995)	(2.59525 - 3.46574)/(18 - 3)		
	-0.0580321					
2.76001	(4/29/2006)	3.46574	(9/28/1995)	(2.76001 - 3.46574)/(19 - 3)		
	-0.0441079					
2.19277	(11/18/2006)	3.46574	(9/28/1995)	(2.19277 - 3.46574)/(20 - 3)		
	-0.0748803					
2.20827	(5/23/2007)	3.46574	(9/28/1995)	(2.20827 - 3.46574)/(21 - 3)		
	-0.069859					
2.61007	(11/28/2007)	3.46574	(9/28/1995)	(2.61007 - 3.46574)/(22 - 3)		
	-0.0450351					
2.60269	(6/5/2008)	3.46574	(9/28/1995)	(2.60269 - 3.46574)/(23 - 3)		
	-0.0431523					
ND<0	(11/20/2008)	3.46574	(9/28/1995)	(0 - 3.46574)/(24 - 3)		
	-0.165035					
2.19722	(6/11/2009)	3.46574	(9/28/1995)	(2.19722 - 3.46574)/(25 - 3)		
	-0.0576596					
1.75786	(6/30/2010)	3.46574	(9/28/1995)	(1.75786 - 3.46574)/(26 - 3)		
	-0.0742556					
2.15176	(11/12/2010)	3.46574	(9/28/1995)	(2.15176 - 3.46574)/(27 - 3)		
	-0.0547489					
2.48491	(7/5/2011)	3.46574	(9/28/1995)	(2.48491 - 3.46574)/(28 - 3)		
	-0.0392332					
2.30259	(11/22/2011)	3.46574	(9/28/1995)	(2.30259 - 3.46574)/(29 - 3)		
	-0.0447366					
2.30259	(11/22/2011)	3.46574	(9/28/1995)	(2.30259 - 3.46574)/(29 - 3)		
	-0.0447366					
ND<0	(11/19/1996)	3.2581	(10/26/1995)	(0 - 3.2581)/(5 - 4)		-3.2581
3.68888	(12/19/1996)	3.2581	(10/26/1995)	(3.68888 - 3.2581)/(6 - 4)		
	0.215391					
3.2581	(3/24/1997)	3.2581	(10/26/1995)	(3.2581 - 3.2581)/(7 - 4)		0
3.63759	(9/24/1997)	3.2581	(10/26/1995)	(3.63759 - 3.2581)/(8 - 4)		
	0.0948724					
2.02815	(4/7/1998)	3.2581	(10/26/1995)	(2.02815 - 3.2581)/(9 - 4)		-0.24599

3.46574	(9/23/1998)	3.2581	(10/26/1995)	(3.46574 - 3.2581)/(10 - 4)		
0.0346066						
3.7542	(3/16/1999)	3.2581	(10/26/1995)	(3.7542 - 3.2581)/(11 - 4)		
0.0708718						
3.21487	(9/23/1999)	3.2581	(10/26/1995)	(3.21487 - 3.2581)/(12 - 4)		
-0.00540359						
2.3979	(3/15/2000)	3.2581	(10/26/1995)	(2.3979 - 3.2581)/(13 - 4)		
-0.0955779						
2.3979	(9/24/2003)	3.2581	(10/26/1995)	(2.3979 - 3.2581)/(14 - 4)		
-0.0860201						
1.96009	(3/11/2004)	3.2581	(10/26/1995)	(1.96009 - 3.2581)/(15 - 4)		-0.118
ND<0	(10/12/2004)	3.2581	(10/26/1995)	(0 - 3.2581)/(16 - 4)		
-0.271508						
ND<0	(4/1/2005)	3.2581	(10/26/1995)	(0 - 3.2581)/(17 - 4)		
-0.250623						
2.59525	(10/25/2005)	3.2581	(10/26/1995)	(2.59525 - 3.2581)/(18 - 4)		
-0.0473458						
2.76001	(4/29/2006)	3.2581	(10/26/1995)	(2.76001 - 3.2581)/(19 - 4)		
-0.0332058						
2.19277	(11/18/2006)	3.2581	(10/26/1995)	(2.19277 - 3.2581)/(20 - 4)		
-0.0665829						
2.20827	(5/23/2007)	3.2581	(10/26/1995)	(2.20827 - 3.2581)/(21 - 4)		
-0.0617542						
2.61007	(11/28/2007)	3.2581	(10/26/1995)	(2.61007 - 3.2581)/(22 - 4)		
-0.0360015						
2.60269	(6/5/2008)	3.2581	(10/26/1995)	(2.60269 - 3.2581)/(23 - 4)		
-0.0344951						
ND<0	(11/20/2008)	3.2581	(10/26/1995)	(0 - 3.2581)/(24 - 4)		
-0.162905						
2.19722	(6/11/2009)	3.2581	(10/26/1995)	(2.19722 - 3.2581)/(25 - 4)		
-0.0505177						
1.75786	(6/30/2010)	3.2581	(10/26/1995)	(1.75786 - 3.2581)/(26 - 4)		
-0.0681927						
2.15176	(11/12/2010)	3.2581	(10/26/1995)	(2.15176 - 3.2581)/(27 - 4)		
-0.0481015						
2.48491	(7/5/2011)	3.2581	(10/26/1995)	(2.48491 - 3.2581)/(28 - 4)		
-0.0322162						
2.30259	(11/22/2011)	3.2581	(10/26/1995)	(2.30259 - 3.2581)/(29 - 4)		
-0.0382205						
2.30259	(11/22/2011)	3.2581	(10/26/1995)	(2.30259 - 3.2581)/(29 - 4)		
-0.0382205						
3.68888	(12/19/1996)	ND<0	(11/19/1996)	(3.68888 - 0)/(6 - 5)		3.68888
3.2581	(3/24/1997)	ND<0	(11/19/1996)	(3.2581 - 0)/(7 - 5)		1.62905
3.63759	(9/24/1997)	ND<0	(11/19/1996)	(3.63759 - 0)/(8 - 5)		1.21253
2.02815	(4/7/1998)	ND<0	(11/19/1996)	(2.02815 - 0)/(9 - 5)		
0.507037						
3.46574	(9/23/1998)	ND<0	(11/19/1996)	(3.46574 - 0)/(10 - 5)		
0.693147						
3.7542	(3/16/1999)	ND<0	(11/19/1996)	(3.7542 - 0)/(11 - 5)		0.6257
3.21487	(9/23/1999)	ND<0	(11/19/1996)	(3.21487 - 0)/(12 - 5)		
0.459267						
2.3979	(3/15/2000)	ND<0	(11/19/1996)	(2.3979 - 0)/(13 - 5)		
0.299737						
2.3979	(9/24/2003)	ND<0	(11/19/1996)	(2.3979 - 0)/(14 - 5)		
0.266433						
1.96009	(3/11/2004)	ND<0	(11/19/1996)	(1.96009 - 0)/(15 - 5)		
0.196009						
ND<0	(10/12/2004)	ND<0	(11/19/1996)	(0 - 0)/(16 - 5)	0	
ND<0	(4/1/2005)	ND<0	(11/19/1996)	(0 - 0)/(17 - 5)	0	
2.59525	(10/25/2005)	ND<0	(11/19/1996)	(2.59525 - 0)/(18 - 5)		
0.199635						

2.76001	(4/29/2006)	ND<0	(11/19/1996)	(2.76001 - 0)/(19 - 5)		
	0.197144					
2.19277	(11/18/2006)	ND<0	(11/19/1996)	(2.19277 - 0)/(20 - 5)		
	0.146185					
2.20827	(5/23/2007)	ND<0	(11/19/1996)	(2.20827 - 0)/(21 - 5)		
	0.138017					
2.61007	(11/28/2007)	ND<0	(11/19/1996)	(2.61007 - 0)/(22 - 5)		
	0.153534					
2.60269	(6/5/2008)	ND<0	(11/19/1996)	(2.60269 - 0)/(23 - 5)		
	0.144594					
ND<0	(11/20/2008)	ND<0	(11/19/1996)	(0 - 0)/(24 - 5)		0
2.19722	(6/11/2009)	ND<0	(11/19/1996)	(2.19722 - 0)/(25 - 5)		
	0.109861					
1.75786	(6/30/2010)	ND<0	(11/19/1996)	(1.75786 - 0)/(26 - 5)		
	0.0837075					
2.15176	(11/12/2010)	ND<0	(11/19/1996)	(2.15176 - 0)/(27 - 5)		
	0.0978074					
2.48491	(7/5/2011)	ND<0	(11/19/1996)	(2.48491 - 0)/(28 - 5)		
	0.108039					
2.30259	(11/22/2011)	ND<0	(11/19/1996)	(2.30259 - 0)/(29 - 5)		
	0.095941					
2.30259	(11/22/2011)	ND<0	(11/19/1996)	(2.30259 - 0)/(29 - 5)		
	0.095941					
3.2581	(3/24/1997)	3.68888	(12/19/1996)	(3.2581 - 3.68888)/(7 - 6)		
	-0.430783					
3.63759	(9/24/1997)	3.68888	(12/19/1996)	(3.63759 - 3.68888)/(8 - 6)		
	-0.0256466					
2.02815	(4/7/1998)	3.68888	(12/19/1996)	(2.02815 - 3.68888)/(9 - 6)		
	-0.553577					
3.46574	(9/23/1998)	3.68888	(12/19/1996)	(3.46574 - 3.68888)/(10 - 6)		
	-0.0557859					
3.7542	(3/16/1999)	3.68888	(12/19/1996)	(3.7542 - 3.68888)/(11 - 6)		
	0.0130639					
3.21487	(9/23/1999)	3.68888	(12/19/1996)	(3.21487 - 3.68888)/(12 - 6)		
	-0.0790019					
2.3979	(3/15/2000)	3.68888	(12/19/1996)	(2.3979 - 3.68888)/(13 - 6)		
	-0.184426					
2.3979	(9/24/2003)	3.68888	(12/19/1996)	(2.3979 - 3.68888)/(14 - 6)		
	-0.161373					
1.96009	(3/11/2004)	3.68888	(12/19/1996)	(1.96009 - 3.68888)/(15 - 6)		
	-0.192087					
ND<0	(10/12/2004)	3.68888	(12/19/1996)	(0 - 3.68888)/(16 - 6)		
	-0.368888					
ND<0	(4/1/2005)	3.68888	(12/19/1996)	(0 - 3.68888)/(17 - 6)		
	-0.335353					
2.59525	(10/25/2005)	3.68888	(12/19/1996)	(2.59525 - 3.68888)/(18 - 6)		
	-0.0911354					
2.76001	(4/29/2006)	3.68888	(12/19/1996)	(2.76001 - 3.68888)/(19 - 6)		
	-0.0714515					
2.19277	(11/18/2006)	3.68888	(12/19/1996)	(2.19277 - 3.68888)/(20 - 6)		
	-0.106865					
2.20827	(5/23/2007)	3.68888	(12/19/1996)	(2.20827 - 3.68888)/(21 - 6)		
	-0.098707					
2.61007	(11/28/2007)	3.68888	(12/19/1996)	(2.61007 - 3.68888)/(22 - 6)		
	-0.0674256					
2.60269	(6/5/2008)	3.68888	(12/19/1996)	(2.60269 - 3.68888)/(23 - 6)		
	-0.0638935					
ND<0	(11/20/2008)	3.68888	(12/19/1996)	(0 - 3.68888)/(24 - 6)		
	-0.204938					
2.19722	(6/11/2009)	3.68888	(12/19/1996)	(2.19722 - 3.68888)/(25 - 6)		
	-0.0785082					

1.75786	(6/30/2010)	3.68888	(12/19/1996)	(1.75786 - 3.68888)/(26 - 6)		
	-0.0965511					
2.15176	(11/12/2010)	3.68888	(12/19/1996)	(2.15176 - 3.68888)/(27 - 6)		
	-0.0731961					
2.48491	(7/5/2011)	3.68888	(12/19/1996)	(2.48491 - 3.68888)/(28 - 6)		
	-0.054726					
2.30259	(11/22/2011)	3.68888	(12/19/1996)	(2.30259 - 3.68888)/(29 - 6)		
	-0.0602737					
2.30259	(11/22/2011)	3.68888	(12/19/1996)	(2.30259 - 3.68888)/(29 - 6)		
	-0.0602737					
3.63759	(9/24/1997)	3.2581	(3/24/1997)	(3.63759 - 3.2581)/(8 - 7)	0.37949	
2.02815	(4/7/1998)	3.2581	(3/24/1997)	(2.02815 - 3.2581)/(9 - 7)		
	-0.614974					
3.46574	(9/23/1998)	3.2581	(3/24/1997)	(3.46574 - 3.2581)/(10 - 7)		
	0.0692131					
3.7542	(3/16/1999)	3.2581	(3/24/1997)	(3.7542 - 3.2581)/(11 - 7)		
	0.124026					
3.21487	(9/23/1999)	3.2581	(3/24/1997)	(3.21487 - 3.2581)/(12 - 7)		
	-0.00864575					
2.3979	(3/15/2000)	3.2581	(3/24/1997)	(2.3979 - 3.2581)/(13 - 7)		
	-0.143367					
2.3979	(9/24/2003)	3.2581	(3/24/1997)	(2.3979 - 3.2581)/(14 - 7)		
	-0.122886					
1.96009	(3/11/2004)	3.2581	(3/24/1997)	(1.96009 - 3.2581)/(15 - 7)	-0.16225	
ND<0	(10/12/2004)	3.2581	(3/24/1997)	(0 - 3.2581)/(16 - 7)		
	-0.362011					
ND<0	(4/1/2005)	3.2581	(3/24/1997)	(0 - 3.2581)/(17 - 7)	-0.32581	
2.59525	(10/25/2005)	3.2581	(3/24/1997)	(2.59525 - 3.2581)/(18 - 7)		
	-0.0602583					
2.76001	(4/29/2006)	3.2581	(3/24/1997)	(2.76001 - 3.2581)/(19 - 7)		
	-0.0415072					
2.19277	(11/18/2006)	3.2581	(3/24/1997)	(2.19277 - 3.2581)/(20 - 7)		
	-0.0819482					
2.20827	(5/23/2007)	3.2581	(3/24/1997)	(2.20827 - 3.2581)/(21 - 7)		
	-0.0749873					
2.61007	(11/28/2007)	3.2581	(3/24/1997)	(2.61007 - 3.2581)/(22 - 7)		
	-0.0432018					
2.60269	(6/5/2008)	3.2581	(3/24/1997)	(2.60269 - 3.2581)/(23 - 7)		
	-0.0409629					
ND<0	(11/20/2008)	3.2581	(3/24/1997)	(0 - 3.2581)/(24 - 7)		
	-0.191653					
2.19722	(6/11/2009)	3.2581	(3/24/1997)	(2.19722 - 3.2581)/(25 - 7)		
	-0.0589373					
1.75786	(6/30/2010)	3.2581	(3/24/1997)	(1.75786 - 3.2581)/(26 - 7)		
	-0.0789599					
2.15176	(11/12/2010)	3.2581	(3/24/1997)	(2.15176 - 3.2581)/(27 - 7)		
	-0.0553167					
2.48491	(7/5/2011)	3.2581	(3/24/1997)	(2.48491 - 3.2581)/(28 - 7)		
	-0.0368186					
2.30259	(11/22/2011)	3.2581	(3/24/1997)	(2.30259 - 3.2581)/(29 - 7)		
	-0.0434323					
2.30259	(11/22/2011)	3.2581	(3/24/1997)	(2.30259 - 3.2581)/(29 - 7)		
	-0.0434323					
2.02815	(4/7/1998)	3.63759	(9/24/1997)	(2.02815 - 3.63759)/(9 - 8)	-1.60944	
3.46574	(9/23/1998)	3.63759	(9/24/1997)	(3.46574 - 3.63759)/(10 - 8)		
	-0.0859251					
3.7542	(3/16/1999)	3.63759	(9/24/1997)	(3.7542 - 3.63759)/(11 - 8)		
	0.0388709					
3.21487	(9/23/1999)	3.63759	(9/24/1997)	(3.21487 - 3.63759)/(12 - 8)		
	-0.10568					

2.3979	(3/15/2000)	3.63759	(9/24/1997)	(2.3979 - 3.63759)/(13 - 8)	-0.247938
2.3979	(9/24/2003)	3.63759	(9/24/1997)	(2.3979 - 3.63759)/(14 - 8)	-0.206615
1.96009	(3/11/2004)	3.63759	(9/24/1997)	(1.96009 - 3.63759)/(15 - 8)	-0.239642
ND<0	(10/12/2004)	3.63759	(9/24/1997)	(0 - 3.63759)/(16 - 8)	-0.454698
ND<0	(4/1/2005)	3.63759	(9/24/1997)	(0 - 3.63759)/(17 - 8)	-0.404176
2.59525	(10/25/2005)	3.63759	(9/24/1997)	(2.59525 - 3.63759)/(18 - 8)	-0.104233
2.76001	(4/29/2006)	3.63759	(9/24/1997)	(2.76001 - 3.63759)/(19 - 8)	-0.0797797
2.19277	(11/18/2006)	3.63759	(9/24/1997)	(2.19277 - 3.63759)/(20 - 8)	-0.120401
2.20827	(5/23/2007)	3.63759	(9/24/1997)	(2.20827 - 3.63759)/(21 - 8)	-0.109947
2.61007	(11/28/2007)	3.63759	(9/24/1997)	(2.61007 - 3.63759)/(22 - 8)	-0.073394
2.60269	(6/5/2008)	3.63759	(9/24/1997)	(2.60269 - 3.63759)/(23 - 8)	-0.0689931
ND<0	(11/20/2008)	3.63759	(9/24/1997)	(0 - 3.63759)/(24 - 8)	-0.227349
2.19722	(6/11/2009)	3.63759	(9/24/1997)	(2.19722 - 3.63759)/(25 - 8)	-0.0847272
1.75786	(6/30/2010)	3.63759	(9/24/1997)	(1.75786 - 3.63759)/(26 - 8)	-0.104429
2.15176	(11/12/2010)	3.63759	(9/24/1997)	(2.15176 - 3.63759)/(27 - 8)	-0.0782013
2.48491	(7/5/2011)	3.63759	(9/24/1997)	(2.48491 - 3.63759)/(28 - 8)	-0.057634
2.30259	(11/22/2011)	3.63759	(9/24/1997)	(2.30259 - 3.63759)/(29 - 8)	-0.0635715
2.30259	(11/22/2011)	3.63759	(9/24/1997)	(2.30259 - 3.63759)/(29 - 8)	-0.0635715
3.46574	(9/23/1998)	2.02815	(4/7/1998)	(3.46574 - 2.02815)/(10 - 9)	1.43759
3.7542	(3/16/1999)	2.02815	(4/7/1998)	(3.7542 - 2.02815)/(11 - 9)	0.863025
3.21487	(9/23/1999)	2.02815	(4/7/1998)	(3.21487 - 2.02815)/(12 - 9)	0.395573
2.3979	(3/15/2000)	2.02815	(4/7/1998)	(2.3979 - 2.02815)/(13 - 9)	0.0924368
2.3979	(9/24/2003)	2.02815	(4/7/1998)	(2.3979 - 2.02815)/(14 - 9)	0.0739494
1.96009	(3/11/2004)	2.02815	(4/7/1998)	(1.96009 - 2.02815)/(15 - 9)	-0.0113422
ND<0	(10/12/2004)	2.02815	(4/7/1998)	(0 - 2.02815)/(16 - 9)	-0.289735
ND<0	(4/1/2005)	2.02815	(4/7/1998)	(0 - 2.02815)/(17 - 9)	-0.253519
2.59525	(10/25/2005)	2.02815	(4/7/1998)	(2.59525 - 2.02815)/(18 - 9)	0.0630118
2.76001	(4/29/2006)	2.02815	(4/7/1998)	(2.76001 - 2.02815)/(19 - 9)	0.0731862
2.19277	(11/18/2006)	2.02815	(4/7/1998)	(2.19277 - 2.02815)/(20 - 9)	0.0149656
2.20827	(5/23/2007)	2.02815	(4/7/1998)	(2.20827 - 2.02815)/(21 - 9)	0.0150105

2.61007	(11/28/2007)	2.02815	(4/7/1998)	(2.61007 - 2.02815)/(22 - 9)	
0.0447632					
2.60269	(6/5/2008)	2.02815	(4/7/1998)	(2.60269 - 2.02815)/(23 - 9)	
0.0410387					
ND<0	(11/20/2008)	2.02815	(4/7/1998)	(0 - 2.02815)/(24 - 9)	-0.13521
2.19722	(6/11/2009)	2.02815	(4/7/1998)	(2.19722 - 2.02815)/(25 - 9)	
0.0105673					
1.75786	(6/30/2010)	2.02815	(4/7/1998)	(1.75786 - 2.02815)/(26 - 9)	
-0.0158994					
2.15176	(11/12/2010)	2.02815	(4/7/1998)	(2.15176 - 2.02815)/(27 - 9)	
0.00686744					
2.48491	(7/5/2011)	2.02815	(4/7/1998)	(2.48491 - 2.02815)/(28 - 9)	
0.0240399					
2.30259	(11/22/2011)	2.02815	(4/7/1998)	(2.30259 - 2.02815)/(29 - 9)	
0.0137218					
2.30259	(11/22/2011)	2.02815	(4/7/1998)	(2.30259 - 2.02815)/(29 - 9)	
0.0137218					
3.7542	(3/16/1999)	3.46574	(9/23/1998)	(3.7542 - 3.46574)/(11 - 10)	
0.288463					
3.21487	(9/23/1999)	3.46574	(9/23/1998)	(3.21487 - 3.46574)/(12 - 10)	
-0.125434					
2.3979	(3/15/2000)	3.46574	(9/23/1998)	(2.3979 - 3.46574)/(13 - 10)	
-0.355947					
2.3979	(9/24/2003)	3.46574	(9/23/1998)	(2.3979 - 3.46574)/(14 - 10)	
-0.26696					
1.96009	(3/11/2004)	3.46574	(9/23/1998)	(1.96009 - 3.46574)/(15 - 10)	
-0.301128					
ND<0	(10/12/2004)	3.46574	(9/23/1998)	(0 - 3.46574)/(16 - 10)	
-0.577623					
ND<0	(4/1/2005)	3.46574	(9/23/1998)	(0 - 3.46574)/(17 - 10)	
-0.495105					
2.59525	(10/25/2005)	3.46574	(9/23/1998)	(2.59525 - 3.46574)/(18 - 10)	
-0.10881					
2.76001	(4/29/2006)	3.46574	(9/23/1998)	(2.76001 - 3.46574)/(19 - 10)	
-0.078414					
2.19277	(11/18/2006)	3.46574	(9/23/1998)	(2.19277 - 3.46574)/(20 - 10)	
-0.127297					
2.20827	(5/23/2007)	3.46574	(9/23/1998)	(2.20827 - 3.46574)/(21 - 10)	
-0.114315					
2.61007	(11/28/2007)	3.46574	(9/23/1998)	(2.61007 - 3.46574)/(22 - 10)	
-0.0713055					
2.60269	(6/5/2008)	3.46574	(9/23/1998)	(2.60269 - 3.46574)/(23 - 10)	
-0.0663882					
ND<0	(11/20/2008)	3.46574	(9/23/1998)	(0 - 3.46574)/(24 - 10)	
-0.247553					
2.19722	(6/11/2009)	3.46574	(9/23/1998)	(2.19722 - 3.46574)/(25 - 10)	
-0.0845674					
1.75786	(6/30/2010)	3.46574	(9/23/1998)	(1.75786 - 3.46574)/(26 - 10)	
-0.106742					
2.15176	(11/12/2010)	3.46574	(9/23/1998)	(2.15176 - 3.46574)/(27 - 10)	
-0.0772926					
2.48491	(7/5/2011)	3.46574	(9/23/1998)	(2.48491 - 3.46574)/(28 - 10)	
-0.0544905					
2.30259	(11/22/2011)	3.46574	(9/23/1998)	(2.30259 - 3.46574)/(29 - 10)	
-0.0612185					
2.30259	(11/22/2011)	3.46574	(9/23/1998)	(2.30259 - 3.46574)/(29 - 10)	
-0.0612185					
3.21487	(9/23/1999)	3.7542	(3/16/1999)	(3.21487 - 3.7542)/(12 - 11)	
-0.539331					

2.3979	(3/15/2000)	3.7542	(3/16/1999)	(2.3979 - 3.7542)/(13 - 11)		
	-0.678152					
2.3979	(9/24/2003)	3.7542	(3/16/1999)	(2.3979 - 3.7542)/(14 - 11)		
	-0.452101					
1.96009	(3/11/2004)	3.7542	(3/16/1999)	(1.96009 - 3.7542)/(15 - 11)		
	-0.448526					
ND<0	(10/12/2004)	3.7542	(3/16/1999)	(0 - 3.7542)/(16 - 11)		-0.75084
ND<0	(4/1/2005)	3.7542	(3/16/1999)	(0 - 3.7542)/(17 - 11)		-0.6257
2.59525	(10/25/2005)	3.7542	(3/16/1999)	(2.59525 - 3.7542)/(18 - 11)		
	-0.165563					
2.76001	(4/29/2006)	3.7542	(3/16/1999)	(2.76001 - 3.7542)/(19 - 11)		
	-0.124274					
2.19277	(11/18/2006)	3.7542	(3/16/1999)	(2.19277 - 3.7542)/(20 - 11)		
	-0.173492					
2.20827	(5/23/2007)	3.7542	(3/16/1999)	(2.20827 - 3.7542)/(21 - 11)		
	-0.154592					
2.61007	(11/28/2007)	3.7542	(3/16/1999)	(2.61007 - 3.7542)/(22 - 11)		
	-0.104012					
2.60269	(6/5/2008)	3.7542	(3/16/1999)	(2.60269 - 3.7542)/(23 - 11)		
	-0.0959591					
ND<0	(11/20/2008)	3.7542	(3/16/1999)	(0 - 3.7542)/(24 - 11)		
	-0.288785					
2.19722	(6/11/2009)	3.7542	(3/16/1999)	(2.19722 - 3.7542)/(25 - 11)		
	-0.111212					
1.75786	(6/30/2010)	3.7542	(3/16/1999)	(1.75786 - 3.7542)/(26 - 11)		
	-0.133089					
2.15176	(11/12/2010)	3.7542	(3/16/1999)	(2.15176 - 3.7542)/(27 - 11)		
	-0.100152					
2.48491	(7/5/2011)	3.7542	(3/16/1999)	(2.48491 - 3.7542)/(28 - 11)		
	-0.0746643					
2.30259	(11/22/2011)	3.7542	(3/16/1999)	(2.30259 - 3.7542)/(29 - 11)		
	-0.0806452					
2.30259	(11/22/2011)	3.7542	(3/16/1999)	(2.30259 - 3.7542)/(29 - 11)		
	-0.0806452					
2.3979	(3/15/2000)	3.21487	(9/23/1999)	(2.3979 - 3.21487)/(13 - 12)		
	-0.816973					
2.3979	(9/24/2003)	3.21487	(9/23/1999)	(2.3979 - 3.21487)/(14 - 12)		
	-0.408486					
1.96009	(3/11/2004)	3.21487	(9/23/1999)	(1.96009 - 3.21487)/(15 - 12)		
	-0.418258					
ND<0	(10/12/2004)	3.21487	(9/23/1999)	(0 - 3.21487)/(16 - 12)		
	-0.803717					
ND<0	(4/1/2005)	3.21487	(9/23/1999)	(0 - 3.21487)/(17 - 12)		
	-0.642974					
2.59525	(10/25/2005)	3.21487	(9/23/1999)	(2.59525 - 3.21487)/(18 - 12)		
	-0.103269					
2.76001	(4/29/2006)	3.21487	(9/23/1999)	(2.76001 - 3.21487)/(19 - 12)		
	-0.0649797					
2.19277	(11/18/2006)	3.21487	(9/23/1999)	(2.19277 - 3.21487)/(20 - 12)		
	-0.127762					
2.20827	(5/23/2007)	3.21487	(9/23/1999)	(2.20827 - 3.21487)/(21 - 12)		
	-0.111844					
2.61007	(11/28/2007)	3.21487	(9/23/1999)	(2.61007 - 3.21487)/(22 - 12)		
	-0.0604798					
2.60269	(6/5/2008)	3.21487	(9/23/1999)	(2.60269 - 3.21487)/(23 - 12)		
	-0.0556526					
ND<0	(11/20/2008)	3.21487	(9/23/1999)	(0 - 3.21487)/(24 - 12)		
	-0.267906					
2.19722	(6/11/2009)	3.21487	(9/23/1999)	(2.19722 - 3.21487)/(25 - 12)		
	-0.0782802					

1.75786	(6/30/2010)	3.21487	(9/23/1999)	(1.75786 - 3.21487)/(26 - 12)	
-0.104072					
2.15176	(11/12/2010)	3.21487	(9/23/1999)	(2.15176 - 3.21487)/(27 - 12)	
-0.0708737					
2.48491	(7/5/2011)	3.21487	(9/23/1999)	(2.48491 - 3.21487)/(28 - 12)	
-0.0456226					
2.30259	(11/22/2011)	3.21487	(9/23/1999)	(2.30259 - 3.21487)/(29 - 12)	
-0.0536637					
2.30259	(11/22/2011)	3.21487	(9/23/1999)	(2.30259 - 3.21487)/(29 - 12)	
-0.0536637					
2.3979	(9/24/2003)	2.3979	(3/15/2000)	(2.3979 - 2.3979)/(14 - 13)	0
1.96009	(3/11/2004)	2.3979	(3/15/2000)	(1.96009 - 2.3979)/(15 - 13)	
-0.2189					
ND<0	(10/12/2004)	2.3979	(3/15/2000)	(0 - 2.3979)/(16 - 13)	
-0.799298					
ND<0	(4/1/2005)	2.3979	(3/15/2000)	(0 - 2.3979)/(17 - 13)	
-0.599474					
2.59525	(10/25/2005)	2.3979	(3/15/2000)	(2.59525 - 2.3979)/(18 - 13)	
0.0394719					
2.76001	(4/29/2006)	2.3979	(3/15/2000)	(2.76001 - 2.3979)/(19 - 13)	
0.0603524					
2.19277	(11/18/2006)	2.3979	(3/15/2000)	(2.19277 - 2.3979)/(20 - 13)	
-0.0293036					
2.20827	(5/23/2007)	2.3979	(3/15/2000)	(2.20827 - 2.3979)/(21 - 13)	
-0.0237026					
2.61007	(11/28/2007)	2.3979	(3/15/2000)	(2.61007 - 2.3979)/(22 - 13)	
0.0235749					
2.60269	(6/5/2008)	2.3979	(3/15/2000)	(2.60269 - 2.3979)/(23 - 13)	
0.0204794					
ND<0	(11/20/2008)	2.3979	(3/15/2000)	(0 - 2.3979)/(24 - 13)	-0.21799
2.19722	(6/11/2009)	2.3979	(3/15/2000)	(2.19722 - 2.3979)/(25 - 13)	
-0.0167226					
1.75786	(6/30/2010)	2.3979	(3/15/2000)	(1.75786 - 2.3979)/(26 - 13)	
-0.0492336					
2.15176	(11/12/2010)	2.3979	(3/15/2000)	(2.15176 - 2.3979)/(27 - 13)	
-0.0175809					
2.48491	(7/5/2011)	2.3979	(3/15/2000)	(2.48491 - 2.3979)/(28 - 13)	
0.00580076					
2.30259	(11/22/2011)	2.3979	(3/15/2000)	(2.30259 - 2.3979)/(29 - 13)	
-0.00595689					
2.30259	(11/22/2011)	2.3979	(3/15/2000)	(2.30259 - 2.3979)/(29 - 13)	
-0.00595689					
1.96009	(3/11/2004)	2.3979	(9/24/2003)	(1.96009 - 2.3979)/(15 - 14)	
-0.4378					
ND<0	(10/12/2004)	2.3979	(9/24/2003)	(0 - 2.3979)/(16 - 14)	-1.19895
ND<0	(4/1/2005)	2.3979	(9/24/2003)	(0 - 2.3979)/(17 - 14)	
-0.799298					
2.59525	(10/25/2005)	2.3979	(9/24/2003)	(2.59525 - 2.3979)/(18 - 14)	
0.0493399					
2.76001	(4/29/2006)	2.3979	(9/24/2003)	(2.76001 - 2.3979)/(19 - 14)	
0.0724229					
2.19277	(11/18/2006)	2.3979	(9/24/2003)	(2.19277 - 2.3979)/(20 - 14)	
-0.0341875					
2.20827	(5/23/2007)	2.3979	(9/24/2003)	(2.20827 - 2.3979)/(21 - 14)	
-0.0270887					
2.61007	(11/28/2007)	2.3979	(9/24/2003)	(2.61007 - 2.3979)/(22 - 14)	
0.0265218					
2.60269	(6/5/2008)	2.3979	(9/24/2003)	(2.60269 - 2.3979)/(23 - 14)	
0.0227549					
ND<0	(11/20/2008)	2.3979	(9/24/2003)	(0 - 2.3979)/(24 - 14)	-0.23979

2.19722	(6/11/2009)	2.3979	(9/24/2003)	(2.19722 - 2.3979)/(25 - 14)		
-0.0182428						
1.75786	(6/30/2010)	2.3979	(9/24/2003)	(1.75786 - 2.3979)/(26 - 14)		
-0.0533364						
2.15176	(11/12/2010)	2.3979	(9/24/2003)	(2.15176 - 2.3979)/(27 - 14)		
-0.0189333						
2.48491	(7/5/2011)	2.3979	(9/24/2003)	(2.48491 - 2.3979)/(28 - 14)		
0.0062151						
2.30259	(11/22/2011)	2.3979	(9/24/2003)	(2.30259 - 2.3979)/(29 - 14)		
-0.00635401						
2.30259	(11/22/2011)	2.3979	(9/24/2003)	(2.30259 - 2.3979)/(29 - 14)		
-0.00635401						
ND<0	(10/12/2004)	1.96009	(3/11/2004)	(0 - 1.96009)/(16 - 15)		-1.96009
ND<0	(4/1/2005)	1.96009	(3/11/2004)	(0 - 1.96009)/(17 - 15)		
-0.980047						
2.59525	(10/25/2005)	1.96009	(3/11/2004)	(2.59525 - 1.96009)/(18 - 15)		
0.21172						
2.76001	(4/29/2006)	1.96009	(3/11/2004)	(2.76001 - 1.96009)/(19 - 15)		
0.199979						
2.19277	(11/18/2006)	1.96009	(3/11/2004)	(2.19277 - 1.96009)/(20 - 15)		
0.0465351						
2.20827	(5/23/2007)	1.96009	(3/11/2004)	(2.20827 - 1.96009)/(21 - 15)		
0.0413633						
2.61007	(11/28/2007)	1.96009	(3/11/2004)	(2.61007 - 1.96009)/(22 - 15)		
0.0928536						
2.60269	(6/5/2008)	1.96009	(3/11/2004)	(2.60269 - 1.96009)/(23 - 15)		
0.0803244						
ND<0	(11/20/2008)	1.96009	(3/11/2004)	(0 - 1.96009)/(24 - 15)		
-0.217788						
2.19722	(6/11/2009)	1.96009	(3/11/2004)	(2.19722 - 1.96009)/(25 - 15)		
0.023713						
1.75786	(6/30/2010)	1.96009	(3/11/2004)	(1.75786 - 1.96009)/(26 - 15)		
-0.0183852						
2.15176	(11/12/2010)	1.96009	(3/11/2004)	(2.15176 - 1.96009)/(27 - 15)		
0.0159723						
2.48491	(7/5/2011)	1.96009	(3/11/2004)	(2.48491 - 1.96009)/(28 - 15)		
0.0403701						
2.30259	(11/22/2011)	1.96009	(3/11/2004)	(2.30259 - 1.96009)/(29 - 15)		
0.0244636						
2.30259	(11/22/2011)	1.96009	(3/11/2004)	(2.30259 - 1.96009)/(29 - 15)		
0.0244636						
ND<0	(4/1/2005)	ND<0	(10/12/2004)	(0 - 0)/(17 - 16)	0	
2.59525	(10/25/2005)	ND<0	(10/12/2004)	(2.59525 - 0)/(18 - 16)		1.29763
2.76001	(4/29/2006)	ND<0	(10/12/2004)	(2.76001 - 0)/(19 - 16)		
0.920003						
2.19277	(11/18/2006)	ND<0	(10/12/2004)	(2.19277 - 0)/(20 - 16)		
0.548193						
2.20827	(5/23/2007)	ND<0	(10/12/2004)	(2.20827 - 0)/(21 - 16)		
0.441655						
2.61007	(11/28/2007)	ND<0	(10/12/2004)	(2.61007 - 0)/(22 - 16)		
0.435012						
2.60269	(6/5/2008)	ND<0	(10/12/2004)	(2.60269 - 0)/(23 - 16)		
0.371813						
ND<0	(11/20/2008)	ND<0	(10/12/2004)	(0 - 0)/(24 - 16)	0	
2.19722	(6/11/2009)	ND<0	(10/12/2004)	(2.19722 - 0)/(25 - 16)		
0.244136						
1.75786	(6/30/2010)	ND<0	(10/12/2004)	(1.75786 - 0)/(26 - 16)		
0.175786						
2.15176	(11/12/2010)	ND<0	(10/12/2004)	(2.15176 - 0)/(27 - 16)		
0.195615						

2.48491	(7/5/2011)	ND<0	(10/12/2004)	(2.48491 - 0)/(28 - 16)	
0.207076					
2.30259	(11/22/2011)	ND<0	(10/12/2004)	(2.30259 - 0)/(29 - 16)	
0.177122					
2.30259	(11/22/2011)	ND<0	(10/12/2004)	(2.30259 - 0)/(29 - 16)	
0.177122					
2.59525	(10/25/2005)	ND<0	(4/1/2005)	(2.59525 - 0)/(18 - 17)	2.59525
2.76001	(4/29/2006)	ND<0	(4/1/2005)	(2.76001 - 0)/(19 - 17)	1.38
2.19277	(11/18/2006)	ND<0	(4/1/2005)	(2.19277 - 0)/(20 - 17)	
0.730923					
2.20827	(5/23/2007)	ND<0	(4/1/2005)	(2.20827 - 0)/(21 - 17)	
0.552069					
2.61007	(11/28/2007)	ND<0	(4/1/2005)	(2.61007 - 0)/(22 - 17)	
0.522014					
2.60269	(6/5/2008)	ND<0	(4/1/2005)	(2.60269 - 0)/(23 - 17)	
0.433782					
ND<0	(11/20/2008)	ND<0	(4/1/2005)	(0 - 0)/(24 - 17)	0
2.19722	(6/11/2009)	ND<0	(4/1/2005)	(2.19722 - 0)/(25 - 17)	
0.274653					
1.75786	(6/30/2010)	ND<0	(4/1/2005)	(1.75786 - 0)/(26 - 17)	
0.195318					
2.15176	(11/12/2010)	ND<0	(4/1/2005)	(2.15176 - 0)/(27 - 17)	
0.215176					
2.48491	(7/5/2011)	ND<0	(4/1/2005)	(2.48491 - 0)/(28 - 17)	
0.225901					
2.30259	(11/22/2011)	ND<0	(4/1/2005)	(2.30259 - 0)/(29 - 17)	
0.191882					
2.30259	(11/22/2011)	ND<0	(4/1/2005)	(2.30259 - 0)/(29 - 17)	
0.191882					
2.76001	(4/29/2006)	2.59525	(10/25/2005)	(2.76001 - 2.59525)/(19 - 18)	
0.164755					
2.19277	(11/18/2006)	2.59525	(10/25/2005)	(2.19277 - 2.59525)/(20 - 18)	
-0.201242					
2.20827	(5/23/2007)	2.59525	(10/25/2005)	(2.20827 - 2.59525)/(21 - 18)	
-0.128993					
2.61007	(11/28/2007)	2.59525	(10/25/2005)	(2.61007 - 2.59525)/(22 - 18)	
0.00370377					
2.60269	(6/5/2008)	2.59525	(10/25/2005)	(2.60269 - 2.59525)/(23 - 18)	
0.001487					
ND<0	(11/20/2008)	2.59525	(10/25/2005)	(0 - 2.59525)/(24 - 18)	
-0.432542					
2.19722	(6/11/2009)	2.59525	(10/25/2005)	(2.19722 - 2.59525)/(25 - 18)	
-0.0568614					
1.75786	(6/30/2010)	2.59525	(10/25/2005)	(1.75786 - 2.59525)/(26 - 18)	
-0.104675					
2.15176	(11/12/2010)	2.59525	(10/25/2005)	(2.15176 - 2.59525)/(27 - 18)	
-0.0492769					
2.48491	(7/5/2011)	2.59525	(10/25/2005)	(2.48491 - 2.59525)/(28 - 18)	
-0.0110348					
2.30259	(11/22/2011)	2.59525	(10/25/2005)	(2.30259 - 2.59525)/(29 - 18)	
-0.0266063					
2.30259	(11/22/2011)	2.59525	(10/25/2005)	(2.30259 - 2.59525)/(29 - 18)	
-0.0266063					
2.19277	(11/18/2006)	2.76001	(4/29/2006)	(2.19277 - 2.76001)/(20 - 19)	
-0.56724					
2.20827	(5/23/2007)	2.76001	(4/29/2006)	(2.20827 - 2.76001)/(21 - 19)	
-0.275868					
2.61007	(11/28/2007)	2.76001	(4/29/2006)	(2.61007 - 2.76001)/(22 - 19)	
-0.04998					

2.60269	(6/5/2008)	2.76001	(4/29/2006)	(2.60269 - 2.76001)/(23 - 19)	
-0.0393301					
ND<0	(11/20/2008)	2.76001	(4/29/2006)	(0 - 2.76001)/(24 - 19)	
-0.552002					
2.19722	(6/11/2009)	2.76001	(4/29/2006)	(2.19722 - 2.76001)/(25 - 19)	
-0.0937976					
1.75786	(6/30/2010)	2.76001	(4/29/2006)	(1.75786 - 2.76001)/(26 - 19)	
-0.143165					
2.15176	(11/12/2010)	2.76001	(4/29/2006)	(2.15176 - 2.76001)/(27 - 19)	
-0.076031					
2.48491	(7/5/2011)	2.76001	(4/29/2006)	(2.48491 - 2.76001)/(28 - 19)	
-0.030567					
2.30259	(11/22/2011)	2.76001	(4/29/2006)	(2.30259 - 2.76001)/(29 - 19)	
-0.0457425					
2.30259	(11/22/2011)	2.76001	(4/29/2006)	(2.30259 - 2.76001)/(29 - 19)	
-0.0457425					
2.20827	(5/23/2007)	2.19277	(11/18/2006)	(2.20827 - 2.19277)/(21 - 20)	
0.0155042					
2.61007	(11/28/2007)	2.19277	(11/18/2006)	(2.61007 - 2.19277)/(22 - 20)	
0.20865					
2.60269	(6/5/2008)	2.19277	(11/18/2006)	(2.60269 - 2.19277)/(23 - 20)	
0.13664					
ND<0	(11/20/2008)	2.19277	(11/18/2006)	(0 - 2.19277)/(24 - 20)	
-0.548193					
2.19722	(6/11/2009)	2.19277	(11/18/2006)	(2.19722 - 2.19277)/(25 - 20)	
0.00089087					
1.75786	(6/30/2010)	2.19277	(11/18/2006)	(1.75786 - 2.19277)/(26 - 20)	
-0.0724854					
2.15176	(11/12/2010)	2.19277	(11/18/2006)	(2.15176 - 2.19277)/(27 - 20)	
-0.00585829					
2.48491	(7/5/2011)	2.19277	(11/18/2006)	(2.48491 - 2.19277)/(28 - 20)	
0.0365171					
2.30259	(11/22/2011)	2.19277	(11/18/2006)	(2.30259 - 2.19277)/(29 - 20)	
0.0122017					
2.30259	(11/22/2011)	2.19277	(11/18/2006)	(2.30259 - 2.19277)/(29 - 20)	
0.0122017					
2.61007	(11/28/2007)	2.20827	(5/23/2007)	(2.61007 - 2.20827)/(22 - 21)	
0.401795					
2.60269	(6/5/2008)	2.20827	(5/23/2007)	(2.60269 - 2.20827)/(23 - 21)	
0.197208					
ND<0	(11/20/2008)	2.20827	(5/23/2007)	(0 - 2.20827)/(24 - 21)	
-0.736091					
2.19722	(6/11/2009)	2.20827	(5/23/2007)	(2.19722 - 2.20827)/(25 - 21)	
-0.00276246					
1.75786	(6/30/2010)	2.20827	(5/23/2007)	(1.75786 - 2.20827)/(26 - 21)	
-0.0900833					
2.15176	(11/12/2010)	2.20827	(5/23/2007)	(2.15176 - 2.20827)/(27 - 21)	
-0.0094187					
2.48491	(7/5/2011)	2.20827	(5/23/2007)	(2.48491 - 2.20827)/(28 - 21)	
0.0395189					
2.30259	(11/22/2011)	2.20827	(5/23/2007)	(2.30259 - 2.20827)/(29 - 21)	
0.0117888					
2.30259	(11/22/2011)	2.20827	(5/23/2007)	(2.30259 - 2.20827)/(29 - 21)	
0.0117888					
2.60269	(6/5/2008)	2.61007	(11/28/2007)	(2.60269 - 2.61007)/(23 - 22)	
-0.00738011					
ND<0	(11/20/2008)	2.61007	(11/28/2007)	(0 - 2.61007)/(24 - 22)	-1.30503
2.19722	(6/11/2009)	2.61007	(11/28/2007)	(2.19722 - 2.61007)/(25 - 22)	
-0.137615					

1.75786 (6/30/2010)	2.61007 (11/28/2007)	(1.75786 - 2.61007)/(26 - 22)		
-0.213053				
2.15176 (11/12/2010)	2.61007 (11/28/2007)	(2.15176 - 2.61007)/(27 - 22)		
-0.0916615				
2.48491 (7/5/2011)	2.61007 (11/28/2007)	(2.48491 - 2.61007)/(28 - 22)		
-0.0208605				
2.30259 (11/22/2011)	2.61007 (11/28/2007)	(2.30259 - 2.61007)/(29 - 22)		
-0.0439264				
2.30259 (11/22/2011)	2.61007 (11/28/2007)	(2.30259 - 2.61007)/(29 - 22)		
-0.0439264				
ND<0 (11/20/2008)	2.60269 (6/5/2008)	(0 - 2.60269)/(24 - 23)	-2.60269	
2.19722 (6/11/2009)	2.60269 (6/5/2008)	(2.19722 - 2.60269)/(25 - 23)		
-0.202733				
1.75786 (6/30/2010)	2.60269 (6/5/2008)	(1.75786 - 2.60269)/(26 - 23)		
-0.281611				
2.15176 (11/12/2010)	2.60269 (6/5/2008)	(2.15176 - 2.60269)/(27 - 23)		
-0.112732				
2.48491 (7/5/2011)	2.60269 (6/5/2008)	(2.48491 - 2.60269)/(28 - 23)		
-0.0235566				
2.30259 (11/22/2011)	2.60269 (6/5/2008)	(2.30259 - 2.60269)/(29 - 23)		
-0.0500174				
2.30259 (11/22/2011)	2.60269 (6/5/2008)	(2.30259 - 2.60269)/(29 - 23)		
-0.0500174				
2.19722 (6/11/2009)	ND<0 (11/20/2008)	(2.19722 - 0)/(25 - 24)	2.19722	
1.75786 (6/30/2010)	ND<0 (11/20/2008)	(1.75786 - 0)/(26 - 24)		
0.878929				
2.15176 (11/12/2010)	ND<0 (11/20/2008)	(2.15176 - 0)/(27 - 24)		
0.717254				
2.48491 (7/5/2011)	ND<0 (11/20/2008)	(2.48491 - 0)/(28 - 24)		
0.621227				
2.30259 (11/22/2011)	ND<0 (11/20/2008)	(2.30259 - 0)/(29 - 24)		
0.460517				
2.30259 (11/22/2011)	ND<0 (11/20/2008)	(2.30259 - 0)/(29 - 24)		
0.460517				
1.75786 (6/30/2010)	2.19722 (6/11/2009)	(1.75786 - 2.19722)/(26 - 25)		
-0.439367				
2.15176 (11/12/2010)	2.19722 (6/11/2009)	(2.15176 - 2.19722)/(27 - 25)		
-0.0227312				
2.48491 (7/5/2011)	2.19722 (6/11/2009)	(2.48491 - 2.19722)/(28 - 25)		
0.095894				
2.30259 (11/22/2011)	2.19722 (6/11/2009)	(2.30259 - 2.19722)/(29 - 25)		
0.0263401				
2.30259 (11/22/2011)	2.19722 (6/11/2009)	(2.30259 - 2.19722)/(29 - 25)		
0.0263401				
2.15176 (11/12/2010)	1.75786 (6/30/2010)	(2.15176 - 1.75786)/(27 - 26)		
0.393904				
2.48491 (7/5/2011)	1.75786 (6/30/2010)	(2.48491 - 1.75786)/(28 - 26)		
0.363524				
2.30259 (11/22/2011)	1.75786 (6/30/2010)	(2.30259 - 1.75786)/(29 - 26)		
0.181576				
2.30259 (11/22/2011)	1.75786 (6/30/2010)	(2.30259 - 1.75786)/(29 - 26)		
0.181576				
2.48491 (7/5/2011)	2.15176 (11/12/2010)	(2.48491 - 2.15176)/(28 - 27)		
0.333144				
2.30259 (11/22/2011)	2.15176 (11/12/2010)	(2.30259 - 2.15176)/(29 - 27)		
0.0754114				

2.30259	(11/22/2011)	2.15176	(11/12/2010)	(2.30259 - 2.15176)/(29 - 27)
0.0754114				
2.30259	(11/22/2011)	2.48491	(7/5/2011)	(2.30259 - 2.48491)/(29 - 28)
-0.182322				
2.30259	(11/22/2011)	2.48491	(7/5/2011)	(2.30259 - 2.48491)/(29 - 28)
-0.182322				
2.30259	(11/22/2011)	2.30259	(11/22/2011)	(2.30259 - 2.30259)/(29 - 29)
Same Date				

Number of Q values = 434

Ordered Q Values

n	Q
1	-3.2581
2	-2.60269
3	-1.96009
4	-1.73287
5	-1.60944
6	-1.30503
7	-1.19895
8	-0.980047
9	-0.902683
10	-0.816973
11	-0.803717
12	-0.799298
13	-0.799298
14	-0.75084
15	-0.736091
16	-0.678152
17	-0.642974
18	-0.6257
19	-0.614974
20	-0.599474
21	-0.577623
22	-0.56724
23	-0.553577
24	-0.552002
25	-0.548193
26	-0.539331
27	-0.495105
28	-0.454698
29	-0.452101
30	-0.448526
31	-0.439367
32	-0.4378
33	-0.432542
34	-0.430783
35	-0.418258
36	-0.408486
37	-0.404176
38	-0.368888
39	-0.362011
40	-0.355947
41	-0.346574
42	-0.335353
43	-0.32581
44	-0.301128
45	-0.289735

46	-0.288785
47	-0.281611
48	-0.275868
49	-0.271508
50	-0.267906
51	-0.26696
52	-0.266595
53	-0.253519
54	-0.250623
55	-0.247938
56	-0.247553
57	-0.247553
58	-0.24599
59	-0.23979
60	-0.239642
61	-0.239598
62	-0.227349
63	-0.2189
64	-0.21799
65	-0.217788
66	-0.213053
67	-0.207639
68	-0.206615
69	-0.204938
70	-0.202733
71	-0.201242
72	-0.193432
73	-0.192087
74	-0.191653
75	-0.184426
76	-0.182322
77	-0.182322
78	-0.180537
79	-0.173492
80	-0.165563
81	-0.165035
82	-0.162905
83	-0.16225
84	-0.161373
85	-0.154592
86	-0.143367
87	-0.143165
88	-0.137615
89	-0.13521
90	-0.133089
91	-0.128993
92	-0.127762
93	-0.127297
94	-0.12547
95	-0.125434
96	-0.124274
97	-0.123093
98	-0.122886
99	-0.120401
100	-0.118
101	-0.114315
102	-0.112732
103	-0.111844
104	-0.111212
105	-0.109947
106	-0.10881
107	-0.106865

108	-0.106784
109	-0.106742
110	-0.10568
111	-0.104675
112	-0.104429
113	-0.104233
114	-0.104072
115	-0.104012
116	-0.103269
117	-0.100152
118	-0.098707
119	-0.0971289
120	-0.0970764
121	-0.0965511
122	-0.0959591
123	-0.0955779
124	-0.0937976
125	-0.0924196
126	-0.0916615
127	-0.0911354
128	-0.0900833
129	-0.0866434
130	-0.0860201
131	-0.0859251
132	-0.0847272
133	-0.0845674
134	-0.0819482
135	-0.0806452
136	-0.0806452
137	-0.0797797
138	-0.0790019
139	-0.0789599
140	-0.0785082
141	-0.078414
142	-0.0782802
143	-0.0782013
144	-0.0772926
145	-0.076031
146	-0.0749873
147	-0.0748803
148	-0.0746643
149	-0.0742556
150	-0.073394
151	-0.0731961
152	-0.0724854
153	-0.0714515
154	-0.0713055
155	-0.0708737
156	-0.069859
157	-0.0689931
158	-0.0681927
159	-0.0674256
160	-0.0665829
161	-0.0663882
162	-0.0649797
163	-0.0638935
164	-0.0635715
165	-0.0635715
166	-0.0617542
167	-0.0612185
168	-0.0612185
169	-0.0604798

170	-0.0602737
171	-0.0602737
172	-0.0602737
173	-0.0602583
174	-0.0589373
175	-0.0580321
176	-0.0576596
177	-0.057634
178	-0.057535
179	-0.0568614
180	-0.0557859
181	-0.0556526
182	-0.0553167
183	-0.0547489
184	-0.054726
185	-0.0544905
186	-0.0536637
187	-0.0536637
188	-0.0533364
189	-0.0519098
190	-0.0505177
191	-0.0500174
192	-0.0500174
193	-0.04998
194	-0.0492769
195	-0.0492336
196	-0.0481015
197	-0.0473458
198	-0.0457425
199	-0.0457425
200	-0.0456226
201	-0.0450351
202	-0.0447366
203	-0.0447366
204	-0.0441079
205	-0.0439264
206	-0.0439264
207	-0.0434323
208	-0.0434323
209	-0.0432018
210	-0.0431523
211	-0.0415072
212	-0.0409629
213	-0.0395913
214	-0.0393301
215	-0.0392332
216	-0.0382205
217	-0.0382205
218	-0.0368186
219	-0.0360015
220	-0.0344951
221	-0.0341875
222	-0.0332058
223	-0.0322162
224	-0.030567
225	-0.0293036
226	-0.0286267
227	-0.0281959
228	-0.0278742
229	-0.0270887
230	-0.0266063
231	-0.0266063

232	-0.026304
233	-0.0258462
234	-0.0256466
235	-0.0237026
236	-0.0235566
237	-0.0227312
238	-0.0222515
239	-0.0222098
240	-0.0208605
241	-0.0189333
242	-0.0183852
243	-0.0182428
244	-0.0175809
245	-0.0167226
246	-0.0158994
247	-0.0150172
248	-0.0150172
249	-0.0113422
250	-0.0110348
251	-0.0094187
252	-0.00864575
253	-0.00858244
254	-0.00738011
255	-0.00704972
256	-0.00635401
257	-0.00635401
258	-0.00595689
259	-0.00595689
260	-0.00585829
261	-0.00540359
262	-0.00501717
263	-0.00489902
264	-0.00276246
265	0
266	0
267	0
268	0
269	0
270	0
271	0
272	0
273	0
274	0.00089087
275	0.001487
276	0.00305646
277	0.00370377
278	0.00580076
279	0.0062151
280	0.00686744
281	0.0105673
282	0.0117888
283	0.0117888
284	0.0122017
285	0.0122017
286	0.0130639
287	0.0137218
288	0.0137218
289	0.0148625
290	0.0149656
291	0.0150105
292	0.0155042
293	0.0159723

294	0.0204794
295	0.0227549
296	0.0235749
297	0.023713
298	0.0240399
299	0.0244636
300	0.0244636
301	0.0263401
302	0.0263401
303	0.0265218
304	0.0294411
305	0.0327247
306	0.0327247
307	0.0337888
308	0.0343701
309	0.0346066
310	0.0360579
311	0.0365171
312	0.0388709
313	0.0394719
314	0.0395189
315	0.0403701
316	0.0406893
317	0.0409857
318	0.0410387
319	0.041099
320	0.0413633
321	0.0424461
322	0.0447632
323	0.0465351
324	0.0493399
325	0.0506818
326	0.0552907
327	0.058275
328	0.0603524
329	0.0630118
330	0.0692131
331	0.0708718
332	0.0711153
333	0.0724229
334	0.0731862
335	0.0739494
336	0.0743812
337	0.0754114
338	0.0754114
339	0.0763175
340	0.0778155
341	0.0802317
342	0.0803244
343	0.0837075
344	0.0843001
345	0.0924368
346	0.0928536
347	0.0947107
348	0.0948724
349	0.095894
350	0.095941
351	0.095941
352	0.0978074
353	0.108039
354	0.109861
355	0.110009

356	0.116239
357	0.124026
358	0.13664
359	0.138017
360	0.144594
361	0.146185
362	0.153534
363	0.154923
364	0.164755
365	0.166234
366	0.175786
367	0.177122
368	0.177122
369	0.181576
370	0.181576
371	0.191882
372	0.191882
373	0.195318
374	0.195615
375	0.196009
376	0.197144
377	0.197208
378	0.199635
379	0.199979
380	0.207076
381	0.20865
382	0.21172
383	0.215176
384	0.215391
385	0.225901
386	0.231049
387	0.23679
388	0.244136
389	0.245207
390	0.266433
391	0.274653
392	0.275023
393	0.288463
394	0.299737
395	0.311967
396	0.321613
397	0.333144
398	0.363524
399	0.371813
400	0.37949
401	0.393904
402	0.395573
403	0.401795
404	0.433782
405	0.435012
406	0.441655
407	0.459267
408	0.460517
409	0.460517
410	0.460517
411	0.507037
412	0.522014
413	0.548193
414	0.552069
415	0.621227
416	0.623934
417	0.6257

418	0.693147
419	0.717254
420	0.730923
421	0.757686
422	0.863025
423	0.878929
424	0.920003
425	1.03972
426	1.21253
427	1.29763
428	1.32176
429	1.38
430	1.43759
431	1.62905
432	2.19722
433	2.59525
434	3.68888

Sen's Estimator (Median Q) is -0.0375195

Tied Group	Value	Members
1	3.46574	2
2	3.2581	2
3	0	4
4	2.3979	2
5	2.30259	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 228
B = 18
C = 24

D = 0
E = 20
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3128.02
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9945
M1 = (434 - 91.9945)/2.0 = 171.003
M2 = (434 + 91.9945)/2.0 + 1 = 263.997
Lower limit is -0.0602737 = Q(171)
Upper limit is -0.00276246 = Q(264)
-0.00276246 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 167
Percent Non-Detects: 69.5833%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	14 (73.6842%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	0.11 J	0.11 J
			11/16/2009	0.083 J	0.083 J
			6/30/2010	0.1 J H	0.1 J H
			11/12/2010	0.11 J	0.11 J
			7/5/2011	0.18 J	0.18 J

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12A R	20	12 (60%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	0.698 J	0.698 J
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	1.48 J	1.48 J
			11/20/2008	ND<20	ND<20
			6/11/2009	0.69	0.69
			11/16/2009	0.8	0.8
			6/30/2010	0.65	0.65
			11/12/2010	0.89	0.89
			7/5/2011	0.68	0.68
			11/22/2011	0.69	0.69
MW-11R	31	22 (70.9677%)	7/20/1995	ND<20	ND<20
			8/24/1995	ND<20	ND<20
			9/28/1995	ND<20	ND<20

			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	2.13 J	2.13 J	
			5/23/2007	1.02 J	1.02 J	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.25	0.25	
			11/16/2009	0.15 J	0.15 J	
			6/30/2010	0.58 H	0.58 H	
			11/12/2010	0.18 J	0.18 J	
			7/5/2011 0.19 J	0.19 J		
			11/22/2011	0.2	0.2	
			11/22/2011	0.2	0.2	
MW-9	31	21 (67.7419%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	1.25 J	1.25 J	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 1.02 J	1.02 J		
			11/20/2008	3 J	3 J	
			6/11/2009	1	1	
			11/16/2009	0.93	0.93	
			6/30/2010	0.73 H	0.73 H	
			11/12/2010	0.52	0.52	
			7/5/2011 0.52	0.52		
			11/22/2011	1.1	1.1	
			11/22/2011	1.1	1.1	
MW-6	30	24 (80%)	7/20/1995		ND<20	ND<20

			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.13 J	0.13 J	
			11/16/2009	0.13 J	0.13 J	
			6/30/2010	0.13 J H	0.13 J H	
			11/12/2010	0.21	0.21	
			7/5/2011 0.19 J	0.19 J		
			11/22/2011	0.23	0.23	
MW-8	29	22 (75.8621%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	1 J	1 J	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 0.609 J	0.609 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.4	0.4	
			6/30/2010	0.51 H	0.51 H	
			11/12/2010	2.4	2.4	
			7/5/2011 0.53	0.53		
			11/22/2011	0.23	0.23	
MW-12BR		20	12 (60%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20	

			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	1.46 J	1.46 J	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 1.48 J	1.48 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.1	1.1	
			11/16/2009	1	1	
			6/30/2010	1.1	1.1	
			11/12/2010	1.1	1.1	
			7/5/2011 1.2	1.2		
			11/22/2011	1.1	1.1	
MW-7	30	22 (73.3333%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	0.586 J	0.586 J	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 0.989 J	0.989 J		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.48	0.48	
			11/16/2009	0.41	0.41	
			6/30/2010	0.37 H	0.37 H	
			11/12/2010	0.34	0.34	
			7/5/2011 0.62	0.62		
			11/22/2011	0.71	0.71	
MW-10	30	18 (60%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	5	5	
			9/23/1999	25	25	

3/15/2000	ND<20	ND<20
9/24/2003	ND<20	ND<20
3/11/2004	ND<20	ND<20
10/12/2004	ND<20	ND<20
4/1/2005 ND<20	ND<20	
10/25/2005	ND<20	ND<20
4/29/2006	ND<20	ND<20
11/18/2006	1.45 J	1.45 J
5/23/2007	ND<20	ND<20
11/28/2007	3 J	3 J
6/5/2008 2.72 J	2.72 J	
11/20/2008	6 J	6 J
6/11/2009	2	2
11/16/2009	2.8	2.8
6/30/2010	2.7 H	2.7 H
11/12/2010	3.3	3.3
7/5/2011 3.3 J	3.3 J	
11/22/2011	4.2	4.2

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: Cobalt

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.083	-2.65209	7.03356	-0.220123
2	0.1	-2.40892	12.8365	-0.461016
3	0.11	-2.25713	17.9311	-0.7093
4	0.11	-2.14441	22.5296	-0.945185
5	0.13	-2.05375	26.7475	-1.21217
6	0.13	-1.97737	30.6575	-1.46923
7	0.13	-1.8957	34.2511	-1.71567
8	0.15	-1.83843	37.6309	-1.99143
9	0.18	-1.78661	40.8229	-2.31302
10	0.18	-1.7392	43.8477	-2.62608
11	0.19	-1.6954	46.7221	-2.94821
12	0.19	-1.65463	49.4599	-3.26258
13	0.2	-1.61644	52.0728	-3.58587
14	0.2	-1.57179	54.5433	-3.90023
15	0.21	-1.5382	56.9093	-4.22325
16	0.23	-1.50626	59.1782	-4.56969
17	0.23	-1.47579	61.3561	-4.90912
18	0.25	-1.44663	63.4489	-5.27078
19	0.34	-1.41865	65.4614	-5.75312
20	0.37	-1.39175	67.3984	-6.26807
21	0.4	-1.35946	69.2465	-6.81185
22	0.41	-1.33462	71.0278	-7.35905
23	0.48	-1.31058	72.7454	-7.98813
24	0.51	-1.28727	74.4024	-8.64464
25	0.52	-1.26464	76.0018	-9.30225
26	0.52	-1.24264	77.5459	-9.94842
27	0.53	-1.21596	79.0245	-10.5929
28	0.58	-1.19522	80.453	-11.2861
29	0.586	-1.17499	81.8336	-11.9747
30	0.609	-1.15522	83.1682	-12.6782
31	0.62	-1.1359	84.4584	-13.3824
32	0.65	-1.11699	85.7061	-14.1085
33	0.68	-1.09847	86.9127	-14.8554
34	0.69	-1.07584	88.0701	-15.5978
35	0.69	-1.05812	89.1898	-16.3279
36	0.698	-1.04073	90.2729	-17.0543
37	0.71	-1.02365	91.3208	-17.7811
38	0.73	-1.00687	92.3345	-18.5161
39	0.8	-0.990356	93.3153	-19.3084
40	0.89	-0.974114	94.2642	-20.1754
41	0.93	-0.954165	95.1747	-21.0627
42	0.989	-0.938476	96.0554	-21.9909
43	1	-0.923014	96.9074	-22.9139
44	1	-0.907769	97.7314	-23.8217
45	1	-0.892733	98.5284	-24.7144
46	1.02	-0.877897	99.2991	-25.6099
47	1.02	-0.859618	100.038	-26.4867
48	1.1	-0.845198	100.752	-27.4164
49	1.1	-0.830953	101.443	-28.3304
50	1.1	-0.816874	102.11	-29.229
51	1.1	-0.802956	102.755	-30.1122

52	1.1	-0.789191	103.378	-30.9804
53	1.1	-0.775574	103.979	-31.8335
54	1.2	-0.758753	104.555	-32.744
55	1.25	-0.745449	105.111	-33.6758
56	1.45	-0.732275	105.647	-34.7376
57	1.46	-0.719228	106.164	-35.7877
58	1.48	-0.706302	106.663	-36.833
59	1.48	-0.693493	107.144	-37.8594
60	2	-0.680797	107.607	-39.221
61	2.13	-0.665079	108.05	-40.6376
62	2.4	-0.652622	108.476	-42.2039
63	2.7	-0.640266	108.886	-43.9326
64	2.72	-0.628006	109.28	-45.6408
65	2.8	-0.615839	109.659	-47.3651
66	3	-0.603765	110.024	-49.1764
67	3	-0.588793	110.37	-50.9428
68	3.3	-0.576911	110.703	-52.8466
69	3.3	-0.565108	111.023	-54.7114
70	4.2	-0.553384	111.329	-57.0357
71	5	-0.541736	111.622	-59.7443
72	6	-0.530162	111.903	-62.9253
73	10	-0.518658	112.172	-68.1119
74	10	-0.504372	112.427	-73.1556
75	10	-0.493018	112.67	-78.0858
76	10	-0.481728	112.902	-82.9031
77	10	-0.470498	113.123	-87.608
78	10	-0.459327	113.334	-92.2013
79	10	-0.448213	113.535	-96.6834
80	10	-0.437153	113.726	-101.055
81	10	-0.423405	113.906	-105.289
82	10	-0.412463	114.076	-109.414
83	10	-0.401571	114.237	-113.429
84	10	-0.390726	114.39	-117.337
85	10	-0.379927	114.534	-121.136
86	10	-0.369171	114.67	-124.828
87	10	-0.358459	114.799	-128.412
88	10	-0.345126	114.918	-131.863
89	10	-0.334503	115.03	-135.208
90	10	-0.323919	115.135	-138.448
91	10	-0.31337	115.233	-141.581
92	10	-0.302855	115.325	-144.61
93	10	-0.292375	115.41	-147.534
94	10	-0.279319	115.488	-150.327
95	10	-0.268908	115.56	-153.016
96	10	-0.258527	115.627	-155.601
97	10	-0.248174	115.689	-158.083
98	10	-0.237847	115.745	-160.461
99	10	-0.227545	115.797	-162.737
100	10	-0.217267	115.844	-164.91
101	10	-0.204452	115.886	-166.954
102	10	-0.194225	115.924	-168.896
103	10	-0.184017	115.958	-170.736
104	10	-0.173829	115.988	-172.475
105	10	-0.163659	116.015	-174.111
106	10	-0.153505	116.038	-175.646
107	10	-0.143367	116.059	-177.08
108	10	-0.130716	116.076	-178.387
109	10	-0.12061	116.091	-179.593
110	10	-0.110516	116.103	-180.698
111	10	-0.100433	116.113	-181.703
112	10	-0.0903606	116.121	-182.606
113	10	-0.0802981	116.127	-183.409

114	10	-0.0677301	116.132	-184.087
115	10	-0.0576847	116.135	-184.664
116	10	-0.0476439	116.138	-185.14
117	10	-0.0376076	116.139	-185.516
118	10	-0.0275759	116.14	-185.792
119	10	-0.0175476	116.14	-185.967
120	10	-0.00751925	116.14	-186.042
121	10	0.00751925	116.14	-185.967
122	10	0.0175476	116.141	-185.792
123	10	0.0275759	116.141	-185.516
124	10	0.0376076	116.143	-185.14
125	10	0.0476439	116.145	-184.664
126	10	0.0576847	116.148	-184.087
127	10	0.0677301	116.153	-183.409
128	10	0.0802981	116.159	-182.606
129	10	0.0903606	116.167	-181.703
130	10	0.100433	116.178	-180.698
131	10	0.110516	116.19	-179.593
132	10	0.12061	116.204	-178.387
133	10	0.130716	116.221	-177.08
134	10	0.143367	116.242	-175.646
135	10	0.153505	116.266	-174.111
136	10	0.163659	116.292	-172.475
137	10	0.173829	116.323	-170.736
138	10	0.184017	116.356	-168.896
139	10	0.194225	116.394	-166.954
140	10	0.204452	116.436	-164.91
141	10	0.217267	116.483	-162.737
142	10	0.227545	116.535	-160.461
143	10	0.237847	116.591	-158.083
144	10	0.248174	116.653	-155.601
145	10	0.258527	116.72	-153.016
146	10	0.268908	116.792	-150.327
147	10	0.279319	116.87	-147.534
148	10	0.292375	116.956	-144.61
149	10	0.302855	117.047	-141.581
150	10	0.31337	117.146	-138.448
151	10	0.323919	117.251	-135.208
152	10	0.334503	117.362	-131.863
153	10	0.345126	117.482	-128.412
154	10	0.358459	117.61	-124.828
155	10	0.369171	117.746	-121.136
156	10	0.379927	117.891	-117.337
157	10	0.390726	118.043	-113.429
158	10	0.401571	118.205	-109.414
159	10	0.412463	118.375	-105.289
160	10	0.423405	118.554	-101.055
161	10	0.437153	118.745	-96.6834
162	10	0.448213	118.946	-92.2013
163	10	0.459327	119.157	-87.608
164	10	0.470498	119.378	-82.9031
165	10	0.481728	119.61	-78.0858
166	10	0.493018	119.853	-73.1556
167	10	0.504372	120.108	-68.1119
168	10	0.518658	120.377	-62.9253
169	10	0.530162	120.658	-57.6237
170	10	0.541736	120.951	-52.2063
171	10	0.553384	121.258	-46.6725
172	10	0.565108	121.577	-41.0214
173	10	0.576911	121.91	-35.2523
174	10	0.588793	122.257	-29.3644
175	10	0.603765	122.621	-23.3267

176	10	0.615839		123	-17.1683
177	10	0.628006		123.395	-10.8883
178	10	0.640266		123.805	-4.48562
179	10	0.652622		124.231	2.0406
180	10	0.665079		124.673	8.69139
181	10	0.680797		125.136	15.4994
182	10	0.693493		125.617	22.4343
183	10	0.706302		126.116	29.4973
184	10	0.719228		126.633	36.6896
185	10	0.732275		127.17	44.0123
186	10	0.745449		127.725	51.4668
187	10	0.758753		128.301	59.0544
188	10	0.775574		128.903	66.8101
189	10	0.789191		129.525	74.702
190	10	0.802956		130.17	82.7316
191	10	0.816874		130.837	90.9003
192	10	0.830953		131.528	99.2099
193	10	0.845198		132.242	107.662
194	10	0.859618		132.981	116.258
195	10	0.877897		133.752	125.037
196	10	0.892733		134.549	133.964
197	10	0.907769		135.373	143.042
198	10	0.923014		136.225	152.272
199	10	0.938476		137.106	161.657
200	10	0.954165		138.016	171.199
201	10	0.974114		138.965	180.94
202	10	0.990356		139.946	190.843
203	10	1.00687	140.96	200.912	
204	10	1.02365	142.007	211.148	
205	10	1.04073	143.091	221.556	
206	10	1.05812	144.21	232.137	
207	10	1.07584	145.368	242.895	
208	10	1.09847	146.574	253.88	
209	10	1.11699	147.822	265.05	
210	10	1.1359	149.112	276.409	
211	10	1.15522	150.447	287.961	
212	10	1.17499	151.827	299.711	
213	10	1.19522	153.256	311.663	
214	10	1.21596	154.734	323.823	
215	10	1.24264	156.279	336.249	
216	10	1.26464	157.878	348.896	
217	10	1.28727	159.535	361.768	
218	10	1.31058	161.253	374.874	
219	10	1.33462	163.034	388.22	
220	10	1.35946	164.882	401.815	
221	10	1.39175	166.819	415.732	
222	10	1.41865	168.831	429.919	
223	10	1.44663	170.924	444.385	
224	10	1.47579	173.102	459.143	
225	10	1.50626	175.371	474.206	
226	10	1.5382	177.737	489.588	
227	10	1.57179	180.208	505.306	
228	10	1.61644	182.82	521.47	
229	10	1.65463	185.558	538.016	
230	10	1.6954	188.433	554.97	
231	10	1.7392	191.457	572.362	
232	10	1.78661	194.649	590.228	
233	10	1.83843	198.029	608.613	
234	10	1.8957	201.623	627.57	
235	10	1.97737	205.533	647.343	
236	10	2.05375	209.751	667.881	
237	10	2.14441	214.349	689.325	

238	10	2.25713	219.444	711.896
239	10	2.40892	225.247	735.985
240	25	2.65209	232.28	802.288

Data Set Standard Deviation = 4.28119
Numerator = 643665
Denominator = 1.01751e+006
W Statistic = 0.632589 = 643665 / 1.01751e+006

5% Critical value of 0.976 exceeds 0.632589
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.632589
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cobalt

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.795462
0.795462 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.083	0.00414938	-2.65209	40.4802	344.01	
2	0.1	0.00829876	-2.40892	40.7833	332.136	
3	0.11	0.0124481	-2.25713	40.9617	324.723	
4	0.11	0.0165975	-2.14441	40.9617	319.219	
5	0.13	0.0207469	-2.05375	41.3183	314.791	
6	0.13	0.0248963	-1.97737	41.3183	311.062	
7	0.13	0.0290456	-1.8957	41.3183	307.073	
8	0.15	0.033195	-1.83843	41.675	304.276	
9	0.18	0.0373444	-1.78661	42.21	301.746	
10	0.18	0.0414938	-1.7392	42.21	299.431	
11	0.19	0.0456432	-1.6954	42.3883	297.292	
12	0.19	0.0497925	-1.65463	42.3883	295.301	
13	0.2	0.0539419	-1.61644	42.5667	293.436	
14	0.2	0.0580913	-1.57179	42.5667	291.256	
15	0.21	0.0622407	-1.5382	42.745	289.615	
16	0.23	0.06639	-1.50626	43.1017	288.056	
17	0.23	0.0705394	-1.47579	43.1017	286.568	
18	0.25	0.0746888	-1.44663	43.4583	285.144	
19	0.34	0.0788382	-1.41865	45.0633	283.778	
20	0.37	0.0829876	-1.39175	45.5983	282.464	
21	0.4	0.0871369	-1.35946	46.1333	280.887	
22	0.41	0.0912863	-1.33462	46.3117	279.674	
23	0.48	0.0954357	-1.31058	47.56	278.5	
24	0.51	0.0995851	-1.28727	48.095	277.362	
25	0.52	0.103734	-1.26464	48.2733	276.257	
26	0.52	0.107884	-1.24264	48.2733	275.182	
27	0.53	0.112033	-1.21596	48.4517	273.879	
28	0.58	0.116183	-1.19522	49.3433	272.867	
29	0.586	0.120332	-1.17499	49.4503	271.879	
30	0.609	0.124481	-1.15522	49.8605	270.913	
31	0.62	0.128631	-1.1359	50.0567	269.97	
32	0.65	0.13278	-1.11699	50.5917	269.046	
33	0.68	0.136929	-1.09847	51.1267	268.142	
34	0.69	0.141079	-1.07584	51.305	267.037	
35	0.69	0.145228	-1.05812	51.305	266.172	
36	0.698	0.149378	-1.04073	51.4477	265.322	
37	0.71	0.153527	-1.02365	51.6617	264.488	
38	0.73	0.157676	-1.00687	52.0183	263.669	
39	0.8	0.161826	-0.990356	53.2667	262.862	
40	0.89	0.165975	-0.974114	54.8717	262.069	
41	0.93	0.170124	-0.954165	55.585	261.095	
42	0.989	0.174274	-0.938476	56.6372	260.329	
43	1	0.178423	-0.923014	56.8333	259.574	
44	1	0.182573	-0.907769	56.8333	258.829	
45	1	0.186722	-0.892733	56.8333	258.095	
46	1.02	0.190871	-0.877897	57.19	257.371	
47	1.02	0.195021	-0.859618	57.19	256.478	
48	1.1	0.19917	-0.845198	58.6167	255.774	

49	1.1	0.20332	-0.830953	58.6167	255.078	
50	1.1	0.207469	-0.816874	58.6167	254.391	
51	1.1	0.211618	-0.802956	58.6167	253.711	
52	1.1	0.215768	-0.789191	58.6167	253.039	
53	1.1	0.219917	-0.775574	58.6167	252.374	
54	1.2	0.224066	-0.758753	60.4	251.552	
55	1.25	0.228216	-0.745449	61.2917	250.903	
56	1.45	0.232365	-0.732275	64.8583	250.259	
57	1.46	0.236515	-0.719228	65.0367	249.622	
58	1.48	0.240664	-0.706302	65.3933	248.991	
59	1.48	0.244813	-0.693493	65.3933	248.366	
60	2	0.248963	-0.680797	74.6667	247.746	
61	2.13	0.253112	-0.665079	76.985	246.978	
62	2.4	0.257261	-0.652622	81.8	246.37	
63	2.7	0.261411	-0.640266	87.15	245.766	
64	2.72	0.26556	-0.628006	87.5067	245.168	
65	2.8	0.26971	-0.615839	88.9333	244.573	
66	3	0.273859	-0.603765	92.5	243.984	
67	3	0.278008	-0.588793	92.5	243.253	
68	3.3	0.282158	-0.576911	97.85	242.672	
69	3.3	0.286307	-0.565108	97.85	242.096	
70	4.2	0.290456	-0.553384	113.9	241.524	
71	5	0.294606	-0.541736	128.167	240.955	
72	6	0.298755	-0.530162	146	240.39	
73	10	0.302905	-0.518658	217.333	239.828	
74	10	0.307054	-0.504372	217.333	239.13	
75	10	0.311203	-0.493018	217.333	238.576	
76	10	0.315353	-0.481728	217.333	238.024	
77	10	0.319502	-0.470498	217.333	237.476	
78	10	0.323651	-0.459327	217.333	236.93	
79	10	0.327801	-0.448213	217.333	236.388	
80	10	0.33195	-0.437153	217.333	235.848	
81	10	0.3361	-0.423405	217.333	235.176	
82	10	0.340249	-0.412463	217.333	234.642	
83	10	0.344398	-0.401571	217.333	234.11	
84	10	0.348548	-0.390726	217.333	233.58	
85	10	0.352697	-0.379927	217.333	233.053	
86	10	0.356846	-0.369171	217.333	232.528	
87	10	0.360996	-0.358459	217.333	232.005	
88	10	0.365145	-0.345126	217.333	231.354	
89	10	0.369295	-0.334503	217.333	230.835	
90	10	0.373444	-0.323919	217.333	230.318	
91	10	0.377593	-0.31337	217.333	229.803	
92	10	0.381743	-0.302855	217.333	229.289	
93	10	0.385892	-0.292375	217.333	228.778	
94	10	0.390041	-0.279319	217.333	228.14	
95	10	0.394191	-0.268908	217.333	227.632	
96	10	0.39834	-0.258527	217.333	227.125	
97	10	0.40249	-0.248174	217.333	226.619	
98	10	0.406639	-0.237847	217.333	226.115	
99	10	0.410788	-0.227545	217.333	225.612	
100	10	0.414938	-0.217267	217.333	225.11	
101	10	0.419087	-0.204452	217.333	224.484	
102	10	0.423237	-0.194225	217.333	223.985	
103	10	0.427386	-0.184017	217.333	223.486	
104	10	0.431535	-0.173829	217.333	222.989	
105	10	0.435685	-0.163659	217.333	222.492	
106	10	0.439834	-0.153505	217.333	221.996	
107	10	0.443983	-0.143367	217.333	221.501	
108	10	0.448133	-0.130716	217.333	220.883	
109	10	0.452282	-0.12061	217.333	220.39	
110	10	0.456432	-0.110516	217.333	219.897	

111	10	0.460581	-0.100433	217.333	219.404
112	10	0.46473	-0.0903606	217.333	218.913
113	10	0.46888	-0.0802981	217.333	218.421
114	10	0.473029	-0.0677301	217.333	217.807
115	10	0.477178	-0.0576847	217.333	217.317
116	10	0.481328	-0.0476439	217.333	216.827
117	10	0.485477	-0.0376076	217.333	216.337
118	10	0.489627	-0.0275759	217.333	215.847
119	10	0.493776	-0.0175476	217.333	215.357
120	10	0.497925	-0.00751925	217.333	214.867
121	10	0.502075	0.00751925	217.333	214.133
122	10	0.506224	0.0175476	217.333	213.643
123	10	0.510373	0.0275759	217.333	213.153
124	10	0.514523	0.0376076	217.333	212.663
125	10	0.518672	0.0476439	217.333	212.173
126	10	0.522822	0.0576847	217.333	211.683
127	10	0.526971	0.0677301	217.333	211.193
128	10	0.53112	0.0802981	217.333	210.579
129	10	0.53527	0.0903606	217.333	210.087
130	10	0.539419	0.100433	217.333	209.596
131	10	0.543568	0.110516	217.333	209.103
132	10	0.547718	0.12061	217.333	208.61
133	10	0.551867	0.130716	217.333	208.117
134	10	0.556017	0.143367	217.333	207.499
135	10	0.560166	0.153505	217.333	207.004
136	10	0.564315	0.163659	217.333	206.508
137	10	0.568465	0.173829	217.333	206.011
138	10	0.572614	0.184017	217.333	205.514
139	10	0.576763	0.194225	217.333	205.015
140	10	0.580913	0.204452	217.333	204.516
141	10	0.585062	0.217267	217.333	203.89
142	10	0.589212	0.227545	217.333	203.388
143	10	0.593361	0.237847	217.333	202.885
144	10	0.59751	0.248174	217.333	202.381
145	10	0.60166	0.258527	217.333	201.875
146	10	0.605809	0.268908	217.333	201.368
147	10	0.609959	0.279319	217.333	200.86
148	10	0.614108	0.292375	217.333	200.222
149	10	0.618257	0.302855	217.333	199.711
150	10	0.622407	0.31337	217.333	199.197
151	10	0.626556	0.323919	217.333	198.682
152	10	0.630705	0.334503	217.333	198.165
153	10	0.634855	0.345126	217.333	197.646
154	10	0.639004	0.358459	217.333	196.995
155	10	0.643154	0.369171	217.333	196.472
156	10	0.647303	0.379927	217.333	195.947
157	10	0.651452	0.390726	217.333	195.42
158	10	0.655602	0.401571	217.333	194.89
159	10	0.659751	0.412463	217.333	194.358
160	10	0.6639	0.423405	217.333	193.824
161	10	0.66805	0.437153	217.333	193.152
162	10	0.672199	0.448213	217.333	192.612
163	10	0.676349	0.459327	217.333	192.07
164	10	0.680498	0.470498	217.333	191.524
165	10	0.684647	0.481728	217.333	190.976
166	10	0.688797	0.493018	217.333	190.424
167	10	0.692946	0.504372	217.333	189.87
168	10	0.697095	0.518658	217.333	189.172
169	10	0.701245	0.530162	217.333	188.61
170	10	0.705394	0.541736	217.333	188.045
171	10	0.709544	0.553384	217.333	187.476
172	10	0.713693	0.565108	217.333	186.904

173	10	0.717842	0.576911	217.333	186.328
174	10	0.721992	0.588793	217.333	185.747
175	10	0.726141	0.603765	217.333	185.016
176	10	0.73029	0.615839	217.333	184.427
177	10	0.73444	0.628006	217.333	183.832
178	10	0.738589	0.640266	217.333	183.234
179	10	0.742739	0.652622	217.333	182.63
180	10	0.746888	0.665079	217.333	182.022
181	10	0.751037	0.680797	217.333	181.254
182	10	0.755187	0.693493	217.333	180.634
183	10	0.759336	0.706302	217.333	180.009
184	10	0.763485	0.719228	217.333	179.378
185	10	0.767635	0.732275	217.333	178.741
186	10	0.771784	0.745449	217.333	178.097
187	10	0.775934	0.758753	217.333	177.448
188	10	0.780083	0.775574	217.333	176.626
189	10	0.784232	0.789191	217.333	175.961
190	10	0.788382	0.802956	217.333	175.289
191	10	0.792531	0.816874	217.333	174.609
192	10	0.79668	0.830953	217.333	173.922
193	10	0.80083	0.845198	217.333	173.226
194	10	0.804979	0.859618	217.333	172.522
195	10	0.809129	0.877897	217.333	171.629
196	10	0.813278	0.892733	217.333	170.905
197	10	0.817427	0.907769	217.333	170.171
198	10	0.821577	0.923014	217.333	169.426
199	10	0.825726	0.938476	217.333	168.671
200	10	0.829876	0.954165	217.333	167.905
201	10	0.834025	0.974114	217.333	166.931
202	10	0.838174	0.990356	217.333	166.138
203	10	0.842324	1.00687	217.333	165.331
204	10	0.846473	1.02365	217.333	164.512
205	10	0.850622	1.04073	217.333	163.678
206	10	0.854772	1.05812	217.333	162.828
207	10	0.858921	1.07584	217.333	161.963
208	10	0.863071	1.09847	217.333	160.858
209	10	0.86722	1.11699	217.333	159.954
210	10	0.871369	1.1359	217.333	159.03
211	10	0.875519	1.15522	217.333	158.087
212	10	0.879668	1.17499	217.333	157.121
213	10	0.883817	1.19522	217.333	156.133
214	10	0.887967	1.21596	217.333	155.121
215	10	0.892116	1.24264	217.333	153.818
216	10	0.896266	1.26464	217.333	152.743
217	10	0.900415	1.28727	217.333	151.638
218	10	0.904564	1.31058	217.333	150.5
219	10	0.908714	1.33462	217.333	149.326
220	10	0.912863	1.35946	217.333	148.113
221	10	0.917012	1.39175	217.333	146.536
222	10	0.921162	1.41865	217.333	145.222
223	10	0.925311	1.44663	217.333	143.856
224	10	0.929461	1.47579	217.333	142.432
225	10	0.93361	1.50626	217.333	140.944
226	10	0.937759	1.5382	217.333	139.385
227	10	0.941909	1.57179	217.333	137.744
228	10	0.946058	1.61644	217.333	135.564
229	10	0.950207	1.65463	217.333	133.699
230	10	0.954357	1.6954	217.333	131.708
231	10	0.958506	1.7392	217.333	129.569
232	10	0.962656	1.78661	217.333	127.254
233	10	0.966805	1.83843	217.333	124.724
234	10	0.970954	1.8957	217.333	121.927

235	10	0.975104	1.97737	217.333	117.938
236	10	0.979253	2.05375	217.333	114.209
237	10	0.983402	2.14441	217.333	109.781
238	10	0.987552	2.25713	217.333	104.277
239	10	0.991701	2.40892	217.333	96.8642
240	25	0.995851	2.65209	484.833	84.9898

Shapiro-Francia Test of Normality

Parameter: Cobalt

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.48891	-2.65209	7.03356	6.60082	
2	-2.30259	-2.40892	12.8365	12.1476	
3	-2.20727	-2.25713	17.9311	17.1297	
4	-2.20727	-2.14441	22.5296	21.863	
5	-2.04022	-2.05375	26.7475	26.0531	
6	-2.04022	-1.97737	30.6575	30.0873	
7	-2.04022	-1.8957	34.2511	33.955	
8	-1.89712	-1.83843	37.6309	37.4427	
9	-1.7148	-1.78661	40.8229	40.5064	
10	-1.7148	-1.7392	43.8477	43.4887	
11	-1.66073	-1.6954	46.7221	46.3043	
12	-1.66073	-1.65463	49.4599	49.0522	
13	-1.60944	-1.61644	52.0728	51.6538	
14	-1.60944	-1.57179	54.5433	54.1835	
15	-1.56065	-1.5382	56.9093	56.5841	
16	-1.46968	-1.50626	59.1782	58.7978	
17	-1.46968	-1.47579	61.3561	60.9667	
18	-1.38629	-1.44663	63.4489	62.9722	
19	-1.07881	-1.41865	65.4614	64.5026	
20	-0.994252	-1.39175	67.3984	65.8864	
21	-0.916291	-1.35946	69.2465	67.132	
22	-0.891598	-1.33462	71.0278	68.322	
23	-0.733969	-1.31058	72.7454	69.2839	
24	-0.673345	-1.28727	74.4024	70.1507	
25	-0.653926	-1.26464	76.0018	70.9777	
26	-0.653926	-1.24264	77.5459	71.7903	
27	-0.634878	-1.21596	79.0245	72.5623	
28	-0.544727	-1.19522	80.453	73.2133	
29	-0.534435	-1.17499	81.8336	73.8413	
30	-0.495937	-1.15522	83.1682	74.4142	
31	-0.478036	-1.1359	84.4584	74.9572	
32	-0.430783	-1.11699	85.7061	75.4384	
33	-0.385662	-1.09847	86.9127	75.862	
34	-0.371064	-1.07584	88.0701	76.2612	
35	-0.371064	-1.05812	89.1898	76.6539	
36	-0.359536	-1.04073	90.2729	77.028	
37	-0.34249	-1.02365	91.3208	77.3786	
38	-0.314711	-1.00687	92.3345	77.6955	
39	-0.223144	-0.990356	93.3153	77.9165	
40	-0.116534	-0.974114	94.2642	78.03	
41	-0.0725707	-0.954165	95.1747	78.0993	
42	-0.0110609	-0.938476	96.0554	78.1096	
43	0	-0.923014	96.9074	78.1096	
44	0	-0.907769	97.7314	78.1096	
45	0	-0.892733	98.5284	78.1096	
46	0.0198026	-0.877897	99.2991	78.0922	
47	0.0198026	-0.859618	100.038	78.0752	
48	0.0953102	-0.845198	100.752	77.9947	
49	0.0953102	-0.830953	101.443	77.9155	
50	0.0953102	-0.816874	102.11	77.8376	
51	0.0953102	-0.802956	102.755	77.7611	

52	0.0953102	-0.789191	103.378	77.6859
53	0.0953102	-0.775574	103.979	77.6119
54	0.182322	-0.758753	104.555	77.4736
55	0.223144	-0.745449	105.111	77.3073
56	0.371564	-0.732275	105.647	77.0352
57	0.378436	-0.719228	106.164	76.763
58	0.392042	-0.706302	106.663	76.4861
59	0.392042	-0.693493	107.144	76.2142
60	0.693147	-0.680797	107.607	75.7423
61	0.756122	-0.665079	108.05	75.2394
62	0.875469	-0.652622	108.476	74.6681
63	0.993252	-0.640266	108.886	74.0322
64	1.00063	-0.628006	109.28	73.4037
65	1.02962	-0.615839	109.659	72.7697
66	1.09861	-0.603765	110.024	72.1064
67	1.09861	-0.588793	110.37	71.4595
68	1.19392	-0.576911	110.703	70.7707
69	1.19392	-0.565108	111.023	70.096
70	1.43508	-0.553384	111.329	69.3019
71	1.60944	-0.541736	111.622	68.43
72	1.79176	-0.530162	111.903	67.4801
73	2.30259	-0.518658	112.172	66.2858
74	2.30259	-0.504372	112.427	65.1245
75	2.30259	-0.493018	112.67	63.9892
76	2.30259	-0.481728	112.902	62.88
77	2.30259	-0.470498	113.123	61.7967
78	2.30259	-0.459327	113.334	60.739
79	2.30259	-0.448213	113.535	59.707
80	2.30259	-0.437153	113.726	58.7004
81	2.30259	-0.423405	113.906	57.7255
82	2.30259	-0.412463	114.076	56.7757
83	2.30259	-0.401571	114.237	55.8511
84	2.30259	-0.390726	114.39	54.9514
85	2.30259	-0.379927	114.534	54.0766
86	2.30259	-0.369171	114.67	53.2265
87	2.30259	-0.358459	114.799	52.4012
88	2.30259	-0.345126	114.918	51.6065
89	2.30259	-0.334503	115.03	50.8363
90	2.30259	-0.323919	115.135	50.0904
91	2.30259	-0.31337	115.233	49.3688
92	2.30259	-0.302855	115.325	48.6715
93	2.30259	-0.292375	115.41	47.9983
94	2.30259	-0.279319	115.488	47.3551
95	2.30259	-0.268908	115.56	46.7359
96	2.30259	-0.258527	115.627	46.1407
97	2.30259	-0.248174	115.689	45.5692
98	2.30259	-0.237847	115.745	45.0215
99	2.30259	-0.227545	115.797	44.4976
100	2.30259	-0.217267	115.844	43.9973
101	2.30259	-0.204452	115.886	43.5266
102	2.30259	-0.194225	115.924	43.0793
103	2.30259	-0.184017	115.958	42.6556
104	2.30259	-0.173829	115.988	42.2554
105	2.30259	-0.163659	116.015	41.8785
106	2.30259	-0.153505	116.038	41.5251
107	2.30259	-0.143367	116.059	41.195
108	2.30259	-0.130716	116.076	40.894
109	2.30259	-0.12061	116.091	40.6163
110	2.30259	-0.110516	116.103	40.3618
111	2.30259	-0.100433	116.113	40.1305
112	2.30259	-0.0903606	116.121	39.9225
113	2.30259	-0.0802981	116.127	39.7376

114	2.30259	-0.0677301	116.132	39.5816
115	2.30259	-0.0576847	116.135	39.4488
116	2.30259	-0.0476439	116.138	39.3391
117	2.30259	-0.0376076	116.139	39.2525
118	2.30259	-0.0275759	116.14	39.189
119	2.30259	-0.0175476	116.14	39.1486
120	2.30259	-0.00751925	116.14	39.1313
121	2.30259	0.00751925	116.14	39.1486
122	2.30259	0.0175476	116.141	39.189
123	2.30259	0.0275759	116.141	39.2525
124	2.30259	0.0376076	116.143	39.3391
125	2.30259	0.0476439	116.145	39.4488
126	2.30259	0.0576847	116.148	39.5816
127	2.30259	0.0677301	116.153	39.7376
128	2.30259	0.0802981	116.159	39.9225
129	2.30259	0.0903606	116.167	40.1305
130	2.30259	0.100433	116.178	40.3618
131	2.30259	0.110516	116.19	40.6163
132	2.30259	0.12061	116.204	40.894
133	2.30259	0.130716	116.221	41.195
134	2.30259	0.143367	116.242	41.5251
135	2.30259	0.153505	116.266	41.8785
136	2.30259	0.163659	116.292	42.2554
137	2.30259	0.173829	116.323	42.6556
138	2.30259	0.184017	116.356	43.0793
139	2.30259	0.194225	116.394	43.5266
140	2.30259	0.204452	116.436	43.9973
141	2.30259	0.217267	116.483	44.4976
142	2.30259	0.227545	116.535	45.0215
143	2.30259	0.237847	116.591	45.5692
144	2.30259	0.248174	116.653	46.1407
145	2.30259	0.258527	116.72	46.7359
146	2.30259	0.268908	116.792	47.3551
147	2.30259	0.279319	116.87	47.9983
148	2.30259	0.292375	116.956	48.6715
149	2.30259	0.302855	117.047	49.3688
150	2.30259	0.31337	117.146	50.0904
151	2.30259	0.323919	117.251	50.8363
152	2.30259	0.334503	117.362	51.6065
153	2.30259	0.345126	117.482	52.4012
154	2.30259	0.358459	117.61	53.2265
155	2.30259	0.369171	117.746	54.0766
156	2.30259	0.379927	117.891	54.9514
157	2.30259	0.390726	118.043	55.8511
158	2.30259	0.401571	118.205	56.7757
159	2.30259	0.412463	118.375	57.7255
160	2.30259	0.423405	118.554	58.7004
161	2.30259	0.437153	118.745	59.707
162	2.30259	0.448213	118.946	60.739
163	2.30259	0.459327	119.157	61.7967
164	2.30259	0.470498	119.378	62.88
165	2.30259	0.481728	119.61	63.9892
166	2.30259	0.493018	119.853	65.1245
167	2.30259	0.504372	120.108	66.2858
168	2.30259	0.518658	120.377	67.4801
169	2.30259	0.530162	120.658	68.7008
170	2.30259	0.541736	120.951	69.9482
171	2.30259	0.553384	121.258	71.2224
172	2.30259	0.565108	121.577	72.5236
173	2.30259	0.576911	121.91	73.852
174	2.30259	0.588793	122.257	75.2078
175	2.30259	0.603765	122.621	76.598

176	2.30259	0.615839		123	78.016
177	2.30259	0.628006		123.395	79.462
178	2.30259	0.640266		123.805	80.9363
179	2.30259	0.652622		124.231	82.439
180	2.30259	0.665079		124.673	83.9704
181	2.30259	0.680797		125.136	85.538
182	2.30259	0.693493		125.617	87.1348
183	2.30259	0.706302		126.116	88.7612
184	2.30259	0.719228		126.633	90.4172
185	2.30259	0.732275		127.17	92.1034
186	2.30259	0.745449		127.725	93.8198
187	2.30259	0.758753		128.301	95.5669
188	2.30259	0.775574		128.903	97.3527
189	2.30259	0.789191		129.525	99.1699
190	2.30259	0.802956		130.17	101.019
191	2.30259	0.816874		130.837	102.9
192	2.30259	0.830953		131.528	104.813
193	2.30259	0.845198		132.242	106.759
194	2.30259	0.859618		132.981	108.739
195	2.30259	0.877897		133.752	110.76
196	2.30259	0.892733		134.549	112.816
197	2.30259	0.907769		135.373	114.906
198	2.30259	0.923014		136.225	117.031
199	2.30259	0.938476		137.106	119.192
200	2.30259	0.954165		138.016	121.389
201	2.30259	0.974114		138.965	123.632
202	2.30259	0.990356		139.946	125.912
203	2.30259	1.00687	140.96	128.231	
204	2.30259	1.02365	142.007	130.588	
205	2.30259	1.04073	143.091	132.984	
206	2.30259	1.05812	144.21	135.421	
207	2.30259	1.07584	145.368	137.898	
208	2.30259	1.09847	146.574	140.427	
209	2.30259	1.11699	147.822	142.999	
210	2.30259	1.1359	149.112	145.615	
211	2.30259	1.15522	150.447	148.275	
212	2.30259	1.17499	151.827	150.98	
213	2.30259	1.19522	153.256	153.732	
214	2.30259	1.21596	154.734	156.532	
215	2.30259	1.24264	156.279	159.393	
216	2.30259	1.26464	157.878	162.305	
217	2.30259	1.28727	159.535	165.269	
218	2.30259	1.31058	161.253	168.287	
219	2.30259	1.33462	163.034	171.36	
220	2.30259	1.35946	164.882	174.49	
221	2.30259	1.39175	166.819	177.695	
222	2.30259	1.41865	168.831	180.962	
223	2.30259	1.44663	170.924	184.293	
224	2.30259	1.47579	173.102	187.691	
225	2.30259	1.50626	175.371	191.159	
226	2.30259	1.5382	177.737	194.701	
227	2.30259	1.57179	180.208	198.32	
228	2.30259	1.61644	182.82	202.042	
229	2.30259	1.65463	185.558	205.852	
230	2.30259	1.6954	188.433	209.756	
231	2.30259	1.7392	191.457	213.76	
232	2.30259	1.78661	194.649	217.874	
233	2.30259	1.83843	198.029	222.107	
234	2.30259	1.8957	201.623	226.472	
235	2.30259	1.97737	205.533	231.025	
236	2.30259	2.05375	209.751	235.754	
237	2.30259	2.14441	214.349	240.692	

238	2.30259	2.25713	219.444	245.889
239	2.30259	2.40892	225.247	251.436
240	3.21888	2.65209	232.28	259.973

Data Set Standard Deviation = 1.36617
Numerator = 67585.8
Denominator = 103614
W Statistic = 0.652287 = 67585.8 / 103614

5% Critical value of 0.976 exceeds 0.652287
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.652287
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cobalt

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.807114
0.807114 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y	
1	-2.48891	0.00414938	-2.65209	78.0615	344.01	
2	-2.30259	0.00829876	-2.40892	92.3024	332.136	
3	-2.20727	0.0124481	-2.25713	99.5868	324.723	
4	-2.20727	0.0165975	-2.14441	99.5868	319.219	
5	-2.04022	0.0207469	-2.05375	112.355	314.791	
6	-2.04022	0.0248963	-1.97737	112.355	311.062	
7	-2.04022	0.0290456	-1.8957	112.355	307.073	
8	-1.89712	0.033195	-1.83843	123.292	304.276	
9	-1.7148	0.0373444	-1.78661	137.226	301.746	
10	-1.7148	0.0414938	-1.7392	137.226	299.431	
11	-1.66073	0.0456432	-1.6954	141.358	297.292	
12	-1.66073	0.0497925	-1.65463	141.358	295.301	
13	-1.60944	0.0539419	-1.61644	145.279	293.436	
14	-1.60944	0.0580913	-1.57179	145.279	291.256	
15	-1.56065	0.0622407	-1.5382	149.008	289.615	
16	-1.46968	0.06639	-1.50626	155.96	288.056	
17	-1.46968	0.0705394	-1.47579	155.96	286.568	
18	-1.38629	0.0746888	-1.44663	162.333	285.144	
19	-1.07881	0.0788382	-1.41865	185.834	283.778	
20	-0.994252	0.0829876	-1.39175	192.296	282.464	
21	-0.916291	0.0871369	-1.35946	198.255	280.887	
22	-0.891598	0.0912863	-1.33462	200.142	279.674	
23	-0.733969	0.0954357	-1.31058	212.189	278.5	
24	-0.673345	0.0995851	-1.28727	216.823	277.362	
25	-0.653926	0.103734	-1.26464	218.307	276.257	
26	-0.653926	0.107884	-1.24264	218.307	275.182	
27	-0.634878	0.112033	-1.21596	219.763	273.879	
28	-0.544727	0.116183	-1.19522	226.653	272.867	
29	-0.534435	0.120332	-1.17499	227.44	271.879	
30	-0.495937	0.124481	-1.15522	230.382	270.913	
31	-0.478036	0.128631	-1.1359	231.75	269.97	
32	-0.430783	0.13278	-1.11699	235.362	269.046	
33	-0.385662	0.136929	-1.09847	238.81	268.142	
34	-0.371064	0.141079	-1.07584	239.926	267.037	
35	-0.371064	0.145228	-1.05812	239.926	266.172	
36	-0.359536	0.149378	-1.04073	240.807	265.322	
37	-0.34249	0.153527	-1.02365	242.11	264.488	
38	-0.314711	0.157676	-1.00687	244.233	263.669	
39	-0.223144	0.161826	-0.990356		251.231	262.862
40	-0.116534	0.165975	-0.974114		259.379	262.069
41	-0.0725707	0.170124	-0.954165		262.739	261.095
42	-0.0110609	0.174274	-0.938476		267.44	260.329
43	0	0.178423	-0.923014		268.286	259.574
44	0	0.182573	-0.907769		268.286	258.829
45	0	0.186722	-0.892733		268.286	258.095
46	0.0198026	0.190871	-0.877897		269.799	257.371
47	0.0198026	0.195021	-0.859618		269.799	256.478
48	0.0953102	0.19917	-0.845198		275.57	255.774

49	0.0953102	0.20332	-0.830953	275.57	255.078	
50	0.0953102	0.207469	-0.816874	275.57	254.391	
51	0.0953102	0.211618	-0.802956	275.57	253.711	
52	0.0953102	0.215768	-0.789191	275.57	253.039	
53	0.0953102	0.219917	-0.775574	275.57	252.374	
54	0.182322	0.224066	-0.758753	282.22	251.552	
55	0.223144	0.228216	-0.745449	285.34	250.903	
56	0.371564	0.232365	-0.732275	296.684	250.259	
57	0.378436	0.236515	-0.719228	297.209	249.622	
58	0.392042	0.240664	-0.706302	298.249	248.991	
59	0.392042	0.244813	-0.693493	298.249	248.366	
60	0.693147	0.248963	-0.680797	321.262	247.746	
61	0.756122	0.253112	-0.665079	326.075	246.978	
62	0.875469	0.257261	-0.652622	335.197	246.37	
63	0.993252	0.261411	-0.640266	344.199	245.766	
64	1.00063	0.26556	-0.628006	344.763	245.168	
65	1.02962	0.26971	-0.615839	346.978	244.573	
66	1.09861	0.273859	-0.603765	352.251	243.984	
67	1.09861	0.278008	-0.588793	352.251	243.253	
68	1.19392	0.282158	-0.576911	359.536	242.672	
69	1.19392	0.286307	-0.565108	359.536	242.096	
70	1.43508	0.290456	-0.553384	377.967	241.524	
71	1.60944	0.294606	-0.541736	391.293	240.955	
72	1.79176	0.298755	-0.530162	405.227	240.39	
73	2.30259	0.302905	-0.518658	444.269	239.828	
74	2.30259	0.307054	-0.504372	444.269	239.13	
75	2.30259	0.311203	-0.493018	444.269	238.576	
76	2.30259	0.315353	-0.481728	444.269	238.024	
77	2.30259	0.319502	-0.470498	444.269	237.476	
78	2.30259	0.323651	-0.459327	444.269	236.93	
79	2.30259	0.327801	-0.448213	444.269	236.388	
80	2.30259	0.33195	-0.437153	444.269	235.848	
81	2.30259	0.3361	-0.423405	444.269	235.176	
82	2.30259	0.340249	-0.412463	444.269	234.642	
83	2.30259	0.344398	-0.401571	444.269	234.11	
84	2.30259	0.348548	-0.390726	444.269	233.58	
85	2.30259	0.352697	-0.379927	444.269	233.053	
86	2.30259	0.356846	-0.369171	444.269	232.528	
87	2.30259	0.360996	-0.358459	444.269	232.005	
88	2.30259	0.365145	-0.345126	444.269	231.354	
89	2.30259	0.369295	-0.334503	444.269	230.835	
90	2.30259	0.373444	-0.323919	444.269	230.318	
91	2.30259	0.377593	-0.31337	444.269	229.803	
92	2.30259	0.381743	-0.302855	444.269	229.289	
93	2.30259	0.385892	-0.292375	444.269	228.778	
94	2.30259	0.390041	-0.279319	444.269	228.14	
95	2.30259	0.394191	-0.268908	444.269	227.632	
96	2.30259	0.39834	-0.258527	444.269	227.125	
97	2.30259	0.40249	-0.248174	444.269	226.619	
98	2.30259	0.406639	-0.237847	444.269	226.115	
99	2.30259	0.410788	-0.227545	444.269	225.612	
100	2.30259	0.414938	-0.217267	444.269	225.11	
101	2.30259	0.419087	-0.204452	444.269	224.484	
102	2.30259	0.423237	-0.194225	444.269	223.985	
103	2.30259	0.427386	-0.184017	444.269	223.486	
104	2.30259	0.431535	-0.173829	444.269	222.989	
105	2.30259	0.435685	-0.163659	444.269	222.492	
106	2.30259	0.439834	-0.153505	444.269	221.996	
107	2.30259	0.443983	-0.143367	444.269	221.501	
108	2.30259	0.448133	-0.130716	444.269	220.883	
109	2.30259	0.452282	-0.12061	444.269	220.39	
110	2.30259	0.456432	-0.110516	444.269	219.897	

111	2.30259	0.460581	-0.100433	444.269	219.404
112	2.30259	0.46473	-0.0903606	444.269	218.913
113	2.30259	0.46888	-0.0802981	444.269	218.421
114	2.30259	0.473029	-0.0677301	444.269	217.807
115	2.30259	0.477178	-0.0576847	444.269	217.317
116	2.30259	0.481328	-0.0476439	444.269	216.827
117	2.30259	0.485477	-0.0376076	444.269	216.337
118	2.30259	0.489627	-0.0275759	444.269	215.847
119	2.30259	0.493776	-0.0175476	444.269	215.357
120	2.30259	0.497925	-0.00751925	444.269	214.867
121	2.30259	0.502075	0.00751925	444.269	214.133
122	2.30259	0.506224	0.0175476	444.269	213.643
123	2.30259	0.510373	0.0275759	444.269	213.153
124	2.30259	0.514523	0.0376076	444.269	212.663
125	2.30259	0.518672	0.0476439	444.269	212.173
126	2.30259	0.522822	0.0576847	444.269	211.683
127	2.30259	0.526971	0.0677301	444.269	211.193
128	2.30259	0.53112	0.0802981	444.269	210.579
129	2.30259	0.53527	0.0903606	444.269	210.087
130	2.30259	0.539419	0.100433	444.269	209.596
131	2.30259	0.543568	0.110516	444.269	209.103
132	2.30259	0.547718	0.12061	444.269	208.61
133	2.30259	0.551867	0.130716	444.269	208.117
134	2.30259	0.556017	0.143367	444.269	207.499
135	2.30259	0.560166	0.153505	444.269	207.004
136	2.30259	0.564315	0.163659	444.269	206.508
137	2.30259	0.568465	0.173829	444.269	206.011
138	2.30259	0.572614	0.184017	444.269	205.514
139	2.30259	0.576763	0.194225	444.269	205.015
140	2.30259	0.580913	0.204452	444.269	204.516
141	2.30259	0.585062	0.217267	444.269	203.89
142	2.30259	0.589212	0.227545	444.269	203.388
143	2.30259	0.593361	0.237847	444.269	202.885
144	2.30259	0.59751	0.248174	444.269	202.381
145	2.30259	0.60166	0.258527	444.269	201.875
146	2.30259	0.605809	0.268908	444.269	201.368
147	2.30259	0.609959	0.279319	444.269	200.86
148	2.30259	0.614108	0.292375	444.269	200.222
149	2.30259	0.618257	0.302855	444.269	199.711
150	2.30259	0.622407	0.31337	444.269	199.197
151	2.30259	0.626556	0.323919	444.269	198.682
152	2.30259	0.630705	0.334503	444.269	198.165
153	2.30259	0.634855	0.345126	444.269	197.646
154	2.30259	0.639004	0.358459	444.269	196.995
155	2.30259	0.643154	0.369171	444.269	196.472
156	2.30259	0.647303	0.379927	444.269	195.947
157	2.30259	0.651452	0.390726	444.269	195.42
158	2.30259	0.655602	0.401571	444.269	194.89
159	2.30259	0.659751	0.412463	444.269	194.358
160	2.30259	0.6639	0.423405	444.269	193.824
161	2.30259	0.66805	0.437153	444.269	193.152
162	2.30259	0.672199	0.448213	444.269	192.612
163	2.30259	0.676349	0.459327	444.269	192.07
164	2.30259	0.680498	0.470498	444.269	191.524
165	2.30259	0.684647	0.481728	444.269	190.976
166	2.30259	0.688797	0.493018	444.269	190.424
167	2.30259	0.692946	0.504372	444.269	189.87
168	2.30259	0.697095	0.518658	444.269	189.172
169	2.30259	0.701245	0.530162	444.269	188.61
170	2.30259	0.705394	0.541736	444.269	188.045
171	2.30259	0.709544	0.553384	444.269	187.476
172	2.30259	0.713693	0.565108	444.269	186.904

173	2.30259	0.717842	0.576911	444.269	186.328
174	2.30259	0.721992	0.588793	444.269	185.747
175	2.30259	0.726141	0.603765	444.269	185.016
176	2.30259	0.73029	0.615839	444.269	184.427
177	2.30259	0.73444	0.628006	444.269	183.832
178	2.30259	0.738589	0.640266	444.269	183.234
179	2.30259	0.742739	0.652622	444.269	182.63
180	2.30259	0.746888	0.665079	444.269	182.022
181	2.30259	0.751037	0.680797	444.269	181.254
182	2.30259	0.755187	0.693493	444.269	180.634
183	2.30259	0.759336	0.706302	444.269	180.009
184	2.30259	0.763485	0.719228	444.269	179.378
185	2.30259	0.767635	0.732275	444.269	178.741
186	2.30259	0.771784	0.745449	444.269	178.097
187	2.30259	0.775934	0.758753	444.269	177.448
188	2.30259	0.780083	0.775574	444.269	176.626
189	2.30259	0.784232	0.789191	444.269	175.961
190	2.30259	0.788382	0.802956	444.269	175.289
191	2.30259	0.792531	0.816874	444.269	174.609
192	2.30259	0.79668	0.830953	444.269	173.922
193	2.30259	0.80083	0.845198	444.269	173.226
194	2.30259	0.804979	0.859618	444.269	172.522
195	2.30259	0.809129	0.877897	444.269	171.629
196	2.30259	0.813278	0.892733	444.269	170.905
197	2.30259	0.817427	0.907769	444.269	170.171
198	2.30259	0.821577	0.923014	444.269	169.426
199	2.30259	0.825726	0.938476	444.269	168.671
200	2.30259	0.829876	0.954165	444.269	167.905
201	2.30259	0.834025	0.974114	444.269	166.931
202	2.30259	0.838174	0.990356	444.269	166.138
203	2.30259	0.842324	1.00687	444.269	165.331
204	2.30259	0.846473	1.02365	444.269	164.512
205	2.30259	0.850622	1.04073	444.269	163.678
206	2.30259	0.854772	1.05812	444.269	162.828
207	2.30259	0.858921	1.07584	444.269	161.963
208	2.30259	0.863071	1.09847	444.269	160.858
209	2.30259	0.86722	1.11699	444.269	159.954
210	2.30259	0.871369	1.1359	444.269	159.03
211	2.30259	0.875519	1.15522	444.269	158.087
212	2.30259	0.879668	1.17499	444.269	157.121
213	2.30259	0.883817	1.19522	444.269	156.133
214	2.30259	0.887967	1.21596	444.269	155.121
215	2.30259	0.892116	1.24264	444.269	153.818
216	2.30259	0.896266	1.26464	444.269	152.743
217	2.30259	0.900415	1.28727	444.269	151.638
218	2.30259	0.904564	1.31058	444.269	150.5
219	2.30259	0.908714	1.33462	444.269	149.326
220	2.30259	0.912863	1.35946	444.269	148.113
221	2.30259	0.917012	1.39175	444.269	146.536
222	2.30259	0.921162	1.41865	444.269	145.222
223	2.30259	0.925311	1.44663	444.269	143.856
224	2.30259	0.929461	1.47579	444.269	142.432
225	2.30259	0.93361	1.50626	444.269	140.944
226	2.30259	0.937759	1.5382	444.269	139.385
227	2.30259	0.941909	1.57179	444.269	137.744
228	2.30259	0.946058	1.61644	444.269	135.564
229	2.30259	0.950207	1.65463	444.269	133.699
230	2.30259	0.954357	1.6954	444.269	131.708
231	2.30259	0.958506	1.7392	444.269	129.569
232	2.30259	0.962656	1.78661	444.269	127.254
233	2.30259	0.966805	1.83843	444.269	124.724
234	2.30259	0.970954	1.8957	444.269	121.927

235	2.30259	0.975104	1.97737	444.269	117.938
236	2.30259	0.979253	2.05375	444.269	114.209
237	2.30259	0.983402	2.14441	444.269	109.781
238	2.30259	0.987552	2.25713	444.269	104.277
239	2.30259	0.991701	2.40892	444.269	96.8642
240	3.21888	0.995851	2.65209	514.3	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Cobalt

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-2.20727 J	170
	11/16/2009	-2.48891 J	168
	6/30/2010	-2.30259 J H	169
	11/12/2010	-2.20727 J	171
	7/5/2011	-1.7148 J	176

Rank Sum = 2030
Rank Mean = 106.842

Background Rank Sum = 2030
Background Rank Mean = 106.842

Compliance Locations

Loc. ID	Date	Value	Rank
MW-12A R	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	-0.359536 J	203
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	0.392042 J	225
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.371064	201
	11/16/2009	-0.223144	206
	6/30/2010	-0.430783	199
	11/12/2010	-0.116534	207
	7/5/2011	-0.385662	200
	11/22/2011	-0.371064	202

Rank Sum = 2651

Rank Mean = 132.55

MW-11R	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	0.756122 J	228
	5/23/2007	0.0198026 J	213
	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-1.38629	185
	11/16/2009	-1.89712 J	175
	6/30/2010	-0.544727 H	195
	11/12/2010	-1.7148 J	177
	7/5/2011	-1.66073 J	178
	11/22/2011	-1.60944	180
	11/22/2011	-1.60944	181

Rank Sum = 3560
Rank Mean = 114.839

MW-9	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	0.223144 J	222
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	0.0198026 J	214
	11/20/2008	1.09861 J	233
	6/11/2009	0	210
	11/16/2009	-0.072570 7	208

	6/30/2010	-0.31471	1 H	205
	11/12/2010	-0.65392	6	192
	7/5/2011	-0.65392	6	193
	11/22/2011	0.0953	102	215
	11/22/2011	0.0953	102	216

Rank Sum = 3872
Rank Mean = 124.903

MW-6	7/20/1995	ND<2.3	0259	84
	8/24/1995	ND<2.3	0259	84
	9/28/1995	ND<2.3	0259	84
	10/26/1995	ND<2.3	0259	84
	11/19/1996	ND<2.3	0259	84
	12/19/1996	ND<2.3	0259	84
	3/24/1997	ND<2.3	0259	84
	9/24/1997	ND<2.3	0259	84
	4/7/1998	ND<2.3	0259	84
	9/23/1998	ND<2.3	0259	84
	3/16/1999	ND<2.3	0259	84
	9/23/1999	ND<2.3	0259	84
	3/15/2000	ND<2.3	0259	84
	9/24/2003	ND<2.3	0259	84
	3/11/2004	ND<2.3	0259	84
	10/12/2004	ND<2.3	0259	84
	4/1/2005	ND<2.3	0259	84
	10/25/2005	ND<2.3	0259	84
	4/29/2006	ND<2.3	0259	84
	11/18/2006	ND<2.3	0259	84
	5/23/2007	ND<2.3	0259	84
	11/28/2007	ND<2.3	0259	84
	6/5/2008	ND<2.3	0259	84
	11/20/2008	ND<2.3	0259	84
	6/11/2009	-2.04022	J	172
	11/16/2009	-2.04022	J	173
	6/30/2010	-2.04022	J H	174
	11/12/2010	-1.56065		182
	7/5/2011	-1.66073	J	179
	11/22/2011	-1.46968		183

Rank Sum = 3079
Rank Mean = 102.633

MW-8	7/20/1995	ND<2.3	0259	84
	8/24/1995	ND<2.3	0259	84
	9/28/1995	ND<2.3	0259	84
	10/26/1995	ND<2.3	0259	84
	11/19/1996	ND<2.3	0259	84
	12/19/1996	ND<2.3	0259	84
	3/24/1997	ND<2.3	0259	84
	9/24/1997	ND<2.3	0259	84
	4/7/1998	ND<2.3	0259	84
	9/23/1998	ND<2.3	0259	84
	3/16/1999	ND<2.3	0259	84
	9/23/1999	ND<2.3	0259	84
	3/15/2000	ND<2.3	0259	84
	9/24/2003	ND<2.3	0259	84
	3/11/2004	ND<2.3	0259	84
	10/12/2004	ND<2.3	0259	84
	4/1/2005	ND<2.3	0259	84
	10/25/2005	ND<2.3	0259	84
	4/29/2006	ND<2.3	0259	84
	11/18/2006	0 J	211	
	5/23/2007	ND<2.3	0259	84

	11/28/2007	ND<2.30259		84
	6/5/2008	-0.495937 J		197
	11/20/2008	ND<2.30259		84
	6/11/2009	-0.916291		188
	6/30/2010	-0.673345 H		191
	11/12/2010	0.875469		229
	7/5/2011	-0.634878		194
	11/22/2011	-1.46968		184

Rank Sum = 3242
Rank Mean = 111.793

MW-12BR	3/16/1999	ND<2.30259		84
	9/23/1999	ND<2.30259		84
	3/15/2000	ND<2.30259		84
	9/24/2003	ND<2.30259		84
	3/11/2004	ND<2.30259		84
	10/12/2004	ND<2.30259		84
	4/1/2005	ND<2.30259		84
	10/25/2005	ND<2.30259		84
	4/29/2006	ND<2.30259		84
	11/18/2006	0.378436 J		224
	5/23/2007	ND<2.30259		84
	11/28/2007	ND<2.30259		84
	6/5/2008	0.392042 J		226
	11/20/2008	ND<2.30259		84
	6/11/2009	0.0953102		217
	11/16/2009	0		212
	6/30/2010	0.0953102		218
	11/12/2010	0.0953102		219
	7/5/2011	0.182322		221
	11/22/2011	0.0953102		220

Rank Sum = 2765
Rank Mean = 138.25

MW-7	7/20/1995	ND<2.30259		84
	8/24/1995	ND<2.30259		84
	9/28/1995	ND<2.30259		84
	10/26/1995	ND<2.30259		84
	11/19/1996	ND<2.30259		84
	12/19/1996	ND<2.30259		84
	3/24/1997	ND<2.30259		84
	9/24/1997	ND<2.30259		84
	4/7/1998	ND<2.30259		84
	9/23/1998	ND<2.30259		84
	3/16/1999	ND<2.30259		84
	9/23/1999	ND<2.30259		84
	3/15/2000	ND<2.30259		84
	9/24/2003	ND<2.30259		84
	3/11/2004	ND<2.30259		84
	10/12/2004	ND<2.30259		84
	4/1/2005	ND<2.30259		84
	10/25/2005	ND<2.30259		84
	4/29/2006	ND<2.30259		84
	11/18/2006	-0.534435 J		196
	5/23/2007	ND<2.30259		84
	11/28/2007	ND<2.30259		84
	6/5/2008	-0.0110609 J		209
	11/20/2008	ND<2.30259		84
	6/11/2009	-0.733969		190
	11/16/2009	-0.891598		189
	6/30/2010	-0.994252 H		187
	11/12/2010	-1.07881		186

	7/5/2011	-0.478036	198
	11/22/2011	-0.34249	204

Rank Sum = 3407
Rank Mean = 113.567

MW-10	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	1.60944	238
	9/23/1999	3.21888	240
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	0.371564 J	223
	5/23/2007	ND<2.30259	84
	11/28/2007	1.09861 J	234
	6/5/2008	1.00063 J	231
	11/20/2008	1.79176 J	239
	6/11/2009	0.693147	227
	11/16/2009	1.02962	232
	6/30/2010	0.993252 H	230
	11/12/2010	1.19392	235
	7/5/2011	1.19392 J	236
	11/22/2011	1.43508	237

Rank Sum = 4314
Rank Mean = 143.8

Calculation Results:

Kruskal-Wallis H Statistic = 9.09709
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 13.7191
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
9.09709 < 15.5073 indicating no significant group difference at 5% significance level
13.7191 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Copper

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 167
Percent Non-Detects: 69.5833%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	13 (68.4211%)	3/16/1999	10 J	10 J
			9/23/1999	9 J	9 J
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	0.5 J	0.5 J
			11/16/2009	0.3 J	0.3 J
			6/30/2010	0.35 J H	0.35 J H
			11/12/2010	ND<0.21 U	ND<0.21 U
			7/5/2011	0.48 J	0.48 J

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	30	24 (80%)	7/20/1995	ND<20	ND<20
			8/24/1995	ND<20	ND<20
			9/28/1995	ND<20	ND<20
			10/26/1995	ND<20	ND<20
			11/19/1996	ND<20	ND<20
			12/19/1996	ND<20	ND<20
			3/24/1997	ND<20	ND<20
			9/24/1997	ND<20	ND<20
			4/7/1998	ND<20	ND<20
			9/23/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	6.64 J	6.64 J
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20

			6/11/2009	0.39 J	0.39 J	
			11/16/2009	0.37 J	0.37 J	
			6/30/2010	0.93 J H	0.93 J H	
			11/12/2010	ND<0.21 U		ND<0.21 U
			7/5/2011	0.21 U J	0.21 U J	
			11/22/2011	0.8 J	0.8 J	
MW-9	31	20 (64.5161%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	20	20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	0.01 J	0.01 J	
			11/18/2006	13.8	13.8	
			5/23/2007	5.59 J	5.59 J	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.76 J	0.76 J	
			11/16/2009	0.33 J	0.33 J	
			6/30/2010	1 H	1 H	
			11/12/2010	0.65 J	0.65 J	
			7/5/2011	0.93 J	0.93 J	
			11/22/2011	0.35 J	0.35 J	
			11/22/2011	0.35 J	0.35 J	
MW-11R	31	21 (67.7419%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	32	32	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	10 J	10 J	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	8 J	8 J	
			6/5/2008	ND<20	ND<20	

			11/20/2008	ND<20	ND<20	
			6/11/2009	0.59 J	0.59 J	
			11/16/2009	0.73 J	0.73 J	
			6/30/2010	0.6 J H	0.6 J H	
			11/12/2010	0.6 J	0.6 J	
			7/5/2011 0.64 J	0.64 J		
			11/22/2011	0.64 J	0.64 J	
			11/22/2011	0.64 J	0.64 J	
MW-6	30	23 (76.6667%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	5.16 J	5.16 J	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.2	1.2	
			11/16/2009	1.3	1.3	
			6/30/2010	1.6 H	1.6 H	
			11/12/2010	0.35 J	0.35 J	
			7/5/2011 1.6	1.6		
			11/22/2011	0.6 J	0.6 J	
MW-12A R		20	15 (75%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.37 J	0.37 J	
			11/16/2009	0.53 J	0.53 J	
			6/30/2010	2	2	
			11/12/2010	ND<0.21 U	ND<0.21 U	
			7/5/2011 0.52 J	0.52 J		
			11/22/2011	0.62 J	0.62 J	
MW-12B R		20	13 (65%)	3/16/1999	ND<20	ND<20

			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	6 J	6 J	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.6	1.6	
			11/16/2009	1.2	1.2	
			6/30/2010	3.4	3.4	
			11/12/2010	2.2	2.2	
			7/5/2011 1.1	1.1		
			11/22/2011	1.2	1.2	
MW-7	30	16 (53.3333%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	78.2	78.2	
			10/26/1995	26.1	26.1	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	50	50	
			9/23/1999	10 J	10 J	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	10.8	10.8	
			11/28/2007	7.06 J	7.06 J	
			6/5/2008 7.55 J	7.55 J		
			11/20/2008	6 J	6 J	
			6/11/2009	2.3	2.3	
			11/16/2009	1.4	1.4	
			6/30/2010	2.1 H	2.1 H	
			11/12/2010	1.8	1.8	
			7/5/2011 1.1	1.1		
			11/22/2011	1.3	1.3	
MW-8	29	22 (75.8621%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	51.1	51.1	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	30	30	

9/23/1999	ND<20	ND<20
3/15/2000	ND<20	ND<20
9/24/2003	ND<20	ND<20
3/11/2004	ND<20	ND<20
10/12/2004	ND<20	ND<20
4/1/2005 ND<20	ND<20	
10/25/2005	ND<20	ND<20
4/29/2006	ND<20	ND<20
11/18/2006	ND<20	ND<20
5/23/2007	ND<20	ND<20
11/28/2007	ND<20	ND<20
6/5/2008 ND<20	ND<20	
11/20/2008	ND<20	ND<20
6/11/2009	0.31 J	0.31 J
6/30/2010	0.62 J H	0.62 J H
11/12/2010	1.1	1.1
7/5/2011 0.45 J	0.45 J	
11/22/2011	0.56 J	0.56 J

There are 0 unused locations

Loc.	Meas. ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Copper

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.65209	7.03356	-0.026520 9
2	0.105	-2.40892	12.8365	-0.279458
3	0.105	-2.25713	17.9311	-0.516456
4	0.105	-2.14441	22.5296	-0.741619
5	0.21	-2.05375	26.7475	-1.17291
6	0.3	-1.97737	30.6575	-1.76612
7	0.31	-1.8957	34.2511	-2.35378
8	0.33	-1.83843	37.6309	-2.96046
9	0.35	-1.78661	40.8229	-3.58578
10	0.35	-1.7392	43.8477	-4.1945
11	0.35	-1.6954	46.7221	-4.78789
12	0.35	-1.65463	49.4599	-5.36701
13	0.37	-1.61644	52.0728	-5.96509
14	0.37	-1.57179	54.5433	-6.54665
15	0.39	-1.5382	56.9093	-7.14655
16	0.45	-1.50626	59.1782	-7.82436
17	0.48	-1.47579	61.3561	-8.53274
18	0.5	-1.44663	63.4489	-9.25606
19	0.52	-1.41865	65.4614	-9.99376
20	0.53	-1.39175	67.3984	-10.7314
21	0.56	-1.35946	69.2465	-11.4927
22	0.59	-1.33462	71.0278	-12.2801
23	0.6	-1.31058	72.7454	-13.0665
24	0.6	-1.28727	74.4024	-13.8388
25	0.6	-1.26464	76.0018	-14.5976
26	0.62	-1.24264	77.5459	-15.368
27	0.62	-1.21596	79.0245	-16.1219
28	0.64	-1.19522	80.453	-16.8869
29	0.64	-1.17499	81.8336	-17.6389
30	0.64	-1.15522	83.1682	-18.3782
31	0.65	-1.1359	84.4584	-19.1165
32	0.73	-1.11699	85.7061	-19.9319
33	0.76	-1.09847	86.9127	-20.7668
34	0.8	-1.07584	88.0701	-21.6275
35	0.93	-1.05812	89.1898	-22.6115
36	0.93	-1.04073	90.2729	-23.5794
37	1	-1.02365	91.3208	-24.603
38	1.1	-1.00687	92.3345	-25.7106
39	1.1	-0.990356	93.3153	-26.8
40	1.1	-0.974114	94.2642	-27.8715
41	1.2	-0.954165	95.1747	-29.0165
42	1.2	-0.938476	96.0554	-30.1427
43	1.2	-0.923014	96.9074	-31.2503
44	1.3	-0.907769	97.7314	-32.4304
45	1.3	-0.892733	98.5284	-33.5909
46	1.4	-0.877897	99.2991	-34.82
47	1.6	-0.859618	100.038	-36.1954
48	1.6	-0.845198	100.752	-37.5477
49	1.6	-0.830953	101.443	-38.8772
50	1.8	-0.816874	102.11	-40.3476
51	2	-0.802956	102.755	-41.9535

52	2.1	-0.789191	103.378	-43.6108
53	2.2	-0.775574	103.979	-45.3171
54	2.3	-0.758753	104.555	-47.0622
55	3.4	-0.745449	105.111	-49.5967
56	5.16	-0.732275	105.647	-53.3753
57	5.59	-0.719228	106.164	-57.3958
58	6	-0.706302	106.663	-61.6336
59	6	-0.693493	107.144	-65.7945
60	6.64	-0.680797	107.607	-70.315
61	7.06	-0.665079	108.05	-75.0105
62	7.55	-0.652622	108.476	-79.9378
63	8	-0.640266	108.886	-85.0599
64	9	-0.628006	109.28	-90.712
65	10	-0.615839	109.659	-96.8704
66	10	-0.603765	110.024	-102.908
67	10	-0.588793	110.37	-108.796
68	10	-0.576911	110.703	-114.565
69	10	-0.565108	111.023	-120.216
70	10	-0.553384	111.329	-125.75
71	10	-0.541736	111.622	-131.167
72	10	-0.530162	111.903	-136.469
73	10	-0.518658	112.172	-141.656
74	10	-0.504372	112.427	-146.699
75	10	-0.493018	112.67	-151.629
76	10	-0.481728	112.902	-156.447
77	10	-0.470498	113.123	-161.152
78	10	-0.459327	113.334	-165.745
79	10	-0.448213	113.535	-170.227
80	10	-0.437153	113.726	-174.599
81	10	-0.423405	113.906	-178.833
82	10	-0.412463	114.076	-182.957
83	10	-0.401571	114.237	-186.973
84	10	-0.390726	114.39	-190.88
85	10	-0.379927	114.534	-194.68
86	10	-0.369171	114.67	-198.371
87	10	-0.358459	114.799	-201.956
88	10	-0.345126	114.918	-205.407
89	10	-0.334503	115.03	-208.752
90	10	-0.323919	115.135	-211.991
91	10	-0.31337	115.233	-215.125
92	10	-0.302855	115.325	-218.154
93	10	-0.292375	115.41	-221.077
94	10	-0.279319	115.488	-223.87
95	10	-0.268908	115.56	-226.56
96	10	-0.258527	115.627	-229.145
97	10	-0.248174	115.689	-231.627
98	10	-0.237847	115.745	-234.005
99	10	-0.227545	115.797	-236.28
100	10	-0.217267	115.844	-238.453
101	10	-0.204452	115.886	-240.498
102	10	-0.194225	115.924	-242.44
103	10	-0.184017	115.958	-244.28
104	10	-0.173829	115.988	-246.018
105	10	-0.163659	116.015	-247.655
106	10	-0.153505	116.038	-249.19
107	10	-0.143367	116.059	-250.624
108	10	-0.130716	116.076	-251.931
109	10	-0.12061	116.091	-253.137
110	10	-0.110516	116.103	-254.242
111	10	-0.100433	116.113	-255.246
112	10	-0.0903606	116.121	-256.15
113	10	-0.0802981	116.127	-256.953

114	10	-0.0677301	116.132	-257.63
115	10	-0.0576847	116.135	-258.207
116	10	-0.0476439	116.138	-258.684
117	10	-0.0376076	116.139	-259.06
118	10	-0.0275759	116.14	-259.335
119	10	-0.0175476	116.14	-259.511
120	10	-0.00751925	116.14	-259.586
121	10	0.00751925	116.14	-259.511
122	10	0.0175476	116.141	-259.335
123	10	0.0275759	116.141	-259.06
124	10	0.0376076	116.143	-258.684
125	10	0.0476439	116.145	-258.207
126	10	0.0576847	116.148	-257.63
127	10	0.0677301	116.153	-256.953
128	10	0.0802981	116.159	-256.15
129	10	0.0903606	116.167	-255.246
130	10	0.100433	116.178	-254.242
131	10	0.110516	116.19	-253.137
132	10	0.12061	116.204	-251.931
133	10	0.130716	116.221	-250.624
134	10	0.143367	116.242	-249.19
135	10	0.153505	116.266	-247.655
136	10	0.163659	116.292	-246.018
137	10	0.173829	116.323	-244.28
138	10	0.184017	116.356	-242.44
139	10	0.194225	116.394	-240.498
140	10	0.204452	116.436	-238.453
141	10	0.217267	116.483	-236.28
142	10	0.227545	116.535	-234.005
143	10	0.237847	116.591	-231.627
144	10	0.248174	116.653	-229.145
145	10	0.258527	116.72	-226.56
146	10	0.268908	116.792	-223.87
147	10	0.279319	116.87	-221.077
148	10	0.292375	116.956	-218.154
149	10	0.302855	117.047	-215.125
150	10	0.31337	117.146	-211.991
151	10	0.323919	117.251	-208.752
152	10	0.334503	117.362	-205.407
153	10	0.345126	117.482	-201.956
154	10	0.358459	117.61	-198.371
155	10	0.369171	117.746	-194.68
156	10	0.379927	117.891	-190.88
157	10	0.390726	118.043	-186.973
158	10	0.401571	118.205	-182.957
159	10	0.412463	118.375	-178.833
160	10	0.423405	118.554	-174.599
161	10	0.437153	118.745	-170.227
162	10	0.448213	118.946	-165.745
163	10	0.459327	119.157	-161.152
164	10	0.470498	119.378	-156.447
165	10	0.481728	119.61	-151.629
166	10	0.493018	119.853	-146.699
167	10	0.504372	120.108	-141.656
168	10	0.518658	120.377	-136.469
169	10	0.530162	120.658	-131.167
170	10	0.541736	120.951	-125.75
171	10	0.553384	121.258	-120.216
172	10	0.565108	121.577	-114.565
173	10	0.576911	121.91	-108.796
174	10	0.588793	122.257	-102.908
175	10	0.603765	122.621	-96.8704

176	10	0.615839		123	-90.712
177	10	0.628006		123.395	-84.4319
178	10	0.640266		123.805	-78.0292
179	10	0.652622		124.231	-71.503
180	10	0.665079		124.673	-64.8522
181	10	0.680797		125.136	-58.0443
182	10	0.693493		125.617	-51.1093
183	10	0.706302		126.116	-44.0463
184	10	0.719228		126.633	-36.854
185	10	0.732275		127.17	-29.5313
186	10	0.745449		127.725	-22.0768
187	10	0.758753		128.301	-14.4893
188	10	0.775574		128.903	-6.73352
189	10	0.789191		129.525	1.15839
190	10	0.802956		130.17	9.18795
191	10	0.816874		130.837	17.3567
192	10	0.830953		131.528	25.6662
193	10	0.845198		132.242	34.1182
194	10	0.859618		132.981	42.7144
195	10	0.877897		133.752	51.4933
196	10	0.892733		134.549	60.4207
197	10	0.907769		135.373	69.4984
198	10	0.923014		136.225	78.7285
199	10	0.938476		137.106	88.1133
200	10	0.954165		138.016	97.6549
201	10	0.974114		138.965	107.396
202	10	0.990356		139.946	117.3
203	10	1.00687	140.96	127.368	
204	10	1.02365	142.007	137.605	
205	10	1.04073	143.091	148.012	
206	10	1.05812	144.21	158.593	
207	10	1.07584	145.368	169.352	
208	10	1.09847	146.574	180.336	
209	10	1.11699	147.822	191.506	
210	10	1.1359	149.112	202.865	
211	10	1.15522	150.447	214.417	
212	10	1.17499	151.827	226.167	
213	10	1.19522	153.256	238.12	
214	10	1.21596	154.734	250.279	
215	10	1.24264	156.279	262.706	
216	10	1.26464	157.878	275.352	
217	10	1.28727	159.535	288.225	
218	10	1.31058	161.253	301.33	
219	10	1.33462	163.034	314.677	
220	10	1.35946	164.882	328.271	
221	10	1.39175	166.819	342.189	
222	10	1.41865	168.831	356.375	
223	10	1.44663	170.924	370.842	
224	10	1.47579	173.102	385.6	
225	10	1.50626	175.371	400.662	
226	10	1.5382	177.737	416.044	
227	10	1.57179	180.208	431.762	
228	10	1.61644	182.82	447.926	
229	10	1.65463	185.558	464.473	
230	10	1.6954	188.433	481.427	
231	10	1.7392	191.457	498.819	
232	10.8	1.78661	194.649	518.114	
233	13.8	1.83843	198.029	543.484	
234	20	1.8957	201.623	581.398	
235	26.1	1.97737	205.533	633.008	
236	30	2.05375	209.751	694.62	
237	32	2.14441	214.349	763.241	

238	50	2.25713	219.444	876.098
239	51.1	2.40892	225.247	999.194
240	78.2	2.65209	232.28	1206.59

Data Set Standard Deviation = 7.51957
Numerator = 1.45585e+006
Denominator = 3.13904e+006
W Statistic = 0.463789 = 1.45585e+006 / 3.13904e+006

5% Critical value of 0.976 exceeds 0.463789
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.463789
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Copper

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.688674
0.688674 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.01	0.00414938	-2.65209	39.0669	344.01	
2	0.105	0.00829876	-2.40892	39.7022	332.136	
3	0.105	0.0124481	-2.25713	39.7022	324.723	
4	0.105	0.0165975	-2.14441	39.7022	319.219	
5	0.21	0.0207469	-2.05375	40.4044	314.791	
6	0.3	0.0248963	-1.97737	41.0063	311.062	
7	0.31	0.0290456	-1.8957	41.0731	307.073	
8	0.33	0.033195	-1.83843	41.2069	304.276	
9	0.35	0.0373444	-1.78661	41.3406	301.746	
10	0.35	0.0414938	-1.7392	41.3406	299.431	
11	0.35	0.0456432	-1.6954	41.3406	297.292	
12	0.35	0.0497925	-1.65463	41.3406	295.301	
13	0.37	0.0539419	-1.61644	41.4744	293.436	
14	0.37	0.0580913	-1.57179	41.4744	291.256	
15	0.39	0.0622407	-1.5382	41.6081	289.615	
16	0.45	0.06639	-1.50626	42.0094	288.056	
17	0.48	0.0705394	-1.47579	42.21	286.568	
18	0.5	0.0746888	-1.44663	42.3438	285.144	
19	0.52	0.0788382	-1.41865	42.4775	283.778	
20	0.53	0.0829876	-1.39175	42.5444	282.464	
21	0.56	0.0871369	-1.35946	42.745	280.887	
22	0.59	0.0912863	-1.33462	42.9456	279.674	
23	0.6	0.0954357	-1.31058	43.0125	278.5	
24	0.6	0.0995851	-1.28727	43.0125	277.362	
25	0.6	0.103734	-1.26464	43.0125	276.257	
26	0.62	0.107884	-1.24264	43.1463	275.182	
27	0.62	0.112033	-1.21596	43.1463	273.879	
28	0.64	0.116183	-1.19522	43.28	272.867	
29	0.64	0.120332	-1.17499	43.28	271.879	
30	0.64	0.124481	-1.15522	43.28	270.913	
31	0.65	0.128631	-1.1359	43.3469	269.97	
32	0.73	0.13278	-1.11699	43.8819	269.046	
33	0.76	0.136929	-1.09847	44.0825	268.142	
34	0.8	0.141079	-1.07584	44.35	267.037	
35	0.93	0.145228	-1.05812	45.2194	266.172	
36	0.93	0.149378	-1.04073	45.2194	265.322	
37	1	0.153527	-1.02365	45.6875	264.488	
38	1.1	0.157676	-1.00687	46.3563	263.669	
39	1.1	0.161826	-0.990356	46.3563	262.862	
40	1.1	0.165975	-0.974114	46.3563	262.069	
41	1.2	0.170124	-0.954165	47.025	261.095	
42	1.2	0.174274	-0.938476	47.025	260.329	
43	1.2	0.178423	-0.923014	47.025	259.574	
44	1.3	0.182573	-0.907769	47.6938	258.829	
45	1.3	0.186722	-0.892733	47.6938	258.095	
46	1.4	0.190871	-0.877897	48.3625	257.371	
47	1.6	0.195021	-0.859618	49.7	256.478	
48	1.6	0.19917	-0.845198	49.7	255.774	

49	1.6	0.20332	-0.830953	49.7	255.078	
50	1.8	0.207469	-0.816874		51.0375	254.391
51	2	0.211618	-0.802956		52.375	253.711
52	2.1	0.215768	-0.789191		53.0438	253.039
53	2.2	0.219917	-0.775574		53.7125	252.374
54	2.3	0.224066	-0.758753		54.3813	251.552
55	3.4	0.228216	-0.745449		61.7375	250.903
56	5.16	0.232365	-0.732275		73.5075	250.259
57	5.59	0.236515	-0.719228		76.3831	249.622
58	6	0.240664	-0.706302		79.125	248.991
59	6	0.244813	-0.693493		79.125	248.366
60	6.64	0.248963	-0.680797		83.405	247.746
61	7.06	0.253112	-0.665079		86.2138	246.978
62	7.55	0.257261	-0.652622		89.4906	246.37
63	8	0.261411	-0.640266		92.5	245.766
64	9	0.26556	-0.628006	99.1875	245.168	
65	10	0.26971	-0.615839	105.875	244.573	
66	10	0.273859	-0.603765		105.875	243.984
67	10	0.278008	-0.588793		105.875	243.253
68	10	0.282158	-0.576911		105.875	242.672
69	10	0.286307	-0.565108		105.875	242.096
70	10	0.290456	-0.553384		105.875	241.524
71	10	0.294606	-0.541736		105.875	240.955
72	10	0.298755	-0.530162		105.875	240.39
73	10	0.302905	-0.518658		105.875	239.828
74	10	0.307054	-0.504372		105.875	239.13
75	10	0.311203	-0.493018		105.875	238.576
76	10	0.315353	-0.481728		105.875	238.024
77	10	0.319502	-0.470498		105.875	237.476
78	10	0.323651	-0.459327		105.875	236.93
79	10	0.327801	-0.448213		105.875	236.388
80	10	0.33195	-0.437153	105.875	235.848	
81	10	0.3361	-0.423405	105.875	235.176	
82	10	0.340249	-0.412463		105.875	234.642
83	10	0.344398	-0.401571		105.875	234.11
84	10	0.348548	-0.390726		105.875	233.58
85	10	0.352697	-0.379927		105.875	233.053
86	10	0.356846	-0.369171		105.875	232.528
87	10	0.360996	-0.358459		105.875	232.005
88	10	0.365145	-0.345126		105.875	231.354
89	10	0.369295	-0.334503		105.875	230.835
90	10	0.373444	-0.323919		105.875	230.318
91	10	0.377593	-0.31337	105.875	229.803	
92	10	0.381743	-0.302855		105.875	229.289
93	10	0.385892	-0.292375		105.875	228.778
94	10	0.390041	-0.279319		105.875	228.14
95	10	0.394191	-0.268908		105.875	227.632
96	10	0.39834	-0.258527	105.875	227.125	
97	10	0.40249	-0.248174	105.875	226.619	
98	10	0.406639	-0.237847		105.875	226.115
99	10	0.410788	-0.227545		105.875	225.612
100	10	0.414938	-0.217267		105.875	225.11
101	10	0.419087	-0.204452		105.875	224.484
102	10	0.423237	-0.194225		105.875	223.985
103	10	0.427386	-0.184017		105.875	223.486
104	10	0.431535	-0.173829		105.875	222.989
105	10	0.435685	-0.163659		105.875	222.492
106	10	0.439834	-0.153505		105.875	221.996
107	10	0.443983	-0.143367		105.875	221.501
108	10	0.448133	-0.130716		105.875	220.883
109	10	0.452282	-0.12061	105.875	220.39	
110	10	0.456432	-0.110516		105.875	219.897

111	10	0.460581	-0.100433	105.875	219.404
112	10	0.46473	-0.0903606	105.875	218.913
113	10	0.46888	-0.0802981	105.875	218.421
114	10	0.473029	-0.0677301	105.875	217.807
115	10	0.477178	-0.0576847	105.875	217.317
116	10	0.481328	-0.0476439	105.875	216.827
117	10	0.485477	-0.0376076	105.875	216.337
118	10	0.489627	-0.0275759	105.875	215.847
119	10	0.493776	-0.0175476	105.875	215.357
120	10	0.497925	-0.00751925	105.875	214.867
121	10	0.502075	0.00751925	105.875	214.133
122	10	0.506224	0.0175476	105.875	213.643
123	10	0.510373	0.0275759	105.875	213.153
124	10	0.514523	0.0376076	105.875	212.663
125	10	0.518672	0.0476439	105.875	212.173
126	10	0.522822	0.0576847	105.875	211.683
127	10	0.526971	0.0677301	105.875	211.193
128	10	0.53112	0.0802981	105.875	210.579
129	10	0.53527	0.0903606	105.875	210.087
130	10	0.539419	0.100433	105.875	209.596
131	10	0.543568	0.110516	105.875	209.103
132	10	0.547718	0.12061	105.875	208.61
133	10	0.551867	0.130716	105.875	208.117
134	10	0.556017	0.143367	105.875	207.499
135	10	0.560166	0.153505	105.875	207.004
136	10	0.564315	0.163659	105.875	206.508
137	10	0.568465	0.173829	105.875	206.011
138	10	0.572614	0.184017	105.875	205.514
139	10	0.576763	0.194225	105.875	205.015
140	10	0.580913	0.204452	105.875	204.516
141	10	0.585062	0.217267	105.875	203.89
142	10	0.589212	0.227545	105.875	203.388
143	10	0.593361	0.237847	105.875	202.885
144	10	0.59751	0.248174	105.875	202.381
145	10	0.60166	0.258527	105.875	201.875
146	10	0.605809	0.268908	105.875	201.368
147	10	0.609959	0.279319	105.875	200.86
148	10	0.614108	0.292375	105.875	200.222
149	10	0.618257	0.302855	105.875	199.711
150	10	0.622407	0.31337	105.875	199.197
151	10	0.626556	0.323919	105.875	198.682
152	10	0.630705	0.334503	105.875	198.165
153	10	0.634855	0.345126	105.875	197.646
154	10	0.639004	0.358459	105.875	196.995
155	10	0.643154	0.369171	105.875	196.472
156	10	0.647303	0.379927	105.875	195.947
157	10	0.651452	0.390726	105.875	195.42
158	10	0.655602	0.401571	105.875	194.89
159	10	0.659751	0.412463	105.875	194.358
160	10	0.6639	0.423405	105.875	193.824
161	10	0.66805	0.437153	105.875	193.152
162	10	0.672199	0.448213	105.875	192.612
163	10	0.676349	0.459327	105.875	192.07
164	10	0.680498	0.470498	105.875	191.524
165	10	0.684647	0.481728	105.875	190.976
166	10	0.688797	0.493018	105.875	190.424
167	10	0.692946	0.504372	105.875	189.87
168	10	0.697095	0.518658	105.875	189.172
169	10	0.701245	0.530162	105.875	188.61
170	10	0.705394	0.541736	105.875	188.045
171	10	0.709544	0.553384	105.875	187.476
172	10	0.713693	0.565108	105.875	186.904

173	10	0.717842	0.576911	105.875	186.328
174	10	0.721992	0.588793	105.875	185.747
175	10	0.726141	0.603765	105.875	185.016
176	10	0.73029	0.615839	105.875	184.427
177	10	0.73444	0.628006	105.875	183.832
178	10	0.738589	0.640266	105.875	183.234
179	10	0.742739	0.652622	105.875	182.63
180	10	0.746888	0.665079	105.875	182.022
181	10	0.751037	0.680797	105.875	181.254
182	10	0.755187	0.693493	105.875	180.634
183	10	0.759336	0.706302	105.875	180.009
184	10	0.763485	0.719228	105.875	179.378
185	10	0.767635	0.732275	105.875	178.741
186	10	0.771784	0.745449	105.875	178.097
187	10	0.775934	0.758753	105.875	177.448
188	10	0.780083	0.775574	105.875	176.626
189	10	0.784232	0.789191	105.875	175.961
190	10	0.788382	0.802956	105.875	175.289
191	10	0.792531	0.816874	105.875	174.609
192	10	0.79668	0.830953	105.875	173.922
193	10	0.80083	0.845198	105.875	173.226
194	10	0.804979	0.859618	105.875	172.522
195	10	0.809129	0.877897	105.875	171.629
196	10	0.813278	0.892733	105.875	170.905
197	10	0.817427	0.907769	105.875	170.171
198	10	0.821577	0.923014	105.875	169.426
199	10	0.825726	0.938476	105.875	168.671
200	10	0.829876	0.954165	105.875	167.905
201	10	0.834025	0.974114	105.875	166.931
202	10	0.838174	0.990356	105.875	166.138
203	10	0.842324	1.00687	105.875	165.331
204	10	0.846473	1.02365	105.875	164.512
205	10	0.850622	1.04073	105.875	163.678
206	10	0.854772	1.05812	105.875	162.828
207	10	0.858921	1.07584	105.875	161.963
208	10	0.863071	1.09847	105.875	160.858
209	10	0.86722	1.11699	105.875	159.954
210	10	0.871369	1.1359	105.875	159.03
211	10	0.875519	1.15522	105.875	158.087
212	10	0.879668	1.17499	105.875	157.121
213	10	0.883817	1.19522	105.875	156.133
214	10	0.887967	1.21596	105.875	155.121
215	10	0.892116	1.24264	105.875	153.818
216	10	0.896266	1.26464	105.875	152.743
217	10	0.900415	1.28727	105.875	151.638
218	10	0.904564	1.31058	105.875	150.5
219	10	0.908714	1.33462	105.875	149.326
220	10	0.912863	1.35946	105.875	148.113
221	10	0.917012	1.39175	105.875	146.536
222	10	0.921162	1.41865	105.875	145.222
223	10	0.925311	1.44663	105.875	143.856
224	10	0.929461	1.47579	105.875	142.432
225	10	0.93361	1.50626	105.875	140.944
226	10	0.937759	1.5382	105.875	139.385
227	10	0.941909	1.57179	105.875	137.744
228	10	0.946058	1.61644	105.875	135.564
229	10	0.950207	1.65463	105.875	133.699
230	10	0.954357	1.6954	105.875	131.708
231	10	0.958506	1.7392	105.875	129.569
232	10.8	0.962656	1.78661	111.225	127.254
233	13.8	0.966805	1.83843	131.288	124.724
234	20	0.970954	1.8957	172.75	121.927

235	26.1	0.975104	1.97737	213.544	117.938
236	30	0.979253	2.05375	239.625	114.209
237	32	0.983402	2.14441	253	109.781
238	50	0.987552	2.25713	373.375	104.277
239	51.1	0.991701	2.40892	380.731	96.8642
240	78.2	0.995851	2.65209	561.962	84.9898

Shapiro-Francia Test of Normality

Parameter: Copper

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-4.60517	-2.65209	7.03356	12.2133	
2	-2.25379	-2.40892	12.8365	17.6425	
3	-2.25379	-2.25713	17.9311	22.7296	
4	-2.25379	-2.14441	22.5296	27.5627	
5	-1.56065	-2.05375	26.7475	30.7679	
6	-1.20397	-1.97737	30.6575	33.1486	
7	-1.17118	-1.8957	34.2511	35.3688	
8	-1.10866	-1.83843	37.6309	37.407	
9	-1.04982	-1.78661	40.8229	39.2826	
10	-1.04982	-1.7392	43.8477	41.1084	
11	-1.04982	-1.6954	46.7221	42.8883	
12	-1.04982	-1.65463	49.4599	44.6254	
13	-0.994252		-1.61644	52.0728	46.2325
14	-0.994252		-1.57179	54.5433	47.7953
15	-0.941609		-1.5382	56.9093	49.2437
16	-0.798508		-1.50626	59.1782	50.4464
17	-0.733969		-1.47579	61.3561	51.5296
18	-0.693147		-1.44663	63.4489	52.5323
19	-0.653926		-1.41865	65.4614	53.46
20	-0.634878		-1.39175	67.3984	54.3436
21	-0.579818		-1.35946	69.2465	55.1319
22	-0.527633		-1.33462	71.0278	55.836
23	-0.510826		-1.31058	72.7454	56.5055
24	-0.510826		-1.28727	74.4024	57.1631
25	-0.510826		-1.26464	76.0018	57.8091
26	-0.478036		-1.24264	77.5459	58.4031
27	-0.478036		-1.21596	79.0245	58.9844
28	-0.446287		-1.19522	80.453	59.5178
29	-0.446287		-1.17499	81.8336	60.0422
30	-0.446287		-1.15522	83.1682	60.5578
31	-0.430783		-1.1359	84.4584	61.0471
32	-0.314711		-1.11699	85.7061	61.3986
33	-0.274437		-1.09847	86.9127	61.7001
34	-0.223144		-1.07584	88.0701	61.9401
35	-0.072570 7		-1.05812	89.1898	62.0169
36	-0.072570 7		-1.04073	90.2729	62.0925
37	0	-1.02365	91.3208	62.0925	
38	0.0953102		-1.00687	92.3345	61.9965
39	0.0953102		-0.990356	93.3153	61.9021
40	0.0953102		-0.974114	94.2642	61.8093
41	0.182322		-0.954165	95.1747	61.6353
42	0.182322		-0.938476	96.0554	61.4642
43	0.182322		-0.923014	96.9074	61.2959
44	0.262364		-0.907769	97.7314	61.0577
45	0.262364		-0.892733	98.5284	60.8235
46	0.336472		-0.877897	99.2991	60.5281
47	0.470004		-0.859618	100.038	60.1241
48	0.470004		-0.845198	100.752	59.7269
49	0.470004		-0.830953	101.443	59.3363
50	0.587787		-0.816874	102.11	58.8562
51	0.693147		-0.802956	102.755	58.2996

52	0.741937	-0.789191		103.378	57.7141
53	0.788457	-0.775574		103.979	57.1026
54	0.832909	-0.758753		104.555	56.4706
55	1.22378	-0.745449		105.111	55.5583
56	1.64094	-0.732275		105.647	54.3567
57	1.72098	-0.719228		106.164	53.1189
58	1.79176	-0.706302		106.663	51.8534
59	1.79176	-0.693493		107.144	50.6108
60	1.89311	-0.680797		107.607	49.322
61	1.95445	-0.665079		108.05	48.0221
62	2.02155	-0.652622		108.476	46.7028
63	2.07944	-0.640266		108.886	45.3714
64	2.19722	-0.628006		109.28	43.9916
65	2.30259	-0.615839		109.659	42.5735
66	2.30259	-0.603765		110.024	41.1833
67	2.30259	-0.588793		110.37	39.8276
68	2.30259	-0.576911		110.703	38.4992
69	2.30259	-0.565108		111.023	37.198
70	2.30259	-0.553384		111.329	35.9238
71	2.30259	-0.541736		111.622	34.6764
72	2.30259	-0.530162		111.903	33.4556
73	2.30259	-0.518658		112.172	32.2614
74	2.30259	-0.504372		112.427	31.1
75	2.30259	-0.493018		112.67	29.9648
76	2.30259	-0.481728		112.902	28.8556
77	2.30259	-0.470498		113.123	27.7722
78	2.30259	-0.459327		113.334	26.7146
79	2.30259	-0.448213		113.535	25.6825
80	2.30259	-0.437153		113.726	24.676
81	2.30259	-0.423405		113.906	23.701
82	2.30259	-0.412463		114.076	22.7513
83	2.30259	-0.401571		114.237	21.8267
84	2.30259	-0.390726		114.39	20.927
85	2.30259	-0.379927		114.534	20.0522
86	2.30259	-0.369171		114.67	19.2021
87	2.30259	-0.358459		114.799	18.3767
88	2.30259	-0.345126		114.918	17.582
89	2.30259	-0.334503		115.03	16.8118
90	2.30259	-0.323919		115.135	16.066
91	2.30259	-0.31337	115.233	15.3444	
92	2.30259	-0.302855		115.325	14.6471
93	2.30259	-0.292375		115.41	13.9738
94	2.30259	-0.279319		115.488	13.3307
95	2.30259	-0.268908		115.56	12.7115
96	2.30259	-0.258527		115.627	12.1162
97	2.30259	-0.248174		115.689	11.5448
98	2.30259	-0.237847		115.745	10.9971
99	2.30259	-0.227545		115.797	10.4732
100	2.30259	-0.217267		115.844	9.9729
101	2.30259	-0.204452		115.886	9.50214
102	2.30259	-0.194225		115.924	9.05492
103	2.30259	-0.184017		115.958	8.6312
104	2.30259	-0.173829		115.988	8.23095
105	2.30259	-0.163659		116.015	7.85411
106	2.30259	-0.153505		116.038	7.50065
107	2.30259	-0.143367		116.059	7.17053
108	2.30259	-0.130716		116.076	6.86955
109	2.30259	-0.12061	116.091	6.59183	
110	2.30259	-0.110516		116.103	6.33736
111	2.30259	-0.100433		116.113	6.1061
112	2.30259	-0.0903606		116.121	5.89804
113	2.30259	-0.0802981		116.127	5.71315

114	2.30259	-0.0677301	116.132	5.55719
115	2.30259	-0.0576847	116.135	5.42437
116	2.30259	-0.0476439	116.138	5.31467
117	2.30259	-0.0376076	116.139	5.22807
118	2.30259	-0.0275759	116.14	5.16458
119	2.30259	-0.0175476	116.14	5.12417
120	2.30259	-0.00751925	116.14	5.10686
121	2.30259	0.00751925	116.14	5.12417
122	2.30259	0.0175476	116.141	5.16458
123	2.30259	0.0275759	116.141	5.22807
124	2.30259	0.0376076	116.143	5.31467
125	2.30259	0.0476439	116.145	5.42437
126	2.30259	0.0576847	116.148	5.55719
127	2.30259	0.0677301	116.153	5.71315
128	2.30259	0.0802981	116.159	5.89804
129	2.30259	0.0903606	116.167	6.1061
130	2.30259	0.100433	116.178	6.33736
131	2.30259	0.110516	116.19	6.59183
132	2.30259	0.12061	116.204	6.86955
133	2.30259	0.130716	116.221	7.17053
134	2.30259	0.143367	116.242	7.50065
135	2.30259	0.153505	116.266	7.85411
136	2.30259	0.163659	116.292	8.23095
137	2.30259	0.173829	116.323	8.6312
138	2.30259	0.184017	116.356	9.05492
139	2.30259	0.194225	116.394	9.50214
140	2.30259	0.204452	116.436	9.9729
141	2.30259	0.217267	116.483	10.4732
142	2.30259	0.227545	116.535	10.9971
143	2.30259	0.237847	116.591	11.5448
144	2.30259	0.248174	116.653	12.1162
145	2.30259	0.258527	116.72	12.7115
146	2.30259	0.268908	116.792	13.3307
147	2.30259	0.279319	116.87	13.9738
148	2.30259	0.292375	116.956	14.6471
149	2.30259	0.302855	117.047	15.3444
150	2.30259	0.31337	117.146	16.066
151	2.30259	0.323919	117.251	16.8118
152	2.30259	0.334503	117.362	17.582
153	2.30259	0.345126	117.482	18.3767
154	2.30259	0.358459	117.61	19.2021
155	2.30259	0.369171	117.746	20.0522
156	2.30259	0.379927	117.891	20.927
157	2.30259	0.390726	118.043	21.8267
158	2.30259	0.401571	118.205	22.7513
159	2.30259	0.412463	118.375	23.701
160	2.30259	0.423405	118.554	24.676
161	2.30259	0.437153	118.745	25.6825
162	2.30259	0.448213	118.946	26.7146
163	2.30259	0.459327	119.157	27.7722
164	2.30259	0.470498	119.378	28.8556
165	2.30259	0.481728	119.61	29.9648
166	2.30259	0.493018	119.853	31.1
167	2.30259	0.504372	120.108	32.2614
168	2.30259	0.518658	120.377	33.4556
169	2.30259	0.530162	120.658	34.6764
170	2.30259	0.541736	120.951	35.9238
171	2.30259	0.553384	121.258	37.198
172	2.30259	0.565108	121.577	38.4992
173	2.30259	0.576911	121.91	39.8276
174	2.30259	0.588793	122.257	41.1833
175	2.30259	0.603765	122.621	42.5735

176	2.30259	0.615839		123	43.9916
177	2.30259	0.628006		123.395	45.4376
178	2.30259	0.640266		123.805	46.9119
179	2.30259	0.652622		124.231	48.4146
180	2.30259	0.665079		124.673	49.946
181	2.30259	0.680797		125.136	51.5136
182	2.30259	0.693493		125.617	53.1104
183	2.30259	0.706302		126.116	54.7367
184	2.30259	0.719228		126.633	56.3928
185	2.30259	0.732275		127.17	58.0789
186	2.30259	0.745449		127.725	59.7954
187	2.30259	0.758753		128.301	61.5425
188	2.30259	0.775574		128.903	63.3283
189	2.30259	0.789191		129.525	65.1455
190	2.30259	0.802956		130.17	66.9944
191	2.30259	0.816874		130.837	68.8753
192	2.30259	0.830953		131.528	70.7886
193	2.30259	0.845198		132.242	72.7348
194	2.30259	0.859618		132.981	74.7141
195	2.30259	0.877897		133.752	76.7356
196	2.30259	0.892733		134.549	78.7911
197	2.30259	0.907769		135.373	80.8814
198	2.30259	0.923014		136.225	83.0067
199	2.30259	0.938476		137.106	85.1676
200	2.30259	0.954165		138.016	87.3646
201	2.30259	0.974114		138.965	89.6076
202	2.30259	0.990356		139.946	91.888
203	2.30259	1.00687	140.96	94.2064	
204	2.30259	1.02365	142.007	96.5634	
205	2.30259	1.04073	143.091	98.9598	
206	2.30259	1.05812	144.21	101.396	
207	2.30259	1.07584	145.368	103.873	
208	2.30259	1.09847	146.574	106.403	
209	2.30259	1.11699	147.822	108.975	
210	2.30259	1.1359	149.112	111.59	
211	2.30259	1.15522	150.447	114.25	
212	2.30259	1.17499	151.827	116.956	
213	2.30259	1.19522	153.256	119.708	
214	2.30259	1.21596	154.734	122.508	
215	2.30259	1.24264	156.279	125.369	
216	2.30259	1.26464	157.878	128.281	
217	2.30259	1.28727	159.535	131.245	
218	2.30259	1.31058	161.253	134.263	
219	2.30259	1.33462	163.034	137.336	
220	2.30259	1.35946	164.882	140.466	
221	2.30259	1.39175	166.819	143.671	
222	2.30259	1.41865	168.831	146.937	
223	2.30259	1.44663	170.924	150.268	
224	2.30259	1.47579	173.102	153.666	
225	2.30259	1.50626	175.371	157.135	
226	2.30259	1.5382	177.737	160.676	
227	2.30259	1.57179	180.208	164.296	
228	2.30259	1.61644	182.82	168.018	
229	2.30259	1.65463	185.558	171.828	
230	2.30259	1.6954	188.433	175.731	
231	2.30259	1.7392	191.457	179.736	
232	2.37955	1.78661	194.649	183.987	
233	2.62467	1.83843	198.029	188.813	
234	2.99573	1.8957	201.623	194.492	
235	3.26194	1.97737	205.533	200.942	
236	3.4012	2.05375	209.751	207.927	
237	3.46574	2.14441	214.349	215.359	

238	3.91202	2.25713	219.444	224.189
239	3.93378	2.40892	225.247	233.665
240	4.35927	2.65209	232.28	245.226

Data Set Standard Deviation = 1.28684
Numerator = 60135.8
Denominator = 91930.4
W Statistic = 0.654145 = 60135.8 / 91930.4

5% Critical value of 0.976 exceeds 0.654145
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.654145
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Copper

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.811591
0.811591 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-4.60517	0.00414938	-2.65209	60.1234	344.01
2	-2.25379	0.00829876	-2.40892	185.922	332.136
3	-2.25379	0.0124481	-2.25713	185.922	324.723
4	-2.25379	0.0165975	-2.14441	185.922	319.219
5	-1.56065	0.0207469	-2.05375	223.005	314.791
6	-1.20397	0.0248963	-1.97737	242.087	311.062
7	-1.17118	0.0290456	-1.8957	243.842	307.073
8	-1.10866	0.033195	-1.83843	247.187	304.276
9	-1.04982	0.0373444	-1.78661	250.335	301.746
10	-1.04982	0.0414938	-1.7392	250.335	299.431
11	-1.04982	0.0456432	-1.6954	250.335	297.292
12	-1.04982	0.0497925	-1.65463	250.335	295.301
13	-0.994252	0.0539419	-1.61644	253.308	293.436
14	-0.994252	0.0580913	-1.57179	253.308	291.256
15	-0.941609	0.0622407	-1.5382	256.124	289.615
16	-0.798508	0.06639	-1.50626	263.78	288.056
17	-0.733969	0.0705394	-1.47579	267.233	286.568
18	-0.693147	0.0746888	-1.44663	269.417	285.144
19	-0.653926	0.0788382	-1.41865	271.515	283.778
20	-0.634878	0.0829876	-1.39175	272.534	282.464
21	-0.579818	0.0871369	-1.35946	275.48	280.887
22	-0.527633	0.0912863	-1.33462	278.272	279.674
23	-0.510826	0.0954357	-1.31058	279.171	278.5
24	-0.510826	0.0995851	-1.28727	279.171	277.362
25	-0.510826	0.103734	-1.26464	279.171	276.257
26	-0.478036	0.107884	-1.24264	280.925	275.182
27	-0.478036	0.112033	-1.21596	280.925	273.879
28	-0.446287	0.116183	-1.19522	282.624	272.867
29	-0.446287	0.120332	-1.17499	282.624	271.879
30	-0.446287	0.124481	-1.15522	282.624	270.913
31	-0.430783	0.128631	-1.1359	283.453	269.97
32	-0.314711	0.13278	-1.11699	289.663	269.046
33	-0.274437	0.136929	-1.09847	291.818	268.142
34	-0.223144	0.141079	-1.07584	294.562	267.037
35	-0.0725707	0.145228	-1.05812	302.617	266.172
36	-0.0725707	0.149378	-1.04073	302.617	265.322
37	0	0.153527	-1.02365	306.5	264.488
38	0.0953102	0.157676	-1.00687	311.599	263.669
39	0.0953102	0.161826	-0.990356	311.599	262.862
40	0.0953102	0.165975	-0.974114	311.599	262.069
41	0.182322	0.170124	-0.954165	316.254	261.095
42	0.182322	0.174274	-0.938476	316.254	260.329
43	0.182322	0.178423	-0.923014	316.254	259.574
44	0.262364	0.182573	-0.907769	320.536	258.829
45	0.262364	0.186722	-0.892733	320.536	258.095
46	0.336472	0.190871	-0.877897	324.501	257.371
47	0.470004	0.195021	-0.859618	331.645	256.478
48	0.470004	0.19917	-0.845198	331.645	255.774

49	0.470004	0.20332	-0.830953	331.645	255.078	
50	0.587787	0.207469	-0.816874	337.947	254.391	
51	0.693147	0.211618	-0.802956	343.583	253.711	
52	0.741937	0.215768	-0.789191	346.194	253.039	
53	0.788457	0.219917	-0.775574	348.682	252.374	
54	0.832909	0.224066	-0.758753	351.061	251.552	
55	1.22378	0.228216	-0.745449	371.972	250.903	
56	1.64094	0.232365	-0.732275	394.29	250.259	
57	1.72098	0.236515	-0.719228	398.572	249.622	
58	1.79176	0.240664	-0.706302	402.359	248.991	
59	1.79176	0.244813	-0.693493	402.359	248.366	
60	1.89311	0.248963	-0.680797	407.781	247.746	
61	1.95445	0.253112	-0.665079	411.063	246.978	
62	2.02155	0.257261	-0.652622	414.653	246.37	
63	2.07944	0.261411	-0.640266	417.75	245.766	
64	2.19722	0.26556	-0.628006	424.052	245.168	
65	2.30259	0.26971	-0.615839	429.688	244.573	
66	2.30259	0.273859	-0.603765	429.688	243.984	
67	2.30259	0.278008	-0.588793	429.688	243.253	
68	2.30259	0.282158	-0.576911	429.688	242.672	
69	2.30259	0.286307	-0.565108	429.688	242.096	
70	2.30259	0.290456	-0.553384	429.688	241.524	
71	2.30259	0.294606	-0.541736	429.688	240.955	
72	2.30259	0.298755	-0.530162	429.688	240.39	
73	2.30259	0.302905	-0.518658	429.688	239.828	
74	2.30259	0.307054	-0.504372	429.688	239.13	
75	2.30259	0.311203	-0.493018	429.688	238.576	
76	2.30259	0.315353	-0.481728	429.688	238.024	
77	2.30259	0.319502	-0.470498	429.688	237.476	
78	2.30259	0.323651	-0.459327	429.688	236.93	
79	2.30259	0.327801	-0.448213	429.688	236.388	
80	2.30259	0.33195	-0.437153	429.688	235.848	
81	2.30259	0.3361	-0.423405	429.688	235.176	
82	2.30259	0.340249	-0.412463	429.688	234.642	
83	2.30259	0.344398	-0.401571	429.688	234.11	
84	2.30259	0.348548	-0.390726	429.688	233.58	
85	2.30259	0.352697	-0.379927	429.688	233.053	
86	2.30259	0.356846	-0.369171	429.688	232.528	
87	2.30259	0.360996	-0.358459	429.688	232.005	
88	2.30259	0.365145	-0.345126	429.688	231.354	
89	2.30259	0.369295	-0.334503	429.688	230.835	
90	2.30259	0.373444	-0.323919	429.688	230.318	
91	2.30259	0.377593	-0.31337	429.688	229.803	
92	2.30259	0.381743	-0.302855	429.688	229.289	
93	2.30259	0.385892	-0.292375	429.688	228.778	
94	2.30259	0.390041	-0.279319	429.688	228.14	
95	2.30259	0.394191	-0.268908	429.688	227.632	
96	2.30259	0.39834	-0.258527	429.688	227.125	
97	2.30259	0.40249	-0.248174	429.688	226.619	
98	2.30259	0.406639	-0.237847	429.688	226.115	
99	2.30259	0.410788	-0.227545	429.688	225.612	
100	2.30259	0.414938	-0.217267	429.688	225.11	
101	2.30259	0.419087	-0.204452	429.688	224.484	
102	2.30259	0.423237	-0.194225	429.688	223.985	
103	2.30259	0.427386	-0.184017	429.688	223.486	
104	2.30259	0.431535	-0.173829	429.688	222.989	
105	2.30259	0.435685	-0.163659	429.688	222.492	
106	2.30259	0.439834	-0.153505	429.688	221.996	
107	2.30259	0.443983	-0.143367	429.688	221.501	
108	2.30259	0.448133	-0.130716	429.688	220.883	
109	2.30259	0.452282	-0.12061	429.688	220.39	
110	2.30259	0.456432	-0.110516	429.688	219.897	

111	2.30259	0.460581	-0.100433	429.688	219.404
112	2.30259	0.46473	-0.0903606	429.688	218.913
113	2.30259	0.46888	-0.0802981	429.688	218.421
114	2.30259	0.473029	-0.0677301	429.688	217.807
115	2.30259	0.477178	-0.0576847	429.688	217.317
116	2.30259	0.481328	-0.0476439	429.688	216.827
117	2.30259	0.485477	-0.0376076	429.688	216.337
118	2.30259	0.489627	-0.0275759	429.688	215.847
119	2.30259	0.493776	-0.0175476	429.688	215.357
120	2.30259	0.497925	-0.00751925	429.688	214.867
121	2.30259	0.502075	0.00751925	429.688	214.133
122	2.30259	0.506224	0.0175476	429.688	213.643
123	2.30259	0.510373	0.0275759	429.688	213.153
124	2.30259	0.514523	0.0376076	429.688	212.663
125	2.30259	0.518672	0.0476439	429.688	212.173
126	2.30259	0.522822	0.0576847	429.688	211.683
127	2.30259	0.526971	0.0677301	429.688	211.193
128	2.30259	0.53112	0.0802981	429.688	210.579
129	2.30259	0.53527	0.0903606	429.688	210.087
130	2.30259	0.539419	0.100433	429.688	209.596
131	2.30259	0.543568	0.110516	429.688	209.103
132	2.30259	0.547718	0.12061	429.688	208.61
133	2.30259	0.551867	0.130716	429.688	208.117
134	2.30259	0.556017	0.143367	429.688	207.499
135	2.30259	0.560166	0.153505	429.688	207.004
136	2.30259	0.564315	0.163659	429.688	206.508
137	2.30259	0.568465	0.173829	429.688	206.011
138	2.30259	0.572614	0.184017	429.688	205.514
139	2.30259	0.576763	0.194225	429.688	205.015
140	2.30259	0.580913	0.204452	429.688	204.516
141	2.30259	0.585062	0.217267	429.688	203.89
142	2.30259	0.589212	0.227545	429.688	203.388
143	2.30259	0.593361	0.237847	429.688	202.885
144	2.30259	0.59751	0.248174	429.688	202.381
145	2.30259	0.60166	0.258527	429.688	201.875
146	2.30259	0.605809	0.268908	429.688	201.368
147	2.30259	0.609959	0.279319	429.688	200.86
148	2.30259	0.614108	0.292375	429.688	200.222
149	2.30259	0.618257	0.302855	429.688	199.711
150	2.30259	0.622407	0.31337	429.688	199.197
151	2.30259	0.626556	0.323919	429.688	198.682
152	2.30259	0.630705	0.334503	429.688	198.165
153	2.30259	0.634855	0.345126	429.688	197.646
154	2.30259	0.639004	0.358459	429.688	196.995
155	2.30259	0.643154	0.369171	429.688	196.472
156	2.30259	0.647303	0.379927	429.688	195.947
157	2.30259	0.651452	0.390726	429.688	195.42
158	2.30259	0.655602	0.401571	429.688	194.89
159	2.30259	0.659751	0.412463	429.688	194.358
160	2.30259	0.6639	0.423405	429.688	193.824
161	2.30259	0.66805	0.437153	429.688	193.152
162	2.30259	0.672199	0.448213	429.688	192.612
163	2.30259	0.676349	0.459327	429.688	192.07
164	2.30259	0.680498	0.470498	429.688	191.524
165	2.30259	0.684647	0.481728	429.688	190.976
166	2.30259	0.688797	0.493018	429.688	190.424
167	2.30259	0.692946	0.504372	429.688	189.87
168	2.30259	0.697095	0.518658	429.688	189.172
169	2.30259	0.701245	0.530162	429.688	188.61
170	2.30259	0.705394	0.541736	429.688	188.045
171	2.30259	0.709544	0.553384	429.688	187.476
172	2.30259	0.713693	0.565108	429.688	186.904

173	2.30259	0.717842	0.576911	429.688	186.328
174	2.30259	0.721992	0.588793	429.688	185.747
175	2.30259	0.726141	0.603765	429.688	185.016
176	2.30259	0.73029	0.615839	429.688	184.427
177	2.30259	0.73444	0.628006	429.688	183.832
178	2.30259	0.738589	0.640266	429.688	183.234
179	2.30259	0.742739	0.652622	429.688	182.63
180	2.30259	0.746888	0.665079	429.688	182.022
181	2.30259	0.751037	0.680797	429.688	181.254
182	2.30259	0.755187	0.693493	429.688	180.634
183	2.30259	0.759336	0.706302	429.688	180.009
184	2.30259	0.763485	0.719228	429.688	179.378
185	2.30259	0.767635	0.732275	429.688	178.741
186	2.30259	0.771784	0.745449	429.688	178.097
187	2.30259	0.775934	0.758753	429.688	177.448
188	2.30259	0.780083	0.775574	429.688	176.626
189	2.30259	0.784232	0.789191	429.688	175.961
190	2.30259	0.788382	0.802956	429.688	175.289
191	2.30259	0.792531	0.816874	429.688	174.609
192	2.30259	0.79668	0.830953	429.688	173.922
193	2.30259	0.80083	0.845198	429.688	173.226
194	2.30259	0.804979	0.859618	429.688	172.522
195	2.30259	0.809129	0.877897	429.688	171.629
196	2.30259	0.813278	0.892733	429.688	170.905
197	2.30259	0.817427	0.907769	429.688	170.171
198	2.30259	0.821577	0.923014	429.688	169.426
199	2.30259	0.825726	0.938476	429.688	168.671
200	2.30259	0.829876	0.954165	429.688	167.905
201	2.30259	0.834025	0.974114	429.688	166.931
202	2.30259	0.838174	0.990356	429.688	166.138
203	2.30259	0.842324	1.00687	429.688	165.331
204	2.30259	0.846473	1.02365	429.688	164.512
205	2.30259	0.850622	1.04073	429.688	163.678
206	2.30259	0.854772	1.05812	429.688	162.828
207	2.30259	0.858921	1.07584	429.688	161.963
208	2.30259	0.863071	1.09847	429.688	160.858
209	2.30259	0.86722	1.11699	429.688	159.954
210	2.30259	0.871369	1.1359	429.688	159.03
211	2.30259	0.875519	1.15522	429.688	158.087
212	2.30259	0.879668	1.17499	429.688	157.121
213	2.30259	0.883817	1.19522	429.688	156.133
214	2.30259	0.887967	1.21596	429.688	155.121
215	2.30259	0.892116	1.24264	429.688	153.818
216	2.30259	0.896266	1.26464	429.688	152.743
217	2.30259	0.900415	1.28727	429.688	151.638
218	2.30259	0.904564	1.31058	429.688	150.5
219	2.30259	0.908714	1.33462	429.688	149.326
220	2.30259	0.912863	1.35946	429.688	148.113
221	2.30259	0.917012	1.39175	429.688	146.536
222	2.30259	0.921162	1.41865	429.688	145.222
223	2.30259	0.925311	1.44663	429.688	143.856
224	2.30259	0.929461	1.47579	429.688	142.432
225	2.30259	0.93361	1.50626	429.688	140.944
226	2.30259	0.937759	1.5382	429.688	139.385
227	2.30259	0.941909	1.57179	429.688	137.744
228	2.30259	0.946058	1.61644	429.688	135.564
229	2.30259	0.950207	1.65463	429.688	133.699
230	2.30259	0.954357	1.6954	429.688	131.708
231	2.30259	0.958506	1.7392	429.688	129.569
232	2.37955	0.962656	1.78661	433.806	127.254
233	2.62467	0.966805	1.83843	446.92	124.724
234	2.99573	0.970954	1.8957	466.772	121.927

235	3.26194	0.975104	1.97737	481.014	117.938
236	3.4012	0.979253	2.05375	488.464	114.209
237	3.46574	0.983402	2.14441	491.917	109.781
238	3.91202	0.987552	2.25713	515.793	104.277
239	3.93378	0.991701	2.40892	516.957	96.8642
240	4.35927	0.995851	2.65209	539.721	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Copper

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	2.30259 J	229
	9/23/1999	2.19722 J	228
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.693147 J	182
	11/16/2009	-1.20397 J	170
	6/30/2010	-1.04982 J H	173
	11/12/2010	ND<-2.25379 U	84
	7/5/2011	-0.733969 J	181

Rank Sum = 2255
Rank Mean = 118.684

Background Rank Sum = 2255
Background Rank Mean = 118.684

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	1.89311 J	224

	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.941609 J	179
	11/16/2009	-0.994252 J	177
	6/30/2010	-0.072570 7 J H	199
	11/12/2010	ND<-2.25379 U	84
	7/5/2011	-1.56065 U J	169
	11/22/2011	-0.223144 J	198

Rank Sum = 3162
Rank Mean = 105.4

MW-9	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	2.99573	234
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	-4.60517 J	168
	11/18/2006	2.62467	233
	5/23/2007	1.72098 J	221
	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.274437 J	197
	11/16/2009	-1.10866 J	172
	6/30/2010	0 H	201
	11/12/2010	-0.430783 J	195
	7/5/2011	-0.072570 7 J	200
	11/22/2011	-1.04982 J	174
	11/22/2011	-1.04982 J	175

Rank Sum = 3850
Rank Mean = 124.194

MW-11R	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	ND<2.30259	84
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	ND<2.30259	84
	9/23/1999	3.46574	237
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84

	4/1/2005	ND<2.30259		84
	10/25/2005	ND<2.30259		84
	4/29/2006	2.30259	J	230
	11/18/2006	ND<2.30259		84
	5/23/2007	ND<2.30259		84
	11/28/2007	2.07944	J	227
	6/5/2008	ND<2.30259		84
	11/20/2008	ND<2.30259		84
	6/11/2009	-0.527633	J	186
	11/16/2009	-0.314711	J	196
	6/30/2010	-0.510826	J H	187
	11/12/2010	-0.510826	J	188
	7/5/2011	-0.446287	J	192
	11/22/2011	-0.446287	J	193
	11/22/2011	-0.446287	J	194

Rank Sum = 3794
Rank Mean = 122.387

MW-6	7/20/1995	ND<2.30259		84
	8/24/1995	ND<2.30259		84
	9/28/1995	ND<2.30259		84
	10/26/1995	ND<2.30259		84
	11/19/1996	ND<2.30259		84
	12/19/1996	ND<2.30259		84
	3/24/1997	ND<2.30259		84
	9/24/1997	ND<2.30259		84
	4/7/1998	ND<2.30259		84
	9/23/1998	ND<2.30259		84
	3/16/1999	ND<2.30259		84
	9/23/1999	ND<2.30259		84
	3/15/2000	ND<2.30259		84
	9/24/2003	ND<2.30259		84
	3/11/2004	ND<2.30259		84
	10/12/2004	ND<2.30259		84
	4/1/2005	ND<2.30259		84
	10/25/2005	ND<2.30259		84
	4/29/2006	ND<2.30259		84
	11/18/2006	ND<2.30259		84
	5/23/2007	ND<2.30259		84
	11/28/2007	1.64094	J	220
	6/5/2008	ND<2.30259		84
	11/20/2008	ND<2.30259		84
	6/11/2009	0.182322		205
	11/16/2009	0.262364		208
	6/30/2010	0.470004	H	211
	11/12/2010	-1.04982	J	176
	7/5/2011	0.470004		212
	11/22/2011	-0.510826	J	189

Rank Sum = 3353
Rank Mean = 111.767

MW-12A	R	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259		84
	3/15/2000	ND<2.30259		84
	9/24/2003	ND<2.30259		84
	3/11/2004	ND<2.30259		84
	10/12/2004	ND<2.30259		84
	4/1/2005	ND<2.30259		84
	10/25/2005	ND<2.30259		84
	4/29/2006	ND<2.30259		84
	11/18/2006	ND<2.30259		84
	5/23/2007	ND<2.30259		84

	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.994252 J	178
	11/16/2009	-0.634878 J	184
	6/30/2010	0.693147	215
	11/12/2010	ND<-2.25379 U	84
	7/5/2011	-0.653926 J	183
	11/22/2011	-0.478036 J	190

Rank Sum = 2210
Rank Mean = 110.5

MW-12BR	3/16/1999	ND<2.30259	84
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	ND<2.30259	84
	11/28/2007	1.79176 J	222
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	0.470004	213
	11/16/2009	0.182322	206
	6/30/2010	1.22378	219
	11/12/2010	0.788457	217
	7/5/2011	0.0953102	202
	11/22/2011	0.182322	207

Rank Sum = 2578
Rank Mean = 128.9

MW-7	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	4.35927	240
	10/26/1995	3.26194	235
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	3.91202	238
	9/23/1999	2.30259 J	231
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	2.37955	232
	11/28/2007	1.95445 J	225
	6/5/2008	2.02155 J	226
	11/20/2008	1.79176 J	223
	6/11/2009	0.832909	218
	11/16/2009	0.336472	210
	6/30/2010	0.741937 H	216

	11/12/2010	0.587787	214
	7/5/2011	0.0953102	203
	11/22/2011	0.262364	209

Rank Sum = 4464
Rank Mean = 148.8

MW-8	7/20/1995	ND<2.30259	84
	8/24/1995	ND<2.30259	84
	9/28/1995	3.93378	239
	10/26/1995	ND<2.30259	84
	11/19/1996	ND<2.30259	84
	12/19/1996	ND<2.30259	84
	3/24/1997	ND<2.30259	84
	9/24/1997	ND<2.30259	84
	4/7/1998	ND<2.30259	84
	9/23/1998	ND<2.30259	84
	3/16/1999	3.4012	236
	9/23/1999	ND<2.30259	84
	3/15/2000	ND<2.30259	84
	9/24/2003	ND<2.30259	84
	3/11/2004	ND<2.30259	84
	10/12/2004	ND<2.30259	84
	4/1/2005	ND<2.30259	84
	10/25/2005	ND<2.30259	84
	4/29/2006	ND<2.30259	84
	11/18/2006	ND<2.30259	84
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	ND<2.30259	84
	11/20/2008	ND<2.30259	84
	6/11/2009	-1.17118 J	171
	6/30/2010	-0.478036 J H	191
	11/12/2010	0.0953102	204
	7/5/2011	-0.798508 J	180
	11/22/2011	-0.579818 J	185

Rank Sum = 3254
Rank Mean = 112.207

Calculation Results:

Kruskal-Wallis H Statistic = 8.12381
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 12.2514
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
8.12381 < 15.5073 indicating no significant group difference at 5% significance level
12.2514 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Cyanide

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 233
Percent Non-Detects: 97.0833%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	18 (94.7368%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<2.5	ND<2.5
			11/16/2009	2.6 J	2.6 J
			6/30/2010	ND<2.5	ND<2.5
			11/12/2010	ND<2.5 U	ND<2.5 U
			7/5/2011	ND<5 U	ND<5 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-7	30	29 (96.6667%)	7/20/1995	ND<20	ND<20
			8/24/1995	ND<20	ND<20
			9/28/1995	ND<20	ND<20
			10/26/1995	ND<20	ND<20
			11/19/1996	ND<20	ND<20
			12/19/1996	ND<20	ND<20
			3/24/1997	ND<20	ND<20
			9/24/1997	ND<20	ND<20
			4/7/1998	ND<20	ND<20
			9/23/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20

			6/11/2009	ND<2.5	ND<2.5	
			11/13/2009	ND<2.5	ND<2.5	
			6/30/2010	ND<2.5	ND<2.5	
			11/12/2010	ND<2.5 U		ND<2.5 U
			7/5/2011 8.8 J	8.8 J		
			11/22/2011	ND<5 U	ND<5 U	
MW-10	30	30 (100%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<2.5	ND<2.5	
			11/13/2009	ND<2.5	ND<2.5	
			6/30/2010	ND<2.5	ND<2.5	
			11/12/2010	ND<2.5 U		ND<2.5 U
			7/5/2011 ND<5 U	ND<5 U		
			11/22/2011	ND<5 U	ND<5 U	
MW-6	30	29 (96.6667%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	14 J	14 J	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	

			6/11/2009	ND<2.5	ND<2.5	
			11/16/2009	ND<2.5	ND<2.5	
			6/30/2010	ND<2.5	ND<2.5	
			11/12/2010	ND<2.5 U		ND<2.5 U
			7/5/2011 ND<5 U	ND<5 U		
			11/22/2011	ND<5 U	ND<5 U	
MW-8	29	29 (100%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<2.5	ND<2.5	
			6/30/2010	ND<2.5	ND<2.5	
			11/12/2010	ND<2.5 U		ND<2.5 U
			7/5/2011 ND<5 U	ND<5 U		
			11/22/2011	ND<5 U	ND<5 U	
MW-9	31	31 (100%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998 ND<20	ND<20		
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005 ND<20	ND<20		
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008 ND<20	ND<20		
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<2.5	ND<2.5	

		11/16/2009	ND<2.5	ND<2.5	
		6/30/2010	ND<2.5	ND<2.5	
		11/12/2010	ND<2.5 U		ND<2.5 U
		7/5/2011 ND<5 U	ND<5 U		
		11/22/2011	ND<5 U	ND<5 U	
		11/22/2011	ND<5 U	ND<5 U	
MW-11R	31	29 (93.5484%)	7/20/1995	ND<20	ND<20
		8/24/1995	ND<20	ND<20	
		9/28/1995	ND<20	ND<20	
		10/26/1995	ND<20	ND<20	
		11/19/1996	ND<20	ND<20	
		12/19/1996	ND<20	ND<20	
		3/24/1997	ND<20	ND<20	
		9/24/1997	ND<20	ND<20	
		4/7/1998 ND<20	ND<20		
		9/23/1998	ND<20	ND<20	
		3/16/1999	ND<20	ND<20	
		9/23/1999	ND<20	ND<20	
		3/15/2000	ND<20	ND<20	
		9/24/2003	ND<20	ND<20	
		3/11/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	
		4/1/2005 ND<20	ND<20		
		10/25/2005	ND<20	ND<20	
		4/29/2006	ND<20	ND<20	
		11/18/2006	ND<20	ND<20	
		5/23/2007	14 J	14 J	
		11/28/2007	ND<20	ND<20	
		6/5/2008 ND<20	ND<20		
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<2.5	ND<2.5	
		11/13/2009	ND<2.5	ND<2.5	
		6/30/2010	ND<2.5	ND<2.5	
		11/12/2010	ND<2.5 U		ND<2.5 U
		7/5/2011 7.7 J	7.7 J		
		11/22/2011	ND<5 U	ND<5 U	
		11/22/2011	ND<5 U	ND<5 U	
MW-12AR	20	18 (90%)	3/16/1999	ND<20	ND<20
		9/23/1999	ND<20	ND<20	
		3/15/2000	ND<20	ND<20	
		9/24/2003	ND<20	ND<20	
		3/11/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	
		4/1/2005 ND<20	ND<20		
		10/25/2005	ND<20	ND<20	
		4/29/2006	ND<20	ND<20	
		11/18/2006	ND<20	ND<20	
		5/23/2007	ND<20	ND<20	
		11/28/2007	ND<20	ND<20	
		6/5/2008 ND<20	ND<20		
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<2.5	ND<2.5	
		11/12/2009	4.2 J	4.2 J	
		6/30/2010	ND<2.5	ND<2.5	
		11/12/2010	ND<2.5 U		ND<2.5 U
		7/5/2011 ND<5 U	ND<5 U		
		11/22/2011	7.4 J	7.4 J	
MW-12BR	20	20 (100%)	3/16/1999	ND<20	ND<20
		9/23/1999	ND<20	ND<20	

3/15/2000	ND<20	ND<20	
9/24/2003	ND<20	ND<20	
3/11/2004	ND<20	ND<20	
10/12/2004	ND<20	ND<20	
4/1/2005	ND<20	ND<20	
10/25/2005	ND<20	ND<20	
4/29/2006	ND<20	ND<20	
11/18/2006	ND<20	ND<20	
5/23/2007	ND<20	ND<20	
11/28/2007	ND<20	ND<20	
6/5/2008	ND<20	ND<20	
11/20/2008	ND<20	ND<20	
6/11/2009	ND<2.5	ND<2.5	
11/13/2009	ND<2.5	ND<2.5	
6/30/2010	ND<2.5	ND<2.5	
11/12/2010	ND<2.5 U		ND<2.5 U
7/5/2011	ND<5 U	ND<5 U	
11/22/2011	ND<5 U	ND<5 U	

There are 0 unused locations

Loc.	Meas. ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Cyanide

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.25	-2.65209	7.03356	-3.31511
2	1.25	-2.40892	12.8365	-6.32626
3	1.25	-2.25713	17.9311	-9.14767
4	1.25	-2.14441	22.5296	-11.8282
5	1.25	-2.05375	26.7475	-14.3954
6	1.25	-1.97737	30.6575	-16.8671
7	1.25	-1.8957	34.2511	-19.2367
8	1.25	-1.83843	37.6309	-21.5347
9	1.25	-1.78661	40.8229	-23.768
10	1.25	-1.7392	43.8477	-25.942
11	1.25	-1.6954	46.7221	-28.0612
12	1.25	-1.65463	49.4599	-30.1295
13	1.25	-1.61644	52.0728	-32.1501
14	1.25	-1.57179	54.5433	-34.1148
15	1.25	-1.5382	56.9093	-36.0376
16	1.25	-1.50626	59.1782	-37.9204
17	1.25	-1.47579	61.3561	-39.7651
18	1.25	-1.44663	63.4489	-41.5734
19	1.25	-1.41865	65.4614	-43.3467
20	1.25	-1.39175	67.3984	-45.0864
21	1.25	-1.35946	69.2465	-46.7857
22	1.25	-1.33462	71.0278	-48.454
23	1.25	-1.31058	72.7454	-50.0922
24	1.25	-1.28727	74.4024	-51.7013
25	1.25	-1.26464	76.0018	-53.2821
26	1.25	-1.24264	77.5459	-54.8354
27	1.25	-1.21596	79.0245	-56.3554
28	1.25	-1.19522	80.453	-57.8494
29	1.25	-1.17499	81.8336	-59.3181
30	1.25	-1.15522	83.1682	-60.7622
31	1.25	-1.1359	84.4584	-62.182
32	1.25	-1.11699	85.7061	-63.5783
33	1.25	-1.09847	86.9127	-64.9514
34	2.5	-1.07584	88.0701	-67.641
35	2.5	-1.05812	89.1898	-70.2863
36	2.5	-1.04073	90.2729	-72.8881
37	2.5	-1.02365	91.3208	-75.4472
38	2.5	-1.00687	92.3345	-77.9644
39	2.5	-0.990356	93.3153	-80.4403
40	2.5	-0.974114	94.2642	-82.8756
41	2.5	-0.954165	95.1747	-85.261
42	2.5	-0.938476	96.0554	-87.6072
43	2.5	-0.923014	96.9074	-89.9147
44	2.5	-0.907769	97.7314	-92.1841
45	2.5	-0.892733	98.5284	-94.416
46	2.5	-0.877897	99.2991	-96.6107
47	2.5	-0.859618	100.038	-98.7597
48	2.5	-0.845198	100.752	-100.873
49	2.5	-0.830953	101.443	-102.95
50	2.6	-0.816874	102.11	-105.074
51	4.2	-0.802956	102.755	-108.446

52	7.4	-0.789191	103.378	-114.286
53	7.7	-0.775574	103.979	-120.258
54	8.8	-0.758753	104.555	-126.935
55	10	-0.745449	105.111	-134.39
56	10	-0.732275	105.647	-141.713
57	10	-0.719228	106.164	-148.905
58	10	-0.706302	106.663	-155.968
59	10	-0.693493	107.144	-162.903
60	10	-0.680797	107.607	-169.711
61	10	-0.665079	108.05	-176.362
62	10	-0.652622	108.476	-182.888
63	10	-0.640266	108.886	-189.29
64	10	-0.628006	109.28	-195.571
65	10	-0.615839	109.659	-201.729
66	10	-0.603765	110.024	-207.767
67	10	-0.588793	110.37	-213.655
68	10	-0.576911	110.703	-219.424
69	10	-0.565108	111.023	-225.075
70	10	-0.553384	111.329	-230.609
71	10	-0.541736	111.622	-236.026
72	10	-0.530162	111.903	-241.328
73	10	-0.518658	112.172	-246.514
74	10	-0.504372	112.427	-251.558
75	10	-0.493018	112.67	-256.488
76	10	-0.481728	112.902	-261.305
77	10	-0.470498	113.123	-266.01
78	10	-0.459327	113.334	-270.604
79	10	-0.448213	113.535	-275.086
80	10	-0.437153	113.726	-279.457
81	10	-0.423405	113.906	-283.691
82	10	-0.412463	114.076	-287.816
83	10	-0.401571	114.237	-291.832
84	10	-0.390726	114.39	-295.739
85	10	-0.379927	114.534	-299.538
86	10	-0.369171	114.67	-303.23
87	10	-0.358459	114.799	-306.814
88	10	-0.345126	114.918	-310.266
89	10	-0.334503	115.03	-313.611
90	10	-0.323919	115.135	-316.85
91	10	-0.31337	115.233	-319.984
92	10	-0.302855	115.325	-323.012
93	10	-0.292375	115.41	-325.936
94	10	-0.279319	115.488	-328.729
95	10	-0.268908	115.56	-331.418
96	10	-0.258527	115.627	-334.003
97	10	-0.248174	115.689	-336.485
98	10	-0.237847	115.745	-338.864
99	10	-0.227545	115.797	-341.139
100	10	-0.217267	115.844	-343.312
101	10	-0.204452	115.886	-345.356
102	10	-0.194225	115.924	-347.298
103	10	-0.184017	115.958	-349.139
104	10	-0.173829	115.988	-350.877
105	10	-0.163659	116.015	-352.514
106	10	-0.153505	116.038	-354.049
107	10	-0.143367	116.059	-355.482
108	10	-0.130716	116.076	-356.789
109	10	-0.12061	116.091	-357.996
110	10	-0.110516	116.103	-359.101
111	10	-0.100433	116.113	-360.105
112	10	-0.0903606	116.121	-361.009
113	10	-0.0802981	116.127	-361.812

114	10	-0.0677301	116.132	-362.489
115	10	-0.0576847	116.135	-363.066
116	10	-0.0476439	116.138	-363.542
117	10	-0.0376076	116.139	-363.918
118	10	-0.0275759	116.14	-364.194
119	10	-0.0175476	116.14	-364.37
120	10	-0.00751925	116.14	-364.445
121	10	0.00751925	116.14	-364.37
122	10	0.0175476	116.141	-364.194
123	10	0.0275759	116.141	-363.918
124	10	0.0376076	116.143	-363.542
125	10	0.0476439	116.145	-363.066
126	10	0.0576847	116.148	-362.489
127	10	0.0677301	116.153	-361.812
128	10	0.0802981	116.159	-361.009
129	10	0.0903606	116.167	-360.105
130	10	0.100433	116.178	-359.101
131	10	0.110516	116.19	-357.996
132	10	0.12061	116.204	-356.789
133	10	0.130716	116.221	-355.482
134	10	0.143367	116.242	-354.049
135	10	0.153505	116.266	-352.514
136	10	0.163659	116.292	-350.877
137	10	0.173829	116.323	-349.139
138	10	0.184017	116.356	-347.298
139	10	0.194225	116.394	-345.356
140	10	0.204452	116.436	-343.312
141	10	0.217267	116.483	-341.139
142	10	0.227545	116.535	-338.864
143	10	0.237847	116.591	-336.485
144	10	0.248174	116.653	-334.003
145	10	0.258527	116.72	-331.418
146	10	0.268908	116.792	-328.729
147	10	0.279319	116.87	-325.936
148	10	0.292375	116.956	-323.012
149	10	0.302855	117.047	-319.984
150	10	0.31337	117.146	-316.85
151	10	0.323919	117.251	-313.611
152	10	0.334503	117.362	-310.266
153	10	0.345126	117.482	-306.814
154	10	0.358459	117.61	-303.23
155	10	0.369171	117.746	-299.538
156	10	0.379927	117.891	-295.739
157	10	0.390726	118.043	-291.832
158	10	0.401571	118.205	-287.816
159	10	0.412463	118.375	-283.691
160	10	0.423405	118.554	-279.457
161	10	0.437153	118.745	-275.086
162	10	0.448213	118.946	-270.604
163	10	0.459327	119.157	-266.01
164	10	0.470498	119.378	-261.305
165	10	0.481728	119.61	-256.488
166	10	0.493018	119.853	-251.558
167	10	0.504372	120.108	-246.514
168	10	0.518658	120.377	-241.328
169	10	0.530162	120.658	-236.026
170	10	0.541736	120.951	-230.609
171	10	0.553384	121.258	-225.075
172	10	0.565108	121.577	-219.424
173	10	0.576911	121.91	-213.655
174	10	0.588793	122.257	-207.767
175	10	0.603765	122.621	-201.729

176	10	0.615839		123	-195.571
177	10	0.628006		123.395	-189.29
178	10	0.640266		123.805	-182.888
179	10	0.652622		124.231	-176.362
180	10	0.665079		124.673	-169.711
181	10	0.680797		125.136	-162.903
182	10	0.693493		125.617	-155.968
183	10	0.706302		126.116	-148.905
184	10	0.719228		126.633	-141.713
185	10	0.732275		127.17	-134.39
186	10	0.745449		127.725	-126.935
187	10	0.758753		128.301	-119.348
188	10	0.775574		128.903	-111.592
189	10	0.789191		129.525	-103.7
190	10	0.802956		130.17	-95.6706
191	10	0.816874		130.837	-87.5019
192	10	0.830953		131.528	-79.1924
193	10	0.845198		132.242	-70.7404
194	10	0.859618		132.981	-62.1442
195	10	0.877897		133.752	-53.3652
196	10	0.892733		134.549	-44.4379
197	10	0.907769		135.373	-35.3602
198	10	0.923014		136.225	-26.1301
199	10	0.938476		137.106	-16.7453
200	10	0.954165		138.016	-7.20366
201	10	0.974114		138.965	2.53748
202	10	0.990356		139.946	12.441
203	10	1.00687	140.96	22.5097	
204	10	1.02365	142.007	32.7462	
205	10	1.04073	143.091	43.1535	
206	10	1.05812	144.21	53.7348	
207	10	1.07584	145.368	64.4931	
208	10	1.09847	146.574	75.4778	
209	10	1.11699	147.822	86.6477	
210	10	1.1359	149.112	98.0066	
211	10	1.15522	150.447	109.559	
212	10	1.17499	151.827	121.309	
213	10	1.19522	153.256	133.261	
214	10	1.21596	154.734	145.421	
215	10	1.24264	156.279	157.847	
216	10	1.26464	157.878	170.493	
217	10	1.28727	159.535	183.366	
218	10	1.31058	161.253	196.472	
219	10	1.33462	163.034	209.818	
220	10	1.35946	164.882	223.413	
221	10	1.39175	166.819	237.33	
222	10	1.41865	168.831	251.517	
223	10	1.44663	170.924	265.983	
224	10	1.47579	173.102	280.741	
225	10	1.50626	175.371	295.804	
226	10	1.5382	177.737	311.186	
227	10	1.57179	180.208	326.903	
228	10	1.61644	182.82	343.068	
229	10	1.65463	185.558	359.614	
230	10	1.6954	188.433	376.568	
231	10	1.7392	191.457	393.96	
232	10	1.78661	194.649	411.826	
233	10	1.83843	198.029	430.21	
234	10	1.8957	201.623	449.167	
235	10	1.97737	205.533	468.941	
236	10	2.05375	209.751	489.479	
237	10	2.14441	214.349	510.923	

238	10	2.25713	219.444	533.494
239	14	2.40892	225.247	567.219
240	14	2.65209	232.28	604.348

Data Set Standard Deviation = 3.4382
Numerator = 365237
Denominator = 656256
W Statistic = 0.556546 = 365237 / 656256

5% Critical value of 0.976 exceeds 0.556546
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.556546
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cyanide

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.745472
0.745472 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.25	0.00414938	-2.65209	72.4375	344.01	
2	1.25	0.00829876	-2.40892	72.4375	332.136	
3	1.25	0.0124481	-2.25713	72.4375	324.723	
4	1.25	0.0165975	-2.14441	72.4375	319.219	
5	1.25	0.0207469	-2.05375	72.4375	314.791	
6	1.25	0.0248963	-1.97737	72.4375	311.062	
7	1.25	0.0290456	-1.8957	72.4375	307.073	
8	1.25	0.033195	-1.83843	72.4375	304.276	
9	1.25	0.0373444	-1.78661	72.4375	301.746	
10	1.25	0.0414938	-1.7392	72.4375	299.431	
11	1.25	0.0456432	-1.6954	72.4375	297.292	
12	1.25	0.0497925	-1.65463	72.4375	295.301	
13	1.25	0.0539419	-1.61644	72.4375	293.436	
14	1.25	0.0580913	-1.57179	72.4375	291.256	
15	1.25	0.0622407	-1.5382	72.4375	289.615	
16	1.25	0.06639	-1.50626	72.4375	288.056	
17	1.25	0.0705394	-1.47579	72.4375	286.568	
18	1.25	0.0746888	-1.44663	72.4375	285.144	
19	1.25	0.0788382	-1.41865	72.4375	283.778	
20	1.25	0.0829876	-1.39175	72.4375	282.464	
21	1.25	0.0871369	-1.35946	72.4375	280.887	
22	1.25	0.0912863	-1.33462	72.4375	279.674	
23	1.25	0.0954357	-1.31058	72.4375	278.5	
24	1.25	0.0995851	-1.28727	72.4375	277.362	
25	1.25	0.103734	-1.26464	72.4375	276.257	
26	1.25	0.107884	-1.24264	72.4375	275.182	
27	1.25	0.112033	-1.21596	72.4375	273.879	
28	1.25	0.116183	-1.19522	72.4375	272.867	
29	1.25	0.120332	-1.17499	72.4375	271.879	
30	1.25	0.124481	-1.15522	72.4375	270.913	
31	1.25	0.128631	-1.1359	72.4375	269.97	
32	1.25	0.13278	-1.11699	72.4375	269.046	
33	1.25	0.136929	-1.09847	72.4375	268.142	
34	2.5	0.141079	-1.07584	105.875	267.037	
35	2.5	0.145228	-1.05812	105.875	266.172	
36	2.5	0.149378	-1.04073	105.875	265.322	
37	2.5	0.153527	-1.02365	105.875	264.488	
38	2.5	0.157676	-1.00687	105.875	263.669	
39	2.5	0.161826	-0.990356	105.875	262.862	
40	2.5	0.165975	-0.974114	105.875	262.069	
41	2.5	0.170124	-0.954165	105.875	261.095	
42	2.5	0.174274	-0.938476	105.875	260.329	
43	2.5	0.178423	-0.923014	105.875	259.574	
44	2.5	0.182573	-0.907769	105.875	258.829	
45	2.5	0.186722	-0.892733	105.875	258.095	
46	2.5	0.190871	-0.877897	105.875	257.371	
47	2.5	0.195021	-0.859618	105.875	256.478	
48	2.5	0.19917	-0.845198	105.875	255.774	

49	2.5	0.20332	-0.830953	105.875	255.078	
50	2.6	0.207469	-0.816874		108.55	254.391
51	4.2	0.211618	-0.802956		151.35	253.711
52	7.4	0.215768	-0.789191		236.95	253.039
53	7.7	0.219917	-0.775574		244.975	252.374
54	8.8	0.224066	-0.758753		274.4	251.552
55	10	0.228216	-0.745449		306.5	250.903
56	10	0.232365	-0.732275		306.5	250.259
57	10	0.236515	-0.719228		306.5	249.622
58	10	0.240664	-0.706302		306.5	248.991
59	10	0.244813	-0.693493		306.5	248.366
60	10	0.248963	-0.680797		306.5	247.746
61	10	0.253112	-0.665079		306.5	246.978
62	10	0.257261	-0.652622		306.5	246.37
63	10	0.261411	-0.640266		306.5	245.766
64	10	0.26556	-0.628006	306.5	245.168	
65	10	0.26971	-0.615839	306.5	244.573	
66	10	0.273859	-0.603765		306.5	243.984
67	10	0.278008	-0.588793		306.5	243.253
68	10	0.282158	-0.576911		306.5	242.672
69	10	0.286307	-0.565108		306.5	242.096
70	10	0.290456	-0.553384		306.5	241.524
71	10	0.294606	-0.541736		306.5	240.955
72	10	0.298755	-0.530162		306.5	240.39
73	10	0.302905	-0.518658		306.5	239.828
74	10	0.307054	-0.504372		306.5	239.13
75	10	0.311203	-0.493018		306.5	238.576
76	10	0.315353	-0.481728		306.5	238.024
77	10	0.319502	-0.470498		306.5	237.476
78	10	0.323651	-0.459327		306.5	236.93
79	10	0.327801	-0.448213		306.5	236.388
80	10	0.33195	-0.437153	306.5	235.848	
81	10	0.3361	-0.423405	306.5	235.176	
82	10	0.340249	-0.412463		306.5	234.642
83	10	0.344398	-0.401571		306.5	234.11
84	10	0.348548	-0.390726		306.5	233.58
85	10	0.352697	-0.379927		306.5	233.053
86	10	0.356846	-0.369171		306.5	232.528
87	10	0.360996	-0.358459		306.5	232.005
88	10	0.365145	-0.345126		306.5	231.354
89	10	0.369295	-0.334503		306.5	230.835
90	10	0.373444	-0.323919		306.5	230.318
91	10	0.377593	-0.31337	306.5	229.803	
92	10	0.381743	-0.302855		306.5	229.289
93	10	0.385892	-0.292375		306.5	228.778
94	10	0.390041	-0.279319		306.5	228.14
95	10	0.394191	-0.268908		306.5	227.632
96	10	0.39834	-0.258527	306.5	227.125	
97	10	0.40249	-0.248174	306.5	226.619	
98	10	0.406639	-0.237847		306.5	226.115
99	10	0.410788	-0.227545		306.5	225.612
100	10	0.414938	-0.217267		306.5	225.11
101	10	0.419087	-0.204452		306.5	224.484
102	10	0.423237	-0.194225		306.5	223.985
103	10	0.427386	-0.184017		306.5	223.486
104	10	0.431535	-0.173829		306.5	222.989
105	10	0.435685	-0.163659		306.5	222.492
106	10	0.439834	-0.153505		306.5	221.996
107	10	0.443983	-0.143367		306.5	221.501
108	10	0.448133	-0.130716		306.5	220.883
109	10	0.452282	-0.12061	306.5	220.39	
110	10	0.456432	-0.110516		306.5	219.897

111	10	0.460581	-0.100433	306.5	219.404
112	10	0.46473	-0.0903606	306.5	218.913
113	10	0.46888	-0.0802981	306.5	218.421
114	10	0.473029	-0.0677301	306.5	217.807
115	10	0.477178	-0.0576847	306.5	217.317
116	10	0.481328	-0.0476439	306.5	216.827
117	10	0.485477	-0.0376076	306.5	216.337
118	10	0.489627	-0.0275759	306.5	215.847
119	10	0.493776	-0.0175476	306.5	215.357
120	10	0.497925	-0.00751925	306.5	214.867
121	10	0.502075	0.00751925	306.5	214.133
122	10	0.506224	0.0175476	306.5	213.643
123	10	0.510373	0.0275759	306.5	213.153
124	10	0.514523	0.0376076	306.5	212.663
125	10	0.518672	0.0476439	306.5	212.173
126	10	0.522822	0.0576847	306.5	211.683
127	10	0.526971	0.0677301	306.5	211.193
128	10	0.53112	0.0802981	306.5	210.579
129	10	0.53527	0.0903606	306.5	210.087
130	10	0.539419	0.100433	306.5	209.596
131	10	0.543568	0.110516	306.5	209.103
132	10	0.547718	0.12061	306.5	208.61
133	10	0.551867	0.130716	306.5	208.117
134	10	0.556017	0.143367	306.5	207.499
135	10	0.560166	0.153505	306.5	207.004
136	10	0.564315	0.163659	306.5	206.508
137	10	0.568465	0.173829	306.5	206.011
138	10	0.572614	0.184017	306.5	205.514
139	10	0.576763	0.194225	306.5	205.015
140	10	0.580913	0.204452	306.5	204.516
141	10	0.585062	0.217267	306.5	203.89
142	10	0.589212	0.227545	306.5	203.388
143	10	0.593361	0.237847	306.5	202.885
144	10	0.59751	0.248174	306.5	202.381
145	10	0.60166	0.258527	306.5	201.875
146	10	0.605809	0.268908	306.5	201.368
147	10	0.609959	0.279319	306.5	200.86
148	10	0.614108	0.292375	306.5	200.222
149	10	0.618257	0.302855	306.5	199.711
150	10	0.622407	0.31337	306.5	199.197
151	10	0.626556	0.323919	306.5	198.682
152	10	0.630705	0.334503	306.5	198.165
153	10	0.634855	0.345126	306.5	197.646
154	10	0.639004	0.358459	306.5	196.995
155	10	0.643154	0.369171	306.5	196.472
156	10	0.647303	0.379927	306.5	195.947
157	10	0.651452	0.390726	306.5	195.42
158	10	0.655602	0.401571	306.5	194.89
159	10	0.659751	0.412463	306.5	194.358
160	10	0.6639	0.423405	306.5	193.824
161	10	0.66805	0.437153	306.5	193.152
162	10	0.672199	0.448213	306.5	192.612
163	10	0.676349	0.459327	306.5	192.07
164	10	0.680498	0.470498	306.5	191.524
165	10	0.684647	0.481728	306.5	190.976
166	10	0.688797	0.493018	306.5	190.424
167	10	0.692946	0.504372	306.5	189.87
168	10	0.697095	0.518658	306.5	189.172
169	10	0.701245	0.530162	306.5	188.61
170	10	0.705394	0.541736	306.5	188.045
171	10	0.709544	0.553384	306.5	187.476
172	10	0.713693	0.565108	306.5	186.904

173	10	0.717842	0.576911	306.5	186.328
174	10	0.721992	0.588793	306.5	185.747
175	10	0.726141	0.603765	306.5	185.016
176	10	0.73029	0.615839	306.5	184.427
177	10	0.73444	0.628006	306.5	183.832
178	10	0.738589	0.640266	306.5	183.234
179	10	0.742739	0.652622	306.5	182.63
180	10	0.746888	0.665079	306.5	182.022
181	10	0.751037	0.680797	306.5	181.254
182	10	0.755187	0.693493	306.5	180.634
183	10	0.759336	0.706302	306.5	180.009
184	10	0.763485	0.719228	306.5	179.378
185	10	0.767635	0.732275	306.5	178.741
186	10	0.771784	0.745449	306.5	178.097
187	10	0.775934	0.758753	306.5	177.448
188	10	0.780083	0.775574	306.5	176.626
189	10	0.784232	0.789191	306.5	175.961
190	10	0.788382	0.802956	306.5	175.289
191	10	0.792531	0.816874	306.5	174.609
192	10	0.79668	0.830953	306.5	173.922
193	10	0.80083	0.845198	306.5	173.226
194	10	0.804979	0.859618	306.5	172.522
195	10	0.809129	0.877897	306.5	171.629
196	10	0.813278	0.892733	306.5	170.905
197	10	0.817427	0.907769	306.5	170.171
198	10	0.821577	0.923014	306.5	169.426
199	10	0.825726	0.938476	306.5	168.671
200	10	0.829876	0.954165	306.5	167.905
201	10	0.834025	0.974114	306.5	166.931
202	10	0.838174	0.990356	306.5	166.138
203	10	0.842324	1.00687	306.5	165.331
204	10	0.846473	1.02365	306.5	164.512
205	10	0.850622	1.04073	306.5	163.678
206	10	0.854772	1.05812	306.5	162.828
207	10	0.858921	1.07584	306.5	161.963
208	10	0.863071	1.09847	306.5	160.858
209	10	0.86722	1.11699	306.5	159.954
210	10	0.871369	1.1359	306.5	159.03
211	10	0.875519	1.15522	306.5	158.087
212	10	0.879668	1.17499	306.5	157.121
213	10	0.883817	1.19522	306.5	156.133
214	10	0.887967	1.21596	306.5	155.121
215	10	0.892116	1.24264	306.5	153.818
216	10	0.896266	1.26464	306.5	152.743
217	10	0.900415	1.28727	306.5	151.638
218	10	0.904564	1.31058	306.5	150.5
219	10	0.908714	1.33462	306.5	149.326
220	10	0.912863	1.35946	306.5	148.113
221	10	0.917012	1.39175	306.5	146.536
222	10	0.921162	1.41865	306.5	145.222
223	10	0.925311	1.44663	306.5	143.856
224	10	0.929461	1.47579	306.5	142.432
225	10	0.93361	1.50626	306.5	140.944
226	10	0.937759	1.5382	306.5	139.385
227	10	0.941909	1.57179	306.5	137.744
228	10	0.946058	1.61644	306.5	135.564
229	10	0.950207	1.65463	306.5	133.699
230	10	0.954357	1.6954	306.5	131.708
231	10	0.958506	1.7392	306.5	129.569
232	10	0.962656	1.78661	306.5	127.254
233	10	0.966805	1.83843	306.5	124.724
234	10	0.970954	1.8957	306.5	121.927

235	10	0.975104	1.97737	306.5	117.938
236	10	0.979253	2.05375	306.5	114.209
237	10	0.983402	2.14441	306.5	109.781
238	10	0.987552	2.25713	306.5	104.277
239	14	0.991701	2.40892	413.5	96.8642
240	14	0.995851	2.65209	413.5	84.9898

Shapiro-Francia Test of Normality

Parameter: Cyanide

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.223144	-2.65209	7.03356	-0.591796
2	0.223144	-2.40892	12.8365	-1.12933
3	0.223144	-2.25713	17.9311	-1.633
4	0.223144	-2.14441	22.5296	-2.11151
5	0.223144	-2.05375	26.7475	-2.56979
6	0.223144	-1.97737	30.6575	-3.01102
7	0.223144	-1.8957	34.2511	-3.43404
8	0.223144	-1.83843	37.6309	-3.84427
9	0.223144	-1.78661	40.8229	-4.24294
10	0.223144	-1.7392	43.8477	-4.63103
11	0.223144	-1.6954	46.7221	-5.00935
12	0.223144	-1.65463	49.4599	-5.37857
13	0.223144	-1.61644	52.0728	-5.73926
14	0.223144	-1.57179	54.5433	-6.09
15	0.223144	-1.5382	56.9093	-6.43324
16	0.223144	-1.50626	59.1782	-6.76935
17	0.223144	-1.47579	61.3561	-7.09866
18	0.223144	-1.44663	63.4489	-7.42147
19	0.223144	-1.41865	65.4614	-7.73803
20	0.223144	-1.39175	67.3984	-8.04859
21	0.223144	-1.35946	69.2465	-8.35195
22	0.223144	-1.33462	71.0278	-8.64976
23	0.223144	-1.31058	72.7454	-8.94221
24	0.223144	-1.28727	74.4024	-9.22946
25	0.223144	-1.26464	76.0018	-9.51165
26	0.223144	-1.24264	77.5459	-9.78894
27	0.223144	-1.21596	79.0245	-10.0603
28	0.223144	-1.19522	80.453	-10.327
29	0.223144	-1.17499	81.8336	-10.5892
30	0.223144	-1.15522	83.1682	-10.847
31	0.223144	-1.1359	84.4584	-11.1004
32	0.223144	-1.11699	85.7061	-11.3497
33	0.223144	-1.09847	86.9127	-11.5948
34	0.916291	-1.07584	88.0701	-12.5806
35	0.916291	-1.05812	89.1898	-13.5501
36	0.916291	-1.04073	90.2729	-14.5037
37	0.916291	-1.02365	91.3208	-15.4417
38	0.916291	-1.00687	92.3345	-16.3643
39	0.916291	-0.990356	93.3153	-17.2717
40	0.916291	-0.974114	94.2642	-18.1643
41	0.916291	-0.954165	95.1747	-19.0386
42	0.916291	-0.938476	96.0554	-19.8985
43	0.916291	-0.923014	96.9074	-20.7443
44	0.916291	-0.907769	97.7314	-21.576
45	0.916291	-0.892733	98.5284	-22.394
46	0.916291	-0.877897	99.2991	-23.1984
47	0.916291	-0.859618	100.038	-23.9861
48	0.916291	-0.845198	100.752	-24.7605
49	0.916291	-0.830953	101.443	-25.5219
50	0.955511	-0.816874	102.11	-26.3025
51	1.43508	-0.802956	102.755	-27.4548

52	2.00148	-0.789191	103.378	-29.0343
53	2.04122	-0.775574	103.979	-30.6175
54	2.17475	-0.758753	104.555	-32.2676
55	2.30259	-0.745449	105.111	-33.984
56	2.30259	-0.732275	105.647	-35.6701
57	2.30259	-0.719228	106.164	-37.3262
58	2.30259	-0.706302	106.663	-38.9525
59	2.30259	-0.693493	107.144	-40.5494
60	2.30259	-0.680797	107.607	-42.117
61	2.30259	-0.665079	108.05	-43.6484
62	2.30259	-0.652622	108.476	-45.1511
63	2.30259	-0.640266	108.886	-46.6253
64	2.30259	-0.628006	109.28	-48.0714
65	2.30259	-0.615839	109.659	-49.4894
66	2.30259	-0.603765	110.024	-50.8796
67	2.30259	-0.588793	110.37	-52.2354
68	2.30259	-0.576911	110.703	-53.5638
69	2.30259	-0.565108	111.023	-54.865
70	2.30259	-0.553384	111.329	-56.1392
71	2.30259	-0.541736	111.622	-57.3866
72	2.30259	-0.530162	111.903	-58.6073
73	2.30259	-0.518658	112.172	-59.8016
74	2.30259	-0.504372	112.427	-60.9629
75	2.30259	-0.493018	112.67	-62.0981
76	2.30259	-0.481728	112.902	-63.2074
77	2.30259	-0.470498	113.123	-64.2907
78	2.30259	-0.459327	113.334	-65.3484
79	2.30259	-0.448213	113.535	-66.3804
80	2.30259	-0.437153	113.726	-67.387
81	2.30259	-0.423405	113.906	-68.3619
82	2.30259	-0.412463	114.076	-69.3117
83	2.30259	-0.401571	114.237	-70.2363
84	2.30259	-0.390726	114.39	-71.136
85	2.30259	-0.379927	114.534	-72.0108
86	2.30259	-0.369171	114.67	-72.8608
87	2.30259	-0.358459	114.799	-73.6862
88	2.30259	-0.345126	114.918	-74.4809
89	2.30259	-0.334503	115.03	-75.2511
90	2.30259	-0.323919	115.135	-75.997
91	2.30259	-0.31337	115.233	-76.7185
92	2.30259	-0.302855	115.325	-77.4159
93	2.30259	-0.292375	115.41	-78.0891
94	2.30259	-0.279319	115.488	-78.7323
95	2.30259	-0.268908	115.56	-79.3514
96	2.30259	-0.258527	115.627	-79.9467
97	2.30259	-0.248174	115.689	-80.5182
98	2.30259	-0.237847	115.745	-81.0658
99	2.30259	-0.227545	115.797	-81.5898
100	2.30259	-0.217267	115.844	-82.0901
101	2.30259	-0.204452	115.886	-82.5608
102	2.30259	-0.194225	115.924	-83.008
103	2.30259	-0.184017	115.958	-83.4318
104	2.30259	-0.173829	115.988	-83.832
105	2.30259	-0.163659	116.015	-84.2089
106	2.30259	-0.153505	116.038	-84.5623
107	2.30259	-0.143367	116.059	-84.8924
108	2.30259	-0.130716	116.076	-85.1934
109	2.30259	-0.12061	116.091	-85.4711
110	2.30259	-0.110516	116.103	-85.7256
111	2.30259	-0.100433	116.113	-85.9569
112	2.30259	-0.0903606	116.121	-86.1649
113	2.30259	-0.0802981	116.127	-86.3498

114	2.30259	-0.0677301	116.132	-86.5058
115	2.30259	-0.0576847	116.135	-86.6386
116	2.30259	-0.0476439	116.138	-86.7483
117	2.30259	-0.0376076	116.139	-86.8349
118	2.30259	-0.0275759	116.14	-86.8984
119	2.30259	-0.0175476	116.14	-86.9388
120	2.30259	-0.00751925	116.14	-86.9561
121	2.30259	0.00751925	116.14	-86.9388
122	2.30259	0.0175476	116.141	-86.8984
123	2.30259	0.0275759	116.141	-86.8349
124	2.30259	0.0376076	116.143	-86.7483
125	2.30259	0.0476439	116.145	-86.6386
126	2.30259	0.0576847	116.148	-86.5058
127	2.30259	0.0677301	116.153	-86.3498
128	2.30259	0.0802981	116.159	-86.1649
129	2.30259	0.0903606	116.167	-85.9569
130	2.30259	0.100433	116.178	-85.7256
131	2.30259	0.110516	116.19	-85.4711
132	2.30259	0.12061	116.204	-85.1934
133	2.30259	0.130716	116.221	-84.8924
134	2.30259	0.143367	116.242	-84.5623
135	2.30259	0.153505	116.266	-84.2089
136	2.30259	0.163659	116.292	-83.832
137	2.30259	0.173829	116.323	-83.4318
138	2.30259	0.184017	116.356	-83.008
139	2.30259	0.194225	116.394	-82.5608
140	2.30259	0.204452	116.436	-82.0901
141	2.30259	0.217267	116.483	-81.5898
142	2.30259	0.227545	116.535	-81.0658
143	2.30259	0.237847	116.591	-80.5182
144	2.30259	0.248174	116.653	-79.9467
145	2.30259	0.258527	116.72	-79.3514
146	2.30259	0.268908	116.792	-78.7323
147	2.30259	0.279319	116.87	-78.0891
148	2.30259	0.292375	116.956	-77.4159
149	2.30259	0.302855	117.047	-76.7185
150	2.30259	0.31337	117.146	-75.997
151	2.30259	0.323919	117.251	-75.2511
152	2.30259	0.334503	117.362	-74.4809
153	2.30259	0.345126	117.482	-73.6862
154	2.30259	0.358459	117.61	-72.8608
155	2.30259	0.369171	117.746	-72.0108
156	2.30259	0.379927	117.891	-71.136
157	2.30259	0.390726	118.043	-70.2363
158	2.30259	0.401571	118.205	-69.3117
159	2.30259	0.412463	118.375	-68.3619
160	2.30259	0.423405	118.554	-67.387
161	2.30259	0.437153	118.745	-66.3804
162	2.30259	0.448213	118.946	-65.3484
163	2.30259	0.459327	119.157	-64.2907
164	2.30259	0.470498	119.378	-63.2074
165	2.30259	0.481728	119.61	-62.0981
166	2.30259	0.493018	119.853	-60.9629
167	2.30259	0.504372	120.108	-59.8016
168	2.30259	0.518658	120.377	-58.6073
169	2.30259	0.530162	120.658	-57.3866
170	2.30259	0.541736	120.951	-56.1392
171	2.30259	0.553384	121.258	-54.865
172	2.30259	0.565108	121.577	-53.5638
173	2.30259	0.576911	121.91	-52.2354
174	2.30259	0.588793	122.257	-50.8796
175	2.30259	0.603765	122.621	-49.4894

176	2.30259	0.615839		123	-48.0714
177	2.30259	0.628006		123.395	-46.6253
178	2.30259	0.640266		123.805	-45.1511
179	2.30259	0.652622		124.231	-43.6484
180	2.30259	0.665079		124.673	-42.117
181	2.30259	0.680797		125.136	-40.5494
182	2.30259	0.693493		125.617	-38.9525
183	2.30259	0.706302		126.116	-37.3262
184	2.30259	0.719228		126.633	-35.6701
185	2.30259	0.732275		127.17	-33.984
186	2.30259	0.745449		127.725	-32.2676
187	2.30259	0.758753		128.301	-30.5205
188	2.30259	0.775574		128.903	-28.7346
189	2.30259	0.789191		129.525	-26.9175
190	2.30259	0.802956		130.17	-25.0686
191	2.30259	0.816874		130.837	-23.1877
192	2.30259	0.830953		131.528	-21.2743
193	2.30259	0.845198		132.242	-19.3282
194	2.30259	0.859618		132.981	-17.3488
195	2.30259	0.877897		133.752	-15.3274
196	2.30259	0.892733		134.549	-13.2718
197	2.30259	0.907769		135.373	-11.1816
198	2.30259	0.923014		136.225	-9.05628
199	2.30259	0.938476		137.106	-6.89536
200	2.30259	0.954165		138.016	-4.69831
201	2.30259	0.974114		138.965	-2.45533
202	2.30259	0.990356		139.946	-0.174951
203	2.30259	1.00687	140.96	2.14344	
204	2.30259	1.02365	142.007	4.50049	
205	2.30259	1.04073	143.091	6.89686	
206	2.30259	1.05812	144.21	9.33328	
207	2.30259	1.07584	145.368	11.8105	
208	2.30259	1.09847	146.574	14.3398	
209	2.30259	1.11699	147.822	16.9118	
210	2.30259	1.1359	149.112	19.5273	
211	2.30259	1.15522	150.447	22.1873	
212	2.30259	1.17499	151.827	24.8928	
213	2.30259	1.19522	153.256	27.6449	
214	2.30259	1.21596	154.734	30.4447	
215	2.30259	1.24264	156.279	33.306	
216	2.30259	1.26464	157.878	36.2179	
217	2.30259	1.28727	159.535	39.182	
218	2.30259	1.31058	161.253	42.1997	
219	2.30259	1.33462	163.034	45.2728	
220	2.30259	1.35946	164.882	48.4031	
221	2.30259	1.39175	166.819	51.6077	
222	2.30259	1.41865	168.831	54.8743	
223	2.30259	1.44663	170.924	58.2053	
224	2.30259	1.47579	173.102	61.6034	
225	2.30259	1.50626	175.371	65.0717	
226	2.30259	1.5382	177.737	68.6135	
227	2.30259	1.57179	180.208	72.2327	
228	2.30259	1.61644	182.82	75.9547	
229	2.30259	1.65463	185.558	79.7646	
230	2.30259	1.6954	188.433	83.6684	
231	2.30259	1.7392	191.457	87.6731	
232	2.30259	1.78661	194.649	91.7869	
233	2.30259	1.83843	198.029	96.02	
234	2.30259	1.8957	201.623	100.385	
235	2.30259	1.97737	205.533	104.938	
236	2.30259	2.05375	209.751	109.667	
237	2.30259	2.14441	214.349	114.605	

238	2.30259	2.25713	219.444	119.802
239	2.63906	2.40892	225.247	126.159
240	2.63906	2.65209	232.28	133.158

Data Set Standard Deviation = 0.766311
Numerator = 17731.1
Denominator = 32600.2
W Statistic = 0.543896 = 17731.1 / 32600.2

5% Critical value of 0.976 exceeds 0.543896
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.543896
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cyanide

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.736431
0.736431 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.223144	0.00414938	-2.65209	78.7939	344.01
2	0.223144	0.00829876	-2.40892	78.7939	332.136
3	0.223144	0.0124481	-2.25713	78.7939	324.723
4	0.223144	0.0165975	-2.14441	78.7939	319.219
5	0.223144	0.0207469	-2.05375	78.7939	314.791
6	0.223144	0.0248963	-1.97737	78.7939	311.062
7	0.223144	0.0290456	-1.8957	78.7939	307.073
8	0.223144	0.033195	-1.83843	78.7939	304.276
9	0.223144	0.0373444	-1.78661	78.7939	301.746
10	0.223144	0.0414938	-1.7392	78.7939	299.431
11	0.223144	0.0456432	-1.6954	78.7939	297.292
12	0.223144	0.0497925	-1.65463	78.7939	295.301
13	0.223144	0.0539419	-1.61644	78.7939	293.436
14	0.223144	0.0580913	-1.57179	78.7939	291.256
15	0.223144	0.0622407	-1.5382	78.7939	289.615
16	0.223144	0.06639	-1.50626	78.7939	288.056
17	0.223144	0.0705394	-1.47579	78.7939	286.568
18	0.223144	0.0746888	-1.44663	78.7939	285.144
19	0.223144	0.0788382	-1.41865	78.7939	283.778
20	0.223144	0.0829876	-1.39175	78.7939	282.464
21	0.223144	0.0871369	-1.35946	78.7939	280.887
22	0.223144	0.0912863	-1.33462	78.7939	279.674
23	0.223144	0.0954357	-1.31058	78.7939	278.5
24	0.223144	0.0995851	-1.28727	78.7939	277.362
25	0.223144	0.103734	-1.26464	78.7939	276.257
26	0.223144	0.107884	-1.24264	78.7939	275.182
27	0.223144	0.112033	-1.21596	78.7939	273.879
28	0.223144	0.116183	-1.19522	78.7939	272.867
29	0.223144	0.120332	-1.17499	78.7939	271.879
30	0.223144	0.124481	-1.15522	78.7939	270.913
31	0.223144	0.128631	-1.1359	78.7939	269.97
32	0.223144	0.13278	-1.11699	78.7939	269.046
33	0.223144	0.136929	-1.09847	78.7939	268.142
34	0.916291	0.141079	-1.07584	202.405	267.037
35	0.916291	0.145228	-1.05812	202.405	266.172
36	0.916291	0.149378	-1.04073	202.405	265.322
37	0.916291	0.153527	-1.02365	202.405	264.488
38	0.916291	0.157676	-1.00687	202.405	263.669
39	0.916291	0.161826	-0.990356	202.405	262.862
40	0.916291	0.165975	-0.974114	202.405	262.069
41	0.916291	0.170124	-0.954165	202.405	261.095
42	0.916291	0.174274	-0.938476	202.405	260.329
43	0.916291	0.178423	-0.923014	202.405	259.574
44	0.916291	0.182573	-0.907769	202.405	258.829
45	0.916291	0.186722	-0.892733	202.405	258.095
46	0.916291	0.190871	-0.877897	202.405	257.371
47	0.916291	0.195021	-0.859618	202.405	256.478
48	0.916291	0.19917	-0.845198	202.405	255.774

49	0.916291	0.20332	-0.830953	202.405	255.078	
50	0.955511	0.207469	-0.816874	209.4	254.391	
51	1.43508	0.211618	-0.802956	294.923	253.711	
52	2.00148	0.215768	-0.789191	395.931	253.039	
53	2.04122	0.219917	-0.775574	403.018	252.374	
54	2.17475	0.224066	-0.758753	426.831	251.552	
55	2.30259	0.228216	-0.745449	449.628	250.903	
56	2.30259	0.232365	-0.732275	449.628	250.259	
57	2.30259	0.236515	-0.719228	449.628	249.622	
58	2.30259	0.240664	-0.706302	449.628	248.991	
59	2.30259	0.244813	-0.693493	449.628	248.366	
60	2.30259	0.248963	-0.680797	449.628	247.746	
61	2.30259	0.253112	-0.665079	449.628	246.978	
62	2.30259	0.257261	-0.652622	449.628	246.37	
63	2.30259	0.261411	-0.640266	449.628	245.766	
64	2.30259	0.26556	-0.628006	449.628	245.168	
65	2.30259	0.26971	-0.615839	449.628	244.573	
66	2.30259	0.273859	-0.603765	449.628	243.984	
67	2.30259	0.278008	-0.588793	449.628	243.253	
68	2.30259	0.282158	-0.576911	449.628	242.672	
69	2.30259	0.286307	-0.565108	449.628	242.096	
70	2.30259	0.290456	-0.553384	449.628	241.524	
71	2.30259	0.294606	-0.541736	449.628	240.955	
72	2.30259	0.298755	-0.530162	449.628	240.39	
73	2.30259	0.302905	-0.518658	449.628	239.828	
74	2.30259	0.307054	-0.504372	449.628	239.13	
75	2.30259	0.311203	-0.493018	449.628	238.576	
76	2.30259	0.315353	-0.481728	449.628	238.024	
77	2.30259	0.319502	-0.470498	449.628	237.476	
78	2.30259	0.323651	-0.459327	449.628	236.93	
79	2.30259	0.327801	-0.448213	449.628	236.388	
80	2.30259	0.33195	-0.437153	449.628	235.848	
81	2.30259	0.3361	-0.423405	449.628	235.176	
82	2.30259	0.340249	-0.412463	449.628	234.642	
83	2.30259	0.344398	-0.401571	449.628	234.11	
84	2.30259	0.348548	-0.390726	449.628	233.58	
85	2.30259	0.352697	-0.379927	449.628	233.053	
86	2.30259	0.356846	-0.369171	449.628	232.528	
87	2.30259	0.360996	-0.358459	449.628	232.005	
88	2.30259	0.365145	-0.345126	449.628	231.354	
89	2.30259	0.369295	-0.334503	449.628	230.835	
90	2.30259	0.373444	-0.323919	449.628	230.318	
91	2.30259	0.377593	-0.31337	449.628	229.803	
92	2.30259	0.381743	-0.302855	449.628	229.289	
93	2.30259	0.385892	-0.292375	449.628	228.778	
94	2.30259	0.390041	-0.279319	449.628	228.14	
95	2.30259	0.394191	-0.268908	449.628	227.632	
96	2.30259	0.39834	-0.258527	449.628	227.125	
97	2.30259	0.40249	-0.248174	449.628	226.619	
98	2.30259	0.406639	-0.237847	449.628	226.115	
99	2.30259	0.410788	-0.227545	449.628	225.612	
100	2.30259	0.414938	-0.217267	449.628	225.11	
101	2.30259	0.419087	-0.204452	449.628	224.484	
102	2.30259	0.423237	-0.194225	449.628	223.985	
103	2.30259	0.427386	-0.184017	449.628	223.486	
104	2.30259	0.431535	-0.173829	449.628	222.989	
105	2.30259	0.435685	-0.163659	449.628	222.492	
106	2.30259	0.439834	-0.153505	449.628	221.996	
107	2.30259	0.443983	-0.143367	449.628	221.501	
108	2.30259	0.448133	-0.130716	449.628	220.883	
109	2.30259	0.452282	-0.12061	449.628	220.39	
110	2.30259	0.456432	-0.110516	449.628	219.897	

111	2.30259	0.460581	-0.100433	449.628	219.404
112	2.30259	0.46473	-0.0903606	449.628	218.913
113	2.30259	0.46888	-0.0802981	449.628	218.421
114	2.30259	0.473029	-0.0677301	449.628	217.807
115	2.30259	0.477178	-0.0576847	449.628	217.317
116	2.30259	0.481328	-0.0476439	449.628	216.827
117	2.30259	0.485477	-0.0376076	449.628	216.337
118	2.30259	0.489627	-0.0275759	449.628	215.847
119	2.30259	0.493776	-0.0175476	449.628	215.357
120	2.30259	0.497925	-0.00751925	449.628	214.867
121	2.30259	0.502075	0.00751925	449.628	214.133
122	2.30259	0.506224	0.0175476	449.628	213.643
123	2.30259	0.510373	0.0275759	449.628	213.153
124	2.30259	0.514523	0.0376076	449.628	212.663
125	2.30259	0.518672	0.0476439	449.628	212.173
126	2.30259	0.522822	0.0576847	449.628	211.683
127	2.30259	0.526971	0.0677301	449.628	211.193
128	2.30259	0.53112	0.0802981	449.628	210.579
129	2.30259	0.53527	0.0903606	449.628	210.087
130	2.30259	0.539419	0.100433	449.628	209.596
131	2.30259	0.543568	0.110516	449.628	209.103
132	2.30259	0.547718	0.12061	449.628	208.61
133	2.30259	0.551867	0.130716	449.628	208.117
134	2.30259	0.556017	0.143367	449.628	207.499
135	2.30259	0.560166	0.153505	449.628	207.004
136	2.30259	0.564315	0.163659	449.628	206.508
137	2.30259	0.568465	0.173829	449.628	206.011
138	2.30259	0.572614	0.184017	449.628	205.514
139	2.30259	0.576763	0.194225	449.628	205.015
140	2.30259	0.580913	0.204452	449.628	204.516
141	2.30259	0.585062	0.217267	449.628	203.89
142	2.30259	0.589212	0.227545	449.628	203.388
143	2.30259	0.593361	0.237847	449.628	202.885
144	2.30259	0.59751	0.248174	449.628	202.381
145	2.30259	0.60166	0.258527	449.628	201.875
146	2.30259	0.605809	0.268908	449.628	201.368
147	2.30259	0.609959	0.279319	449.628	200.86
148	2.30259	0.614108	0.292375	449.628	200.222
149	2.30259	0.618257	0.302855	449.628	199.711
150	2.30259	0.622407	0.31337	449.628	199.197
151	2.30259	0.626556	0.323919	449.628	198.682
152	2.30259	0.630705	0.334503	449.628	198.165
153	2.30259	0.634855	0.345126	449.628	197.646
154	2.30259	0.639004	0.358459	449.628	196.995
155	2.30259	0.643154	0.369171	449.628	196.472
156	2.30259	0.647303	0.379927	449.628	195.947
157	2.30259	0.651452	0.390726	449.628	195.42
158	2.30259	0.655602	0.401571	449.628	194.89
159	2.30259	0.659751	0.412463	449.628	194.358
160	2.30259	0.6639	0.423405	449.628	193.824
161	2.30259	0.66805	0.437153	449.628	193.152
162	2.30259	0.672199	0.448213	449.628	192.612
163	2.30259	0.676349	0.459327	449.628	192.07
164	2.30259	0.680498	0.470498	449.628	191.524
165	2.30259	0.684647	0.481728	449.628	190.976
166	2.30259	0.688797	0.493018	449.628	190.424
167	2.30259	0.692946	0.504372	449.628	189.87
168	2.30259	0.697095	0.518658	449.628	189.172
169	2.30259	0.701245	0.530162	449.628	188.61
170	2.30259	0.705394	0.541736	449.628	188.045
171	2.30259	0.709544	0.553384	449.628	187.476
172	2.30259	0.713693	0.565108	449.628	186.904

173	2.30259	0.717842	0.576911	449.628	186.328
174	2.30259	0.721992	0.588793	449.628	185.747
175	2.30259	0.726141	0.603765	449.628	185.016
176	2.30259	0.73029	0.615839	449.628	184.427
177	2.30259	0.73444	0.628006	449.628	183.832
178	2.30259	0.738589	0.640266	449.628	183.234
179	2.30259	0.742739	0.652622	449.628	182.63
180	2.30259	0.746888	0.665079	449.628	182.022
181	2.30259	0.751037	0.680797	449.628	181.254
182	2.30259	0.755187	0.693493	449.628	180.634
183	2.30259	0.759336	0.706302	449.628	180.009
184	2.30259	0.763485	0.719228	449.628	179.378
185	2.30259	0.767635	0.732275	449.628	178.741
186	2.30259	0.771784	0.745449	449.628	178.097
187	2.30259	0.775934	0.758753	449.628	177.448
188	2.30259	0.780083	0.775574	449.628	176.626
189	2.30259	0.784232	0.789191	449.628	175.961
190	2.30259	0.788382	0.802956	449.628	175.289
191	2.30259	0.792531	0.816874	449.628	174.609
192	2.30259	0.79668	0.830953	449.628	173.922
193	2.30259	0.80083	0.845198	449.628	173.226
194	2.30259	0.804979	0.859618	449.628	172.522
195	2.30259	0.809129	0.877897	449.628	171.629
196	2.30259	0.813278	0.892733	449.628	170.905
197	2.30259	0.817427	0.907769	449.628	170.171
198	2.30259	0.821577	0.923014	449.628	169.426
199	2.30259	0.825726	0.938476	449.628	168.671
200	2.30259	0.829876	0.954165	449.628	167.905
201	2.30259	0.834025	0.974114	449.628	166.931
202	2.30259	0.838174	0.990356	449.628	166.138
203	2.30259	0.842324	1.00687	449.628	165.331
204	2.30259	0.846473	1.02365	449.628	164.512
205	2.30259	0.850622	1.04073	449.628	163.678
206	2.30259	0.854772	1.05812	449.628	162.828
207	2.30259	0.858921	1.07584	449.628	161.963
208	2.30259	0.863071	1.09847	449.628	160.858
209	2.30259	0.86722	1.11699	449.628	159.954
210	2.30259	0.871369	1.1359	449.628	159.03
211	2.30259	0.875519	1.15522	449.628	158.087
212	2.30259	0.879668	1.17499	449.628	157.121
213	2.30259	0.883817	1.19522	449.628	156.133
214	2.30259	0.887967	1.21596	449.628	155.121
215	2.30259	0.892116	1.24264	449.628	153.818
216	2.30259	0.896266	1.26464	449.628	152.743
217	2.30259	0.900415	1.28727	449.628	151.638
218	2.30259	0.904564	1.31058	449.628	150.5
219	2.30259	0.908714	1.33462	449.628	149.326
220	2.30259	0.912863	1.35946	449.628	148.113
221	2.30259	0.917012	1.39175	449.628	146.536
222	2.30259	0.921162	1.41865	449.628	145.222
223	2.30259	0.925311	1.44663	449.628	143.856
224	2.30259	0.929461	1.47579	449.628	142.432
225	2.30259	0.93361	1.50626	449.628	140.944
226	2.30259	0.937759	1.5382	449.628	139.385
227	2.30259	0.941909	1.57179	449.628	137.744
228	2.30259	0.946058	1.61644	449.628	135.564
229	2.30259	0.950207	1.65463	449.628	133.699
230	2.30259	0.954357	1.6954	449.628	131.708
231	2.30259	0.958506	1.7392	449.628	129.569
232	2.30259	0.962656	1.78661	449.628	127.254
233	2.30259	0.966805	1.83843	449.628	124.724
234	2.30259	0.970954	1.8957	449.628	121.927

235	2.30259	0.975104	1.97737	449.628	117.938
236	2.30259	0.979253	2.05375	449.628	114.209
237	2.30259	0.983402	2.14441	449.628	109.781
238	2.30259	0.987552	2.25713	449.628	104.277
239	2.63906	0.991701	2.40892	509.632	96.8642
240	2.63906	0.995851	2.65209	509.632	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cyanide

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 97.0833%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 2.30259
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-7	11/22/2011	1	0.916291	FALSE
MW-10	11/22/2011	1	0.916291	FALSE
MW-6	11/22/2011	1	0.916291	FALSE
MW-8	11/22/2011	1	0.916291	FALSE
MW-9	11/22/2011	2	0.916291	FALSE
MW-11R	11/22/2011	2	0.916291	FALSE
MW-12AR	11/22/2011	1	2.00148	FALSE
MW-12BR	11/22/2011	1	0.916291	FALSE

Concentrations (ppb)

Parameter: Dichlorodifluoromethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 264
Total Non-Detect: 203
Percent Non-Detects: 76.8939%
Total Background Measurements: 21
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.25	ND<0.25
			11/16/2009	ND<0.25	ND<0.25
			6/30/2010	ND<0.25	ND<0.25
			6/30/2010	ND<0.0091	ND<0.0091
			11/12/2010	ND<0.25 U	ND<0.25 U
			11/12/2010	ND<0.0086 U	ND<0.0086 U
			7/5/2011	ND<0.25 U	ND<0.25 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	34	27 (79.4118%)	7/20/1995	ND<2	ND<2
			8/24/1995	1.7 J	1.7 J
			9/28/1995	2	2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	8	8
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	2.96	2.96
			10/25/2005	2.13	2.13
			4/29/2006	1.5 J	1.5 J
			11/18/2006	0.62 J	0.62 J
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2

			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			6/30/2010	ND<0.0086		ND<0.0086
			6/30/2010	ND<0.0086		ND<0.0086
			11/12/2010	ND<0.0086 U		ND<0.0086 U
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-9	34	25 (73.5294%)	7/20/1995		ND<2	ND<2
			8/24/1995	49	49	
			9/28/1995	42	42	
			10/26/1995	ND<2	ND<2	
			11/19/1996	49	49	
			12/19/1996	71	71	
			3/24/1997	18	18	
			9/24/1997	20	20	
			4/7/1998	5.7	5.7	
			9/23/1998	ND<2	ND<2	
			3/16/1999	11	11	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.66 J	1.66 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.0086		ND<0.0086
			6/30/2010	ND<0.0087		ND<0.0087
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.0086 U		ND<0.0086 U
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U Q		ND<0.25 U Q
			11/22/2011	ND<0.25 U Q		ND<0.25 U Q
MW-8	30	20 (66.6667%)	7/20/1995		ND<2	ND<2
			8/24/1995	8.8	8.8	
			9/28/1995	8	8	
			10/26/1995	ND<2	ND<2	
			11/19/1996	12	12	
			12/19/1996	13	13	
			3/24/1997	8	8	
			9/24/1997	ND<2	ND<2	
			4/7/1998	5.7	5.7	
			9/23/1998	ND<2	ND<2	
			3/16/1999	2.1	2.1	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	

			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	0.61 J	0.61 J	
			11/18/2006	0.58 J	0.58 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	1.9	1.9	
			6/30/2010	ND<0.25	ND<0.25	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U Q	ND<0.25 U Q	
			11/22/2011	ND<0.25 U Q	ND<0.25 U Q	
MW-12A R	23	17 (73.913%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	12	12	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	5.11	5.11	
			4/29/2006	4.41	4.41	
			11/18/2006	3.61	3.61	
			5/23/2007	ND<2	ND<2	
			11/28/2007	1.81 J	1.81 J	
			6/5/2008	1.45 J	1.45 J	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25	ND<0.25	
			11/16/2009	ND<0.25	ND<0.25	
			6/30/2010	ND<0.25	ND<0.25	
			6/30/2010	ND<0.0086	ND<0.0086	
			11/12/2010	ND<0.25 U	ND<0.25 U	
			11/12/2010	ND<0.0091 U	ND<0.0091 U	
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
MW-7	33	28 (84.8485%)	7/20/1995	ND<2	ND<2	
			8/24/1995	19	19	
			9/28/1995	20	20	
			10/26/1995	ND<2	ND<2	
			11/19/1996	20	20	
			12/19/1996	ND<2	ND<2	
			3/24/1997	10	10	
			9/24/1997	ND<2	ND<2	
			4/7/1998	5.7	5.7	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	

			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.25		ND<0.25
			6/30/2010	ND<0.0086		ND<0.0086
			11/12/2010	ND<0.0086 U		ND<0.0086 U
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			11/22/2011	ND<0.25 U		ND<0.25 U
MW-6	33	29 (87.8788%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	0.6 J	0.6 J	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.25		ND<0.25
			11/16/2009	ND<0.25		ND<0.25
			6/30/2010	ND<0.0086		ND<0.0086
			6/30/2010	ND<0.25		ND<0.25
			11/12/2010	ND<0.0087 U		ND<0.0087 U
			11/12/2010	ND<0.25 U		ND<0.25 U
			7/5/2011	0.48 J	0.48 J	
			11/22/2011	0.71 J	0.71 J	
			11/22/2011	0.71 J	0.71 J	
MW-11R	33	15 (45.4545%)	7/20/1995		ND<2	ND<2
			8/24/1995	59	59	
			9/28/1995	16	16	
			10/26/1995	ND<2	ND<2	
			11/19/1996	120	120	
			12/19/1996	120	120	
			3/24/1997	49	49	
			9/24/1997	20	20	
			4/7/1998	27	27	
			9/23/1998	13	13	
			3/16/1999	8.1	8.1	
			9/23/1999	ND<2	ND<2	
			3/15/2000	15	15	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	

		10/12/2004	ND<2	ND<2		
		4/1/2005 4.85	4.85			
		10/25/2005	0.8 J	0.8 J		
		4/29/2006	ND<2	ND<2		
		11/18/2006	0.68 J	0.68 J		
		5/23/2007	ND<2	ND<2		
		11/28/2007	0.41 J	0.41 J		
		6/5/2008 ND<2	ND<2			
		11/20/2008	1.64 J	1.64 J		
		6/11/2009	1.3	1.3		
		11/16/2009	1.1	1.1		
		6/30/2010	ND<0.25		ND<0.25	
		6/30/2010	ND<0.0086		ND<0.0086	
		11/12/2010	ND<0.0087 U		ND<0.0087 U	
		11/12/2010	ND<0.25 U		ND<0.25 U	
		7/5/2011 1.7	1.7			
		11/22/2011	ND<0.25 U Q		ND<0.25 U Q	
		11/22/2011	ND<0.25 U Q		ND<0.25 U Q	
MW-12BR	23	21 (91.3043%)	3/16/1999		9.6	9.6
		9/23/1999	ND<2	ND<2		
		3/15/2000	ND<2	ND<2		
		9/24/2003	ND<2	ND<2		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005 3.73	3.73			
		10/25/2005	ND<2	ND<2		
		4/29/2006	ND<2	ND<2		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	ND<2	ND<2		
		6/5/2008 ND<2	ND<2			
		11/20/2008	ND<2	ND<2		
		6/11/2009	ND<0.25		ND<0.25	
		11/16/2009	ND<0.25		ND<0.25	
		6/30/2010	ND<0.25		ND<0.25	
		6/30/2010	ND<0.0091		ND<0.0091	
		11/12/2010	ND<0.0091 U		ND<0.0091 U	
		11/12/2010	ND<0.25 U		ND<0.25 U	
		7/5/2011 ND<0.25 U		ND<0.25 U		
		11/22/2011	ND<0.25 U		ND<0.25 U	
		11/22/2011	ND<0.25 U		ND<0.25 U	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Dichlorodifluoromethane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 264

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.0043	-2.74777	7.5502	-0.011815
2	0.0043	-2.45727	13.5884	-0.022381
3	0.0043	-2.29036	18.8342	-0.032230
4	0.0043	-2.17009	23.5435	-0.041561
5	0.0043	-2.09693	27.9406	-0.050578
6	0.0043	-2.01409	31.9972	-0.05923
7	0.0043	-1.94314	35.7729	-0.067594
8	0.0043	-1.88079	39.3103	-0.075681
9	0.0043	-1.83843	42.6901	-0.083587
10	0.0043	-1.78661	45.8821	-0.091269
11	0.0043	-1.7392	48.9069	-0.098748
12	0.00435	-1.6954	51.7813	-0.10612
13	0.00435	-1.65463	54.5191	-0.11332
14	0.00435	-1.62576	57.1622	-0.12039
15	0.00455	-1.58927	59.6879	-0.12762
16	0.00455	-1.55477	62.1053	-0.13469
17	0.00455	-1.52203	64.4218	-0.14162
18	0.00455	-1.49852	66.6674	-0.14844
19	0.125	-1.46838	68.8235	-0.33199
20	0.125	-1.43953	70.8958	-0.51193
21	0.125	-1.41183	72.8891	-0.68841
22	0.125	-1.38517	74.8078	-0.86155
23	0.125	-1.36581	76.6732	-1.03228
24	0.125	-1.34075	78.4708	-1.19988
25	0.125	-1.31652	80.204	-1.36444
26	0.125	-1.29303	81.876	-1.52607
27	0.125	-1.27588	83.5038	-1.68556
28	0.125	-1.25357	85.0753	-1.84225
29	0.125	-1.23187	86.5928	-1.99623
30	0.125	-1.21073	88.0586	-2.14757
31	0.125	-1.19522	89.4872	-2.29698
32	0.125	-1.17499	90.8678	-2.44385
33	0.125	-1.15522	92.2023	-2.58825
34	0.125	-1.1359	93.4926	-2.73024
35	0.125	-1.11699	94.7402	-2.86986
36	0.125	-1.10306	95.957	-3.00775
37	0.125	-1.08482	97.1338	-3.14335
38	0.125	-1.06694	98.2722	-3.27672
39	0.125	-1.04939	99.3734	-3.40789
40	0.125	-1.03643	100.448	-3.53744
41	0.125	-1.01943	101.487	-3.66487
42	0.125	-1.00271	102.492	-3.79021
43	0.125	-0.986272	103.465	-3.9135
44	0.125	-0.970094	104.406	-4.03476
45	0.125	-0.958125	105.324	-4.15452
46	0.125	-0.942375	106.212	-4.27232
47	0.125	-0.926859	107.071	-4.38818
48	0.125	-0.911562	107.902	-4.50212
49	0.125	-0.900227	108.713	-4.61465
50	0.125	-0.885291	109.496	-4.72531
51	0.125	-0.87055	110.254	-4.83413

52	0.125	-0.855996	110.987	-4.94113
53	0.125	-0.841621	111.695	-5.04633
54	0.125	-0.830953	112.386	-5.1502
55	0.125	-0.816874	113.053	-5.25231
56	0.125	-0.802956	113.698	-5.35268
57	0.125	-0.789191	114.321	-5.45133
58	0.125	-0.778966	114.927	-5.5487
59	0.125	-0.765456	115.513	-5.64438
60	0.125	-0.752084	116.079	-5.73839
61	0.125	-0.738846	116.625	-5.83075
62	0.125	-0.729003	117.156	-5.92187
63	0.125	-0.715986	117.669	-6.01137
64	0.125	-0.703089	118.163	-6.09926
65	0.125	-0.690309	118.64	-6.18555
66	0.125	-0.677639	119.099	-6.27025
67	0.125	-0.668209	119.545	-6.35378
68	0.125	-0.655726	119.975	-6.43574
69	0.125	-0.643345	120.389	-6.51616
70	0.125	-0.631062	120.788	-6.59505
71	0.125	-0.621911	121.174	-6.67278
72	0.41	-0.609791	121.546	-6.9228
73	0.48	-0.597761	121.903	-7.20972
74	0.58	-0.585815	122.247	-7.5495
75	0.6	-0.573953	122.576	-7.89387
76	0.61	-0.565108	122.895	-8.23858
77	0.62	-0.553384	123.202	-8.58168
78	0.68	-0.541736	123.495	-8.95006
79	0.71	-0.530162	123.776	-9.32648
80	0.71	-0.521527	124.048	-9.69676
81	0.8	-0.510074	124.308	-10.1048
82	1	-0.498687	124.557	-10.6035
83	1	-0.487364	124.795	-11.0909
84	1	-0.478914	125.024	-11.5698
85	1	-0.467699	125.243	-12.0375
86	1	-0.456542	125.451	-12.494
87	1	-0.445443	125.65	-12.9395
88	1	-0.434397	125.838	-13.3739
89	1	-0.426148	126.02	-13.8
90	1	-0.415193	126.192	-14.2152
91	1	-0.40429	126.356	-14.6195
92	1	-0.393433	126.51	-15.0129
93	1	-0.385321	126.659	-15.3983
94	1	-0.374544	126.799	-15.7728
95	1	-0.363809	126.932	-16.1366
96	1	-0.353118	127.056	-16.4897
97	1	-0.342466	127.174	-16.8322
98	1	-0.334503	127.285	-17.1667
99	1	-0.323919	127.39	-17.4906
100	1	-0.31337	127.489	-17.804
101	1	-0.302855	127.58	-18.1068
102	1	-0.294992	127.667	-18.4018
103	1	-0.284535	127.748	-18.6864
104	1	-0.27411	127.823	-18.9605
105	1	-0.263715	127.893	-19.2242
106	1	-0.253347	127.957	-19.4775
107	1	-0.24559	128.017	-19.7231
108	1	-0.235269	128.073	-19.9584
109	1	-0.224974	128.123	-20.1834
110	1	-0.214702	128.169	-20.3981
111	1	-0.207012	128.212	-20.6051
112	1	-0.196779	128.251	-20.8019
113	1	-0.186567	128.286	-20.9884

114	1	-0.176374	128.317	-21.1648
115	1	-0.168741	128.345	-21.3335
116	1	-0.158579	128.371	-21.4921
117	1	-0.148434	128.393	-21.6406
118	1	-0.138305	128.412	-21.7789
119	1	-0.128189	128.428	-21.9071
120	1	-0.12061	128.443	-22.0277
121	1	-0.110516	128.455	-22.1382
122	1	-0.100433	128.465	-22.2386
123	1	-0.0903606	128.473	-22.329
124	1	-0.0828129	128.48	-22.4118
125	1	-0.0727562	128.485	-22.4845
126	1	-0.0627062	128.489	-22.5472
127	1	-0.0526632	128.492	-22.5999
128	1	-0.0426257	128.494	-22.6425
129	1	-0.0350997	128.495	-22.6776
130	1	-0.0250691	128.496	-22.7027
131	1	-0.0150408	128.496	-22.7177
132	1	-0.00501359	128.496	-22.7228
133	1	0.00501359	128.496	-22.7177
134	1	0.0150408	128.496	-22.7027
135	1	0.0250691	128.497	-22.6776
136	1	0.0350997	128.498	-22.6425
137	1	0.0426257	128.5	-22.5999
138	1	0.0526632	128.503	-22.5472
139	1	0.0627062	128.507	-22.4845
140	1	0.0727562	128.512	-22.4118
141	1	0.0828129	128.519	-22.329
142	1	0.0903606	128.527	-22.2386
143	1	0.100433	128.537	-22.1382
144	1	0.110516	128.549	-22.0277
145	1	0.12061	128.564	-21.9071
146	1	0.128189	128.58	-21.7789
147	1	0.138305	128.599	-21.6406
148	1	0.148434	128.621	-21.4921
149	1	0.158579	128.647	-21.3335
150	1	0.168741	128.675	-21.1648
151	1	0.176374	128.706	-20.9884
152	1	0.186567	128.741	-20.8019
153	1	0.196779	128.78	-20.6051
154	1	0.207012	128.822	-20.3981
155	1	0.214702	128.869	-20.1834
156	1	0.224974	128.919	-19.9584
157	1	0.235269	128.975	-19.7231
158	1	0.24559	129.035	-19.4775
159	1	0.253347	129.099	-19.2242
160	1	0.263715	129.169	-18.9605
161	1	0.27411	129.244	-18.6864
162	1	0.284535	129.325	-18.4018
163	1	0.294992	129.412	-18.1068
164	1	0.302855	129.503	-17.804
165	1	0.31337	129.602	-17.4906
166	1	0.323919	129.707	-17.1667
167	1	0.334503	129.818	-16.8322
168	1	0.342466	129.936	-16.4897
169	1	0.353118	130.06	-16.1366
170	1	0.363809	130.193	-15.7728
171	1	0.374544	130.333	-15.3983
172	1	0.385321	130.482	-15.0129
173	1	0.393433	130.636	-14.6195
174	1	0.40429	130.8	-14.2152
175	1	0.415193	130.972	-13.8

176	1	0.426148		131.154	-13.3739
177	1	0.434397		131.342	-12.9395
178	1	0.445443		131.541	-12.494
179	1	0.456542		131.749	-12.0375
180	1	0.467699		131.968	-11.5698
181	1	0.478914		132.197	-11.0909
182	1	0.487364		132.435	-10.6035
183	1	0.498687		132.684	-10.1048
184	1	0.510074		132.944	-9.59475
185	1	0.521527		133.216	-9.07322
186	1	0.530162		133.497	-8.54306
187	1	0.541736		133.79	-8.00132
188	1	0.553384		134.097	-7.44794
189	1	0.565108		134.416	-6.88283
190	1	0.573953		134.745	-6.30888
191	1	0.585815		135.089	-5.72306
192	1	0.597761		135.446	-5.1253
193	1	0.609791		135.818	-4.51551
194	1	0.621911		136.204	-3.8936
195	1	0.631062		136.603	-3.26254
196	1	0.643345		137.017	-2.61919
197	1	0.655726		137.447	-1.96347
198	1	0.668209		137.893	-1.29526
199	1	0.677639		138.352	-0.617617
200	1	0.690309		138.829	0.0726913
201	1	0.703089		139.323	0.775781
202	1	0.715986		139.836	1.49177
203	1	0.729003		140.367	2.22077
204	1	0.738846		140.913	2.95962
205	1	0.752084		141.479	3.7117
206	1	0.765456		142.065	4.47716
207	1	0.778966		142.671	5.25612
208	1	0.789191		143.294	6.04531
209	1	0.802956		143.939	6.84827
210	1	0.816874		144.606	7.66514
211	1	0.830953		145.297	8.4961
212	1	0.841621		146.005	9.33772
213	1	0.855996		146.738	10.1937
214	1.1	0.87055	147.496	11.1513	
215	1.3	0.885291		148.279	12.3022
216	1.45	0.900227		149.09	13.6075
217	1.5	0.911562		149.921	14.9749
218	1.64	0.926859		150.78	16.4949
219	1.66	0.942375		151.668	18.0593
220	1.7	0.958125		152.586	19.6881
221	1.7	0.970094		153.527	21.3372
222	1.81	0.986272		154.5	23.1224
223	1.9	1.00271	155.505	25.0275	
224	2	1.01943	156.544	27.0664	
225	2.1	1.03643	157.619	29.2429	
226	2.13	1.04939	158.72	31.4781	
227	2.96	1.06694	159.858	34.6362	
228	3.61	1.08482	161.035	38.5524	
229	3.73	1.10306	162.252	42.6669	
230	4.41	1.11699	163.499	47.5928	
231	4.85	1.1359	164.79	53.1019	
232	5.11	1.15522	166.124	59.005	
233	5.7	1.17499	167.505	65.7025	
234	5.7	1.19522	168.933	72.5152	
235	5.7	1.21073	170.399	79.4164	
236	8	1.23187	171.917	89.2713	
237	8	1.25357	173.488	99.2998	

238	8	1.27588	175.116	109.507
239	8.1	1.29303	176.788	119.98
240	8.8	1.31652	178.521	131.566
241	9.6	1.34075	180.319	144.437
242	10	1.36581	182.184	158.095
243	11	1.38517	184.103	173.332
244	12	1.41183	186.096	190.274
245	12	1.43953	188.168	207.548
246	13	1.46838	190.325	226.637
247	13	1.49852	192.57	246.118
248	15	1.52203	194.887	268.949
249	16	1.55477	197.304	293.825
250	18	1.58927	199.83	322.432
251	19	1.62576	202.473	353.321
252	20	1.65463	205.211	386.414
253	20	1.6954	208.085	420.322
254	20	1.7392	211.11	455.106
255	20	1.78661	214.302	490.838
256	27	1.83843	217.682	540.475
257	42	1.88079	221.219	619.469
258	49	1.94314	224.995	714.682
259	49	2.01409	229.051	813.373
260	49	2.09693	233.449	916.122
261	59	2.17009	238.158	1044.16
262	71	2.29036	243.404	1206.77
263	120	2.45727	249.442	1501.65
264	120	2.74777	256.992	1831.38

Data Set Standard Deviation = 13.3889
Numerator = 3.35395e+006
Denominator = 1.21161e+007
W Statistic = 0.276816 = 3.35395e+006 / 1.21161e+007

5% Critical value of 0.976 exceeds 0.276816
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.276816
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Dichlorodifluoromethane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.530888
0.530888 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.0043	0.00377358	-2.74777	39.0115	348.683
2	0.0043	0.00754717	-2.45727	39.0115	334.497
3	0.0043	0.0113208	-2.29036	39.0115	326.346
4	0.0043	0.0150943	-2.17009	39.0115	320.473
5	0.0043	0.0188679	-2.09693	39.0115	316.9
6	0.0043	0.0226415	-2.01409	39.0115	312.855
7	0.0043	0.0264151	-1.94314	39.0115	309.39
8	0.0043	0.0301887	-1.88079	39.0115	306.345
9	0.0043	0.0339623	-1.83843	39.0115	304.276
10	0.0043	0.0377358	-1.78661	39.0115	301.746
11	0.0043	0.0415094	-1.7392	39.0115	299.431
12	0.00435	0.045283	-1.6954	39.0116	297.292
13	0.00435	0.0490566	-1.65463	39.0116	295.301
14	0.00435	0.0528302	-1.62576	39.0116	293.891
15	0.00455	0.0566038	-1.58927	39.0122	292.109
16	0.00455	0.0603774	-1.55477	39.0122	290.425
17	0.00455	0.0641509	-1.52203	39.0122	288.826
18	0.00455	0.0679245	-1.49852	39.0122	287.677
19	0.125	0.0716981	-1.46838	39.3344	286.206
20	0.125	0.0754717	-1.43953	39.3344	284.797
21	0.125	0.0792453	-1.41183	39.3344	283.444
22	0.125	0.0830189	-1.38517	39.3344	282.143
23	0.125	0.0867925	-1.36581	39.3344	281.197
24	0.125	0.090566	-1.34075	39.3344	279.974
25	0.125	0.0943396	-1.31652	39.3344	278.79
26	0.125	0.0981132	-1.29303	39.3344	277.643
27	0.125	0.101887	-1.27588	39.3344	276.805
28	0.125	0.10566	-1.25357	39.3344	275.716
29	0.125	0.109434	-1.23187	39.3344	274.656
30	0.125	0.113208	-1.21073	39.3344	273.624
31	0.125	0.116981	-1.19522	39.3344	272.867
32	0.125	0.120755	-1.17499	39.3344	271.879
33	0.125	0.124528	-1.15522	39.3344	270.913
34	0.125	0.128302	-1.1359	39.3344	269.97
35	0.125	0.132075	-1.11699	39.3344	269.046
36	0.125	0.135849	-1.10306	39.3344	268.366
37	0.125	0.139623	-1.08482	39.3344	267.476
38	0.125	0.143396	-1.06694	39.3344	266.602
39	0.125	0.14717	-1.04939	39.3344	265.745
40	0.125	0.150943	-1.03643	39.3344	265.112
41	0.125	0.154717	-1.01943	39.3344	264.282
42	0.125	0.158491	-1.00271	39.3344	263.466
43	0.125	0.162264	-0.986272	39.3344	262.663
44	0.125	0.166038	-0.970094	39.3344	261.873
45	0.125	0.169811	-0.958125	39.3344	261.288
46	0.125	0.173585	-0.942375	39.3344	260.519
47	0.125	0.177358	-0.926859	39.3344	259.762
48	0.125	0.181132	-0.911562	39.3344	259.015

49	0.125	0.184906	-0.900227	39.3344	258.461
50	0.125	0.188679	-0.885291	39.3344	257.732
51	0.125	0.192453	-0.87055	39.3344	257.012
52	0.125	0.196226	-0.855996	39.3344	256.301
53	0.125	0.2	-0.841621	39.3344	255.599
54	0.125	0.203774	-0.830953	39.3344	255.078
55	0.125	0.207547	-0.816874	39.3344	254.391
56	0.125	0.211321	-0.802956	39.3344	253.711
57	0.125	0.215094	-0.789191	39.3344	253.039
58	0.125	0.218868	-0.778966	39.3344	252.54
59	0.125	0.222642	-0.765456	39.3344	251.88
60	0.125	0.226415	-0.752084	39.3344	251.227
61	0.125	0.230189	-0.738846	39.3344	250.58
62	0.125	0.233962	-0.729003	39.3344	250.1
63	0.125	0.237736	-0.715986	39.3344	249.464
64	0.125	0.241509	-0.703089	39.3344	248.834
65	0.125	0.245283	-0.690309	39.3344	248.21
66	0.125	0.249057	-0.677639	39.3344	247.591
67	0.125	0.25283	-0.668209	39.3344	247.131
68	0.125	0.256604	-0.655726	39.3344	246.521
69	0.125	0.260377	-0.643345	39.3344	245.917
70	0.125	0.264151	-0.631062	39.3344	245.317
71	0.125	0.267925	-0.621911	39.3344	244.87
72	0.41	0.271698	-0.609791	40.0968	244.278
73	0.48	0.275472	-0.597761	40.284	243.691
74	0.58	0.279245	-0.585815	40.5515	243.107
75	0.6	0.283019	-0.573953	40.605	242.528
76	0.61	0.286792	-0.565108	40.6317	242.096
77	0.62	0.290566	-0.553384	40.6585	241.524
78	0.68	0.29434	-0.541736	40.819	240.955
79	0.71	0.298113	-0.530162	40.8993	240.39
80	0.71	0.301887	-0.521527	40.8993	239.968
81	0.8	0.30566	-0.510074	41.14	239.409
82	1	0.309434	-0.498687	41.675	238.853
83	1	0.313208	-0.487364	41.675	238.3
84	1	0.316981	-0.478914	41.675	237.887
85	1	0.320755	-0.467699	41.675	237.339
86	1	0.324528	-0.456542	41.675	236.794
87	1	0.328302	-0.445443	41.675	236.252
88	1	0.332075	-0.434397	41.675	235.713
89	1	0.335849	-0.426148	41.675	235.31
90	1	0.339623	-0.415193	41.675	234.775
91	1	0.343396	-0.40429	41.675	234.243
92	1	0.34717	-0.393433	41.675	233.713
93	1	0.350943	-0.385321	41.675	233.317
94	1	0.354717	-0.374544	41.675	232.79
95	1	0.358491	-0.363809	41.675	232.266
96	1	0.362264	-0.353118	41.675	231.744
97	1	0.366038	-0.342466	41.675	231.224
98	1	0.369811	-0.334503	41.675	230.835
99	1	0.373585	-0.323919	41.675	230.318
100	1	0.377358	-0.31337	41.675	229.803
101	1	0.381132	-0.302855	41.675	229.289
102	1	0.384906	-0.294992	41.675	228.905
103	1	0.388679	-0.284535	41.675	228.395
104	1	0.392453	-0.27411	41.675	227.886
105	1	0.396226	-0.263715	41.675	227.378
106	1	0.4	-0.253347	41.675	226.872
107	1	0.403774	-0.24559	41.675	226.493
108	1	0.407547	-0.235269	41.675	225.989
109	1	0.411321	-0.224974	41.675	225.486
110	1	0.415094	-0.214702	41.675	224.985

111	1	0.418868	-0.207012	41.675	224.609
112	1	0.422642	-0.196779	41.675	224.109
113	1	0.426415	-0.186567	41.675	223.611
114	1	0.430189	-0.176374	41.675	223.113
115	1	0.433962	-0.168741	41.675	222.74
116	1	0.437736	-0.158579	41.675	222.244
117	1	0.441509	-0.148434	41.675	221.749
118	1	0.445283	-0.138305	41.675	221.254
119	1	0.449057	-0.128189	41.675	220.76
120	1	0.45283	-0.12061	41.675	220.39
121	1	0.456604	-0.110516	41.675	219.897
122	1	0.460377	-0.100433	41.675	219.404
123	1	0.464151	-0.0903606	41.675	218.913
124	1	0.467925	-0.0828129	41.675	218.544
125	1	0.471698	-0.0727562	41.675	218.053
126	1	0.475472	-0.0627062	41.675	217.562
127	1	0.479245	-0.0526632	41.675	217.072
128	1	0.483019	-0.0426257	41.675	216.582
129	1	0.486792	-0.0350997	41.675	216.214
130	1	0.490566	-0.0250691	41.675	215.724
131	1	0.49434	-0.0150408	41.675	215.234
132	1	0.498113	-0.00501359	41.675	214.745
133	1	0.501887	0.00501359	41.675	214.255
134	1	0.50566	0.0150408	41.675	213.766
135	1	0.509434	0.0250691	41.675	213.276
136	1	0.513208	0.0350997	41.675	212.786
137	1	0.516981	0.0426257	41.675	212.418
138	1	0.520755	0.0526632	41.675	211.928
139	1	0.524528	0.0627062	41.675	211.438
140	1	0.528302	0.0727562	41.675	210.947
141	1	0.532075	0.0828129	41.675	210.456
142	1	0.535849	0.0903606	41.675	210.087
143	1	0.539623	0.100433	41.675	209.596
144	1	0.543396	0.110516	41.675	209.103
145	1	0.54717	0.12061	41.675	208.61
146	1	0.550943	0.128189	41.675	208.24
147	1	0.554717	0.138305	41.675	207.746
148	1	0.558491	0.148434	41.675	207.251
149	1	0.562264	0.158579	41.675	206.756
150	1	0.566038	0.168741	41.675	206.26
151	1	0.569811	0.176374	41.675	205.887
152	1	0.573585	0.186567	41.675	205.389
153	1	0.577358	0.196779	41.675	204.891
154	1	0.581132	0.207012	41.675	204.391
155	1	0.584906	0.214702	41.675	204.015
156	1	0.588679	0.224974	41.675	203.514
157	1	0.592453	0.235269	41.675	203.011
158	1	0.596226	0.24559	41.675	202.507
159	1	0.6	0.253347	41.675	202.128
160	1	0.603774	0.263715	41.675	201.622
161	1	0.607547	0.27411	41.675	201.114
162	1	0.611321	0.284535	41.675	200.605
163	1	0.615094	0.294992	41.675	200.095
164	1	0.618868	0.302855	41.675	199.711
165	1	0.622642	0.31337	41.675	199.197
166	1	0.626415	0.323919	41.675	198.682
167	1	0.630189	0.334503	41.675	198.165
168	1	0.633962	0.342466	41.675	197.776
169	1	0.637736	0.353118	41.675	197.256
170	1	0.641509	0.363809	41.675	196.734
171	1	0.645283	0.374544	41.675	196.21
172	1	0.649057	0.385321	41.675	195.683

173	1	0.65283	0.393433	41.675	195.287	
174	1	0.656604	0.40429	41.675	194.757	
175	1	0.660377	0.415193	41.675	194.225	
176	1	0.664151	0.426148	41.675	193.69	
177	1	0.667925	0.434397	41.675	193.287	
178	1	0.671698	0.445443	41.675	192.748	
179	1	0.675472	0.456542	41.675	192.206	
180	1	0.679245	0.467699	41.675	191.661	
181	1	0.683019	0.478914	41.675	191.113	
182	1	0.686792	0.487364	41.675	190.7	
183	1	0.690566	0.498687	41.675	190.147	
184	1	0.69434	0.510074	41.675	189.591	
185	1	0.698113	0.521527	41.675	189.032	
186	1	0.701887	0.530162	41.675	188.61	
187	1	0.70566	0.541736	41.675	188.045	
188	1	0.709434	0.553384	41.675	187.476	
189	1	0.713208	0.565108	41.675	186.904	
190	1	0.716981	0.573953	41.675	186.472	
191	1	0.720755	0.585815	41.675	185.893	
192	1	0.724528	0.597761	41.675	185.309	
193	1	0.728302	0.609791	41.675	184.722	
194	1	0.732075	0.621911	41.675	184.13	
195	1	0.735849	0.631062	41.675	183.683	
196	1	0.739623	0.643345	41.675	183.083	
197	1	0.743396	0.655726	41.675	182.479	
198	1	0.74717	0.668209	41.675	181.869	
199	1	0.750943	0.677639	41.675	181.409	
200	1	0.754717	0.690309	41.675	180.79	
201	1	0.758491	0.703089	41.675	180.166	
202	1	0.762264	0.715986	41.675	179.536	
203	1	0.766038	0.729003	41.675	178.9	
204	1	0.769811	0.738846	41.675	178.42	
205	1	0.773585	0.752084	41.675	177.773	
206	1	0.777358	0.765456	41.675	177.12	
207	1	0.781132	0.778966	41.675	176.46	
208	1	0.784906	0.789191	41.675	175.961	
209	1	0.788679	0.802956	41.675	175.289	
210	1	0.792453	0.816874	41.675	174.609	
211	1	0.796226	0.830953	41.675	173.922	
212	1	0.8	0.841621	41.675	173.401	
213	1	0.803774	0.855996	41.675	172.699	
214	1.1	0.807547	0.87055	41.9425	171.988	
215	1.3	0.811321	0.885291	42.4775	171.268	
216	1.45	0.815094	0.900227	42.8787	170.539	
217	1.5	0.818868	0.911562	43.0125	169.985	
218	1.64	0.822642	0.926859	43.387	169.238	
219	1.66	0.826415	0.942375	43.4405	168.481	
220	1.7	0.830189	0.958125	43.5475	167.712	
221	1.7	0.833962	0.970094	43.5475	167.127	
222	1.81	0.837736	0.986272	43.8417	166.337	
223	1.9	0.841509	1.00271	44.0825	165.534	
224	2	0.845283	1.01943	44.35	164.718	
225	2.1	0.849057	1.03643	44.6175	163.888	
226	2.13	0.85283	1.04939	44.6977	163.255	
227	2.96	0.856604	1.06694	46.918	162.398	
228	3.61	0.860377	1.08482	48.6568	161.524	
229	3.73	0.864151	1.10306	48.9778	160.634	
230	4.41	0.867925	1.11699	50.7968	159.954	
231	4.85	0.871698	1.1359	51.9737	159.03	
232	5.11	0.875472	1.15522	52.6693	158.087	
233	5.7	0.879245	1.17499	54.2475	157.121	
234	5.7	0.883019	1.19522	54.2475	156.133	

235	5.7	0.886792		1.21073	54.2475	155.376
236	8	0.890566		1.23187	60.4	154.344
237	8	0.89434	1.25357	60.4	153.284	
238	8	0.898113		1.27588	60.4	152.195
239	8.1	0.901887		1.29303	60.6675	151.357
240	8.8	0.90566	1.31652	62.54	150.21	
241	9.6	0.909434		1.34075	64.68	149.026
242	10	0.913208		1.36581	65.75	147.803
243	11	0.916981		1.38517	68.425	146.857
244	12	0.920755		1.41183	71.1	145.556
245	12	0.924528		1.43953	71.1	144.203
246	13	0.928302		1.46838	73.775	142.794
247	13	0.932075		1.49852	73.775	141.323
248	15	0.935849		1.52203	79.125	140.174
249	16	0.939623		1.55477	81.8	138.575
250	18	0.943396		1.58927	87.15	136.891
251	19	0.94717	1.62576	89.825	135.109	
252	20	0.950943		1.65463	92.5	133.699
253	20	0.954717		1.6954	92.5	131.708
254	20	0.958491		1.7392	92.5	129.569
255	20	0.962264		1.78661	92.5	127.254
256	27	0.966038		1.83843	111.225	124.724
257	42	0.969811		1.88079	151.35	122.655
258	49	0.973585		1.94314	170.075	119.61
259	49	0.977358		2.01409	170.075	116.145
260	49	0.981132		2.09693	170.075	112.1
261	59	0.984906		2.17009	196.825	108.527
262	71	0.988679		2.29036	228.925	102.654
263	120	0.992453		2.45727	360	94.5032
264	120	0.996226		2.74777	360	80.3175

Shapiro-Francia Test of Normality

Parameter: Dichlorodifluoromethane

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 264

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-5.44914	-2.74777	7.5502	14.973
2	-5.44914	-2.45727	13.5884	28.363
3	-5.44914	-2.29036	18.8342	40.8435
4	-5.44914	-2.17009	23.5435	52.6686
5	-5.44914	-2.09693	27.9406	64.0951
6	-5.44914	-2.01409	31.9972	75.0702
7	-5.44914	-1.94314	35.7729	85.6586
8	-5.44914	-1.88079	39.3103	95.9073
9	-5.44914	-1.83843	42.6901	105.925
10	-5.44914	-1.78661	45.8821	115.661
11	-5.44914	-1.7392	48.9069	125.138
12	-5.43758	-1.6954	51.7813	134.357
13	-5.43758	-1.65463	54.5191	143.354
14	-5.43758	-1.62576	57.1622	152.194
15	-5.39263	-1.58927	59.6879	160.764
16	-5.39263	-1.55477	62.1053	169.149
17	-5.39263	-1.52203	64.4218	177.356
18	-5.39263	-1.49852	66.6674	185.437
19	-2.07944	-1.46838	68.8235	188.491
20	-2.07944	-1.43953	70.8958	191.484
21	-2.07944	-1.41183	72.8891	194.42
22	-2.07944	-1.38517	74.8078	197.3
23	-2.07944	-1.36581	76.6732	200.14
24	-2.07944	-1.34075	78.4708	202.929
25	-2.07944	-1.31652	80.204	205.666
26	-2.07944	-1.29303	81.876	208.355
27	-2.07944	-1.27588	83.5038	211.008
28	-2.07944	-1.25357	85.0753	213.615
29	-2.07944	-1.23187	86.5928	216.176
30	-2.07944	-1.21073	88.0586	218.694
31	-2.07944	-1.19522	89.4872	221.179
32	-2.07944	-1.17499	90.8678	223.623
33	-2.07944	-1.15522	92.2023	226.025
34	-2.07944	-1.1359	93.4926	228.387
35	-2.07944	-1.11699	94.7402	230.71
36	-2.07944	-1.10306	95.957	233.003
37	-2.07944	-1.08482	97.1338	235.259
38	-2.07944	-1.06694	98.2722	237.478
39	-2.07944	-1.04939	99.3734	239.66
40	-2.07944	-1.03643	100.448	241.815
41	-2.07944	-1.01943	101.487	243.935
42	-2.07944	-1.00271	102.492	246.02
43	-2.07944	-0.986272		103.465	248.071
44	-2.07944	-0.970094		104.406	250.088
45	-2.07944	-0.958125		105.324	252.081
46	-2.07944	-0.942375		106.212	254.04
47	-2.07944	-0.926859		107.071	255.968
48	-2.07944	-0.911562		107.902	257.863
49	-2.07944	-0.900227		108.713	259.735
50	-2.07944	-0.885291		109.496	261.576
51	-2.07944	-0.87055	110.254	263.386

52	-2.07944	-0.855996	110.987	265.166
53	-2.07944	-0.841621	111.695	266.916
54	-2.07944	-0.830953	112.386	268.644
55	-2.07944	-0.816874	113.053	270.343
56	-2.07944	-0.802956	113.698	272.013
57	-2.07944	-0.789191	114.321	273.654
58	-2.07944	-0.778966	114.927	275.274
59	-2.07944	-0.765456	115.513	276.865
60	-2.07944	-0.752084	116.079	278.429
61	-2.07944	-0.738846	116.625	279.966
62	-2.07944	-0.729003	117.156	281.481
63	-2.07944	-0.715986	117.669	282.97
64	-2.07944	-0.703089	118.163	284.432
65	-2.07944	-0.690309	118.64	285.868
66	-2.07944	-0.677639	119.099	287.277
67	-2.07944	-0.668209	119.545	288.666
68	-2.07944	-0.655726	119.975	290.03
69	-2.07944	-0.643345	120.389	291.368
70	-2.07944	-0.631062	120.788	292.68
71	-2.07944	-0.621911	121.174	293.973
72	-0.891598	-0.609791	121.546	294.517
73	-0.733969	-0.597761	121.903	294.956
74	-0.544727	-0.585815	122.247	295.275
75	-0.510826	-0.573953	122.576	295.568
76	-0.494296	-0.565108	122.895	295.847
77	-0.478036	-0.553384	123.202	296.112
78	-0.385662	-0.541736	123.495	296.321
79	-0.34249	-0.530162	123.776	296.502
80	-0.34249	-0.521527	124.048	296.681
81	-0.223144	-0.510074	124.308	296.795
82	0	-0.498687	124.557	296.795
83	0	-0.487364	124.795	296.795
84	0	-0.478914	125.024	296.795
85	0	-0.467699	125.243	296.795
86	0	-0.456542	125.451	296.795
87	0	-0.445443	125.65	296.795
88	0	-0.434397	125.838	296.795
89	0	-0.426148	126.02	296.795
90	0	-0.415193	126.192	296.795
91	0	-0.40429	126.356	296.795
92	0	-0.393433	126.51	296.795
93	0	-0.385321	126.659	296.795
94	0	-0.374544	126.799	296.795
95	0	-0.363809	126.932	296.795
96	0	-0.353118	127.056	296.795
97	0	-0.342466	127.174	296.795
98	0	-0.334503	127.285	296.795
99	0	-0.323919	127.39	296.795
100	0	-0.31337	127.489	296.795
101	0	-0.302855	127.58	296.795
102	0	-0.294992	127.667	296.795
103	0	-0.284535	127.748	296.795
104	0	-0.27411	127.823	296.795
105	0	-0.263715	127.893	296.795
106	0	-0.253347	127.957	296.795
107	0	-0.24559	128.017	296.795
108	0	-0.235269	128.073	296.795
109	0	-0.224974	128.123	296.795
110	0	-0.214702	128.169	296.795
111	0	-0.207012	128.212	296.795
112	0	-0.196779	128.251	296.795
113	0	-0.186567	128.286	296.795

114	0	-0.176374	128.317	296.795
115	0	-0.168741	128.345	296.795
116	0	-0.158579	128.371	296.795
117	0	-0.148434	128.393	296.795
118	0	-0.138305	128.412	296.795
119	0	-0.128189	128.428	296.795
120	0	-0.12061	128.443	296.795
121	0	-0.110516	128.455	296.795
122	0	-0.100433	128.465	296.795
123	0	-0.0903606	128.473	296.795
124	0	-0.0828129	128.48	296.795
125	0	-0.0727562	128.485	296.795
126	0	-0.0627062	128.489	296.795
127	0	-0.0526632	128.492	296.795
128	0	-0.0426257	128.494	296.795
129	0	-0.0350997	128.495	296.795
130	0	-0.0250691	128.496	296.795
131	0	-0.0150408	128.496	296.795
132	0	-0.00501359	128.496	296.795
133	0	0.00501359	128.496	296.795
134	0	0.0150408	128.496	296.795
135	0	0.0250691	128.497	296.795
136	0	0.0350997	128.498	296.795
137	0	0.0426257	128.5	296.795
138	0	0.0526632	128.503	296.795
139	0	0.0627062	128.507	296.795
140	0	0.0727562	128.512	296.795
141	0	0.0828129	128.519	296.795
142	0	0.0903606	128.527	296.795
143	0	0.100433	128.537	296.795
144	0	0.110516	128.549	296.795
145	0	0.12061	128.564	296.795
146	0	0.128189	128.58	296.795
147	0	0.138305	128.599	296.795
148	0	0.148434	128.621	296.795
149	0	0.158579	128.647	296.795
150	0	0.168741	128.675	296.795
151	0	0.176374	128.706	296.795
152	0	0.186567	128.741	296.795
153	0	0.196779	128.78	296.795
154	0	0.207012	128.822	296.795
155	0	0.214702	128.869	296.795
156	0	0.224974	128.919	296.795
157	0	0.235269	128.975	296.795
158	0	0.24559	129.035	296.795
159	0	0.253347	129.099	296.795
160	0	0.263715	129.169	296.795
161	0	0.27411	129.244	296.795
162	0	0.284535	129.325	296.795
163	0	0.294992	129.412	296.795
164	0	0.302855	129.503	296.795
165	0	0.31337	129.602	296.795
166	0	0.323919	129.707	296.795
167	0	0.334503	129.818	296.795
168	0	0.342466	129.936	296.795
169	0	0.353118	130.06	296.795
170	0	0.363809	130.193	296.795
171	0	0.374544	130.333	296.795
172	0	0.385321	130.482	296.795
173	0	0.393433	130.636	296.795
174	0	0.40429	130.8	296.795
175	0	0.415193	130.972	296.795

176	0	0.426148		131.154	296.795	
177	0	0.434397		131.342	296.795	
178	0	0.445443		131.541	296.795	
179	0	0.456542		131.749	296.795	
180	0	0.467699		131.968	296.795	
181	0	0.478914		132.197	296.795	
182	0	0.487364		132.435	296.795	
183	0	0.498687		132.684	296.795	
184	0	0.510074		132.944	296.795	
185	0	0.521527		133.216	296.795	
186	0	0.530162		133.497	296.795	
187	0	0.541736		133.79	296.795	
188	0	0.553384		134.097	296.795	
189	0	0.565108		134.416	296.795	
190	0	0.573953		134.745	296.795	
191	0	0.585815		135.089	296.795	
192	0	0.597761		135.446	296.795	
193	0	0.609791		135.818	296.795	
194	0	0.621911		136.204	296.795	
195	0	0.631062		136.603	296.795	
196	0	0.643345		137.017	296.795	
197	0	0.655726		137.447	296.795	
198	0	0.668209		137.893	296.795	
199	0	0.677639		138.352	296.795	
200	0	0.690309		138.829	296.795	
201	0	0.703089		139.323	296.795	
202	0	0.715986		139.836	296.795	
203	0	0.729003		140.367	296.795	
204	0	0.738846		140.913	296.795	
205	0	0.752084		141.479	296.795	
206	0	0.765456		142.065	296.795	
207	0	0.778966		142.671	296.795	
208	0	0.789191		143.294	296.795	
209	0	0.802956		143.939	296.795	
210	0	0.816874		144.606	296.795	
211	0	0.830953		145.297	296.795	
212	0	0.841621		146.005	296.795	
213	0	0.855996		146.738	296.795	
214	0.0953102		0.87055	147.496	296.878	
215	0.262364		0.885291		148.279	297.11
216	0.371564		0.900227		149.09	297.445
217	0.405465		0.911562		149.921	297.814
218	0.494696		0.926859		150.78	298.273
219	0.506818		0.942375		151.668	298.75
220	0.530628		0.958125		152.586	299.259
221	0.530628		0.970094		153.527	299.773
222	0.593327		0.986272		154.5	300.359
223	0.641854		1.00271	155.505	301.002	
224	0.693147		1.01943	156.544	301.709	
225	0.741937		1.03643	157.619	302.478	
226	0.756122		1.04939	158.72	303.271	
227	1.08519	1.06694	159.858	304.429		
228	1.28371	1.08482	161.035	305.822		
229	1.31641	1.10306	162.252	307.274		
230	1.48387	1.11699	163.499	308.931		
231	1.57898	1.1359	164.79	310.725		
232	1.6312	1.15522	166.124	312.609		
233	1.74047	1.17499	167.505	314.654		
234	1.74047	1.19522	168.933	316.734		
235	1.74047	1.21073	170.399	318.842		
236	2.07944	1.23187	171.917	321.403		
237	2.07944	1.25357	173.488	324.01		

238	2.07944	1.27588	175.116	326.663
239	2.09186	1.29303	176.788	329.368
240	2.17475	1.31652	178.521	332.231
241	2.26176	1.34075	180.319	335.263
242	2.30259	1.36581	182.184	338.408
243	2.3979	1.38517	184.103	341.73
244	2.48491	1.41183	186.096	345.238
245	2.48491	1.43953	188.168	348.815
246	2.56495	1.46838	190.325	352.582
247	2.56495	1.49852	192.57	356.425
248	2.70805	1.52203	194.887	360.547
249	2.77259	1.55477	197.304	364.858
250	2.89037	1.58927	199.83	369.451
251	2.94444	1.62576	202.473	374.238
252	2.99573	1.65463	205.211	379.195
253	2.99573	1.6954	208.085	384.274
254	2.99573	1.7392	211.11	389.484
255	2.99573	1.78661	214.302	394.836
256	3.29584	1.83843	217.682	400.896
257	3.73767	1.88079	221.219	407.925
258	3.89182	1.94314	224.995	415.488
259	3.89182	2.01409	229.051	423.326
260	3.89182	2.09693	233.449	431.487
261	4.07754	2.17009	238.158	440.336
262	4.26268	2.29036	243.404	450.099
263	4.78749	2.45727	249.442	461.863
264	4.78749	2.74777	256.992	475.018

Data Set Standard Deviation = 1.97808
Numerator = 225642
Denominator = 264461
W Statistic = 0.853214 = 225642 / 264461

5% Critical value of 0.976 exceeds 0.853214
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.853214
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Dichlorodifluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.924393
0.924393 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-5.44914	0.00377358	-2.74777	65.7918	348.683
2	-5.44914	0.00754717	-2.45727	65.7918	334.497
3	-5.44914	0.0113208	-2.29036	65.7918	326.346
4	-5.44914	0.0150943	-2.17009	65.7918	320.473
5	-5.44914	0.0188679	-2.09693	65.7918	316.9
6	-5.44914	0.0226415	-2.01409	65.7918	312.855
7	-5.44914	0.0264151	-1.94314	65.7918	309.39
8	-5.44914	0.0301887	-1.88079	65.7918	306.345
9	-5.44914	0.0339623	-1.83843	65.7918	304.276
10	-5.44914	0.0377358	-1.78661	65.7918	301.746
11	-5.44914	0.0415094	-1.7392	65.7918	299.431
12	-5.43758	0.045283	-1.6954	66.3541	297.292
13	-5.43758	0.0490566	-1.65463	66.3541	295.301
14	-5.43758	0.0528302	-1.62576	66.3541	293.891
15	-5.39263	0.0566038	-1.58927	68.5404	292.109
16	-5.39263	0.0603774	-1.55477	68.5404	290.425
17	-5.39263	0.0641509	-1.52203	68.5404	288.826
18	-5.39263	0.0679245	-1.49852	68.5404	287.677
19	-2.07944	0.0716981	-1.46838	229.682	286.206
20	-2.07944	0.0754717	-1.43953	229.682	284.797
21	-2.07944	0.0792453	-1.41183	229.682	283.444
22	-2.07944	0.0830189	-1.38517	229.682	282.143
23	-2.07944	0.0867925	-1.36581	229.682	281.197
24	-2.07944	0.090566	-1.34075	229.682	279.974
25	-2.07944	0.0943396	-1.31652	229.682	278.79
26	-2.07944	0.0981132	-1.29303	229.682	277.643
27	-2.07944	0.101887	-1.27588	229.682	276.805
28	-2.07944	0.10566	-1.25357	229.682	275.716
29	-2.07944	0.109434	-1.23187	229.682	274.656
30	-2.07944	0.113208	-1.21073	229.682	273.624
31	-2.07944	0.116981	-1.19522	229.682	272.867
32	-2.07944	0.120755	-1.17499	229.682	271.879
33	-2.07944	0.124528	-1.15522	229.682	270.913
34	-2.07944	0.128302	-1.1359	229.682	269.97
35	-2.07944	0.132075	-1.11699	229.682	269.046
36	-2.07944	0.135849	-1.10306	229.682	268.366
37	-2.07944	0.139623	-1.08482	229.682	267.476
38	-2.07944	0.143396	-1.06694	229.682	266.602
39	-2.07944	0.14717	-1.04939	229.682	265.745
40	-2.07944	0.150943	-1.03643	229.682	265.112
41	-2.07944	0.154717	-1.01943	229.682	264.282
42	-2.07944	0.158491	-1.00271	229.682	263.466
43	-2.07944	0.162264	-0.986272	229.682	262.663
44	-2.07944	0.166038	-0.970094	229.682	261.873
45	-2.07944	0.169811	-0.958125	229.682	261.288
46	-2.07944	0.173585	-0.942375	229.682	260.519
47	-2.07944	0.177358	-0.926859	229.682	259.762
48	-2.07944	0.181132	-0.911562	229.682	259.015

49	-2.07944	0.184906		-0.900227		229.682	258.461
50	-2.07944	0.188679		-0.885291		229.682	257.732
51	-2.07944	0.192453		-0.87055	229.682	257.012	
52	-2.07944	0.196226		-0.855996		229.682	256.301
53	-2.07944	0.2	-0.841621		229.682	255.599	
54	-2.07944	0.203774		-0.830953		229.682	255.078
55	-2.07944	0.207547		-0.816874		229.682	254.391
56	-2.07944	0.211321		-0.802956		229.682	253.711
57	-2.07944	0.215094		-0.789191		229.682	253.039
58	-2.07944	0.218868		-0.778966		229.682	252.54
59	-2.07944	0.222642		-0.765456		229.682	251.88
60	-2.07944	0.226415		-0.752084		229.682	251.227
61	-2.07944	0.230189		-0.738846		229.682	250.58
62	-2.07944	0.233962		-0.729003		229.682	250.1
63	-2.07944	0.237736		-0.715986		229.682	249.464
64	-2.07944	0.241509		-0.703089		229.682	248.834
65	-2.07944	0.245283		-0.690309		229.682	248.21
66	-2.07944	0.249057		-0.677639		229.682	247.591
67	-2.07944	0.25283	-0.668209		229.682	247.131	
68	-2.07944	0.256604		-0.655726		229.682	246.521
69	-2.07944	0.260377		-0.643345		229.682	245.917
70	-2.07944	0.264151		-0.631062		229.682	245.317
71	-2.07944	0.267925		-0.621911		229.682	244.87
72	-0.891598		0.271698		-0.609791		287.454	244.278
73	-0.733969		0.275472		-0.597761		295.121	243.691
74	-0.544727		0.279245		-0.585815		304.325	243.107
75	-0.510826		0.283019		-0.573953		305.973	242.528
76	-0.494296		0.286792		-0.565108		306.777	242.096
77	-0.478036		0.290566		-0.553384		307.568	241.524
78	-0.385662		0.29434	-0.541736		312.061	240.955	
79	-0.34249	0.298113		-0.530162		314.161	240.39	
80	-0.34249	0.301887		-0.521527		314.161	239.968	
81	-0.223144		0.30566	-0.510074		319.965	239.409	
82	0	0.309434		-0.498687		330.818	238.853	
83	0	0.313208		-0.487364		330.818	238.3	
84	0	0.316981		-0.478914		330.818	237.887	
85	0	0.320755		-0.467699		330.818	237.339	
86	0	0.324528		-0.456542		330.818	236.794	
87	0	0.328302		-0.445443		330.818	236.252	
88	0	0.332075		-0.434397		330.818	235.713	
89	0	0.335849		-0.426148		330.818	235.31	
90	0	0.339623		-0.415193		330.818	234.775	
91	0	0.343396		-0.40429	330.818	234.243		
92	0	0.34717	-0.393433		330.818	233.713		
93	0	0.350943		-0.385321		330.818	233.317	
94	0	0.354717		-0.374544		330.818	232.79	
95	0	0.358491		-0.363809		330.818	232.266	
96	0	0.362264		-0.353118		330.818	231.744	
97	0	0.366038		-0.342466		330.818	231.224	
98	0	0.369811		-0.334503		330.818	230.835	
99	0	0.373585		-0.323919		330.818	230.318	
100	0	0.377358		-0.31337	330.818	229.803		
101	0	0.381132		-0.302855		330.818	229.289	
102	0	0.384906		-0.294992		330.818	228.905	
103	0	0.388679		-0.284535		330.818	228.395	
104	0	0.392453		-0.27411	330.818	227.886		
105	0	0.396226		-0.263715		330.818	227.378	
106	0	0.4	-0.253347		330.818	226.872		
107	0	0.403774		-0.24559	330.818	226.493		
108	0	0.407547		-0.235269		330.818	225.989	
109	0	0.411321		-0.224974		330.818	225.486	
110	0	0.415094		-0.214702		330.818	224.985	

111	0	0.418868	-0.207012	330.818	224.609
112	0	0.422642	-0.196779	330.818	224.109
113	0	0.426415	-0.186567	330.818	223.611
114	0	0.430189	-0.176374	330.818	223.113
115	0	0.433962	-0.168741	330.818	222.74
116	0	0.437736	-0.158579	330.818	222.244
117	0	0.441509	-0.148434	330.818	221.749
118	0	0.445283	-0.138305	330.818	221.254
119	0	0.449057	-0.128189	330.818	220.76
120	0	0.45283	-0.12061	330.818	220.39
121	0	0.456604	-0.110516	330.818	219.897
122	0	0.460377	-0.100433	330.818	219.404
123	0	0.464151	-0.0903606	330.818	218.913
124	0	0.467925	-0.0828129	330.818	218.544
125	0	0.471698	-0.0727562	330.818	218.053
126	0	0.475472	-0.0627062	330.818	217.562
127	0	0.479245	-0.0526632	330.818	217.072
128	0	0.483019	-0.0426257	330.818	216.582
129	0	0.486792	-0.0350997	330.818	216.214
130	0	0.490566	-0.0250691	330.818	215.724
131	0	0.49434	-0.0150408	330.818	215.234
132	0	0.498113	-0.00501359	330.818	214.745
133	0	0.501887	0.00501359	330.818	214.255
134	0	0.50566	0.0150408	330.818	213.766
135	0	0.509434	0.0250691	330.818	213.276
136	0	0.513208	0.0350997	330.818	212.786
137	0	0.516981	0.0426257	330.818	212.418
138	0	0.520755	0.0526632	330.818	211.928
139	0	0.524528	0.0627062	330.818	211.438
140	0	0.528302	0.0727562	330.818	210.947
141	0	0.532075	0.0828129	330.818	210.456
142	0	0.535849	0.0903606	330.818	210.087
143	0	0.539623	0.100433	330.818	209.596
144	0	0.543396	0.110516	330.818	209.103
145	0	0.54717	0.12061	330.818	208.61
146	0	0.550943	0.128189	330.818	208.24
147	0	0.554717	0.138305	330.818	207.746
148	0	0.558491	0.148434	330.818	207.251
149	0	0.562264	0.158579	330.818	206.756
150	0	0.566038	0.168741	330.818	206.26
151	0	0.569811	0.176374	330.818	205.887
152	0	0.573585	0.186567	330.818	205.389
153	0	0.577358	0.196779	330.818	204.891
154	0	0.581132	0.207012	330.818	204.391
155	0	0.584906	0.214702	330.818	204.015
156	0	0.588679	0.224974	330.818	203.514
157	0	0.592453	0.235269	330.818	203.011
158	0	0.596226	0.24559	330.818	202.507
159	0	0.6	0.253347	330.818	202.128
160	0	0.603774	0.263715	330.818	201.622
161	0	0.607547	0.27411	330.818	201.114
162	0	0.611321	0.284535	330.818	200.605
163	0	0.615094	0.294992	330.818	200.095
164	0	0.618868	0.302855	330.818	199.711
165	0	0.622642	0.31337	330.818	199.197
166	0	0.626415	0.323919	330.818	198.682
167	0	0.630189	0.334503	330.818	198.165
168	0	0.633962	0.342466	330.818	197.776
169	0	0.637736	0.353118	330.818	197.256
170	0	0.641509	0.363809	330.818	196.734
171	0	0.645283	0.374544	330.818	196.21
172	0	0.649057	0.385321	330.818	195.683

173	0	0.65283	0.393433	330.818	195.287		
174	0	0.656604	0.40429	330.818	194.757		
175	0	0.660377	0.415193	330.818	194.225		
176	0	0.664151	0.426148	330.818	193.69		
177	0	0.667925	0.434397	330.818	193.287		
178	0	0.671698	0.445443	330.818	192.748		
179	0	0.675472	0.456542	330.818	192.206		
180	0	0.679245	0.467699	330.818	191.661		
181	0	0.683019	0.478914	330.818	191.113		
182	0	0.686792	0.487364	330.818	190.7		
183	0	0.690566	0.498687	330.818	190.147		
184	0	0.69434	0.510074	330.818	189.591		
185	0	0.698113	0.521527	330.818	189.032		
186	0	0.701887	0.530162	330.818	188.61		
187	0	0.70566	0.541736	330.818	188.045		
188	0	0.709434	0.553384	330.818	187.476		
189	0	0.713208	0.565108	330.818	186.904		
190	0	0.716981	0.573953	330.818	186.472		
191	0	0.720755	0.585815	330.818	185.893		
192	0	0.724528	0.597761	330.818	185.309		
193	0	0.728302	0.609791	330.818	184.722		
194	0	0.732075	0.621911	330.818	184.13		
195	0	0.735849	0.631062	330.818	183.683		
196	0	0.739623	0.643345	330.818	183.083		
197	0	0.743396	0.655726	330.818	182.479		
198	0	0.74717	0.668209	330.818	181.869		
199	0	0.750943	0.677639	330.818	181.409		
200	0	0.754717	0.690309	330.818	180.79		
201	0	0.758491	0.703089	330.818	180.166		
202	0	0.762264	0.715986	330.818	179.536		
203	0	0.766038	0.729003	330.818	178.9		
204	0	0.769811	0.738846	330.818	178.42		
205	0	0.773585	0.752084	330.818	177.773		
206	0	0.777358	0.765456	330.818	177.12		
207	0	0.781132	0.778966	330.818	176.46		
208	0	0.784906	0.789191	330.818	175.961		
209	0	0.788679	0.802956	330.818	175.289		
210	0	0.792453	0.816874	330.818	174.609		
211	0	0.796226	0.830953	330.818	173.922		
212	0	0.8	0.841621	330.818	173.401		
213	0	0.803774	0.855996	330.818	172.699		
214	0.0953102	0.807547	0.87055	335.454	171.988		
215	0.262364	0.811321	0.885291	343.579	171.268		
216	0.371564	0.815094	0.900227	348.89	170.539		
217	0.405465	0.818868	0.911562	350.539	169.985		
218	0.494696	0.822642	0.926859	354.878	169.238		
219	0.506818	0.826415	0.942375	355.468	168.481		
220	0.530628	0.830189	0.958125	356.626	167.712		
221	0.530628	0.833962	0.970094	356.626	167.127		
222	0.593327	0.837736	0.986272	359.675	166.337		
223	0.641854	0.841509	1.00271	362.036	165.534		
224	0.693147	0.845283	1.01943	364.53	164.718		
225	0.741937	0.849057	1.03643	366.903	163.888		
226	0.756122	0.85283	1.04939	367.593	163.255		
227	1.08519	0.856604	1.06694	383.598	162.398		
228	1.28371	0.860377	1.08482	393.253	161.524		
229	1.31641	0.864151	1.10306	394.843	160.634		
230	1.48387	0.867925	1.11699	402.988	159.954		
231	1.57898	0.871698	1.1359	407.614	159.03		
232	1.6312	0.875472	1.15522	410.154	158.087		
233	1.74047	0.879245	1.17499	415.468	157.121		
234	1.74047	0.883019	1.19522	415.468	156.133		

235	1.74047	0.886792		1.21073	415.468	155.376
236	2.07944	0.890566		1.23187	431.955	154.344
237	2.07944	0.89434	1.25357	431.955	153.284	
238	2.07944	0.898113		1.27588	431.955	152.195
239	2.09186	0.901887		1.29303	432.559	151.357
240	2.17475	0.90566	1.31652	436.59	150.21	
241	2.26176	0.909434		1.34075	440.822	149.026
242	2.30259	0.913208		1.36581	442.808	147.803
243	2.3979	0.916981		1.38517	447.443	146.857
244	2.48491	0.920755		1.41183	451.675	145.556
245	2.48491	0.924528		1.43953	451.675	144.203
246	2.56495	0.928302		1.46838	455.568	142.794
247	2.56495	0.932075		1.49852	455.568	141.323
248	2.70805	0.935849		1.52203	462.528	140.174
249	2.77259	0.939623		1.55477	465.667	138.575
250	2.89037	0.943396		1.58927	471.395	136.891
251	2.94444	0.94717	1.62576	474.025	135.109	
252	2.99573	0.950943		1.65463	476.52	133.699
253	2.99573	0.954717		1.6954	476.52	131.708
254	2.99573	0.958491		1.7392	476.52	129.569
255	2.99573	0.962264		1.78661	476.52	127.254
256	3.29584	0.966038		1.83843	491.116	124.724
257	3.73767	0.969811		1.88079	512.605	122.655
258	3.89182	0.973585		1.94314	520.102	119.61
259	3.89182	0.977358		2.01409	520.102	116.145
260	3.89182	0.981132		2.09693	520.102	112.1
261	4.07754	0.984906		2.17009	529.135	108.527
262	4.26268	0.988679		2.29036	538.139	102.654
263	4.78749	0.992453		2.45727	563.664	94.5032
264	4.78749	0.996226		2.74777	563.664	80.3175

Kruskal-Wallis Non-Parametric Test

Parameter: Dichlorodifluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	102
	9/23/1999	ND<0	102
	3/15/2000	ND<0	102
	9/24/2003	ND<0	102
	3/11/2004	ND<0	102
	10/12/2004	ND<0	102
	4/1/2005	ND<0	102
	10/25/2005	ND<0	102
	4/29/2006	ND<0	102
	11/18/2006	ND<0	102
	5/23/2007	ND<0	102
	11/28/2007	ND<0	102
	6/5/2008	ND<0	102
	11/20/2008	ND<0	102
	6/11/2009	ND<-2.07944	102
	11/16/2009	ND<-2.07944	102
	6/30/2010	ND<-2.07944	102
	6/30/2010	ND<-5.39263	102
	11/12/2010	ND<-2.07944 U	102
	11/12/2010	ND<-5.44914 U	102
	7/5/2011	ND<-2.07944 U	102

Rank Sum = 2142
Rank Mean = 102

Background Rank Sum = 2142
Background Rank Mean = 102

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<0	102
	8/24/1995	0.530628 J	220
	9/28/1995	0.693147	224
	10/26/1995	ND<0	102
	11/19/1996	ND<0	102
	12/19/1996	2.07944	236
	3/24/1997	ND<0	102
	9/24/1997	ND<0	102
	4/7/1998	ND<0	102
	9/23/1998	ND<0	102
	3/16/1999	ND<0	102
	9/23/1999	ND<0	102
	3/15/2000	ND<0	102
	9/24/2003	ND<0	102
	3/11/2004	ND<0	102
	10/12/2004	ND<0	102
	4/1/2005	1.085119	227
	10/25/2005	0.756122	226
	4/29/2006	0.405465 J	217

	11/18/2006	-0.478036	J	209		
	5/23/2007	ND<0	102			
	11/28/2007	ND<0	102			
	6/5/2008	ND<0	102			
	11/20/2008	ND<0	102			
	6/11/2009	ND<-2.07944		102		
	11/16/2009	ND<-2.07944		102		
	6/30/2010	ND<-2.07944		102		
	6/30/2010	ND<-5.44914		102		
	6/30/2010	ND<-5.44914		102		
	11/12/2010	ND<-5.44914	U	102		
	11/12/2010	ND<-2.07944	U	102		
	7/5/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	102		

Rank Sum = 4313
Rank Mean = 126.853

MW-9	7/20/1995	ND<0	102			
	8/24/1995	3.89182		258		
	9/28/1995	3.73767		257		
	10/26/1995	ND<0	102			
	11/19/1996	3.89182		259		
	12/19/1996	4.26268		262		
	3/24/1997	2.89037		250		
	9/24/1997	2.99573		252		
	4/7/1998	1.74047		233		
	9/23/1998	ND<0	102			
	3/16/1999	2.3979	243			
	9/23/1999	ND<0	102			
	3/15/2000	ND<0	102			
	9/24/2003	ND<0	102			
	3/11/2004	ND<0	102			
	10/12/2004	ND<0	102			
	4/1/2005	0.506818	J	219		
	10/25/2005	ND<0	102			
	4/29/2006	ND<0	102			
	11/18/2006	ND<0	102			
	5/23/2007	ND<0	102			
	11/28/2007	ND<0	102			
	6/5/2008	ND<0	102			
	11/20/2008	ND<0	102			
	6/11/2009	ND<-2.07944		102		
	11/16/2009	ND<-2.07944		102		
	6/30/2010	ND<-5.44914		102		
	6/30/2010	ND<-5.43758		102		
	6/30/2010	ND<-2.07944		102		
	11/12/2010	ND<-5.44914	U	102		
	11/12/2010	ND<-2.07944	U	102		
	7/5/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	Q		102
	11/22/2011	ND<-2.07944	U	Q		102

Rank Sum = 4783
Rank Mean = 140.676

MW-8	7/20/1995	ND<0	102			
	8/24/1995	2.17475		240		
	9/28/1995	2.07944		237		
	10/26/1995	ND<0	102			
	11/19/1996	2.48491		244		
	12/19/1996	2.56495		246		
	3/24/1997	2.07944		238		

	9/24/1997	ND<0	102			
	4/7/1998	1.74047		234		
	9/23/1998	ND<0	102			
	3/16/1999	0.741937		225		
	9/23/1999	ND<0	102			
	3/15/2000	ND<0	102			
	9/24/2003	ND<0	102			
	3/11/2004	ND<0	102			
	10/12/2004	ND<0	102			
	4/1/2005	ND<0	102			
	10/25/2005	ND<0	102			
	4/29/2006	-0.494296	J	208		
	11/18/2006	-0.544727	J	206		
	5/23/2007	ND<0	102			
	11/28/2007	ND<0	102			
	6/5/2008	ND<0	102			
	11/20/2008	ND<0	102			
	6/11/2009	0.641854		223		
	6/30/2010	ND<-2.07944		102		
	11/12/2010	ND<-2.07944	U	102		
	7/5/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	Q	102	
	11/22/2011	ND<-2.07944	U	Q	102	

Rank Sum = 4341
Rank Mean = 144.7

MW-12A	R	3/16/1999	ND<0	102		
	9/23/1999	ND<0	102			
	3/15/2000	2.48491		245		
	9/24/2003	ND<0	102			
	3/11/2004	ND<0	102			
	10/12/2004	ND<0	102			
	4/1/2005	ND<0	102			
	10/25/2005	1.6312	232			
	4/29/2006	1.48387		230		
	11/18/2006	1.28371		228		
	5/23/2007	ND<0	102			
	11/28/2007	0.593327	J	222		
	6/5/2008	0.371564	J	216		
	11/20/2008	ND<0	102			
	6/11/2009	ND<-2.07944		102		
	11/16/2009	ND<-2.07944		102		
	6/30/2010	ND<-2.07944		102		
	6/30/2010	ND<-5.44914		102		
	11/12/2010	ND<-2.07944	U	102		
	11/12/2010	ND<-5.39263	U	102		
	7/5/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	102		
	11/22/2011	ND<-2.07944	U	102		

Rank Sum = 3107
Rank Mean = 135.087

MW-7	7/20/1995	ND<0	102			
	8/24/1995	2.94444		251		
	9/28/1995	2.99573		253		
	10/26/1995	ND<0	102			
	11/19/1996	2.99573		254		
	12/19/1996	ND<0	102			
	3/24/1997	2.30259		242		
	9/24/1997	ND<0	102			
	4/7/1998	1.74047		235		
	9/23/1998	ND<0	102			

	3/16/1999	ND<0		102
	9/23/1999	ND<0		102
	3/15/2000	ND<0		102
	9/24/2003	ND<0		102
	3/11/2004	ND<0		102
	10/12/2004	ND<0		102
	4/1/2005	ND<0		102
	10/25/2005	ND<0		102
	4/29/2006	ND<0		102
	11/18/2006	ND<0		102
	5/23/2007	ND<0		102
	11/28/2007	ND<0		102
	6/5/2008	ND<0		102
	11/20/2008	ND<0		102
	6/11/2009	ND<-2.07944		102
	11/16/2009	ND<-2.07944		102
	6/30/2010	ND<-2.07944		102
	6/30/2010	ND<-5.44914		102
	11/12/2010	ND<-5.44914	U	102
	11/12/2010	ND<-2.07944	U	102
	7/5/2011	ND<-2.07944	U	102
	11/22/2011	ND<-2.07944	U	102
	11/22/2011	ND<-2.07944	U	102

Rank Sum = 4091
Rank Mean = 123.97

MW-6	7/20/1995	ND<0		102
	8/24/1995	ND<0		102
	9/28/1995	-0.510826	J	207
	10/26/1995	ND<0		102
	11/19/1996	ND<0		102
	12/19/1996	ND<0		102
	3/24/1997	ND<0		102
	9/24/1997	ND<0		102
	4/7/1998	ND<0		102
	9/23/1998	ND<0		102
	3/16/1999	ND<0		102
	9/23/1999	ND<0		102
	3/15/2000	ND<0		102
	9/24/2003	ND<0		102
	3/11/2004	ND<0		102
	10/12/2004	ND<0		102
	4/1/2005	ND<0		102
	10/25/2005	ND<0		102
	4/29/2006	ND<0		102
	11/18/2006	ND<0		102
	5/23/2007	ND<0		102
	11/28/2007	ND<0		102
	6/5/2008	ND<0		102
	11/20/2008	ND<0		102
	6/11/2009	ND<-2.07944		102
	11/16/2009	ND<-2.07944		102
	6/30/2010	ND<-5.44914		102
	6/30/2010	ND<-2.07944		102
	11/12/2010	ND<-5.43758	U	102
	11/12/2010	ND<-2.07944	U	102
	7/5/2011	-0.733969	J	205
	11/22/2011	-0.34249	J	211
	11/22/2011	-0.34249	J	212

Rank Sum = 3793
Rank Mean = 114.939

MW-11R	7/20/1995	ND<0	102		
	8/24/1995	4.07754		261	
	9/28/1995	2.77259		249	
	10/26/1995	ND<0	102		
	11/19/1996	4.78749		263	
	12/19/1996	4.78749		264	
	3/24/1997	3.89182		260	
	9/24/1997	2.99573		255	
	4/7/1998	3.29584	256		
	9/23/1998	2.56495		247	
	3/16/1999	2.09186		239	
	9/23/1999	ND<0	102		
	3/15/2000	2.70805		248	
	9/24/2003	ND<0	102		
	3/11/2004	ND<0	102		
	10/12/2004	ND<0	102		
	4/1/2005	1.57898	231		
	10/25/2005	-0.223144 J		213	
	4/29/2006	ND<0	102		
	11/18/2006	-0.385662 J		210	
	5/23/2007	ND<0	102		
	11/28/2007	-0.891598 J		204	
	6/5/2008	ND<0	102		
	11/20/2008	0.494696 J		218	
	6/11/2009	0.262364		215	
	11/16/2009	0.0953102		214	
	6/30/2010	ND<-2.07944		102	
	6/30/2010	ND<-5.44914		102	
	11/12/2010	ND<-5.43758 U		102	
	11/12/2010	ND<-2.07944 U		102	
	7/5/2011	0.530628	221		
	11/22/2011	ND<-2.07944 U Q			102
	11/22/2011	ND<-2.07944 U Q			102

Rank Sum = 5798
Rank Mean = 175.697

MW-12BR	3/16/1999	2.26176			241
	9/23/1999	ND<0	102		
	3/15/2000	ND<0	102		
	9/24/2003	ND<0	102		
	3/11/2004	ND<0	102		
	10/12/2004	ND<0	102		
	4/1/2005	1.31641	229		
	10/25/2005	ND<0	102		
	4/29/2006	ND<0	102		
	11/18/2006	ND<0	102		
	5/23/2007	ND<0	102		
	11/28/2007	ND<0	102		
	6/5/2008	ND<0	102		
	11/20/2008	ND<0	102		
	6/11/2009	ND<-2.07944		102	
	11/16/2009	ND<-2.07944		102	
	6/30/2010	ND<-2.07944		102	
	6/30/2010	ND<-5.39263		102	
	11/12/2010	ND<-5.39263 U		102	
	11/12/2010	ND<-2.07944 U		102	
	7/5/2011	ND<-2.07944 U	102		
	11/22/2011	ND<-2.07944 U		102	
	11/22/2011	ND<-2.07944 U		102	

Rank Sum = 2612
Rank Mean = 113.565

Calculation Results:

Kruskal-Wallis H Statistic = 18.8529
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 34.57
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
18.8529 > 15.5073 indicating a significant group difference at 5% significance level
34.57 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 102

Well	Mean Rank		Dif from Bkg	Critical Value
MW-10	**126.853**	**24.8529**	**49.2992**	
MW-9	**140.676**	**38.6765**	**49.2992**	
MW-8	**144.7**	**42.7**	**50.5385**	
MW-12AR		**135.087**	**33.087**	**53.6118**
MW-7	**123.97**	**21.9697**	**49.5836**	
MW-6	**114.939**	**12.9394**	**49.5836**	
MW-11R	**175.697**	**73.697**	**49.5836**	
MW-12BR		**113.565**	**11.5652**	**53.6118**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213
Mean background rank is 102

Well	Mean Rank		Dif from Bkg	Critical Value
MW-10	**126.853**	**24.8529**	**53.2365**	
MW-9	**140.676**	**38.6765**	**53.2365**	
MW-8	**144.7**	**42.7**	**54.5748**	
MW-12AR		**135.087**	**33.087**	**57.8935**
MW-7	**123.97**	**21.9697**	**53.5436**	
MW-6	**114.939**	**12.9394**	**53.5436**	
MW-11R	**175.697**	**73.697**	**53.5436**	
MW-12BR		**113.565**	**11.5652**	**57.8935**

Shewhart-CUSUM Control Chart

Parameter: Dichlorodifluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.73752
Baseline Std Dev = 2.24453
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	3.89182	0	0.514272
3/24/1997	3.89182	0	0.514272
9/24/1997	2.99573	0	0.115041
9/24/1997	2.99573	0	0.115041
4/7/1998	3.29584	0	0.248746
4/7/1998	3.29584	0	0.248746
9/23/1998	2.56495	0	-0.0768841
9/23/1998	2.56495	0	-0.0768841
3/16/1999	2.09186	0	-0.287656
3/16/1999	2.09186	0	-0.287656
9/23/1999	0	0	-1.21964
9/23/1999	0	0	-1.21964
3/15/2000	2.70805	0	-0.0131288
3/15/2000	2.70805	0	-0.0131288
9/24/2003	0	0	-1.21964
9/24/2003	0	0	-1.21964
3/11/2004	0	0	-1.21964
3/11/2004	0	0	-1.21964
10/12/2004	0	0	-1.21964
10/12/2004	0	0	-1.21964
4/1/2005	1.57898	0	-0.51616
4/1/2005	1.57898	0	-0.51616
10/25/2005	-0.223144	0	-1.31905
10/25/2005	-0.223144	0	-1.31905
4/29/2006	0	0	-1.21964
4/29/2006	0	0	-1.21964
11/18/2006	-0.385662	0	-1.39146
11/18/2006	-0.385662	0	-1.39146
5/23/2007	0	0	-1.21964
5/23/2007	0	0	-1.21964
11/28/2007	-0.891598	0	-1.61687
11/28/2007	-0.891598	0	-1.61687
6/5/2008	0	0	-1.21964
6/5/2008	0	0	-1.21964
11/20/2008	0.494696	0	-0.999237
11/20/2008	0.494696	0	-0.999237
6/11/2009	0.262364	0	-1.10275
6/11/2009	0.262364	0	-1.10275
11/16/2009	0.0953102	0	-1.17717
11/16/2009	0.0953102	0	-1.17717
6/30/2010	-3.76429	0	-4.09659
6/30/2010	-3.76429	0	-4.09659
11/12/2010	-3.75851	0	-4.09295
11/12/2010	-3.75851	0	-4.09295
7/5/2011	0.530628	0	-0.983228

7/5/2011	0.530628	0	-0.983228
11/22/2011	-2.07944	0	-3.03502
11/22/2011	-2.07944	0	-3.03502

Sen's Slope Analysis
Parameter: Dichlorodifluoromethane
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
4.07754	(8/24/1995)	ND<0 (7/20/1995)	(4.07754 - 0)/(2 - 1) 4.07754
2.77259	(9/28/1995)	ND<0 (7/20/1995)	(2.77259 - 0)/(3 - 1) 1.38629
ND<0	(10/26/1995)	ND<0 (7/20/1995)	(0 - 0)/(4 - 1) 0
4.78749	(11/19/1996)	ND<0 (7/20/1995)	(4.78749 - 0)/(5 - 1) 1.19687
4.78749	(12/19/1996)	ND<0 (7/20/1995)	(4.78749 - 0)/(6 - 1)
0.957498			
3.89182	(3/24/1997)	ND<0 (7/20/1995)	(3.89182 - 0)/(7 - 1)
0.648637			
2.99573	(9/24/1997)	ND<0 (7/20/1995)	(2.99573 - 0)/(8 - 1)
0.427962			
3.29584	(4/7/1998)	ND<0 (7/20/1995)	(3.29584 - 0)/(9 - 1) 0.41198
2.56495	(9/23/1998)	ND<0 (7/20/1995)	(2.56495 - 0)/(10 - 1)
0.284994			
2.09186	(3/16/1999)	ND<0 (7/20/1995)	(2.09186 - 0)/(11 - 1)
0.209186			
ND<0	(9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1) 0
2.70805	(3/15/2000)	ND<0 (7/20/1995)	(2.70805 - 0)/(13 - 1)
0.225671			
ND<0	(9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1) 0
ND<0	(3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1) 0
ND<0	(10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1) 0
1.57898	(4/1/2005)	ND<0 (7/20/1995)	(1.57898 - 0)/(17 - 1)
0.0986862			
-0.223144 J	(10/25/2005)	ND<0 (7/20/1995)	(-0.223144 - 0)/(18 - 1)
-0.0131261			
ND<0	(4/29/2006)	ND<0 (7/20/1995)	(0 - 0)/(19 - 1) 0
-0.385662 J	(11/18/2006)	ND<0 (7/20/1995)	(-0.385662 - 0)/(20 - 1)
-0.020298			
ND<0	(5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1) 0
-0.891598 J	(11/28/2007)	ND<0 (7/20/1995)	(-0.891598 - 0)/(22 - 1)
-0.0424571			
ND<0	(6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1) 0
0.494696 J	(11/20/2008)	ND<0 (7/20/1995)	(0.494696 - 0)/(24 - 1)
0.0215085			
0.262364	(6/11/2009)	ND<0 (7/20/1995)	(0.262364 - 0)/(25 - 1)
0.0109318			
0.0953102	(11/16/2009)	ND<0 (7/20/1995)	(0.0953102 - 0)/(26 - 1)
0.00381241			
ND<-2.07944	(6/30/2010)	ND<0 (7/20/1995)	(-2.07944 - 0)/(27 - 1)
-0.0799785			
ND<-5.44914	(6/30/2010)	ND<0 (7/20/1995)	(-5.44914 - 0)/(27 - 1)
-0.209582			
ND<-5.43758 U	(11/12/2010)	ND<0 (7/20/1995)	(-5.43758 - 0)/(28 - 1)
-0.201392			
ND<-2.07944 U	(11/12/2010)	ND<0 (7/20/1995)	(-2.07944 - 0)/(28 - 1)
-0.0770164			
0.530628	(7/5/2011)	ND<0 (7/20/1995)	(0.530628 - 0)/(29 - 1)
0.018951			
ND<-2.07944 U Q	(11/22/2011)	ND<0 (7/20/1995)	(-2.07944 - 0)/(30 - 1)
-0.0717049			

ND<-2.07944 U Q (11/22/2011)	ND<0 (7/20/1995)	(-2.07944 - 0)/(30 - 1)	-0.0717049
2.77259 (9/28/1995)	4.07754 (8/24/1995)	(2.77259 - 4.07754)/(3 - 2)	-1.30495
ND<0 (10/26/1995)	4.07754 (8/24/1995)	(0 - 4.07754)/(4 - 2)	-2.03877
4.78749 (11/19/1996)	4.07754 (8/24/1995)	(4.78749 - 4.07754)/(5 - 2)	0.236651
4.78749 (12/19/1996)	4.07754 (8/24/1995)	(4.78749 - 4.07754)/(6 - 2)	0.177489
3.89182 (3/24/1997)	4.07754 (8/24/1995)	(3.89182 - 4.07754)/(7 - 2)	-0.0371434
2.99573 (9/24/1997)	4.07754 (8/24/1995)	(2.99573 - 4.07754)/(8 - 2)	-0.180301
3.29584 (4/7/1998)	4.07754 (8/24/1995)	(3.29584 - 4.07754)/(9 - 2)	-0.111672
2.56495 (9/23/1998)	4.07754 (8/24/1995)	(2.56495 - 4.07754)/(10 - 2)	-0.189074
2.09186 (3/16/1999)	4.07754 (8/24/1995)	(2.09186 - 4.07754)/(11 - 2)	-0.22063
ND<0 (9/23/1999)	4.07754 (8/24/1995)	(0 - 4.07754)/(12 - 2)	-0.407754
2.70805 (3/15/2000)	4.07754 (8/24/1995)	(2.70805 - 4.07754)/(13 - 2)	-0.124499
ND<0 (9/24/2003)	4.07754 (8/24/1995)	(0 - 4.07754)/(14 - 2)	-0.339795
ND<0 (3/11/2004)	4.07754 (8/24/1995)	(0 - 4.07754)/(15 - 2)	-0.313657
ND<0 (10/12/2004)	4.07754 (8/24/1995)	(0 - 4.07754)/(16 - 2)	-0.291253
1.57898 (4/1/2005)	4.07754 (8/24/1995)	(1.57898 - 4.07754)/(17 - 2)	-0.166571
-0.223144 J (10/25/2005)	4.07754 (8/24/1995)	(-0.223144 - 4.07754)/(18 - 2)	-0.268793
ND<0 (4/29/2006)	4.07754 (8/24/1995)	(0 - 4.07754)/(19 - 2)	-0.239855
-0.385662 J (11/18/2006)	4.07754 (8/24/1995)	(-0.385662 - 4.07754)/(20 - 2)	-0.247956
ND<0 (5/23/2007)	4.07754 (8/24/1995)	(0 - 4.07754)/(21 - 2)	-0.214607
-0.891598 J (11/28/2007)	4.07754 (8/24/1995)	(-0.891598 - 4.07754)/(22 - 2)	-0.248457
ND<0 (6/5/2008)	4.07754 (8/24/1995)	(0 - 4.07754)/(23 - 2)	-0.194168
0.494696 J (11/20/2008)	4.07754 (8/24/1995)	(0.494696 - 4.07754)/(24 - 2)	-0.162856
0.262364 (6/11/2009)	4.07754 (8/24/1995)	(0.262364 - 4.07754)/(25 - 2)	-0.165877
0.0953102 (11/16/2009)	4.07754 (8/24/1995)	(0.0953102 - 4.07754)/(26 - 2)	-0.165926
ND<-2.07944 (6/30/2010)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(27 - 2)	-0.246279
ND<-5.44914 (6/30/2010)	4.07754 (8/24/1995)	(-5.44914 - 4.07754)/(27 - 2)	-0.381067
ND<-5.43758 U (11/12/2010)	4.07754 (8/24/1995)	(-5.43758 - 4.07754)/(28 - 2)	-0.365966
ND<-2.07944 U (11/12/2010)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(28 - 2)	-0.236807
0.530628 (7/5/2011)	4.07754 (8/24/1995)	(0.530628 - 4.07754)/(29 - 2)	-0.131367
ND<-2.07944 U Q (11/22/2011)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(30 - 2)	-0.219892

ND<-2.07944 U Q (11/22/2011)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(30 - 2)	-0.219892
ND<0 (10/26/1995)	2.77259 (9/28/1995)	(0 - 2.77259)/(4 - 3)	-2.77259
4.78749 (11/19/1996)	2.77259 (9/28/1995)	(4.78749 - 2.77259)/(5 - 3)	1.00745
4.78749 (12/19/1996)	2.77259 (9/28/1995)	(4.78749 - 2.77259)/(6 - 3)	0.671634
3.89182 (3/24/1997)	2.77259 (9/28/1995)	(3.89182 - 2.77259)/(7 - 3)	0.279808
2.99573 (9/24/1997)	2.77259 (9/28/1995)	(2.99573 - 2.77259)/(8 - 3)	0.0446287
3.29584 (4/7/1998)	2.77259 (9/28/1995)	(3.29584 - 2.77259)/(9 - 3)	0.087208
2.56495 (9/23/1998)	2.77259 (9/28/1995)	(2.56495 - 2.77259)/(10 - 3)	-0.0296628
2.09186 (3/16/1999)	2.77259 (9/28/1995)	(2.09186 - 2.77259)/(11 - 3)	-0.0850906
ND<0 (9/23/1999)	2.77259 (9/28/1995)	(0 - 2.77259)/(12 - 3)	-0.308065
2.70805 (3/15/2000)	2.77259 (9/28/1995)	(2.70805 - 2.77259)/(13 - 3)	-0.00645385
ND<0 (9/24/2003)	2.77259 (9/28/1995)	(0 - 2.77259)/(14 - 3)	-0.252054
ND<0 (3/11/2004)	2.77259 (9/28/1995)	(0 - 2.77259)/(15 - 3)	-0.231049
ND<0 (10/12/2004)	2.77259 (9/28/1995)	(0 - 2.77259)/(16 - 3)	-0.213276
1.57898 (4/1/2005)	2.77259 (9/28/1995)	(1.57898 - 2.77259)/(17 - 3)	-0.0852579
-0.223144 J (10/25/2005)	2.77259 (9/28/1995)	(-0.223144 - 2.77259)/(18 - 3)	-0.199715
ND<0 (4/29/2006)	2.77259 (9/28/1995)	(0 - 2.77259)/(19 - 3)	-0.173287
-0.385662 J (11/18/2006)	2.77259 (9/28/1995)	(-0.385662 - 2.77259)/(20 - 3)	-0.185779
ND<0 (5/23/2007)	2.77259 (9/28/1995)	(0 - 2.77259)/(21 - 3)	-0.154033
-0.891598 J (11/28/2007)	2.77259 (9/28/1995)	(-0.891598 - 2.77259)/(22 - 3)	-0.192852
ND<0 (6/5/2008)	2.77259 (9/28/1995)	(0 - 2.77259)/(23 - 3)	-0.138629
0.494696 J (11/20/2008)	2.77259 (9/28/1995)	(0.494696 - 2.77259)/(24 - 3)	-0.108471
0.262364 (6/11/2009)	2.77259 (9/28/1995)	(0.262364 - 2.77259)/(25 - 3)	-0.114101
0.0953102 (11/16/2009)	2.77259 (9/28/1995)	(0.0953102 - 2.77259)/(26 - 3)	-0.116403
ND<-2.07944 (6/30/2010)	2.77259 (9/28/1995)	(-2.07944 - 2.77259)/(27 - 3)	-0.202168
ND<-5.44914 (6/30/2010)	2.77259 (9/28/1995)	(-5.44914 - 2.77259)/(27 - 3)	-0.342572
ND<-5.43758 U (11/12/2010)	2.77259 (9/28/1995)	(-5.43758 - 2.77259)/(28 - 3)	-0.328407
ND<-2.07944 U (11/12/2010)	2.77259 (9/28/1995)	(-2.07944 - 2.77259)/(28 - 3)	-0.194081
0.530628 (7/5/2011)	2.77259 (9/28/1995)	(0.530628 - 2.77259)/(29 - 3)	-0.0862292
ND<-2.07944 U Q (11/22/2011)	2.77259 (9/28/1995)	(-2.07944 - 2.77259)/(30 - 3)	-0.179705
ND<-2.07944 U Q (11/22/2011)	2.77259 (9/28/1995)	(-2.07944 - 2.77259)/(30 - 3)	-0.179705

4.78749	(11/19/1996)	ND<0	(10/26/1995)	(4.78749 - 0)/(5 - 4)	4.78749
4.78749	(12/19/1996)	ND<0	(10/26/1995)	(4.78749 - 0)/(6 - 4)	2.39375
3.89182	(3/24/1997)	ND<0	(10/26/1995)	(3.89182 - 0)/(7 - 4)	1.29727
2.99573	(9/24/1997)	ND<0	(10/26/1995)	(2.99573 - 0)/(8 - 4)	
0.748933					
3.29584	(4/7/1998)	ND<0	(10/26/1995)	(3.29584 - 0)/(9 - 4)	
0.659167					
2.56495	(9/23/1998)	ND<0	(10/26/1995)	(2.56495 - 0)/(10 - 4)	
0.427492					
2.09186	(3/16/1999)	ND<0	(10/26/1995)	(2.09186 - 0)/(11 - 4)	
0.298838					
ND<0	(9/23/1999)	ND<0	(10/26/1995)	(0 - 0)/(12 - 4)	0
2.70805	(3/15/2000)	ND<0	(10/26/1995)	(2.70805 - 0)/(13 - 4)	
0.300894					
ND<0	(9/24/2003)	ND<0	(10/26/1995)	(0 - 0)/(14 - 4)	0
ND<0	(3/11/2004)	ND<0	(10/26/1995)	(0 - 0)/(15 - 4)	0
ND<0	(10/12/2004)	ND<0	(10/26/1995)	(0 - 0)/(16 - 4)	0
1.57898	(4/1/2005)	ND<0	(10/26/1995)	(1.57898 - 0)/(17 - 4)	0.12146
-0.223144 J	(10/25/2005)	ND<0	(10/26/1995)	(-0.223144 - 0)/(18 - 4)	
-0.0159388					
ND<0	(4/29/2006)	ND<0	(10/26/1995)	(0 - 0)/(19 - 4)	0
-0.385662 J	(11/18/2006)	ND<0	(10/26/1995)	(-0.385662 - 0)/(20 - 4)	
-0.0241039					
ND<0	(5/23/2007)	ND<0	(10/26/1995)	(0 - 0)/(21 - 4)	0
-0.891598 J	(11/28/2007)	ND<0	(10/26/1995)	(-0.891598 - 0)/(22 - 4)	
-0.0495332					
ND<0	(6/5/2008)	ND<0	(10/26/1995)	(0 - 0)/(23 - 4)	0
0.494696 J	(11/20/2008)	ND<0	(10/26/1995)	(0.494696 - 0)/(24 - 4)	
0.0247348					
0.262364	(6/11/2009)	ND<0	(10/26/1995)	(0.262364 - 0)/(25 - 4)	
0.0124935					
0.0953102	(11/16/2009)	ND<0	(10/26/1995)	(0.0953102 - 0)/(26 - 4)	
0.00433228					
ND<-2.07944	(6/30/2010)	ND<0	(10/26/1995)	(-2.07944 - 0)/(27 - 4)	
-0.0904105					
ND<-5.44914	(6/30/2010)	ND<0	(10/26/1995)	(-5.44914 - 0)/(27 - 4)	
-0.236919					
ND<-5.43758 U	(11/12/2010)	ND<0	(10/26/1995)	(-5.43758 - 0)/(28 - 4)	
-0.226566					
ND<-2.07944 U	(11/12/2010)	ND<0	(10/26/1995)	(-2.07944 - 0)/(28 - 4)	
-0.0866434					
0.530628	(7/5/2011)	ND<0	(10/26/1995)	(0.530628 - 0)/(29 - 4)	
0.0212251					
ND<-2.07944 U Q	(11/22/2011)	ND<0	(10/26/1995)	(-2.07944 - 0)/(30 - 4)	
-0.0799785					
ND<-2.07944 U Q	(11/22/2011)	ND<0	(10/26/1995)	(-2.07944 - 0)/(30 - 4)	
-0.0799785					

4.78749	(12/19/1996)	4.78749	(11/19/1996)	(4.78749 - 4.78749)/(6 - 5)	0
3.89182	(3/24/1997)	4.78749	(11/19/1996)	(3.89182 - 4.78749)/(7 - 5)	
-0.447836					
2.99573	(9/24/1997)	4.78749	(11/19/1996)	(2.99573 - 4.78749)/(8 - 5)	
-0.597253					
3.29584	(4/7/1998)	4.78749	(11/19/1996)	(3.29584 - 4.78749)/(9 - 5)	
-0.372914					
2.56495	(9/23/1998)	4.78749	(11/19/1996)	(2.56495 - 4.78749)/(10 - 5)	
-0.444508					
2.09186	(3/16/1999)	4.78749	(11/19/1996)	(2.09186 - 4.78749)/(11 - 5)	
-0.449271					
ND<0	(9/23/1999)	4.78749	(11/19/1996)	(0 - 4.78749)/(12 - 5)	
-0.683927					

2.70805 (3/15/2000) 4.78749 (11/19/1996) (2.70805 - 4.78749)/(13 - 5)
-0.25993
ND<0 (9/24/2003) 4.78749 (11/19/1996) (0 - 4.78749)/(14 - 5)
-0.531944
ND<0 (3/11/2004) 4.78749 (11/19/1996) (0 - 4.78749)/(15 - 5)
-0.478749
ND<0 (10/12/2004) 4.78749 (11/19/1996) (0 - 4.78749)/(16 - 5)
-0.435227
1.57898 (4/1/2005) 4.78749 (11/19/1996) (1.57898 - 4.78749)/(17 - 5)
-0.267376
-0.223144 J (10/25/2005) 4.78749 (11/19/1996) (-0.223144 - 4.78749)/(18 - 5)
-0.385433
ND<0 (4/29/2006) 4.78749 (11/19/1996) (0 - 4.78749)/(19 - 5)
-0.341964
-0.385662 J (11/18/2006) 4.78749 (11/19/1996) (-0.385662 - 4.78749)/(20 - 5)
-0.344877
ND<0 (5/23/2007) 4.78749 (11/19/1996) (0 - 4.78749)/(21 - 5)
-0.299218
-0.891598 J (11/28/2007) 4.78749 (11/19/1996) (-0.891598 - 4.78749)/(22 - 5)
-0.334064
ND<0 (6/5/2008) 4.78749 (11/19/1996) (0 - 4.78749)/(23 - 5)
-0.265972
0.494696 J (11/20/2008) 4.78749 (11/19/1996) (0.494696 - 4.78749)/(24 - 5)
-0.225937
0.262364 (6/11/2009) 4.78749 (11/19/1996) (0.262364 - 4.78749)/(25 - 5)
-0.226256
0.0953102 (11/16/2009) 4.78749 (11/19/1996) (0.0953102 - 4.78749)/(26 - 5)
-0.223437
ND<-2.07944 (6/30/2010) 4.78749 (11/19/1996) (-2.07944 - 4.78749)/(27 - 5)
-0.312133
ND<-5.44914 (6/30/2010) 4.78749 (11/19/1996) (-5.44914 - 4.78749)/(27 - 5)
-0.465301
ND<-5.43758 U (11/12/2010) 4.78749 (11/19/1996) (-5.43758 - 4.78749)/(28 - 5)
-0.444568
ND<-2.07944 U (11/12/2010) 4.78749 (11/19/1996) (-2.07944 - 4.78749)/(28 - 5)
-0.298562
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-0.177369
ND<-2.07944 U Q (11/22/2011) 4.78749 (11/19/1996) (-2.07944 - 4.78749)/(30 - 5)
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-0.274677

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-0.895671
2.99573 (9/24/1997) 4.78749 (12/19/1996) (2.99573 - 4.78749)/(8 - 6) -0.89588
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-0.555636
2.09186 (3/16/1999) 4.78749 (12/19/1996) (2.09186 - 4.78749)/(11 - 6)
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2.70805 (3/15/2000) 4.78749 (12/19/1996) (2.70805 - 4.78749)/(13 - 6)
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ND<0 (9/24/2003) 4.78749 (12/19/1996) (0 - 4.78749)/(14 - 6)
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ND<0 (3/11/2004) 4.78749 (12/19/1996) (0 - 4.78749)/(15 - 6)
-0.531944
ND<0 (10/12/2004) 4.78749 (12/19/1996) (0 - 4.78749)/(16 - 6)
-0.478749

1.57898 (4/1/2005)	4.78749 (12/19/1996)	(1.57898 - 4.78749)/(17 - 6)
-0.291683		
-0.223144 J (10/25/2005)	4.78749 (12/19/1996)	(-0.223144 - 4.78749)/(18 - 6)
-0.417553		
ND<0 (4/29/2006)	4.78749 (12/19/1996)	(0 - 4.78749)/(19 - 6)
-0.368269		
-0.385662 J (11/18/2006)	4.78749 (12/19/1996)	(-0.385662 - 4.78749)/(20 - 6)
-0.369511		
ND<0 (5/23/2007)	4.78749 (12/19/1996)	(0 - 4.78749)/(21 - 6)
-0.319166		
-0.891598 J (11/28/2007)	4.78749 (12/19/1996)	(-0.891598 - 4.78749)/(22 - 6)
-0.354943		
ND<0 (6/5/2008)	4.78749 (12/19/1996)	(0 - 4.78749)/(23 - 6)
-0.281617		
0.494696 J (11/20/2008)	4.78749 (12/19/1996)	(0.494696 - 4.78749)/(24 - 6)
-0.238489		
0.262364 (6/11/2009)	4.78749 (12/19/1996)	(0.262364 - 4.78749)/(25 - 6)
-0.238165		
0.0953102 (11/16/2009)	4.78749 (12/19/1996)	(0.0953102 - 4.78749)/(26 - 6)
-0.234609		
ND<-2.07944 (6/30/2010)	4.78749 (12/19/1996)	(-2.07944 - 4.78749)/(27 - 6)
-0.326997		
ND<-5.44914 (6/30/2010)	4.78749 (12/19/1996)	(-5.44914 - 4.78749)/(27 - 6)
-0.487459		
ND<-5.43758 U (11/12/2010)	4.78749 (12/19/1996)	(-5.43758 - 4.78749)/(28 - 6)
-0.464776		
ND<-2.07944 U (11/12/2010)	4.78749 (12/19/1996)	(-2.07944 - 4.78749)/(28 - 6)
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0.530628 (7/5/2011)	4.78749 (12/19/1996)	(0.530628 - 4.78749)/(29 - 6)
-0.185081		
ND<-2.07944 U Q (11/22/2011)	4.78749 (12/19/1996)	(-2.07944 - 4.78749)/(30 - 6)
-0.286122		
ND<-2.07944 U Q (11/22/2011)	4.78749 (12/19/1996)	(-2.07944 - 4.78749)/(30 - 6)
-0.286122		
2.99573 (9/24/1997)	3.89182 (3/24/1997)	(2.99573 - 3.89182)/(8 - 7)
-0.896088		
3.29584 (4/7/1998)	3.89182 (3/24/1997)	(3.29584 - 3.89182)/(9 - 7)
-0.297992		
2.56495 (9/23/1998)	3.89182 (3/24/1997)	(2.56495 - 3.89182)/(10 - 7)
-0.44229		
2.09186 (3/16/1999)	3.89182 (3/24/1997)	(2.09186 - 3.89182)/(11 - 7)
-0.449989		
ND<0 (9/23/1999)	3.89182 (3/24/1997)	(0 - 3.89182)/(12 - 7)
-0.778364		
2.70805 (3/15/2000)	3.89182 (3/24/1997)	(2.70805 - 3.89182)/(13 - 7)
-0.197295		
ND<0 (9/24/2003)	3.89182 (3/24/1997)	(0 - 3.89182)/(14 - 7)
-0.555974		
ND<0 (3/11/2004)	3.89182 (3/24/1997)	(0 - 3.89182)/(15 - 7)
-0.486478		
ND<0 (10/12/2004)	3.89182 (3/24/1997)	(0 - 3.89182)/(16 - 7)
-0.432424		
1.57898 (4/1/2005)	3.89182 (3/24/1997)	(1.57898 - 3.89182)/(17 - 7)
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-0.223144 J (10/25/2005)	3.89182 (3/24/1997)	(-0.223144 - 3.89182)/(18 - 7)
-0.374088		
ND<0 (4/29/2006)	3.89182 (3/24/1997)	(0 - 3.89182)/(19 - 7)
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-0.385662 J (11/18/2006)	3.89182 (3/24/1997)	(-0.385662 - 3.89182)/(20 - 7)
-0.329037		

ND<0 (5/23/2007) 3.89182 (3/24/1997) (0 - 3.89182)/(21 - 7)
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ND<0 (6/5/2008) 3.89182 (3/24/1997) (0 - 3.89182)/(23 - 7)
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0.262364 (6/11/2009) 3.89182 (3/24/1997) (0.262364 - 3.89182)/(25 - 7)
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0.0953102 (11/16/2009) 3.89182 (3/24/1997) (0.0953102 - 3.89182)/(26 - 7)
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ND<-2.07944 U Q (11/22/2011) 3.89182 (3/24/1997) (-2.07944 - 3.89182)/(30 - 7)
-0.25962

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ND<0 (5/23/2007) 2.99573 (9/24/1997) (0 - 2.99573)/(21 - 8)
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ND<-2.07944 U Q (11/22/2011) 2.99573 (9/24/1997) (-2.07944 - 2.99573)/(30 - 8)
-0.23069

2.56495 (9/23/1998) 3.29584 (4/7/1998) (2.56495 - 3.29584)/(10 - 9)
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ND<0 (4/29/2006) 3.29584 (4/7/1998) (0 - 3.29584)/(19 - 9)
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ND<0 (5/23/2007) 3.29584 (4/7/1998) (0 - 3.29584)/(21 - 9)
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ND<0 (6/5/2008) 3.29584 (4/7/1998) (0 - 3.29584)/(23 - 9)
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0.262364 (6/11/2009) 3.29584 (4/7/1998) (0.262364 - 3.29584)/(25 - 9)
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-0.255966

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ND<0 (4/29/2006) 2.56495 (9/23/1998) (0 - 2.56495)/(19 - 10)
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-0.385662 J (11/18/2006) 2.56495 (9/23/1998) (-0.385662 - 2.56495)/(20 - 10)
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ND<0 (5/23/2007) 2.56495 (9/23/1998) (0 - 2.56495)/(21 - 10)
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ND<0 (6/5/2008) 2.56495 (9/23/1998) (0 - 2.56495)/(23 - 10)
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0.494696 J (11/20/2008) 2.56495 (9/23/1998) (0.494696 - 2.56495)/(24 - 10)
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0.262364 (6/11/2009) 2.56495 (9/23/1998) (0.262364 - 2.56495)/(25 - 10)
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0.0953102 (11/16/2009) 2.56495 (9/23/1998) (0.0953102 - 2.56495)/(26 - 10)
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ND<-2.07944 (6/30/2010) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(27 - 10)
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ND<-5.43758 U (11/12/2010) 2.56495 (9/23/1998) (-5.43758 - 2.56495)/(28 - 10)
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ND<-2.07944 U Q (11/22/2011) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(30 - 10)
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ND<0 (3/11/2004) 2.09186 (3/16/1999) (0 - 2.09186)/(15 - 11)
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ND<0 (10/12/2004) 2.09186 (3/16/1999) (0 - 2.09186)/(16 - 11)
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ND<0 (5/23/2007) 2.09186 (3/16/1999) (0 - 2.09186)/(21 - 11)
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0.262364 (6/11/2009) 2.09186 (3/16/1999) (0.262364 - 2.09186)/(25 - 11)
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0.0953102 (11/16/2009) 2.09186 (3/16/1999) (0.0953102 - 2.09186)/(26 - 11)
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ND<-2.07944 (6/30/2010) 2.09186 (3/16/1999) (-2.07944 - 2.09186)/(27 - 11)
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ND<-5.43758 U (11/12/2010) 2.09186 (3/16/1999) (-5.43758 - 2.09186)/(28 - 11)
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2.70805 (3/15/2000) ND<0 (9/23/1999) (2.70805 - 0)/(13 - 12) 2.70805
ND<0 (9/24/2003) ND<0 (9/23/1999) (0 - 0)/(14 - 12) 0
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1.57898 (4/1/2005) ND<0 (9/23/1999) (1.57898 - 0)/(17 - 12)
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ND<-2.07944 U Q (11/22/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(30 - 12)	-0.115525
ND<-2.07944 U Q (11/22/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(30 - 12)	-0.115525

ND<0 (9/24/2003)	2.70805 (3/15/2000)	(0 - 2.70805)/(14 - 13)	-2.70805	
ND<0 (3/11/2004)	2.70805 (3/15/2000)	(0 - 2.70805)/(15 - 13)	-1.35403	
ND<0 (10/12/2004)	2.70805 (3/15/2000)	(0 - 2.70805)/(16 - 13)	-0.902683	
1.57898 (4/1/2005)	2.70805 (3/15/2000)	(1.57898 - 2.70805)/(17 - 13)	-0.282268	
-0.223144 J (10/25/2005)	2.70805 (3/15/2000)	(-0.223144 - 2.70805)/(18 - 13)	-0.586239	
ND<0 (4/29/2006)	2.70805 (3/15/2000)	(0 - 2.70805)/(19 - 13)	-0.451342	
-0.385662 J (11/18/2006)	2.70805 (3/15/2000)	(-0.385662 - 2.70805)/(20 - 13)	-0.441959	
ND<0 (5/23/2007)	2.70805 (3/15/2000)	(0 - 2.70805)/(21 - 13)	-0.338506	
-0.891598 J (11/28/2007)	2.70805 (3/15/2000)	(-0.891598 - 2.70805)/(22 - 13)	-0.399961	
ND<0 (6/5/2008)	2.70805 (3/15/2000)	(0 - 2.70805)/(23 - 13)	-0.270805	
0.494696 J (11/20/2008)	2.70805 (3/15/2000)	(0.494696 - 2.70805)/(24 - 13)	-0.201214	
0.262364 (6/11/2009)	2.70805 (3/15/2000)	(0.262364 - 2.70805)/(25 - 13)	-0.203807	
0.0953102 (11/16/2009)	2.70805 (3/15/2000)	(0.0953102 - 2.70805)/(26 - 13)	-0.20098	
ND<-2.07944 (6/30/2010)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(27 - 13)	-0.341964	
ND<-5.44914 (6/30/2010)	2.70805 (3/15/2000)	(-5.44914 - 2.70805)/(27 - 13)	-0.582656	
ND<-5.43758 U (11/12/2010)	2.70805 (3/15/2000)	(-5.43758 - 2.70805)/(28 - 13)	-0.543042	
ND<-2.07944 U (11/12/2010)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(28 - 13)	-0.319166	
0.530628 (7/5/2011)	2.70805 (3/15/2000)	(0.530628 - 2.70805)/(29 - 13)	-0.136089	
ND<-2.07944 U Q (11/22/2011)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(30 - 13)	-0.281617	
ND<-2.07944 U Q (11/22/2011)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(30 - 13)	-0.281617	

ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
1.57898 (4/1/2005)	ND<0 (9/24/2003)	(1.57898 - 0)/(17 - 14)	0.526326	
-0.223144 J (10/25/2005)	ND<0 (9/24/2003)	(-0.223144 - 0)/(18 - 14)	-0.0557859	
ND<0 (4/29/2006)	ND<0 (9/24/2003)	(0 - 0)/(19 - 14)	0	
-0.385662 J (11/18/2006)	ND<0 (9/24/2003)	(-0.385662 - 0)/(20 - 14)	-0.0642771	
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0	
-0.891598 J (11/28/2007)	ND<0 (9/24/2003)	(-0.891598 - 0)/(22 - 14)	-0.11145	
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0	
0.494696 J (11/20/2008)	ND<0 (9/24/2003)	(0.494696 - 0)/(24 - 14)	0.0494696	
0.262364 (6/11/2009)	ND<0 (9/24/2003)	(0.262364 - 0)/(25 - 14)	0.0238513	
0.0953102 (11/16/2009)	ND<0 (9/24/2003)	(0.0953102 - 0)/(26 - 14)	0.00794251	

ND<-2.07944 (6/30/2010)	ND<0 (9/24/2003)	(-2.07944 - 0)/(27 - 14)	
-0.159957			
ND<-5.44914 (6/30/2010)	ND<0 (9/24/2003)	(-5.44914 - 0)/(27 - 14)	
-0.419165			
ND<-5.43758 U (11/12/2010)	ND<0 (9/24/2003)	(-5.43758 - 0)/(28 - 14)	
-0.388399			
ND<-2.07944 U (11/12/2010)	ND<0 (9/24/2003)	(-2.07944 - 0)/(28 - 14)	
-0.148532			
0.530628 (7/5/2011)	ND<0 (9/24/2003)	(0.530628 - 0)/(29 - 14)	
0.0353752			
ND<-2.07944 U Q (11/22/2011)	ND<0 (9/24/2003)	(-2.07944 - 0)/(30 - 14)	
-0.129965			
ND<-2.07944 U Q (11/22/2011)	ND<0 (9/24/2003)	(-2.07944 - 0)/(30 - 14)	
-0.129965			
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0
1.57898 (4/1/2005)	ND<0 (3/11/2004)	(1.57898 - 0)/(17 - 15)	
0.789489			
-0.223144 J (10/25/2005)	ND<0 (3/11/2004)	(-0.223144 - 0)/(18 - 15)	
-0.0743812			
ND<0 (4/29/2006)	ND<0 (3/11/2004)	(0 - 0)/(19 - 15)	0
-0.385662 J (11/18/2006)	ND<0 (3/11/2004)	(-0.385662 - 0)/(20 - 15)	
-0.0771325			
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0
-0.891598 J (11/28/2007)	ND<0 (3/11/2004)	(-0.891598 - 0)/(22 - 15)	
-0.127371			
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0
0.494696 J (11/20/2008)	ND<0 (3/11/2004)	(0.494696 - 0)/(24 - 15)	
0.0549662			
0.262364 (6/11/2009)	ND<0 (3/11/2004)	(0.262364 - 0)/(25 - 15)	
0.0262364			
0.0953102 (11/16/2009)	ND<0 (3/11/2004)	(0.0953102 - 0)/(26 - 15)	
0.00866456			
ND<-2.07944 (6/30/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(27 - 15)	
-0.173287			
ND<-5.44914 (6/30/2010)	ND<0 (3/11/2004)	(-5.44914 - 0)/(27 - 15)	
-0.454095			
ND<-5.43758 U (11/12/2010)	ND<0 (3/11/2004)	(-5.43758 - 0)/(28 - 15)	
-0.418275			
ND<-2.07944 U (11/12/2010)	ND<0 (3/11/2004)	(-2.07944 - 0)/(28 - 15)	
-0.159957			
0.530628 (7/5/2011)	ND<0 (3/11/2004)	(0.530628 - 0)/(29 - 15)	
0.037902			
ND<-2.07944 U Q (11/22/2011)	ND<0 (3/11/2004)	(-2.07944 - 0)/(30 - 15)	
-0.138629			
ND<-2.07944 U Q (11/22/2011)	ND<0 (3/11/2004)	(-2.07944 - 0)/(30 - 15)	
-0.138629			
1.57898 (4/1/2005)	ND<0 (10/12/2004)	(1.57898 - 0)/(17 - 16)	1.57898
-0.223144 J (10/25/2005)	ND<0 (10/12/2004)	(-0.223144 - 0)/(18 - 16)	
-0.111572			
ND<0 (4/29/2006)	ND<0 (10/12/2004)	(0 - 0)/(19 - 16)	0
-0.385662 J (11/18/2006)	ND<0 (10/12/2004)	(-0.385662 - 0)/(20 - 16)	
-0.0964156			
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0
-0.891598 J (11/28/2007)	ND<0 (10/12/2004)	(-0.891598 - 0)/(22 - 16)	-0.1486
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0
0.494696 J (11/20/2008)	ND<0 (10/12/2004)	(0.494696 - 0)/(24 - 16)	
0.061837			
0.262364 (6/11/2009)	ND<0 (10/12/2004)	(0.262364 - 0)/(25 - 16)	
0.0291516			

0.0953102 (11/16/2009) ND<0 (10/12/2004) (0.0953102 - 0)/(26 - 16)
0.00953102
ND<-2.07944 (6/30/2010) ND<0 (10/12/2004) (-2.07944 - 0)/(27 - 16) -0.18904
ND<-5.44914 (6/30/2010) ND<0 (10/12/2004) (-5.44914 - 0)/(27 - 16)
-0.495376
ND<-5.43758 U (11/12/2010) ND<0 (10/12/2004) (-5.43758 - 0)/(28 - 16)
-0.453132
ND<-2.07944 U (11/12/2010) ND<0 (10/12/2004) (-2.07944 - 0)/(28 - 16)
-0.173287
0.530628 (7/5/2011) ND<0 (10/12/2004) (0.530628 - 0)/(29 - 16)
0.0408176
ND<-2.07944 U Q (11/22/2011) ND<0 (10/12/2004) (-2.07944 - 0)/(30 - 16)
-0.148532
ND<-2.07944 U Q (11/22/2011) ND<0 (10/12/2004) (-2.07944 - 0)/(30 - 16)
-0.148532

-0.223144 J (10/25/2005) 1.57898 (4/1/2005) (-0.223144 - 1.57898)/(18 - 17)
-1.80212
ND<0 (4/29/2006) 1.57898 (4/1/2005) (0 - 1.57898)/(19 - 17)
-0.789489
-0.385662 J (11/18/2006) 1.57898 (4/1/2005) (-0.385662 - 1.57898)/(20 - 17)
-0.65488
ND<0 (5/23/2007) 1.57898 (4/1/2005) (0 - 1.57898)/(21 - 17)
-0.394745
-0.891598 J (11/28/2007) 1.57898 (4/1/2005) (-0.891598 - 1.57898)/(22 - 17)
-0.494115
ND<0 (6/5/2008) 1.57898 (4/1/2005) (0 - 1.57898)/(23 - 17)
-0.263163
0.494696 J (11/20/2008) 1.57898 (4/1/2005) (0.494696 - 1.57898)/(24 - 17)
-0.154897
0.262364 (6/11/2009) 1.57898 (4/1/2005) (0.262364 - 1.57898)/(25 - 17)
-0.164577
0.0953102 (11/16/2009) 1.57898 (4/1/2005) (0.0953102 - 1.57898)/(26 - 17)
-0.164852
ND<-2.07944 (6/30/2010) 1.57898 (4/1/2005) (-2.07944 - 1.57898)/(27 - 17)
-0.365842
ND<-5.44914 (6/30/2010) 1.57898 (4/1/2005) (-5.44914 - 1.57898)/(27 - 17)
-0.702812
ND<-5.43758 U (11/12/2010) 1.57898 (4/1/2005) (-5.43758 - 1.57898)/(28 - 17)
-0.637869
ND<-2.07944 U (11/12/2010) 1.57898 (4/1/2005) (-2.07944 - 1.57898)/(28 - 17)
-0.332584
0.530628 (7/5/2011) 1.57898 (4/1/2005) (0.530628 - 1.57898)/(29 - 17)
-0.0873625
ND<-2.07944 U Q (11/22/2011) 1.57898 (4/1/2005) (-2.07944 - 1.57898)/(30 - 17)
-0.281417
ND<-2.07944 U Q (11/22/2011) 1.57898 (4/1/2005) (-2.07944 - 1.57898)/(30 - 17)
-0.281417

ND<0 (4/29/2006) -0.223144 J (10/25/2005) (0 - -0.223144)/(19 - 18)
0.223144
-0.385662 J (11/18/2006) -0.223144 J (10/25/2005) (-0.385662 - -0.223144)/(20 - 18)
-0.0812595
ND<0 (5/23/2007) -0.223144 J (10/25/2005) (0 - -0.223144)/(21 - 18)
0.0743812
-0.891598 J (11/28/2007) -0.223144 J (10/25/2005) (-0.891598 - -0.223144)/(22 - 18)
-0.167114
ND<0 (6/5/2008) -0.223144 J (10/25/2005) (0 - -0.223144)/(23 - 18)
0.0446287
0.494696 J (11/20/2008) -0.223144 J (10/25/2005) (0.494696 - -0.223144)/(24 - 18)
0.11964

0.262364 (6/11/2009)	-0.223144 J (10/25/2005)	(0.262364 - -0.223144)/(25 - 18)	0.0693583
0.0953102 (11/16/2009)	-0.223144 J (10/25/2005)	(0.0953102 - -0.223144)/(26 - 18)	0.0398067
ND<-2.07944 (6/30/2010)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(27 - 18)	-0.206255
ND<-5.44914 (6/30/2010)	-0.223144 J (10/25/2005)	(-5.44914 - -0.223144)/(27 - 18)	-0.580666
ND<-5.43758 U (11/12/2010)	-0.223144 J (10/25/2005)	(-5.43758 - -0.223144)/(28 - 18)	-0.521444
ND<-2.07944 U (11/12/2010)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(28 - 18)	-0.18563
0.530628 (7/5/2011)	-0.223144 J (10/25/2005)	(0.530628 - -0.223144)/(29 - 18)	0.0685247
ND<-2.07944 U Q (11/22/2011)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(30 - 18)	-0.154691
ND<-2.07944 U Q (11/22/2011)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(30 - 18)	-0.154691

-0.385662 J (11/18/2006)	ND<0 (4/29/2006)	(-0.385662 - 0)/(20 - 19)		-0.385662
ND<0 (5/23/2007)	ND<0 (4/29/2006)	(0 - 0)/(21 - 19)	0	
-0.891598 J (11/28/2007)	ND<0 (4/29/2006)	(-0.891598 - 0)/(22 - 19)		-0.297199
ND<0 (6/5/2008)	ND<0 (4/29/2006)	(0 - 0)/(23 - 19)	0	
0.494696 J (11/20/2008)	ND<0 (4/29/2006)	(0.494696 - 0)/(24 - 19)		0.0989392
0.262364 (6/11/2009)	ND<0 (4/29/2006)	(0.262364 - 0)/(25 - 19)		0.0437274
0.0953102 (11/16/2009)	ND<0 (4/29/2006)	(0.0953102 - 0)/(26 - 19)		0.0136157
ND<-2.07944 (6/30/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(27 - 19)	-0.25993	
ND<-5.44914 (6/30/2010)	ND<0 (4/29/2006)	(-5.44914 - 0)/(27 - 19)		-0.681143
ND<-5.43758 U (11/12/2010)	ND<0 (4/29/2006)	(-5.43758 - 0)/(28 - 19)		-0.604175
ND<-2.07944 U (11/12/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(28 - 19)		-0.231049
0.530628 (7/5/2011)	ND<0 (4/29/2006)	(0.530628 - 0)/(29 - 19)		0.0530628
ND<-2.07944 U Q (11/22/2011)	ND<0 (4/29/2006)	(-2.07944 - 0)/(30 - 19)		-0.18904
ND<-2.07944 U Q (11/22/2011)	ND<0 (4/29/2006)	(-2.07944 - 0)/(30 - 19)		-0.18904

ND<0 (5/23/2007)	-0.385662 J (11/18/2006)	(0 - -0.385662)/(21 - 20)	0.385662
-0.891598 J (11/28/2007)	-0.385662 J (11/18/2006)	(-0.891598 - -0.385662)/(22 - 20)	-0.252968
ND<0 (6/5/2008)	-0.385662 J (11/18/2006)	(0 - -0.385662)/(23 - 20)	0.128554
0.494696 J (11/20/2008)	-0.385662 J (11/18/2006)	(0.494696 - -0.385662)/(24 - 20)	0.22009
0.262364 (6/11/2009)	-0.385662 J (11/18/2006)	(0.262364 - -0.385662)/(25 - 20)	0.129605
0.0953102 (11/16/2009)	-0.385662 J (11/18/2006)	(0.0953102 - -0.385662)/(26 - 20)	0.0801621
ND<-2.07944 (6/30/2010)	-0.385662 J (11/18/2006)	(-2.07944 - -0.385662)/(27 - 20)	-0.241968
ND<-5.44914 (6/30/2010)	-0.385662 J (11/18/2006)	(-5.44914 - -0.385662)/(27 - 20)	-0.723354

ND<-5.43758 U (11/12/2010) -0.385662 J (11/18/2006) (-5.43758 - -0.385662)/(28 - 20)
-0.63149
ND<-2.07944 U (11/12/2010) -0.385662 J (11/18/2006) (-2.07944 - -0.385662)/(28 - 20)
-0.211722
0.530628 (7/5/2011) -0.385662 J (11/18/2006) (0.530628 - -0.385662)/(29 - 20)
0.10181
ND<-2.07944 U Q (11/22/2011) -0.385662 J (11/18/2006) (-2.07944 - -0.385662)/(30 - 20)
-0.169378
ND<-2.07944 U Q (11/22/2011) -0.385662 J (11/18/2006) (-2.07944 - -0.385662)/(30 - 20)
-0.169378

-0.891598 J (11/28/2007) ND<0 (5/23/2007) (-0.891598 - 0)/(22 - 21)
-0.891598
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
0.494696 J (11/20/2008) ND<0 (5/23/2007) (0.494696 - 0)/(24 - 21)
0.164899
0.262364 (6/11/2009) ND<0 (5/23/2007) (0.262364 - 0)/(25 - 21)
0.0655911
0.0953102 (11/16/2009) ND<0 (5/23/2007) (0.0953102 - 0)/(26 - 21)
0.019062
ND<-2.07944 (6/30/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(27 - 21)
-0.346574
ND<-5.44914 (6/30/2010) ND<0 (5/23/2007) (-5.44914 - 0)/(27 - 21) -0.90819
ND<-5.43758 U (11/12/2010) ND<0 (5/23/2007) (-5.43758 - 0)/(28 - 21)
-0.776797
ND<-2.07944 U (11/12/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(28 - 21)
-0.297063
0.530628 (7/5/2011) ND<0 (5/23/2007) (0.530628 - 0)/(29 - 21)
0.0663285
ND<-2.07944 U Q (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(30 - 21)
-0.231049
ND<-2.07944 U Q (11/22/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(30 - 21)
-0.231049

ND<0 (6/5/2008) -0.891598 J (11/28/2007) (0 - -0.891598)/(23 - 22)
0.891598
0.494696 J (11/20/2008) -0.891598 J (11/28/2007) (0.494696 - -0.891598)/(24 - 22)
0.693147
0.262364 (6/11/2009) -0.891598 J (11/28/2007) (0.262364 - -0.891598)/(25 - 22)
0.384654
0.0953102 (11/16/2009) -0.891598 J (11/28/2007) (0.0953102 - -0.891598)/(26 - 22)
0.246727
ND<-2.07944 (6/30/2010) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(27 - 22)
-0.237569
ND<-5.44914 (6/30/2010) -0.891598 J (11/28/2007) (-5.44914 - -0.891598)/(27 - 22)
-0.911508
ND<-5.43758 U (11/12/2010) -0.891598 J (11/28/2007) (-5.43758 - -0.891598)/(28 - 22)
-0.757664
ND<-2.07944 U (11/12/2010) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(28 - 22)
-0.197974
0.530628 (7/5/2011) -0.891598 J (11/28/2007) (0.530628 - -0.891598)/(29 - 22)
0.203175
ND<-2.07944 U Q (11/22/2011) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(30 - 22)
-0.14848
ND<-2.07944 U Q (11/22/2011) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(30 - 22)
-0.14848

0.494696 J (11/20/2008) ND<0 (6/5/2008) (0.494696 - 0)/(24 - 23)
0.494696
0.262364 (6/11/2009) ND<0 (6/5/2008) (0.262364 - 0)/(25 - 23)
0.131182

0.0953102 (11/16/2009) ND<0 (6/5/2008) (0.0953102 - 0)/(26 - 23)
0.0317701
ND<-2.07944 (6/30/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(27 - 23) -0.51986
ND<-5.44914 (6/30/2010) ND<0 (6/5/2008) (-5.44914 - 0)/(27 - 23) -1.36229
ND<-5.43758 U (11/12/2010) ND<0 (6/5/2008) (-5.43758 - 0)/(28 - 23)
-1.08752
ND<-2.07944 U (11/12/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(28 - 23)
-0.415888
0.530628 (7/5/2011) ND<0 (6/5/2008) (0.530628 - 0)/(29 - 23)
0.088438
ND<-2.07944 U Q (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063
ND<-2.07944 U Q (11/22/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(30 - 23)
-0.297063

0.262364 (6/11/2009) 0.494696 J (11/20/2008) (0.262364 - 0.494696)/(25 - 24)
-0.232332
0.0953102 (11/16/2009) 0.494696 J (11/20/2008) (0.0953102 - 0.494696)/(26 - 24)
-0.199693
ND<-2.07944 (6/30/2010) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(27 - 24)
-0.858046
ND<-5.44914 (6/30/2010) 0.494696 J (11/20/2008) (-5.44914 - 0.494696)/(27 - 24)
-1.98128
ND<-5.43758 U (11/12/2010) 0.494696 J (11/20/2008) (-5.43758 - 0.494696)/(28 - 24)
-1.48307
ND<-2.07944 U (11/12/2010) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(28 - 24)
-0.643534
0.530628 (7/5/2011) 0.494696 J (11/20/2008) (0.530628 - 0.494696)/(29 - 24)
0.0071864
ND<-2.07944 U Q (11/22/2011) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(30 - 24)
-0.429023
ND<-2.07944 U Q (11/22/2011) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(30 - 24)
-0.429023

0.0953102 (11/16/2009) 0.262364 (6/11/2009) (0.0953102 - 0.262364)/(26 - 25)
-0.167054
ND<-2.07944 (6/30/2010) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(27 - 25)
-1.1709
ND<-5.44914 (6/30/2010) 0.262364 (6/11/2009) (-5.44914 - 0.262364)/(27 - 25)
-2.85575
ND<-5.43758 U (11/12/2010) 0.262364 (6/11/2009) (-5.43758 - 0.262364)/(28 - 25)
-1.89998
ND<-2.07944 U (11/12/2010) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(28 - 25)
-0.780602
0.530628 (7/5/2011) 0.262364 (6/11/2009) (0.530628 - 0.262364)/(29 - 25)
0.067066
ND<-2.07944 U Q (11/22/2011) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(30 - 25)
-0.468361
ND<-2.07944 U Q (11/22/2011) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(30 - 25)
-0.468361

ND<-2.07944 (6/30/2010) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(27 - 26)
-2.17475
ND<-5.44914 (6/30/2010) 0.0953102 (11/16/2009) (-5.44914 - 0.0953102)/(27 - 26)
-5.54445
ND<-5.43758 U (11/12/2010) 0.0953102 (11/16/2009) (-5.43758 - 0.0953102)/(28 - 26)
-2.76644
ND<-2.07944 U (11/12/2010) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(28 - 26)
-1.08738
0.530628 (7/5/2011) 0.0953102 (11/16/2009) (0.530628 - 0.0953102)/(29 - 26)
0.145106

ND<-2.07944 U Q (11/22/2011) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(30 - 26)
-0.543688
ND<-2.07944 U Q (11/22/2011) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(30 - 26)
-0.543688

ND<-5.44914 (6/30/2010) ND<-2.07944 (6/30/2010) (-5.44914 - -2.07944)/(27 - 27)
Same Date
ND<-5.43758 U (11/12/2010) ND<-2.07944 (6/30/2010) (-5.43758 - -2.07944)/(28 - 27)
-3.35814
ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(28 - 27)
0
0.530628 (7/5/2011) ND<-2.07944 (6/30/2010) (0.530628 - -2.07944)/(29 - 27)
1.30503
ND<-2.07944 U Q (11/22/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(30 - 27)
0
ND<-2.07944 U Q (11/22/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(30 - 27)
0

ND<-5.43758 U (11/12/2010) ND<-5.44914 (6/30/2010) (-5.43758 - -5.44914)/(28 - 27)
0.0115608
ND<-2.07944 U (11/12/2010) ND<-5.44914 (6/30/2010) (-2.07944 - -5.44914)/(28 - 27)
3.3697
0.530628 (7/5/2011) ND<-5.44914 (6/30/2010) (0.530628 - -5.44914)/(29 - 27)
2.98988
ND<-2.07944 U Q (11/22/2011) ND<-5.44914 (6/30/2010) (-2.07944 - -5.44914)/(30 - 27)
1.12323
ND<-2.07944 U Q (11/22/2011) ND<-5.44914 (6/30/2010) (-2.07944 - -5.44914)/(30 - 27)
1.12323

ND<-2.07944 U (11/12/2010) ND<-5.43758 U (11/12/2010) (-2.07944 - -5.43758)/(28 -
28) Same Date
0.530628 (7/5/2011) ND<-5.43758 U (11/12/2010) (0.530628 - -5.43758)/(29 - 28)
5.96821
ND<-2.07944 U Q (11/22/2011) ND<-5.43758 U (11/12/2010) (-2.07944 - -5.43758)/(30 -
28) 1.67907
ND<-2.07944 U Q (11/22/2011) ND<-5.43758 U (11/12/2010) (-2.07944 - -5.43758)/(30 -
28) 1.67907

0.530628 (7/5/2011) ND<-2.07944 U (11/12/2010) (0.530628 - -2.07944)/(29 - 28)
2.61007
ND<-2.07944 U Q (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0
ND<-2.07944 U Q (11/22/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(30 -
28) 0

ND<-2.07944 U Q (11/22/2011) 0.530628 (7/5/2011) (-2.07944 - 0.530628)/(30 - 29)
-2.61007
ND<-2.07944 U Q (11/22/2011) 0.530628 (7/5/2011) (-2.07944 - 0.530628)/(30 - 29)
-2.61007

ND<-2.07944 U Q (11/22/2011) ND<-2.07944 U Q (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date

Number of Q values = 525

Ordered Q Values

n	Q
1	-5.54445
2	-3.35814
3	-2.85575

4	-2.77259
5	-2.76644
6	-2.70805
7	-2.61007
8	-2.61007
9	-2.17475
10	-2.09186
11	-2.03877
12	-1.98128
13	-1.89998
14	-1.80212
15	-1.48307
16	-1.36229
17	-1.35403
18	-1.30495
19	-1.28247
20	-1.1709
21	-1.09861
22	-1.08752
23	-1.08738
24	-0.911508
25	-0.90819
26	-0.902683
27	-0.896088
28	-0.89588
29	-0.895671
30	-0.891598
31	-0.858046
32	-0.797915
33	-0.789489
34	-0.780602
35	-0.778364
36	-0.776797
37	-0.757664
38	-0.748933
39	-0.730888
40	-0.723354
41	-0.702812
42	-0.697288
43	-0.683927
44	-0.681143
45	-0.659167
46	-0.65488
47	-0.643534
48	-0.641237
49	-0.637869
50	-0.63149
51	-0.604175
52	-0.601986
53	-0.598436
54	-0.597253
55	-0.586239
56	-0.582656
57	-0.580666
58	-0.555974
59	-0.555636
60	-0.549306
61	-0.543688
62	-0.543688
63	-0.543042
64	-0.539126
65	-0.531944

66	-0.531944
67	-0.522966
68	-0.521444
69	-0.51986
70	-0.51299
71	-0.499289
72	-0.497218
73	-0.495376
74	-0.494115
75	-0.487459
76	-0.486478
77	-0.485832
78	-0.478749
79	-0.478749
80	-0.473085
81	-0.471417
82	-0.471313
83	-0.470834
84	-0.468361
85	-0.468361
86	-0.467048
87	-0.465301
88	-0.464776
89	-0.459653
90	-0.454095
91	-0.453132
92	-0.451342
93	-0.449989
94	-0.449271
95	-0.447836
96	-0.444585
97	-0.444568
98	-0.444508
99	-0.444467
100	-0.444257
101	-0.442908
102	-0.44229
103	-0.441959
104	-0.435227
105	-0.432424
106	-0.429023
107	-0.429023
108	-0.427962
109	-0.427492
110	-0.421666
111	-0.419165
112	-0.418373
113	-0.418275
114	-0.417553
115	-0.415888
116	-0.407754
117	-0.399961
118	-0.394745
119	-0.390998
120	-0.388399
121	-0.385662
122	-0.385433
123	-0.381067
124	-0.374467
125	-0.374088
126	-0.372914
127	-0.369511

128	-0.368269
129	-0.365966
130	-0.365842
131	-0.363276
132	-0.354943
133	-0.348512
134	-0.346574
135	-0.344877
136	-0.342572
137	-0.341964
138	-0.341964
139	-0.339849
140	-0.339795
141	-0.338506
142	-0.334682
143	-0.334064
144	-0.332584
145	-0.330715
146	-0.329584
147	-0.329037
148	-0.328407
149	-0.326997
150	-0.324318
151	-0.32211
152	-0.321888
153	-0.319166
154	-0.319166
155	-0.318895
156	-0.313657
157	-0.312133
158	-0.312133
159	-0.308065
160	-0.301289
161	-0.299218
162	-0.298627
163	-0.298563
164	-0.298562
165	-0.297992
166	-0.297199
167	-0.297063
168	-0.297063
169	-0.297063
170	-0.297063
171	-0.295061
172	-0.291683
173	-0.291253
174	-0.288046
175	-0.286122
176	-0.286122
177	-0.284994
178	-0.284346
179	-0.282909
180	-0.282268
181	-0.281783
182	-0.281617
183	-0.281617
184	-0.281617
185	-0.281417
186	-0.281417
187	-0.277987
188	-0.277666
189	-0.275281

190	-0.274677
191	-0.274677
192	-0.274653
193	-0.273199
194	-0.272339
195	-0.271224
196	-0.270805
197	-0.268793
198	-0.267376
199	-0.267114
200	-0.265972
201	-0.263163
202	-0.261483
203	-0.260707
204	-0.25993
205	-0.25993
206	-0.25962
207	-0.25962
208	-0.258022
209	-0.255966
210	-0.255966
211	-0.253759
212	-0.252968
213	-0.252054
214	-0.248457
215	-0.247956
216	-0.246279
217	-0.245371
218	-0.243239
219	-0.241968
220	-0.239855
221	-0.238489
222	-0.238165
223	-0.237569
224	-0.236919
225	-0.236807
226	-0.235417
227	-0.234609
228	-0.233177
229	-0.232332
230	-0.23222
231	-0.23222
232	-0.231284
233	-0.231049
234	-0.231049
235	-0.231049
236	-0.231049
237	-0.23069
238	-0.23069
239	-0.230441
240	-0.226566
241	-0.226256
242	-0.225937
243	-0.223437
244	-0.22063
245	-0.219892
246	-0.219892
247	-0.219542
248	-0.219542
249	-0.215391
250	-0.214607
251	-0.214607

252	-0.213276
253	-0.211722
254	-0.209582
255	-0.209186
256	-0.206255
257	-0.203807
258	-0.202168
259	-0.201636
260	-0.201392
261	-0.201214
262	-0.20098
263	-0.199831
264	-0.199816
265	-0.199715
266	-0.199715
267	-0.199693
268	-0.197974
269	-0.197304
270	-0.197295
271	-0.194168
272	-0.194081
273	-0.192852
274	-0.189592
275	-0.189074
276	-0.18904
277	-0.18904
278	-0.18904
279	-0.188266
280	-0.186743
281	-0.185779
282	-0.18563
283	-0.185081
284	-0.180301
285	-0.179705
286	-0.179705
287	-0.177369
288	-0.174322
289	-0.173287
290	-0.173287
291	-0.173287
292	-0.169378
293	-0.169378
294	-0.167114
295	-0.167054
296	-0.166571
297	-0.165926
298	-0.165877
299	-0.164852
300	-0.164577
301	-0.162856
302	-0.161135
303	-0.160786
304	-0.159957
305	-0.159957
306	-0.157417
307	-0.156315
308	-0.154897
309	-0.154691
310	-0.154691
311	-0.154352
312	-0.154033
313	-0.153506

314	-0.152781
315	-0.1486
316	-0.148532
317	-0.148532
318	-0.148532
319	-0.14848
320	-0.14848
321	-0.147875
322	-0.146947
323	-0.140853
324	-0.138629
325	-0.138629
326	-0.138629
327	-0.138629
328	-0.13826
329	-0.136089
330	-0.133104
331	-0.131367
332	-0.130679
333	-0.129965
334	-0.129965
335	-0.129965
336	-0.127371
337	-0.124499
338	-0.122859
339	-0.117386
340	-0.116403
341	-0.115525
342	-0.115525
343	-0.114101
344	-0.111672
345	-0.111572
346	-0.11145
347	-0.108471
348	-0.10707
349	-0.0964156
350	-0.0904105
351	-0.0891598
352	-0.0873625
353	-0.0867353
354	-0.0866434
355	-0.0862292
356	-0.0854809
357	-0.0852579
358	-0.0850906
359	-0.0812595
360	-0.0799785
361	-0.0799785
362	-0.0799785
363	-0.0771325
364	-0.0770164
365	-0.0743812
366	-0.0717049
367	-0.0717049
368	-0.0642771
369	-0.0575364
370	-0.0557859
371	-0.0495332
372	-0.0482078
373	-0.0424571
374	-0.0371906
375	-0.0371434

376	-0.0296628
377	-0.0241039
378	-0.020298
379	-0.0159388
380	-0.0131261
381	-0.00645385
382	0
383	0
384	0
385	0
386	0
387	0
388	0
389	0
390	0
391	0
392	0
393	0
394	0
395	0
396	0
397	0
398	0
399	0
400	0
401	0
402	0
403	0
404	0
405	0
406	0
407	0
408	0
409	0
410	0
411	0
412	0
413	0
414	0
415	0
416	0
417	0
418	0
419	0
420	0
421	0
422	0
423	0
424	0.00381241
425	0.00433228
426	0.00680787
427	0.0071864
428	0.00794251
429	0.00866456
430	0.00953102
431	0.0109318
432	0.0115608
433	0.0124935
434	0.0136157
435	0.018951
436	0.019062
437	0.0201819

438	0.0212251
439	0.0215085
440	0.0238513
441	0.0247348
442	0.0262364
443	0.0291516
444	0.0312134
445	0.0317701
446	0.0353752
447	0.037902
448	0.0398067
449	0.0408176
450	0.0412247
451	0.0437274
452	0.0446287
453	0.0446287
454	0.0477003
455	0.0494696
456	0.0530628
457	0.0549662
458	0.061837
459	0.0655911
460	0.0663285
461	0.067066
462	0.0685247
463	0.0693583
464	0.0743812
465	0.0801621
466	0.087208
467	0.088438
468	0.0986862
469	0.0989392
470	0.10181
471	0.11964
472	0.12146
473	0.128554
474	0.129605
475	0.131182
476	0.145106
477	0.164899
478	0.177489
479	0.203175
480	0.209186
481	0.22009
482	0.223144
483	0.225671
484	0.236651
485	0.246727
486	0.279808
487	0.284994
488	0.298838
489	0.300105
490	0.300894
491	0.308093
492	0.315796
493	0.384654
494	0.385662
495	0.41198
496	0.427492
497	0.427962
498	0.494696
499	0.526326

500	0.648637
501	0.659167
502	0.671634
503	0.693147
504	0.748933
505	0.789489
506	0.891598
507	0.957498
508	1.00745
509	1.12323
510	1.12323
511	1.19687
512	1.29727
513	1.30503
514	1.38629
515	1.57898
516	1.67907
517	1.67907
518	2.39375
519	2.61007
520	2.70805
521	2.98988
522	3.3697
523	4.07754
524	4.78749
525	5.96821

Sen's Estimator (Median Q) is -0.199831

Tied Group	Value	Members
1	0	9
2	4.78749	2
3	-2.07944	4

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		2

11/12/2010 2
7/5/2011 1
11/22/2011 2
There are 3 time periods with multiple data

A = 1830
B = 54
C = 528
D = 0
E = 86
F = 6
a = 74976
b = 294624
c = 2112
Group Variance = 4060.91
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 104.819
M1 = (525 - 104.819)/2.0 = 210.091
M2 = (525 + 104.819)/2.0 + 1 = 315.909
Lower limit is -0.255966 = Q(210)
Upper limit is -0.148532 = Q(316)
-0.148532 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Dimethylphthalate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 245
Total Non-Detect: 243
Percent Non-Detects: 99.1837%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	ND<5.2	ND<5.2
			11/16/2009	ND<0.93	ND<0.93
			6/30/2010	ND<0.79	ND<0.79
			11/12/2010	ND<0.78 U	ND<0.78 U
			7/5/2011	ND<0.79 U	ND<0.79 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	31	31 (100%)	7/20/1995	ND<10	ND<10
			8/24/1995	ND<10	ND<10
			9/28/1995	ND<10	ND<10
			10/26/1995	ND<10	ND<10
			11/19/1996	ND<10	ND<10
			12/19/1996	ND<10	ND<10
			3/24/1997	ND<10	ND<10
			9/24/1997	ND<10	ND<10
			4/7/1998	ND<10	ND<10
			9/23/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/15/2000	ND<10	ND<10
			9/24/2003	ND<10	ND<10
			3/11/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/25/2005	ND<10	ND<10
			4/29/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			5/23/2007	ND<10	ND<10
			11/28/2007	ND<10	ND<10
			6/5/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10

			6/11/2009	ND<5.2	ND<5.2	
			11/16/2009	ND<4.7	ND<4.7	
			6/30/2010	ND<0.79		ND<0.79
			11/12/2010	ND<0.79 U		ND<0.79 U
			7/5/2011	ND<0.79 U	ND<0.79 U	
			11/22/2011	ND<0.79 U H		ND<0.79 U H
			11/22/2011	ND<0.78 U Q		ND<0.78 U Q
MW-6	31	31 (100%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<5.2	ND<5.2	
			11/16/2009	ND<0.93		ND<0.93
			6/30/2010	ND<0.79		ND<0.79
			11/12/2010	ND<0.78 U		ND<0.78 U
			7/5/2011	ND<0.81 U	ND<0.81 U	
			11/22/2011	ND<0.79 U H		ND<0.79 U H
			11/22/2011	ND<0.78 U Q		ND<0.78 U Q
MW-8	28	28 (100%)	7/20/1995		ND<10	ND<10
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	

			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<5.1	ND<5.1	
			7/5/2011	ND<0.79 U	ND<0.79 U	
			11/22/2011	ND<0.79 U Q		ND<0.79 U Q
			11/22/2011	ND<0.79 U H		ND<0.79 U H
MW-7	31	31 (100%)	7/20/1995	ND<10	ND<10	
			8/24/1995	ND<10	ND<10	
			9/28/1995	ND<10	ND<10	
			10/26/1995	ND<10	ND<10	
			11/19/1996	ND<10	ND<10	
			12/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			9/24/1997	ND<10	ND<10	
			4/7/1998	ND<10	ND<10	
			9/23/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<5	ND<5	
			11/16/2009	ND<4.7	ND<4.7	
			6/30/2010	ND<0.81		ND<0.81
			11/12/2010	ND<0.78 U		ND<0.78 U
			7/5/2011	ND<0.83 U	ND<0.83 U	
			11/22/2011	ND<0.75 U H		ND<0.75 U H
			11/22/2011	ND<0.79 U Q		ND<0.79 U Q
MW-12BR	22	22 (100%)	3/16/1999	ND<10		ND<10
			9/23/1999	ND<10	ND<10	
			3/15/2000	ND<10	ND<10	
			9/24/2003	ND<10	ND<10	
			3/11/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/25/2005	ND<10	ND<10	
			4/29/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			5/23/2007	ND<10	ND<10	
			11/28/2007	ND<10	ND<10	
			6/5/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<5.1	ND<5.1	
			11/16/2009	ND<4.7	ND<4.7	
			6/30/2010	ND<0.78		ND<0.78
			11/12/2010	ND<0.83 U		ND<0.83 U
			11/12/2010	ND<0.83 U		ND<0.83 U
			7/5/2011	ND<0.79 U	ND<0.79 U	
			11/22/2011	ND<0.79 U Q		ND<0.79 U Q
			11/22/2011	ND<0.79 U H		ND<0.79 U H

MW-11R	31	31 (100%)	7/20/1995	ND<10	ND<10	
		8/24/1995	ND<10	ND<10		
		9/28/1995	ND<10	ND<10		
		10/26/1995	ND<10	ND<10		
		11/19/1996	ND<10	ND<10		
		12/19/1996	ND<10	ND<10		
		3/24/1997	ND<10	ND<10		
		9/24/1997	ND<10	ND<10		
		4/7/1998	ND<10	ND<10		
		9/23/1998	ND<10	ND<10		
		3/16/1999	ND<10	ND<10		
		9/23/1999	ND<10	ND<10		
		3/15/2000	ND<10	ND<10		
		9/24/2003	ND<10	ND<10		
		3/11/2004	ND<10	ND<10		
		10/12/2004	ND<10	ND<10		
		4/1/2005	ND<10	ND<10		
		10/25/2005	ND<10	ND<10		
		4/29/2006	ND<10	ND<10		
		11/18/2006	ND<10	ND<10		
		5/23/2007	ND<10	ND<10		
		11/28/2007	ND<10	ND<10		
		6/5/2008	ND<10	ND<10		
		11/20/2008	ND<10	ND<10		
		6/11/2009	ND<5	ND<5		
		11/16/2009	ND<4.7	ND<4.7		
		6/30/2010	ND<0.79		ND<0.79	
		11/12/2010	ND<0.79 U		ND<0.79 U	
		7/5/2011	ND<0.8 U		ND<0.8 U	
		11/22/2011	ND<0.79 U		ND<0.79 U	
		11/22/2011	ND<0.79 U		ND<0.79 U	
MW-12A	R	21	21 (100%)	3/16/1999	ND<10	ND<10
		9/23/1999	ND<10	ND<10		
		3/15/2000	ND<10	ND<10		
		9/24/2003	ND<10	ND<10		
		3/11/2004	ND<10	ND<10		
		10/12/2004	ND<10	ND<10		
		4/1/2005	ND<10	ND<10		
		10/25/2005	ND<10	ND<10		
		4/29/2006	ND<10	ND<10		
		11/18/2006	ND<10	ND<10		
		5/23/2007	ND<10	ND<10		
		11/28/2007	ND<10	ND<10		
		6/5/2008	ND<10	ND<10		
		11/20/2008	ND<10	ND<10		
		6/11/2009	ND<5.1	ND<5.1		
		11/16/2009	ND<4.7	ND<4.7		
		6/30/2010	ND<0.78		ND<0.78	
		11/12/2010	ND<0.78 U		ND<0.78 U	
		7/5/2011	ND<0.78 U		ND<0.78 U	
		11/22/2011	ND<0.79 U Q		ND<0.79 U Q	
		11/22/2011	ND<0.79 U H		ND<0.79 U H	
MW-9	31	29 (93.5484%)	7/20/1995	ND<10	ND<10	
		8/24/1995	ND<10	ND<10		
		9/28/1995	ND<10	ND<10		
		10/26/1995	ND<10	ND<10		
		11/19/1996	ND<10	ND<10		
		12/19/1996	ND<10	ND<10		
		3/24/1997	ND<10	ND<10		
		9/24/1997	ND<10	ND<10		

4/7/1998	ND<10	ND<10	
9/23/1998	ND<10	ND<10	
3/16/1999	ND<10	ND<10	
9/23/1999	ND<10	ND<10	
3/15/2000	ND<10	ND<10	
9/24/2003	ND<10	ND<10	
3/11/2004	ND<10	ND<10	
10/12/2004	ND<10	ND<10	
4/1/2005	ND<10	ND<10	
10/25/2005	ND<10	ND<10	
4/29/2006	ND<10	ND<10	
11/18/2006	ND<10	ND<10	
5/23/2007	ND<10	ND<10	
11/28/2007	ND<10	ND<10	
6/5/2008	ND<10	ND<10	
11/20/2008	ND<10	ND<10	
6/11/2009	ND<5.2	ND<5.2	
11/16/2009	ND<0.93		ND<0.93
6/30/2010	ND<0.81		ND<0.81
11/12/2010	ND<0.78 U		ND<0.78 U
7/5/2011	ND<0.82 U	ND<0.82 U	
11/22/2011	1.8 J	1.8 J	
11/22/2011	1.8 J	1.8 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Dimethylphthalate

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 245

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.375	-2.65209	7.03356	-0.994532
2	0.39	-2.40892	12.8365	-1.93401
3	0.39	-2.25713	17.9311	-2.81429
4	0.39	-2.14441	22.5296	-3.65061
5	0.39	-2.05375	26.7475	-4.45157
6	0.39	-1.97737	30.6575	-5.22275
7	0.39	-1.91103	34.3095	-5.96805
8	0.39	-1.85218	37.7401	-6.6904
9	0.39	-1.79912	40.9769	-7.39205
10	0.39	-1.75069	44.0418	-8.07482
11	0.39	-1.70604	46.9524	-8.74018
12	0.395	-1.66456	49.7231	-9.39768
13	0.395	-1.62576	52.3662	-10.0399
14	0.395	-1.58927	54.892	-10.6676
15	0.395	-1.55477	57.3093	-11.2818
16	0.395	-1.5141	59.6018	-11.8798
17	0.395	-1.48328	61.802	-12.4657
18	0.395	-1.4538	63.9155	-13.04
19	0.395	-1.42554	65.9477	-13.6031
20	0.395	-1.39838	67.9031	-14.1554
21	0.395	-1.3722	69.7861	-14.6974
22	0.395	-1.34694	71.6003	-15.2295
23	0.395	-1.32251	73.3494	-15.7519
24	0.395	-1.29884	75.0363	-16.2649
25	0.395	-1.27588	76.6642	-16.7689
26	0.395	-1.25357	78.2356	-17.264
27	0.395	-1.23187	79.7531	-17.7506
28	0.395	-1.21073	81.219	-18.2289
29	0.395	-1.19012	82.6353	-18.699
30	0.395	-1.17	84.0043	-19.1611
31	0.395	-1.1455	85.3164	-19.6136
32	0.395	-1.12639	86.5852	-20.0585
33	0.4	-1.10768	87.8121	-20.5016
34	0.405	-1.08935	88.9988	-20.9428
35	0.405	-1.07138	90.1467	-21.3767
36	0.405	-1.05375	91.2571	-21.8034
37	0.41	-1.03643	92.3312	-22.2284
38	0.415	-1.01943	93.3705	-22.6514
39	0.415	-1.00271	94.3759	-23.0676
40	0.415	-0.986272	95.3486	-23.4769
41	0.465	-0.970094	96.2897	-23.928
42	0.465	-0.954165	97.2002	-24.3717
43	0.465	-0.938476	98.0809	-24.808
44	1.8	-0.923014	98.9328	-26.4695
45	1.8	-0.907769	99.7569	-28.1035
46	2.35	-0.892733	100.554	-30.2014
47	2.35	-0.874218	101.318	-32.2558
48	2.35	-0.859618	102.057	-34.2759
49	2.35	-0.845198	102.771	-36.2621
50	2.35	-0.830953	103.462	-38.2148
51	2.5	-0.816874	104.129	-40.257

52	2.5	-0.802956	104.774	-42.2644
53	2.55	-0.789191	105.397	-44.2769
54	2.55	-0.775574	105.998	-46.2546
55	2.55	-0.7621	106.579	-48.1979
56	2.6	-0.748762	107.14	-50.1447
57	2.6	-0.735557	107.681	-52.0572
58	2.6	-0.722479	108.203	-53.9356
59	2.6	-0.709522	108.706	-55.7804
60	5	-0.696684	109.192	-59.2638
61	5	-0.68396	109.659	-62.6836
62	5	-0.668209	110.106	-66.0246
63	5	-0.655726	110.536	-69.3033
64	5	-0.643345	110.95	-72.52
65	5	-0.631062	111.348	-75.6753
66	5	-0.618872	111.731	-78.7697
67	5	-0.606775	112.099	-81.8035
68	5	-0.594766	112.453	-84.7774
69	5	-0.582841	112.793	-87.6916
70	5	-0.570999	113.119	-90.5466
71	5	-0.559237	113.431	-93.3427
72	5	-0.547551	113.731	-96.0805
73	5	-0.53594	114.018	-98.7602
74	5	-0.524401	114.293	-101.382
75	5	-0.51293	114.556	-103.947
76	5	-0.501527	114.808	-106.454
77	5	-0.487364	115.046	-108.891
78	5	-0.476105	115.272	-111.272
79	5	-0.464904	115.488	-113.596
80	5	-0.453763	115.694	-115.865
81	5	-0.442676	115.89	-118.079
82	5	-0.431644	116.077	-120.237
83	5	-0.420664	116.253	-122.34
84	5	-0.409735	116.421	-124.389
85	5	-0.398855	116.58	-126.383
86	5	-0.388022	116.731	-128.323
87	5	-0.377233	116.873	-130.209
88	5	-0.36649	117.008	-132.042
89	5	-0.355788	117.134	-133.821
90	5	-0.345126	117.253	-135.546
91	5	-0.334503	117.365	-137.219
92	5	-0.323919	117.47	-138.838
93	5	-0.310738	117.567	-140.392
94	5	-0.300232	117.657	-141.893
95	5	-0.28976	117.741	-143.342
96	5	-0.279319	117.819	-144.739
97	5	-0.268908	117.891	-146.083
98	5	-0.258527	117.958	-147.376
99	5	-0.248174	118.02	-148.617
100	5	-0.237847	118.076	-149.806
101	5	-0.227545	118.128	-150.944
102	5	-0.217267	118.175	-152.03
103	5	-0.207012	118.218	-153.065
104	5	-0.196779	118.257	-154.049
105	5	-0.186567	118.292	-154.982
106	5	-0.176374	118.323	-155.864
107	5	-0.166199	118.35	-156.695
108	5	-0.153505	118.374	-157.462
109	5	-0.143367	118.394	-158.179
110	5	-0.133244	118.412	-158.845
111	5	-0.123135	118.427	-159.461
112	5	-0.113039	118.44	-160.026
113	5	-0.102953	118.451	-160.541

114	5	-0.0928787	118.459	-161.005
115	5	-0.0828129	118.466	-161.419
116	5	-0.0727562	118.471	-161.783
117	5	-0.0627062	118.475	-162.097
118	5	-0.0526632	118.478	-162.36
119	5	-0.0426257	118.48	-162.573
120	5	-0.0325917	118.481	-162.736
121	5	-0.0225612	118.482	-162.849
122	5	-0.0125328	118.482	-162.912
123	5	0	118.482	-162.912
124	5	0.0125328	118.482	-162.849
125	5	0.0225612	118.482	-162.736
126	5	0.0325917	118.483	-162.573
127	5	0.0426257	118.485	-162.36
128	5	0.0526632	118.488	-162.097
129	5	0.0627062	118.492	-161.783
130	5	0.0727562	118.497	-161.419
131	5	0.0828129	118.504	-161.005
132	5	0.0928787	118.513	-160.541
133	5	0.102953	118.523	-160.026
134	5	0.113039	118.536	-159.461
135	5	0.123135	118.551	-158.845
136	5	0.133244	118.569	-158.179
137	5	0.143367	118.59	-157.462
138	5	0.153505	118.613	-156.695
139	5	0.166199	118.641	-155.864
140	5	0.176374	118.672	-154.982
141	5	0.186567	118.707	-154.049
142	5	0.196779	118.745	-153.065
143	5	0.207012	118.788	-152.03
144	5	0.217267	118.835	-150.944
145	5	0.227545	118.887	-149.806
146	5	0.237847	118.944	-148.617
147	5	0.248174	119.005	-147.376
148	5	0.258527	119.072	-146.083
149	5	0.268908	119.145	-144.739
150	5	0.279319	119.223	-143.342
151	5	0.28976	119.306	-141.893
152	5	0.300232	119.397	-140.392
153	5	0.310738	119.493	-138.838
154	5	0.323919	119.598	-137.219
155	5	0.334503	119.71	-135.546
156	5	0.345126	119.829	-133.821
157	5	0.355788	119.956	-132.042
158	5	0.36649	120.09	-130.209
159	5	0.377233	120.232	-128.323
160	5	0.388022	120.383	-126.383
161	5	0.398855	120.542	-124.389
162	5	0.409735	120.71	-122.34
163	5	0.420664	120.887	-120.237
164	5	0.431644	121.073	-118.079
165	5	0.442676	121.269	-115.865
166	5	0.453763	121.475	-113.596
167	5	0.464904	121.691	-111.272
168	5	0.476105	121.918	-108.891
169	5	0.487364	122.155	-106.454
170	5	0.501527	122.407	-103.947
171	5	0.51293	122.67	-101.382
172	5	0.524401	122.945	-98.7602
173	5	0.53594	123.232	-96.0805
174	5	0.547551	123.532	-93.3427
175	5	0.559237	123.845	-90.5466

176	5	0.570999		124.171	-87.6916
177	5	0.582841		124.51	-84.7774
178	5	0.594766		124.864	-81.8035
179	5	0.606775		125.232	-78.7697
180	5	0.618872		125.615	-75.6753
181	5	0.631062		126.014	-72.52
182	5	0.643345		126.428	-69.3033
183	5	0.655726		126.858	-66.0246
184	5	0.668209		127.304	-62.6836
185	5	0.68396	127.772	-59.2638	
186	5	0.696684		128.257	-55.7804
187	5	0.709522		128.761	-52.2328
188	5	0.722479		129.283	-48.6204
189	5	0.735557		129.824	-44.9426
190	5	0.748762		130.384	-41.1988
191	5	0.7621	130.965	-37.3883	
192	5	0.775574		131.567	-33.5104
193	5	0.789191		132.189	-29.5644
194	5	0.802956		132.834	-25.5497
195	5	0.816874		133.501	-21.4653
196	5	0.830953		134.192	-17.3105
197	5	0.845198		134.906	-13.0845
198	5	0.859618		135.645	-8.78644
199	5	0.874218		136.409	-4.41535
200	5	0.892733		137.206	0.0483134
201	5	0.907769		138.03	4.58716
202	5	0.923014		138.882	9.20223
203	5	0.938476		139.763	13.8946
204	5	0.954165		140.674	18.6654
205	5	0.970094		141.615	23.5159
206	5	0.986272		142.587	28.4473
207	5	1.00271	143.593	33.4608	
208	5	1.01943	144.632	38.558	
209	5	1.03643	145.706	43.7401	
210	5	1.05375	146.817	49.0088	
211	5	1.07138	147.965	54.3657	
212	5	1.08935	149.151	59.8125	
213	5	1.10768	150.378	65.3509	
214	5	1.12639	151.647	70.9828	
215	5	1.1455	152.959	76.7104	
216	5	1.17	154.328	82.5604	
217	5	1.19012	155.744	88.511	
218	5	1.21073	157.21	94.5646	
219	5	1.23187	158.728	100.724	
220	5	1.25357	160.299	106.992	
221	5	1.27588	161.927	113.371	
222	5	1.29884	163.614	119.865	
223	5	1.32251	165.363	126.478	
224	5	1.34694	167.177	133.213	
225	5	1.3722	169.06	140.074	
226	5	1.39838	171.016	147.065	
227	5	1.42554	173.048	154.193	
228	5	1.4538	175.161	161.462	
229	5	1.48328	177.362	168.879	
230	5	1.5141	179.654	176.449	
231	5	1.55477	182.071	184.223	
232	5	1.58927	184.597	192.169	
233	5	1.62576	187.24	200.298	
234	5	1.66456	190.011	208.621	
235	5	1.70604	192.922	217.151	
236	5	1.75069	195.986	225.905	
237	5	1.79912	199.223	234.9	

238	5	1.85218	202.654	244.161
239	5	1.91103	206.306	253.716
240	5	1.97737	210.216	263.603
241	5	2.05375	214.434	273.872
242	5	2.14441	219.032	284.594
243	5	2.25713	224.127	295.879
244	5	2.40892	229.93	307.924
245	5	2.65209	236.963	321.185

Data Set Standard Deviation = 1.79349
Numerator = 103159
Denominator = 185982
W Statistic = 0.554676 = 103159 / 185982

5% Critical value of 0.976 exceeds 0.554676
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.554676
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Dimethylphthalate

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.742714
0.742714 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.375	0.00406504	-2.65209	79.125	344.01	
2	0.39	0.00813008	-2.40892	80.73	332.136	
3	0.39	0.0121951	-2.25713	80.73	324.723	
4	0.39	0.0162602	-2.14441	80.73	319.219	
5	0.39	0.0203252	-2.05375	80.73	314.791	
6	0.39	0.0243902	-1.97737	80.73	311.062	
7	0.39	0.0284553	-1.91103	80.73	307.822	
8	0.39	0.0325203	-1.85218	80.73	304.948	
9	0.39	0.0365854	-1.79912	80.73	302.357	
10	0.39	0.0406504	-1.75069	80.73	299.992	
11	0.39	0.0447154	-1.70604	80.73	297.812	
12	0.395	0.0487805	-1.66456	81.265	295.786	
13	0.395	0.0528455	-1.62576	81.265	293.891	
14	0.395	0.0569106	-1.58927	81.265	292.109	
15	0.395	0.0609756	-1.55477	81.265	290.425	
16	0.395	0.0650407	-1.5141	81.265	288.439	
17	0.395	0.0691057	-1.48328	81.265	286.934	
18	0.395	0.0731707	-1.4538	81.265	285.494	
19	0.395	0.0772358	-1.42554	81.265	284.114	
20	0.395	0.0813008	-1.39838	81.265	282.787	
21	0.395	0.0853659	-1.3722	81.265	281.509	
22	0.395	0.0894309	-1.34694	81.265	280.276	
23	0.395	0.0934959	-1.32251	81.265	279.082	
24	0.395	0.097561	-1.29884	81.265	277.926	
25	0.395	0.101626	-1.27588	81.265	276.805	
26	0.395	0.105691	-1.25357	81.265	275.716	
27	0.395	0.109756	-1.23187	81.265	274.656	
28	0.395	0.113821	-1.21073	81.265	273.624	
29	0.395	0.117886	-1.19012	81.265	272.617	
30	0.395	0.121951	-1.17	81.265	271.635	
31	0.395	0.126016	-1.1455	81.265	270.439	
32	0.395	0.130081	-1.12639	81.265	269.505	
33	0.4	0.134146	-1.10768	81.8	268.592	
34	0.405	0.138211	-1.08935	82.335	267.697	
35	0.405	0.142276	-1.07138	82.335	266.819	
36	0.405	0.146341	-1.05375	82.335	265.958	
37	0.41	0.150407	-1.03643	82.87	265.112	
38	0.415	0.154472	-1.01943	83.405	264.282	
39	0.415	0.158537	-1.00271	83.405	263.466	
40	0.415	0.162602	-0.986272	83.405		262.663
41	0.465	0.166667	-0.970094	88.755		261.873
42	0.465	0.170732	-0.954165	88.755		261.095
43	0.465	0.174797	-0.938476	88.755		260.329
44	1.8	0.178862	-0.923014	231.6		259.574
45	1.8	0.182927	-0.907769	231.6		258.829
46	2.35	0.186992	-0.892733	290.45		258.095
47	2.35	0.191057	-0.874218	290.45		257.191
48	2.35	0.195122	-0.859618	290.45		256.478

49	2.35	0.199187	-0.845198	290.45	255.774
50	2.35	0.203252	-0.830953	290.45	255.078
51	2.5	0.207317	-0.816874	306.5	254.391
52	2.5	0.211382	-0.802956	306.5	253.711
53	2.55	0.215447	-0.789191	311.85	253.039
54	2.55	0.219512	-0.775574	311.85	252.374
55	2.55	0.223577	-0.7621	311.85	251.716
56	2.6	0.227642	-0.748762	317.2	251.065
57	2.6	0.231707	-0.735557	317.2	250.42
58	2.6	0.235772	-0.722479	317.2	249.781
59	2.6	0.239837	-0.709522	317.2	249.148
60	5	0.243902	-0.696684	574	248.521
61	5	0.247967	-0.68396	574	247.9
62	5	0.252033	-0.668209	574	247.131
63	5	0.256098	-0.655726	574	246.521
64	5	0.260163	-0.643345	574	245.917
65	5	0.264228	-0.631062	574	245.317
66	5	0.268293	-0.618872	574	244.722
67	5	0.272358	-0.606775	574	244.131
68	5	0.276423	-0.594766	574	243.544
69	5	0.280488	-0.582841	574	242.962
70	5	0.284553	-0.570999	574	242.384
71	5	0.288618	-0.559237	574	241.809
72	5	0.292683	-0.547551	574	241.239
73	5	0.296748	-0.53594	574	240.672
74	5	0.300813	-0.524401	574	240.108
75	5	0.304878	-0.51293	574	239.548
76	5	0.308943	-0.501527	574	238.991
77	5	0.313008	-0.487364	574	238.3
78	5	0.317073	-0.476105	574	237.75
79	5	0.321138	-0.464904	574	237.203
80	5	0.325203	-0.453763	574	236.659
81	5	0.329268	-0.442676	574	236.117
82	5	0.333333	-0.431644	574	235.579
83	5	0.337398	-0.420664	574	235.042
84	5	0.341463	-0.409735	574	234.509
85	5	0.345528	-0.398855	574	233.977
86	5	0.349593	-0.388022	574	233.448
87	5	0.353659	-0.377233	574	232.922
88	5	0.357724	-0.36649	574	232.397
89	5	0.361789	-0.355788	574	231.874
90	5	0.365854	-0.345126	574	231.354
91	5	0.369919	-0.334503	574	230.835
92	5	0.373984	-0.323919	574	230.318
93	5	0.378049	-0.310738	574	229.674
94	5	0.382114	-0.300232	574	229.161
95	5	0.386179	-0.28976	574	228.65
96	5	0.390244	-0.279319	574	228.14
97	5	0.394309	-0.268908	574	227.632
98	5	0.398374	-0.258527	574	227.125
99	5	0.402439	-0.248174	574	226.619
100	5	0.406504	-0.237847	574	226.115
101	5	0.410569	-0.227545	574	225.612
102	5	0.414634	-0.217267	574	225.11
103	5	0.418699	-0.207012	574	224.609
104	5	0.422764	-0.196779	574	224.109
105	5	0.426829	-0.186567	574	223.611
106	5	0.430894	-0.176374	574	223.113
107	5	0.434959	-0.166199	574	222.616
108	5	0.439024	-0.153505	574	221.996
109	5	0.443089	-0.143367	574	221.501
110	5	0.447154	-0.133244	574	221.007

111	5	0.45122	-0.123135	574	220.513	
112	5	0.455285	-0.113039	574	220.02	
113	5	0.45935	-0.102953	574	219.528	
114	5	0.463415	-0.0928787	574	219.036	
115	5	0.46748	-0.0828129	574	218.544	
116	5	0.471545	-0.0727562	574	218.053	
117	5	0.47561	-0.0627062	574	217.562	
118	5	0.479675	-0.0526632	574	217.072	
119	5	0.48374	-0.0426257	574	216.582	
120	5	0.487805	-0.0325917	574	216.092	
121	5	0.49187	-0.0225612	574	215.602	
122	5	0.495935	-0.0125328	574	215.112	
123	5	0.5	0	574	214.5	
124	5	0.504065	0.0125328	574	213.888	
125	5	0.50813	0.0225612	574	213.398	
126	5	0.512195	0.0325917	574	212.908	
127	5	0.51626	0.0426257	574	212.418	
128	5	0.520325	0.0526632	574	211.928	
129	5	0.52439	0.0627062	574	211.438	
130	5	0.528455	0.0727562	574	210.947	
131	5	0.53252	0.0828129	574	210.456	
132	5	0.536585	0.0928787	574	209.964	
133	5	0.54065	0.102953	574	209.472	
134	5	0.544715	0.113039	574	208.98	
135	5	0.54878	0.123135	574	208.487	
136	5	0.552846	0.133244	574	207.993	
137	5	0.556911	0.143367	574	207.499	
138	5	0.560976	0.153505	574	207.004	
139	5	0.565041	0.166199	574	206.384	
140	5	0.569106	0.176374	574	205.887	
141	5	0.573171	0.186567	574	205.389	
142	5	0.577236	0.196779	574	204.891	
143	5	0.581301	0.207012	574	204.391	
144	5	0.585366	0.217267	574	203.89	
145	5	0.589431	0.227545	574	203.388	
146	5	0.593496	0.237847	574	202.885	
147	5	0.597561	0.248174	574	202.381	
148	5	0.601626	0.258527	574	201.875	
149	5	0.605691	0.268908	574	201.368	
150	5	0.609756	0.279319	574	200.86	
151	5	0.613821	0.28976	574	200.35	
152	5	0.617886	0.300232	574	199.839	
153	5	0.621951	0.310738	574	199.326	
154	5	0.626016	0.323919	574	198.682	
155	5	0.630081	0.334503	574	198.165	
156	5	0.634146	0.345126	574	197.646	
157	5	0.638211	0.355788	574	197.126	
158	5	0.642276	0.36649	574	196.603	
159	5	0.646341	0.377233	574	196.078	
160	5	0.650407	0.388022	574	195.552	
161	5	0.654472	0.398855	574	195.023	
162	5	0.658537	0.409735	574	194.491	
163	5	0.662602	0.420664	574	193.958	
164	5	0.666667	0.431644	574	193.421	
165	5	0.670732	0.442676	574	192.883	
166	5	0.674797	0.453763	574	192.341	
167	5	0.678862	0.464904	574	191.797	
168	5	0.682927	0.476105	574	191.25	
169	5	0.686992	0.487364	574	190.7	
170	5	0.691057	0.501527	574	190.009	
171	5	0.695122	0.51293	574	189.452	
172	5	0.699187	0.524401	574	188.892	

173	5	0.703252	0.53594	574	188.328	
174	5	0.707317	0.547551		574	187.761
175	5	0.711382	0.559237		574	187.191
176	5	0.715447	0.570999		574	186.616
177	5	0.719512	0.582841		574	186.038
178	5	0.723577	0.594766		574	185.456
179	5	0.727642	0.606775		574	184.869
180	5	0.731707	0.618872		574	184.278
181	5	0.735772	0.631062		574	183.683
182	5	0.739837	0.643345		574	183.083
183	5	0.743902	0.655726		574	182.479
184	5	0.747967	0.668209		574	181.869
185	5	0.752033	0.68396	574	181.1	
186	5	0.756098	0.696684		574	180.479
187	5	0.760163	0.709522		574	179.852
188	5	0.764228	0.722479		574	179.219
189	5	0.768293	0.735557		574	178.58
190	5	0.772358	0.748762		574	177.935
191	5	0.776423	0.7621	574	177.284	
192	5	0.780488	0.775574		574	176.626
193	5	0.784553	0.789191		574	175.961
194	5	0.788618	0.802956		574	175.289
195	5	0.792683	0.816874		574	174.609
196	5	0.796748	0.830953		574	173.922
197	5	0.800813	0.845198		574	173.226
198	5	0.804878	0.859618		574	172.522
199	5	0.808943	0.874218		574	171.809
200	5	0.813008	0.892733		574	170.905
201	5	0.817073	0.907769		574	170.171
202	5	0.821138	0.923014		574	169.426
203	5	0.825203	0.938476		574	168.671
204	5	0.829268	0.954165		574	167.905
205	5	0.833333	0.970094		574	167.127
206	5	0.837398	0.986272		574	166.337
207	5	0.841463	1.00271	574	165.534	
208	5	0.845528	1.01943	574	164.718	
209	5	0.849593	1.03643	574	163.888	
210	5	0.853659	1.05375	574	163.042	
211	5	0.857724	1.07138	574	162.181	
212	5	0.861789	1.08935	574	161.303	
213	5	0.865854	1.10768	574	160.408	
214	5	0.869919	1.12639	574	159.495	
215	5	0.873984	1.1455	574	158.561	
216	5	0.878049	1.17	574	157.365	
217	5	0.882114	1.19012	574	156.383	
218	5	0.886179	1.21073	574	155.376	
219	5	0.890244	1.23187	574	154.344	
220	5	0.894309	1.25357	574	153.284	
221	5	0.898374	1.27588	574	152.195	
222	5	0.902439	1.29884	574	151.074	
223	5	0.906504	1.32251	574	149.918	
224	5	0.910569	1.34694	574	148.724	
225	5	0.914634	1.3722	574	147.491	
226	5	0.918699	1.39838	574	146.213	
227	5	0.922764	1.42554	574	144.886	
228	5	0.926829	1.4538	574	143.506	
229	5	0.930894	1.48328	574	142.066	
230	5	0.934959	1.5141	574	140.561	
231	5	0.939024	1.55477	574	138.575	
232	5	0.943089	1.58927	574	136.891	
233	5	0.947154	1.62576	574	135.109	
234	5	0.95122	1.66456	574	133.214	

235	5	0.955285	1.70604	574	131.188
236	5	0.95935	1.75069	574	129.008
237	5	0.963415	1.79912	574	126.643
238	5	0.96748	1.85218	574	124.052
239	5	0.971545	1.91103	574	121.178
240	5	0.97561	1.97737	574	117.938
241	5	0.979675	2.05375	574	114.209
242	5	0.98374	2.14441	574	109.781
243	5	0.987805	2.25713	574	104.277
244	5	0.99187	2.40892	574	96.8642
245	5	0.995935	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: Dimethylphthalate

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 245

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-0.980829		-2.65209	7.03356	2.60124
2	-0.941609		-2.40892	12.8365	4.86951
3	-0.941609		-2.25713	17.9311	6.99484
4	-0.941609		-2.14441	22.5296	9.01403
5	-0.941609		-2.05375	26.7475	10.9479
6	-0.941609		-1.97737	30.6575	12.8098
7	-0.941609		-1.91103	34.3095	14.6092
8	-0.941609		-1.85218	37.7401	16.3532
9	-0.941609		-1.79912	40.9769	18.0473
10	-0.941609		-1.75069	44.0418	19.6958
11	-0.941609		-1.70604	46.9524	21.3022
12	-0.92887	-1.66456	49.7231	22.8483	
13	-0.92887	-1.62576	52.3662	24.3585	
14	-0.92887	-1.58927	54.892	25.8347	
15	-0.92887	-1.55477	57.3093	27.2789	
16	-0.92887	-1.5141	59.6018	28.6853	
17	-0.92887	-1.48328	61.802	30.0631	
18	-0.92887	-1.4538	63.9155	31.4134	
19	-0.92887	-1.42554	65.9477	32.7376	
20	-0.92887	-1.39838	67.9031	34.0365	
21	-0.92887	-1.3722	69.7861	35.3111	
22	-0.92887	-1.34694	71.6003	36.5622	
23	-0.92887	-1.32251	73.3494	37.7907	
24	-0.92887	-1.29884	75.0363	38.9971	
25	-0.92887	-1.27588	76.6642	40.1822	
26	-0.92887	-1.25357	78.2356	41.3466	
27	-0.92887	-1.23187	79.7531	42.4909	
28	-0.92887	-1.21073	81.219	43.6155	
29	-0.92887	-1.19012	82.6353	44.7209	
30	-0.92887	-1.17	84.0043	45.8077	
31	-0.92887	-1.1455	85.3164	46.8718	
32	-0.92887	-1.12639	86.5852	47.918	
33	-0.916291		-1.10768	87.8121	48.933
34	-0.903868		-1.08935	88.9988	49.9176
35	-0.903868		-1.07138	90.1467	50.886
36	-0.903868		-1.05375	91.2571	51.8384
37	-0.891598		-1.03643	92.3312	52.7625
38	-0.879477		-1.01943	93.3705	53.6591
39	-0.879477		-1.00271	94.3759	54.5409
40	-0.879477		-0.986272	95.3486	55.4083
41	-0.765718		-0.970094	96.2897	56.1512
42	-0.765718		-0.954165	97.2002	56.8818
43	-0.765718		-0.938476	98.0809	57.6004
44	0.587787		-0.923014	98.9328	57.0579
45	0.587787		-0.907769	99.7569	56.5243
46	0.854415		-0.892733	100.554	55.7615
47	0.854415		-0.874218	101.318	55.0146
48	0.854415		-0.859618	102.057	54.2801
49	0.854415		-0.845198	102.771	53.558
50	0.854415		-0.830953	103.462	52.848
51	0.916291		-0.816874	104.129	52.0995

52	0.916291	-0.802956		104.774	51.3637
53	0.936093	-0.789191		105.397	50.625
54	0.936093	-0.775574		105.998	49.899
55	0.936093	-0.7621	106.579	49.1856	
56	0.955511	-0.748762		107.14	48.4701
57	0.955511	-0.735557		107.681	47.7673
58	0.955511	-0.722479		108.203	47.077
59	0.955511	-0.709522		108.706	46.399
60	1.60944	-0.696684		109.192	45.2777
61	1.60944	-0.68396	109.659	44.1769	
62	1.60944	-0.668209		110.106	43.1015
63	1.60944	-0.655726		110.536	42.0461
64	1.60944	-0.643345		110.95	41.0107
65	1.60944	-0.631062		111.348	39.9951
66	1.60944	-0.618872		111.731	38.999
67	1.60944	-0.606775		112.099	38.0225
68	1.60944	-0.594766		112.453	37.0652
69	1.60944	-0.582841		112.793	36.1272
70	1.60944	-0.570999		113.119	35.2082
71	1.60944	-0.559237		113.431	34.3081
72	1.60944	-0.547551		113.731	33.4269
73	1.60944	-0.53594	114.018	32.5643	
74	1.60944	-0.524401		114.293	31.7203
75	1.60944	-0.51293	114.556	30.8948	
76	1.60944	-0.501527		114.808	30.0876
77	1.60944	-0.487364		115.046	29.3032
78	1.60944	-0.476105		115.272	28.537
79	1.60944	-0.464904		115.488	27.7887
80	1.60944	-0.453763		115.694	27.0584
81	1.60944	-0.442676		115.89	26.346
82	1.60944	-0.431644		116.077	25.6513
83	1.60944	-0.420664		116.253	24.9742
84	1.60944	-0.409735		116.421	24.3148
85	1.60944	-0.398855		116.58	23.6729
86	1.60944	-0.388022		116.731	23.0484
87	1.60944	-0.377233		116.873	22.4412
88	1.60944	-0.36649	117.008	21.8514	
89	1.60944	-0.355788		117.134	21.2788
90	1.60944	-0.345126		117.253	20.7233
91	1.60944	-0.334503		117.365	20.185
92	1.60944	-0.323919		117.47	19.6636
93	1.60944	-0.310738		117.567	19.1635
94	1.60944	-0.300232		117.657	18.6803
95	1.60944	-0.28976	117.741	18.214	
96	1.60944	-0.279319		117.819	17.7644
97	1.60944	-0.268908		117.891	17.3316
98	1.60944	-0.258527		117.958	16.9155
99	1.60944	-0.248174		118.02	16.5161
100	1.60944	-0.237847		118.076	16.1333
101	1.60944	-0.227545		118.128	15.7671
102	1.60944	-0.217267		118.175	15.4174
103	1.60944	-0.207012		118.218	15.0842
104	1.60944	-0.196779		118.257	14.7675
105	1.60944	-0.186567		118.292	14.4673
106	1.60944	-0.176374		118.323	14.1834
107	1.60944	-0.166199		118.35	13.9159
108	1.60944	-0.153505		118.374	13.6689
109	1.60944	-0.143367		118.394	13.4381
110	1.60944	-0.133244		118.412	13.2237
111	1.60944	-0.123135		118.427	13.0255
112	1.60944	-0.113039		118.44	12.8436
113	1.60944	-0.102953		118.451	12.6779

114	1.60944	-0.0928787		118.459	12.5284
115	1.60944	-0.0828129		118.466	12.3951
116	1.60944	-0.0727562		118.471	12.278
117	1.60944	-0.0627062		118.475	12.1771
118	1.60944	-0.0526632		118.478	12.0923
119	1.60944	-0.0426257		118.48	12.0237
120	1.60944	-0.0325917		118.481	11.9713
121	1.60944	-0.0225612		118.482	11.935
122	1.60944	-0.0125328		118.482	11.9148
123	1.60944	0	118.482	11.9148	
124	1.60944	0.0125328		118.482	11.935
125	1.60944	0.0225612		118.482	11.9713
126	1.60944	0.0325917		118.483	12.0237
127	1.60944	0.0426257		118.485	12.0923
128	1.60944	0.0526632		118.488	12.1771
129	1.60944	0.0627062		118.492	12.278
130	1.60944	0.0727562		118.497	12.3951
131	1.60944	0.0828129		118.504	12.5284
132	1.60944	0.0928787		118.513	12.6779
133	1.60944	0.102953		118.523	12.8436
134	1.60944	0.113039		118.536	13.0255
135	1.60944	0.123135		118.551	13.2237
136	1.60944	0.133244		118.569	13.4381
137	1.60944	0.143367		118.59	13.6689
138	1.60944	0.153505		118.613	13.9159
139	1.60944	0.166199		118.641	14.1834
140	1.60944	0.176374		118.672	14.4673
141	1.60944	0.186567		118.707	14.7675
142	1.60944	0.196779		118.745	15.0842
143	1.60944	0.207012		118.788	15.4174
144	1.60944	0.217267		118.835	15.7671
145	1.60944	0.227545		118.887	16.1333
146	1.60944	0.237847		118.944	16.5161
147	1.60944	0.248174		119.005	16.9155
148	1.60944	0.258527		119.072	17.3316
149	1.60944	0.268908		119.145	17.7644
150	1.60944	0.279319		119.223	18.214
151	1.60944	0.28976	119.306	18.6803	
152	1.60944	0.300232		119.397	19.1635
153	1.60944	0.310738		119.493	19.6636
154	1.60944	0.323919		119.598	20.185
155	1.60944	0.334503		119.71	20.7233
156	1.60944	0.345126		119.829	21.2788
157	1.60944	0.355788		119.956	21.8514
158	1.60944	0.36649	120.09	22.4412	
159	1.60944	0.377233		120.232	23.0484
160	1.60944	0.388022		120.383	23.6729
161	1.60944	0.398855		120.542	24.3148
162	1.60944	0.409735		120.71	24.9742
163	1.60944	0.420664		120.887	25.6513
164	1.60944	0.431644		121.073	26.346
165	1.60944	0.442676		121.269	27.0584
166	1.60944	0.453763		121.475	27.7887
167	1.60944	0.464904		121.691	28.537
168	1.60944	0.476105		121.918	29.3032
169	1.60944	0.487364		122.155	30.0876
170	1.60944	0.501527		122.407	30.8948
171	1.60944	0.51293	122.67	31.7203	
172	1.60944	0.524401		122.945	32.5643
173	1.60944	0.53594	123.232	33.4269	
174	1.60944	0.547551		123.532	34.3081
175	1.60944	0.559237		123.845	35.2082

176	1.60944	0.570999		124.171	36.1272
177	1.60944	0.582841		124.51	37.0652
178	1.60944	0.594766		124.864	38.0225
179	1.60944	0.606775		125.232	38.999
180	1.60944	0.618872		125.615	39.9951
181	1.60944	0.631062		126.014	41.0107
182	1.60944	0.643345		126.428	42.0461
183	1.60944	0.655726		126.858	43.1015
184	1.60944	0.668209		127.304	44.1769
185	1.60944	0.68396	127.772	45.2777	
186	1.60944	0.696684		128.257	46.399
187	1.60944	0.709522		128.761	47.5409
188	1.60944	0.722479		129.283	48.7037
189	1.60944	0.735557		129.824	49.8875
190	1.60944	0.748762		130.384	51.0926
191	1.60944	0.7621	130.965	52.3192	
192	1.60944	0.775574		131.567	53.5674
193	1.60944	0.789191		132.189	54.8376
194	1.60944	0.802956		132.834	56.1299
195	1.60944	0.816874		133.501	57.4446
196	1.60944	0.830953		134.192	58.782
197	1.60944	0.845198		134.906	60.1423
198	1.60944	0.859618		135.645	61.5258
199	1.60944	0.874218		136.409	62.9328
200	1.60944	0.892733		137.206	64.3696
201	1.60944	0.907769		138.03	65.8306
202	1.60944	0.923014		138.882	67.3161
203	1.60944	0.938476		139.763	68.8265
204	1.60944	0.954165		140.674	70.3622
205	1.60944	0.970094		141.615	71.9235
206	1.60944	0.986272		142.587	73.5108
207	1.60944	1.00271	143.593	75.1246	
208	1.60944	1.01943	144.632	76.7653	
209	1.60944	1.03643	145.706	78.4334	
210	1.60944	1.05375	146.817	80.1293	
211	1.60944	1.07138	147.965	81.8537	
212	1.60944	1.08935	149.151	83.6069	
213	1.60944	1.10768	150.378	85.3896	
214	1.60944	1.12639	151.647	87.2025	
215	1.60944	1.1455	152.959	89.0461	
216	1.60944	1.17	154.328	90.9292	
217	1.60944	1.19012	155.744	92.8446	
218	1.60944	1.21073	157.21	94.7932	
219	1.60944	1.23187	158.728	96.7758	
220	1.60944	1.25357	160.299	98.7933	
221	1.60944	1.27588	161.927	100.847	
222	1.60944	1.29884	163.614	102.937	
223	1.60944	1.32251	165.363	105.066	
224	1.60944	1.34694	167.177	107.233	
225	1.60944	1.3722	169.06	109.442	
226	1.60944	1.39838	171.016	111.693	
227	1.60944	1.42554	173.048	113.987	
228	1.60944	1.4538	175.161	116.327	
229	1.60944	1.48328	177.362	118.714	
230	1.60944	1.5141	179.654	121.151	
231	1.60944	1.55477	182.071	123.653	
232	1.60944	1.58927	184.597	126.211	
233	1.60944	1.62576	187.24	128.827	
234	1.60944	1.66456	190.011	131.506	
235	1.60944	1.70604	192.922	134.252	
236	1.60944	1.75069	195.986	137.07	
237	1.60944	1.79912	199.223	139.965	

238	1.60944	1.85218	202.654	142.946
239	1.60944	1.91103	206.306	146.022
240	1.60944	1.97737	210.216	149.205
241	1.60944	2.05375	214.434	152.51
242	1.60944	2.14441	219.032	155.961
243	1.60944	2.25713	224.127	159.594
244	1.60944	2.40892	229.93	163.471
245	1.60944	2.65209	236.963	167.739

Data Set Standard Deviation = 0.958099
Numerator = 28136.5
Denominator = 53075.2
W Statistic = 0.530125 = 28136.5 / 53075.2

5% Critical value of 0.976 exceeds 0.530125
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.530125
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Dimethylphthalate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.726458
0.726458 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.980829	0.00406504	-2.65209	42.4188	344.01
2	-0.941609	0.00813008	-2.40892	49.4131	332.136
3	-0.941609	0.0121951	-2.25713	49.4131	324.723
4	-0.941609	0.0162602	-2.14441	49.4131	319.219
5	-0.941609	0.0203252	-2.05375	49.4131	314.791
6	-0.941609	0.0243902	-1.97737	49.4131	311.062
7	-0.941609	0.0284553	-1.91103	49.4131	307.822
8	-0.941609	0.0325203	-1.85218	49.4131	304.948
9	-0.941609	0.0365854	-1.79912	49.4131	302.357
10	-0.941609	0.0406504	-1.75069	49.4131	299.992
11	-0.941609	0.0447154	-1.70604	49.4131	297.812
12	-0.92887	0.0487805	-1.66456	51.6849	295.786
13	-0.92887	0.0528455	-1.62576	51.6849	293.891
14	-0.92887	0.0569106	-1.58927	51.6849	292.109
15	-0.92887	0.0609756	-1.55477	51.6849	290.425
16	-0.92887	0.0650407	-1.5141	51.6849	288.439
17	-0.92887	0.0691057	-1.48328	51.6849	286.934
18	-0.92887	0.0731707	-1.4538	51.6849	285.494
19	-0.92887	0.0772358	-1.42554	51.6849	284.114
20	-0.92887	0.0813008	-1.39838	51.6849	282.787
21	-0.92887	0.0853659	-1.3722	51.6849	281.509
22	-0.92887	0.0894309	-1.34694	51.6849	280.276
23	-0.92887	0.0934959	-1.32251	51.6849	279.082
24	-0.92887	0.097561	-1.29884	51.6849	277.926
25	-0.92887	0.101626	-1.27588	51.6849	276.805
26	-0.92887	0.105691	-1.25357	51.6849	275.716
27	-0.92887	0.109756	-1.23187	51.6849	274.656
28	-0.92887	0.113821	-1.21073	51.6849	273.624
29	-0.92887	0.117886	-1.19012	51.6849	272.617
30	-0.92887	0.121951	-1.17	51.6849	271.635
31	-0.92887	0.126016	-1.1455	51.6849	270.439
32	-0.92887	0.130081	-1.12639	51.6849	269.505
33	-0.916291	0.134146	-1.10768	53.9282	268.592
34	-0.903868	0.138211	-1.08935	56.1435	267.697
35	-0.903868	0.142276	-1.07138	56.1435	266.819
36	-0.903868	0.146341	-1.05375	56.1435	265.958
37	-0.891598	0.150407	-1.03643	58.3317	265.112
38	-0.879477	0.154472	-1.01943	60.4933	264.282
39	-0.879477	0.158537	-1.00271	60.4933	263.466
40	-0.879477	0.162602	-0.986272	60.4933	262.663
41	-0.765718	0.166667	-0.970094	80.7803	261.873
42	-0.765718	0.170732	-0.954165	80.7803	261.095
43	-0.765718	0.174797	-0.938476	80.7803	260.329
44	0.587787	0.178862	-0.923014	322.155	259.574
45	0.587787	0.182927	-0.907769	322.155	258.829
46	0.854415	0.186992	-0.892733	369.704	258.095
47	0.854415	0.191057	-0.874218	369.704	257.191
48	0.854415	0.195122	-0.859618	369.704	256.478

49	0.854415	0.199187	-0.845198	369.704	255.774
50	0.854415	0.203252	-0.830953	369.704	255.078
51	0.916291	0.207317	-0.816874	380.739	254.391
52	0.916291	0.211382	-0.802956	380.739	253.711
53	0.936093	0.215447	-0.789191	384.27	253.039
54	0.936093	0.219512	-0.775574	384.27	252.374
55	0.936093	0.223577	-0.7621	384.27	251.716
56	0.955511	0.227642	-0.748762	387.733	251.065
57	0.955511	0.231707	-0.735557	387.733	250.42
58	0.955511	0.235772	-0.722479	387.733	249.781
59	0.955511	0.239837	-0.709522	387.733	249.148
60	1.60944	0.243902	-0.696684	504.35	248.521
61	1.60944	0.247967	-0.68396	504.35	247.9
62	1.60944	0.252033	-0.668209	504.35	247.131
63	1.60944	0.256098	-0.655726	504.35	246.521
64	1.60944	0.260163	-0.643345	504.35	245.917
65	1.60944	0.264228	-0.631062	504.35	245.317
66	1.60944	0.268293	-0.618872	504.35	244.722
67	1.60944	0.272358	-0.606775	504.35	244.131
68	1.60944	0.276423	-0.594766	504.35	243.544
69	1.60944	0.280488	-0.582841	504.35	242.962
70	1.60944	0.284553	-0.570999	504.35	242.384
71	1.60944	0.288618	-0.559237	504.35	241.809
72	1.60944	0.292683	-0.547551	504.35	241.239
73	1.60944	0.296748	-0.53594	504.35	240.672
74	1.60944	0.300813	-0.524401	504.35	240.108
75	1.60944	0.304878	-0.51293	504.35	239.548
76	1.60944	0.308943	-0.501527	504.35	238.991
77	1.60944	0.313008	-0.487364	504.35	238.3
78	1.60944	0.317073	-0.476105	504.35	237.75
79	1.60944	0.321138	-0.464904	504.35	237.203
80	1.60944	0.325203	-0.453763	504.35	236.659
81	1.60944	0.329268	-0.442676	504.35	236.117
82	1.60944	0.333333	-0.431644	504.35	235.579
83	1.60944	0.337398	-0.420664	504.35	235.042
84	1.60944	0.341463	-0.409735	504.35	234.509
85	1.60944	0.345528	-0.398855	504.35	233.977
86	1.60944	0.349593	-0.388022	504.35	233.448
87	1.60944	0.353659	-0.377233	504.35	232.922
88	1.60944	0.357724	-0.36649	504.35	232.397
89	1.60944	0.361789	-0.355788	504.35	231.874
90	1.60944	0.365854	-0.345126	504.35	231.354
91	1.60944	0.369919	-0.334503	504.35	230.835
92	1.60944	0.373984	-0.323919	504.35	230.318
93	1.60944	0.378049	-0.310738	504.35	229.674
94	1.60944	0.382114	-0.300232	504.35	229.161
95	1.60944	0.386179	-0.28976	504.35	228.65
96	1.60944	0.390244	-0.279319	504.35	228.14
97	1.60944	0.394309	-0.268908	504.35	227.632
98	1.60944	0.398374	-0.258527	504.35	227.125
99	1.60944	0.402439	-0.248174	504.35	226.619
100	1.60944	0.406504	-0.237847	504.35	226.115
101	1.60944	0.410569	-0.227545	504.35	225.612
102	1.60944	0.414634	-0.217267	504.35	225.11
103	1.60944	0.418699	-0.207012	504.35	224.609
104	1.60944	0.422764	-0.196779	504.35	224.109
105	1.60944	0.426829	-0.186567	504.35	223.611
106	1.60944	0.430894	-0.176374	504.35	223.113
107	1.60944	0.434959	-0.166199	504.35	222.616
108	1.60944	0.439024	-0.153505	504.35	221.996
109	1.60944	0.443089	-0.143367	504.35	221.501
110	1.60944	0.447154	-0.133244	504.35	221.007

111	1.60944	0.45122	-0.123135	504.35	220.513	
112	1.60944	0.455285	-0.113039	504.35	220.02	
113	1.60944	0.45935	-0.102953	504.35	219.528	
114	1.60944	0.463415	-0.0928787	504.35	219.036	
115	1.60944	0.46748	-0.0828129	504.35	218.544	
116	1.60944	0.471545	-0.0727562	504.35	218.053	
117	1.60944	0.47561	-0.0627062	504.35	217.562	
118	1.60944	0.479675	-0.0526632	504.35	217.072	
119	1.60944	0.48374	-0.0426257	504.35	216.582	
120	1.60944	0.487805	-0.0325917	504.35	216.092	
121	1.60944	0.49187	-0.0225612	504.35	215.602	
122	1.60944	0.495935	-0.0125328	504.35	215.112	
123	1.60944	0.5	0	504.35	214.5	
124	1.60944	0.504065	0.0125328	504.35	213.888	
125	1.60944	0.50813	0.0225612	504.35	213.398	
126	1.60944	0.512195	0.0325917	504.35	212.908	
127	1.60944	0.51626	0.0426257	504.35	212.418	
128	1.60944	0.520325	0.0526632	504.35	211.928	
129	1.60944	0.52439	0.0627062	504.35	211.438	
130	1.60944	0.528455	0.0727562	504.35	210.947	
131	1.60944	0.53252	0.0828129	504.35	210.456	
132	1.60944	0.536585	0.0928787	504.35	209.964	
133	1.60944	0.54065	0.102953	504.35	209.472	
134	1.60944	0.544715	0.113039	504.35	208.98	
135	1.60944	0.54878	0.123135	504.35	208.487	
136	1.60944	0.552846	0.133244	504.35	207.993	
137	1.60944	0.556911	0.143367	504.35	207.499	
138	1.60944	0.560976	0.153505	504.35	207.004	
139	1.60944	0.565041	0.166199	504.35	206.384	
140	1.60944	0.569106	0.176374	504.35	205.887	
141	1.60944	0.573171	0.186567	504.35	205.389	
142	1.60944	0.577236	0.196779	504.35	204.891	
143	1.60944	0.581301	0.207012	504.35	204.391	
144	1.60944	0.585366	0.217267	504.35	203.89	
145	1.60944	0.589431	0.227545	504.35	203.388	
146	1.60944	0.593496	0.237847	504.35	202.885	
147	1.60944	0.597561	0.248174	504.35	202.381	
148	1.60944	0.601626	0.258527	504.35	201.875	
149	1.60944	0.605691	0.268908	504.35	201.368	
150	1.60944	0.609756	0.279319	504.35	200.86	
151	1.60944	0.613821	0.28976	504.35	200.35	
152	1.60944	0.617886	0.300232	504.35	199.839	
153	1.60944	0.621951	0.310738	504.35	199.326	
154	1.60944	0.626016	0.323919	504.35	198.682	
155	1.60944	0.630081	0.334503	504.35	198.165	
156	1.60944	0.634146	0.345126	504.35	197.646	
157	1.60944	0.638211	0.355788	504.35	197.126	
158	1.60944	0.642276	0.36649	504.35	196.603	
159	1.60944	0.646341	0.377233	504.35	196.078	
160	1.60944	0.650407	0.388022	504.35	195.552	
161	1.60944	0.654472	0.398855	504.35	195.023	
162	1.60944	0.658537	0.409735	504.35	194.491	
163	1.60944	0.662602	0.420664	504.35	193.958	
164	1.60944	0.666667	0.431644	504.35	193.421	
165	1.60944	0.670732	0.442676	504.35	192.883	
166	1.60944	0.674797	0.453763	504.35	192.341	
167	1.60944	0.678862	0.464904	504.35	191.797	
168	1.60944	0.682927	0.476105	504.35	191.25	
169	1.60944	0.686992	0.487364	504.35	190.7	
170	1.60944	0.691057	0.501527	504.35	190.009	
171	1.60944	0.695122	0.51293	504.35	189.452	
172	1.60944	0.699187	0.524401	504.35	188.892	

173	1.60944	0.703252	0.53594	504.35	188.328	
174	1.60944	0.707317	0.547551		504.35	187.761
175	1.60944	0.711382	0.559237		504.35	187.191
176	1.60944	0.715447	0.570999		504.35	186.616
177	1.60944	0.719512	0.582841		504.35	186.038
178	1.60944	0.723577	0.594766		504.35	185.456
179	1.60944	0.727642	0.606775		504.35	184.869
180	1.60944	0.731707	0.618872		504.35	184.278
181	1.60944	0.735772	0.631062		504.35	183.683
182	1.60944	0.739837	0.643345		504.35	183.083
183	1.60944	0.743902	0.655726		504.35	182.479
184	1.60944	0.747967	0.668209		504.35	181.869
185	1.60944	0.752033	0.68396	504.35	181.1	
186	1.60944	0.756098	0.696684		504.35	180.479
187	1.60944	0.760163	0.709522		504.35	179.852
188	1.60944	0.764228	0.722479		504.35	179.219
189	1.60944	0.768293	0.735557		504.35	178.58
190	1.60944	0.772358	0.748762		504.35	177.935
191	1.60944	0.776423	0.7621	504.35	177.284	
192	1.60944	0.780488	0.775574		504.35	176.626
193	1.60944	0.784553	0.789191		504.35	175.961
194	1.60944	0.788618	0.802956		504.35	175.289
195	1.60944	0.792683	0.816874		504.35	174.609
196	1.60944	0.796748	0.830953		504.35	173.922
197	1.60944	0.800813	0.845198		504.35	173.226
198	1.60944	0.804878	0.859618		504.35	172.522
199	1.60944	0.808943	0.874218		504.35	171.809
200	1.60944	0.813008	0.892733		504.35	170.905
201	1.60944	0.817073	0.907769		504.35	170.171
202	1.60944	0.821138	0.923014		504.35	169.426
203	1.60944	0.825203	0.938476		504.35	168.671
204	1.60944	0.829268	0.954165		504.35	167.905
205	1.60944	0.833333	0.970094		504.35	167.127
206	1.60944	0.837398	0.986272		504.35	166.337
207	1.60944	0.841463	1.00271	504.35	165.534	
208	1.60944	0.845528	1.01943	504.35	164.718	
209	1.60944	0.849593	1.03643	504.35	163.888	
210	1.60944	0.853659	1.05375	504.35	163.042	
211	1.60944	0.857724	1.07138	504.35	162.181	
212	1.60944	0.861789	1.08935	504.35	161.303	
213	1.60944	0.865854	1.10768	504.35	160.408	
214	1.60944	0.869919	1.12639	504.35	159.495	
215	1.60944	0.873984	1.1455	504.35	158.561	
216	1.60944	0.878049	1.17	504.35	157.365	
217	1.60944	0.882114	1.19012	504.35	156.383	
218	1.60944	0.886179	1.21073	504.35	155.376	
219	1.60944	0.890244	1.23187	504.35	154.344	
220	1.60944	0.894309	1.25357	504.35	153.284	
221	1.60944	0.898374	1.27588	504.35	152.195	
222	1.60944	0.902439	1.29884	504.35	151.074	
223	1.60944	0.906504	1.32251	504.35	149.918	
224	1.60944	0.910569	1.34694	504.35	148.724	
225	1.60944	0.914634	1.3722	504.35	147.491	
226	1.60944	0.918699	1.39838	504.35	146.213	
227	1.60944	0.922764	1.42554	504.35	144.886	
228	1.60944	0.926829	1.4538	504.35	143.506	
229	1.60944	0.930894	1.48328	504.35	142.066	
230	1.60944	0.934959	1.5141	504.35	140.561	
231	1.60944	0.939024	1.55477	504.35	138.575	
232	1.60944	0.943089	1.58927	504.35	136.891	
233	1.60944	0.947154	1.62576	504.35	135.109	
234	1.60944	0.95122	1.66456	504.35	133.214	

235	1.60944	0.955285		1.70604	504.35	131.188
236	1.60944	0.95935	1.75069	504.35	129.008	
237	1.60944	0.963415		1.79912	504.35	126.643
238	1.60944	0.96748	1.85218	504.35	124.052	
239	1.60944	0.971545		1.91103	504.35	121.178
240	1.60944	0.97561	1.97737	504.35	117.938	
241	1.60944	0.979675		2.05375	504.35	114.209
242	1.60944	0.98374	2.14441	504.35	109.781	
243	1.60944	0.987805		2.25713	504.35	104.277
244	1.60944	0.99187	2.40892	504.35	96.8642	
245	1.60944	0.995935		2.65209	504.35	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Dimethylphthalate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 99.1837%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 1.60944
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-10	11/22/2011	2	-0.935239	FALSE
MW-6	11/22/2011	2	-0.935239	FALSE
MW-8	11/22/2011	2	-0.92887	FALSE
MW-7	11/22/2011	2	-0.954849	FALSE
MW-12BR	11/22/2011	2	-0.92887	FALSE
MW-11R	11/22/2011	2	-0.92887	FALSE
MW-12AR	11/22/2011	2	-0.92887	FALSE
MW-9	11/22/2011	2	0.587787	FALSE

Concentrations (ppb)

Parameter: Ethyl Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 212
Percent Non-Detects: 86.1789%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<1	ND<1
			11/16/2009	ND<1	ND<1
			6/30/2010	ND<1	ND<1
			11/12/2010	ND<1 U	ND<1 U
			7/5/2011	ND<1 U	ND<1 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	31	29 (93.5484%)	7/20/1995	ND<2	ND<2
			8/24/1995	0.27 J	0.27 J
			9/28/1995	ND<2	ND<2
			10/26/1995	0.4 J	0.4 J
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<1	ND<1	
			11/16/2009	ND<1	ND<1	
			6/30/2010	ND<1	ND<1	
			11/12/2010	ND<1 U	ND<1 U	
			7/5/2011 ND<1 U	ND<1 U		
			11/22/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
MW-7	31	19 (61.2903%)	7/20/1995	1.2 J	1.2 J	
			8/24/1995	0.75 J	0.75 J	
			9/28/1995	0.9 J	0.9 J	
			10/26/1995	0.9 J	0.9 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 2.74	2.74		
			10/25/2005	1.47 J	1.47 J	
			4/29/2006	2.27	2.27	
			11/18/2006	0.72 J	0.72 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.98 J	0.98 J	
			6/5/2008 0.83 J	0.83 J		
			11/20/2008	1.23 J	1.23 J	
			6/11/2009	ND<1	ND<1	
			11/16/2009	ND<1	ND<1	
			6/30/2010	ND<1	ND<1	
			11/12/2010	ND<1 U	ND<1 U	
			7/5/2011 1.7	1.7		
			11/22/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
MW-8	30	21 (70%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 0.76 J	0.76 J		
			10/25/2005	0.96 J	0.96 J	
			4/29/2006	0.3 J	0.3 J	
			11/18/2006	0.38 J	0.38 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	

			6/5/2008	ND<2	ND<2	
			11/20/2008	1.1 J	1.1 J	
			6/11/2009	9.1	9.1	
			6/30/2010	ND<1	ND<1	
			11/12/2010	1.9	1.9	
			7/5/2011	ND<1 U	ND<1 U	
			11/22/2011	2.1	2.1	
			11/22/2011	2.1	2.1	
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<1	ND<1	
			11/16/2009	ND<1	ND<1	
			6/30/2010	ND<1	ND<1	
			11/12/2010	ND<1 U	ND<1 U	
			7/5/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
MW-11R	31	24 (77.4194%)	7/20/1995	0.4 J	0.4 J	
			8/24/1995	ND<2	ND<2	
			9/28/1995	0.4 J	0.4 J	
			10/26/1995	0.7 J	0.7 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	0.42 J	0.42 J	
			4/29/2006	0.56 J	0.56 J	
			11/18/2006	0.82 J	0.82 J	
			5/23/2007	ND<2	ND<2	

			11/28/2007	0.2 J	0.2 J		
			6/5/2008	ND<2	ND<2		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<1	ND<1		
			11/16/2009	ND<1	ND<1		
			6/30/2010	ND<1	ND<1		
			11/12/2010	ND<1 U	ND<1 U		
			7/5/2011	ND<1 U	ND<1 U		
			11/22/2011	ND<1 U	ND<1 U		
			11/22/2011	ND<1 U	ND<1 U		
MW-12BR		21	20 (95.2381%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	0.4 J	0.4 J		
			10/25/2005	ND<2	ND<2		
			4/29/2006	ND<2	ND<2		
			11/18/2006	ND<2	ND<2		
			5/23/2007	ND<2	ND<2		
			11/28/2007	ND<2	ND<2		
			6/5/2008	ND<2	ND<2		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<1	ND<1		
			11/16/2009	ND<1	ND<1		
			6/30/2010	ND<1	ND<1		
			11/12/2010	ND<1 U	ND<1 U		
			7/5/2011	ND<1 U	ND<1 U		
			11/22/2011	ND<1 U	ND<1 U		
			11/22/2011	ND<1 U	ND<1 U		
MW-9	31	28 (90.3226%)	7/20/1995		ND<2	ND<2	
			8/24/1995	ND<2	ND<2		
			9/28/1995	ND<2	ND<2		
			10/26/1995	ND<2	ND<2		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		
			4/7/1998	ND<2	ND<2		
			9/23/1998	ND<2	ND<2		
			3/16/1999	ND<2	ND<2		
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	ND<2	ND<2		
			10/25/2005	ND<2	ND<2		
			4/29/2006	ND<2	ND<2		
			11/18/2006	0.22 J	0.22 J		
			5/23/2007	ND<2	ND<2		
			11/28/2007	0.53 J	0.53 J		
			6/5/2008	0.43 J	0.43 J		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<1	ND<1		
			11/16/2009	ND<1	ND<1		
			6/30/2010	ND<1	ND<1		
			11/12/2010	ND<1 U	ND<1 U		
			7/5/2011	ND<1 U	ND<1 U		

		11/22/2011	ND<1 U	ND<1 U		
		11/22/2011	ND<1 U	ND<1 U		
MW-12A R	21	21 (100%)	3/16/1999		ND<2	ND<2
		9/23/1999	ND<2	ND<2		
		3/15/2000	ND<2	ND<2		
		9/24/2003	ND<2	ND<2		
		3/11/2004	ND<2	ND<2		
		10/12/2004	ND<2	ND<2		
		4/1/2005 ND<2	ND<2			
		10/25/2005	ND<2	ND<2		
		4/29/2006	ND<2	ND<2		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	ND<2	ND<2		
		6/5/2008 ND<2	ND<2			
		11/20/2008	ND<2	ND<2		
		6/11/2009	ND<1	ND<1		
		11/16/2009	ND<1	ND<1		
		6/30/2010	ND<1	ND<1		
		11/12/2010	ND<1 U	ND<1 U		
		7/5/2011 ND<1 U	ND<1 U			
		11/22/2011	ND<1 U	ND<1 U		
		11/22/2011	ND<1 U	ND<1 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Ethyl Chloride

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.65209	7.03356	-0.530417
2	0.22	-2.40892	12.8365	-1.06038
3	0.27	-2.25713	17.9311	-1.66981
4	0.3	-2.14441	22.5296	-2.31313
5	0.38	-2.05375	26.7475	-3.09355
6	0.4	-1.97737	30.6575	-3.8845
7	0.4	-1.91103	34.3095	-4.64891
8	0.4	-1.85218	37.7401	-5.38978
9	0.4	-1.79912	40.9769	-6.10943
10	0.42	-1.75069	44.0418	-6.84472
11	0.43	-1.70604	46.9524	-7.57832
12	0.5	-1.66456	49.7231	-8.4106
13	0.5	-1.62576	52.3662	-9.22348
14	0.5	-1.58927	54.892	-10.0181
15	0.5	-1.55477	57.3093	-10.7955
16	0.5	-1.52203	59.6259	-11.5565
17	0.5	-1.49085	61.8486	-12.3019
18	0.5	-1.46106	63.9833	-13.0325
19	0.5	-1.4325	66.0353	-13.7487
20	0.5	-1.40507	68.0096	-14.4513
21	0.5	-1.3722	69.8925	-15.1374
22	0.5	-1.34694	71.7067	-15.8108
23	0.5	-1.32251	73.4558	-16.4721
24	0.5	-1.29884	75.1427	-17.1215
25	0.5	-1.27588	76.7706	-17.7594
26	0.5	-1.25357	78.342	-18.3862
27	0.5	-1.23187	79.8595	-19.0022
28	0.5	-1.21073	81.3254	-19.6075
29	0.5	-1.19012	82.7418	-20.2026
30	0.5	-1.17	84.1107	-20.7876
31	0.5	-1.15035	85.434	-21.3628
32	0.5	-1.13113	86.7134	-21.9283
33	0.5	-1.11232	87.9507	-22.4845
34	0.5	-1.0939	89.1473	-23.0314
35	0.5	-1.07584	90.3047	-23.5693
36	0.5	-1.05812	91.4243	-24.0984
37	0.5	-1.04073	92.5075	-24.6188
38	0.5	-1.02365	93.5553	-25.1306
39	0.5	-1.00687	94.5691	-25.634
40	0.5	-0.990356	95.5499	-26.1292
41	0.5	-0.974114	96.4988	-26.6163
42	0.5	-0.954165	97.4092	-27.0934
43	0.5	-0.938476	98.29	-27.5626
44	0.5	-0.923014	99.1419	-28.0241
45	0.5	-0.907769	99.966	-28.478
46	0.5	-0.892733	100.763	-28.9243
47	0.5	-0.877897	101.534	-29.3633
48	0.5	-0.863249	102.279	-29.7949
49	0.5	-0.848786	102.999	-30.2193
50	0.5	-0.834498	103.696	-30.6366
51	0.5	-0.820379	104.369	-31.0468

52	0.5	-0.806422	105.019	-31.45
53	0.5	-0.792618	105.647	-31.8463
54	0.5	-0.778966	106.254	-32.2358
55	0.5	-0.765456	106.84	-32.6185
56	0.5	-0.752084	107.406	-32.9945
57	0.5	-0.738846	107.951	-33.3639
58	0.5	-0.725736	108.478	-33.7268
59	0.5	-0.712751	108.986	-34.0832
60	0.5	-0.699883	109.476	-34.4331
61	0.5	-0.687131	109.948	-34.7767
62	0.5	-0.671346	110.399	-35.1124
63	0.5	-0.658838	110.833	-35.4418
64	0.5	-0.646431	111.251	-35.765
65	0.5	-0.634124	111.653	-36.0821
66	0.5	-0.621911	112.04	-36.393
67	0.53	-0.609791	112.412	-36.7162
68	0.56	-0.597761	112.769	-37.051
69	0.7	-0.585815	113.112	-37.461
70	0.72	-0.573953	113.441	-37.8743
71	0.75	-0.56217	113.758	-38.2959
72	0.76	-0.550465	114.061	-38.7143
73	0.82	-0.538836	114.351	-39.1561
74	0.83	-0.52728	114.629	-39.5937
75	0.9	-0.515791	114.895	-40.058
76	0.9	-0.504372	115.149	-40.5119
77	0.96	-0.493018	115.392	-40.9852
78	0.98	-0.481728	115.624	-41.4573
79	1	-0.470498	115.846	-41.9278
80	1	-0.459327	116.057	-42.3871
81	1	-0.448213	116.258	-42.8353
82	1	-0.437153	116.449	-43.2725
83	1	-0.423405	116.628	-43.6959
84	1	-0.412463	116.798	-44.1083
85	1	-0.401571	116.959	-44.5099
86	1	-0.390726	117.112	-44.9006
87	1	-0.379927	117.256	-45.2806
88	1	-0.369171	117.393	-45.6497
89	1	-0.358459	117.521	-46.0082
90	1	-0.347787	117.642	-46.356
91	1	-0.337155	117.756	-46.6931
92	1	-0.326561	117.863	-47.0197
93	1	-0.316004	117.962	-47.3357
94	1	-0.305481	118.056	-47.6412
95	1	-0.294992	118.143	-47.9362
96	1	-0.284535	118.224	-48.2207
97	1	-0.27411	118.299	-48.4948
98	1	-0.263715	118.368	-48.7585
99	1	-0.253347	118.433	-49.0119
100	1	-0.243007	118.492	-49.2549
101	1	-0.232693	118.546	-49.4876
102	1	-0.222403	118.595	-49.71
103	1	-0.209575	118.639	-49.9196
104	1	-0.199336	118.679	-50.1189
105	1	-0.189118	118.715	-50.308
106	1	-0.17892	118.747	-50.4869
107	1	-0.168741	118.775	-50.6557
108	1	-0.158579	118.8	-50.8143
109	1	-0.148434	118.822	-50.9627
110	1	-0.138305	118.841	-51.101
111	1	-0.128189	118.858	-51.2292
112	1	-0.118085	118.872	-51.3473
113	1	-0.107995	118.883	-51.4553

114	1	-0.0979139	118.893	-51.5532
115	1	-0.0878447	118.901	-51.641
116	1	-0.0777834	118.907	-51.7188
117	1	-0.0677301	118.911	-51.7865
118	1	-0.0576847	118.915	-51.8442
119	1	-0.0476439	118.917	-51.8919
120	1	-0.0376076	118.918	-51.9295
121	1	-0.0275759	118.919	-51.957
122	1	-0.0175476	118.919	-51.9746
123	1	-0.00751925	118.92	-51.9821
124	1	0.00751925	118.92	-51.9746
125	1	0.0175476	118.92	-51.957
126	1	0.0275759	118.921	-51.9295
127	1	0.0376076	118.922	-51.8919
128	1	0.0476439	118.924	-51.8442
129	1	0.0576847	118.928	-51.7865
130	1	0.0677301	118.932	-51.7188
131	1	0.0777834	118.938	-51.641
132	1	0.0878447	118.946	-51.5532
133	1	0.0979139	118.956	-51.4553
134	1	0.107995	118.967	-51.3473
135	1	0.118085	118.981	-51.2292
136	1	0.128189	118.998	-51.101
137	1	0.138305	119.017	-50.9627
138	1	0.148434	119.039	-50.8143
139	1	0.158579	119.064	-50.6557
140	1	0.168741	119.092	-50.4869
141	1	0.17892	119.124	-50.308
142	1	0.189118	119.16	-50.1189
143	1	0.199336	119.2	-49.9196
144	1	0.209575	119.244	-49.71
145	1	0.222403	119.293	-49.4876
146	1	0.232693	119.347	-49.2549
147	1	0.243007	119.407	-49.0119
148	1	0.253347	119.471	-48.7585
149	1	0.263715	119.54	-48.4948
150	1	0.27411	119.615	-48.2207
151	1	0.284535	119.696	-47.9362
152	1	0.294992	119.783	-47.6412
153	1	0.305481	119.877	-47.3357
154	1	0.316004	119.977	-47.0197
155	1	0.326561	120.083	-46.6931
156	1	0.337155	120.197	-46.356
157	1	0.347787	120.318	-46.0082
158	1	0.358459	120.446	-45.6497
159	1	0.369171	120.583	-45.2806
160	1	0.379927	120.727	-44.9006
161	1	0.390726	120.88	-44.5099
162	1	0.401571	121.041	-44.1083
163	1	0.412463	121.211	-43.6959
164	1	0.423405	121.39	-43.2725
165	1	0.437153	121.581	-42.8353
166	1	0.448213	121.782	-42.3871
167	1	0.459327	121.993	-41.9278
168	1	0.470498	122.215	-41.4573
169	1	0.481728	122.447	-40.9756
170	1	0.493018	122.69	-40.4825
171	1	0.504372	122.944	-39.9782
172	1	0.515791	123.21	-39.4624
173	1	0.52728	123.488	-38.9351
174	1	0.538836	123.779	-38.3963
175	1	0.550465	124.082	-37.8458

176	1	0.56217	124.398	-37.2836
177	1	0.573953	124.727	-36.7097
178	1	0.585815	125.07	-36.1239
179	1	0.597761	125.428	-35.5261
180	1	0.609791	125.799	-34.9163
181	1	0.621911	126.186	-34.2944
182	1	0.634124	126.588	-33.6603
183	1	0.646431	127.006	-33.0138
184	1	0.658838	127.44	-32.355
185	1	0.671346	127.891	-31.6837
186	1	0.687131	128.363	-30.9965
187	1	0.699883	128.853	-30.2966
188	1	0.712751	129.361	-29.5839
189	1	0.725736	129.888	-28.8582
190	1	0.738846	130.433	-28.1193
191	1	0.752084	130.999	-27.3672
192	1	0.765456	131.585	-26.6018
193	1	0.778966	132.192	-25.8228
194	1	0.792618	132.82	-25.0302
195	1	0.806422	133.47	-24.2238
196	1	0.820379	134.143	-23.4034
197	1	0.834498	134.84	-22.5689
198	1	0.848786	135.56	-21.7201
199	1	0.863249	136.305	-20.8568
200	1	0.877897	137.076	-19.979
201	1	0.892733	137.873	-19.0862
202	1	0.907769	138.697	-18.1784
203	1	0.923014	139.549	-17.2554
204	1	0.938476	140.43	-16.317
205	1	0.954165	141.34	-15.3628
206	1	0.974114	142.289	-14.3887
207	1	0.990356	143.27	-13.3983
208	1	1.00687	144.284	-12.3915
209	1	1.02365	145.332	-11.3678
210	1	1.04073	146.415	-10.3271
211	1	1.05812	147.534	-9.26895
212	1	1.07584	148.692	-8.19312
213	1	1.0939	149.888	-7.09922
214	1	1.11232	151.126	-5.9869
215	1	1.13113	152.405	-4.85577
216	1	1.15035	153.728	-3.70542
217	1	1.17	155.097	-2.53542
218	1	1.19012	156.514	-1.3453
219	1	1.21073	157.98	-0.134568
220	1	1.23187	159.497	1.0973
221	1	1.25357	161.068	2.35086
222	1	1.27588	162.696	3.62674
223	1	1.29884	164.383	4.92557
224	1	1.32251	166.132	6.24808
225	1	1.34694	167.947	7.59502
226	1	1.3722	169.83	8.96722
227	1	1.40507	171.804	10.3723
228	1	1.4325	173.856	11.8048
229	1	1.46106	175.991	13.2659
230	1	1.49085	178.213	14.7567
231	1	1.52203	180.53	16.2787
232	1	1.55477	182.947	17.8335
233	1	1.58927	185.473	19.4228
234	1	1.62576	188.116	21.0486
235	1	1.66456	190.887	22.7131
236	1.1	1.70604	193.797	24.5898
237	1.2	1.75069	196.862	26.6906

238	1.23	1.79912	200.099	28.9035
239	1.47	1.85218	203.53	31.6262
240	1.7	1.91103	207.182	34.8749
241	1.9	1.97737	211.092	38.632
242	2.1	2.05375	215.309	42.9448
243	2.1	2.14441	219.908	47.4481
244	2.27	2.25713	225.003	52.5718
245	2.74	2.40892	230.806	59.1722
246	9.1	2.65209	237.839	83.3062

Data Set Standard Deviation = 0.611899
Numerator = 6939.92
Denominator = 21817.7
W Statistic = 0.318087 = 6939.92 / 21817.7

5% Critical value of 0.976 exceeds 0.318087
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.318087
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Ethyl Chloride

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.574698
0.574698 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00404858	-2.65209	49.7	344.01	
2	0.22	0.00809717	-2.40892	50.77	332.136	
3	0.27	0.0121457	-2.25713	53.445	324.723	
4	0.3	0.0161943	-2.14441	55.05	319.219	
5	0.38	0.0202429	-2.05375	59.33	314.791	
6	0.4	0.0242915	-1.97737	60.4	311.062	
7	0.4	0.0283401	-1.91103	60.4	307.822	
8	0.4	0.0323887	-1.85218	60.4	304.948	
9	0.4	0.0364372	-1.79912	60.4	302.357	
10	0.42	0.0404858	-1.75069	61.47	299.992	
11	0.43	0.0445344	-1.70604	62.005	297.812	
12	0.5	0.048583	-1.66456	65.75	295.786	
13	0.5	0.0526316	-1.62576	65.75	293.891	
14	0.5	0.0566802	-1.58927	65.75	292.109	
15	0.5	0.0607287	-1.55477	65.75	290.425	
16	0.5	0.0647773	-1.52203	65.75	288.826	
17	0.5	0.0688259	-1.49085	65.75	287.303	
18	0.5	0.0728745	-1.46106	65.75	285.848	
19	0.5	0.0769231	-1.4325	65.75	284.454	
20	0.5	0.0809717	-1.40507	65.75	283.114	
21	0.5	0.0850202	-1.3722	65.75	281.509	
22	0.5	0.0890688	-1.34694	65.75	280.276	
23	0.5	0.0931174	-1.32251	65.75	279.082	
24	0.5	0.097166	-1.29884	65.75	277.926	
25	0.5	0.101215	-1.27588	65.75	276.805	
26	0.5	0.105263	-1.25357	65.75	275.716	
27	0.5	0.109312	-1.23187	65.75	274.656	
28	0.5	0.11336	-1.21073	65.75	273.624	
29	0.5	0.117409	-1.19012	65.75	272.617	
30	0.5	0.121457	-1.17	65.75	271.635	
31	0.5	0.125506	-1.15035	65.75	270.675	
32	0.5	0.129555	-1.13113	65.75	269.737	
33	0.5	0.133603	-1.11232	65.75	268.818	
34	0.5	0.137652	-1.0939	65.75	267.919	
35	0.5	0.1417	-1.07584	65.75	267.037	
36	0.5	0.145749	-1.05812	65.75	266.172	
37	0.5	0.149798	-1.04073	65.75	265.322	
38	0.5	0.153846	-1.02365	65.75	264.488	
39	0.5	0.157895	-1.00687	65.75	263.669	
40	0.5	0.161943	-0.990356	65.75	262.862	
41	0.5	0.165992	-0.974114	65.75	262.069	
42	0.5	0.17004	-0.954165	65.75	261.095	
43	0.5	0.174089	-0.938476	65.75	260.329	
44	0.5	0.178138	-0.923014	65.75	259.574	
45	0.5	0.182186	-0.907769	65.75	258.829	
46	0.5	0.186235	-0.892733	65.75	258.095	
47	0.5	0.190283	-0.877897	65.75	257.371	
48	0.5	0.194332	-0.863249	65.75	256.655	

49	0.5	0.198381	-0.848786	65.75	255.949
50	0.5	0.202429	-0.834498	65.75	255.251
51	0.5	0.206478	-0.820379	65.75	254.562
52	0.5	0.210526	-0.806422	65.75	253.88
53	0.5	0.214575	-0.792618	65.75	253.206
54	0.5	0.218623	-0.778966	65.75	252.54
55	0.5	0.222672	-0.765456	65.75	251.88
56	0.5	0.226721	-0.752084	65.75	251.227
57	0.5	0.230769	-0.738846	65.75	250.58
58	0.5	0.234818	-0.725736	65.75	249.94
59	0.5	0.238866	-0.712751	65.75	249.306
60	0.5	0.242915	-0.699883	65.75	248.678
61	0.5	0.246964	-0.687131	65.75	248.055
62	0.5	0.251012	-0.671346	65.75	247.284
63	0.5	0.255061	-0.658838	65.75	246.673
64	0.5	0.259109	-0.646431	65.75	246.067
65	0.5	0.263158	-0.634124	65.75	245.466
66	0.5	0.267206	-0.621911	65.75	244.87
67	0.53	0.271255	-0.609791	67.355	244.278
68	0.56	0.275304	-0.597761	68.96	243.691
69	0.7	0.279352	-0.585815	76.45	243.107
70	0.72	0.283401	-0.573953	77.52	242.528
71	0.75	0.287449	-0.56217	79.125	241.953
72	0.76	0.291498	-0.550465	79.66	241.381
73	0.82	0.295547	-0.538836	82.87	240.813
74	0.83	0.299595	-0.52728	83.405	240.249
75	0.9	0.303644	-0.515791	87.15	239.688
76	0.9	0.307692	-0.504372	87.15	239.13
77	0.96	0.311741	-0.493018	90.36	238.576
78	0.98	0.315789	-0.481728	91.43	238.024
79	1	0.319838	-0.470498	92.5	237.476
80	1	0.323887	-0.459327	92.5	236.93
81	1	0.327935	-0.448213	92.5	236.388
82	1	0.331984	-0.437153	92.5	235.848
83	1	0.336032	-0.423405	92.5	235.176
84	1	0.340081	-0.412463	92.5	234.642
85	1	0.34413	-0.401571	92.5	234.11
86	1	0.348178	-0.390726	92.5	233.58
87	1	0.352227	-0.379927	92.5	233.053
88	1	0.356275	-0.369171	92.5	232.528
89	1	0.360324	-0.358459	92.5	232.005
90	1	0.364372	-0.347787	92.5	231.484
91	1	0.368421	-0.337155	92.5	230.964
92	1	0.37247	-0.326561	92.5	230.447
93	1	0.376518	-0.316004	92.5	229.932
94	1	0.380567	-0.305481	92.5	229.418
95	1	0.384615	-0.294992	92.5	228.905
96	1	0.388664	-0.284535	92.5	228.395
97	1	0.392713	-0.27411	92.5	227.886
98	1	0.396761	-0.263715	92.5	227.378
99	1	0.40081	-0.253347	92.5	226.872
100	1	0.404858	-0.243007	92.5	226.367
101	1	0.408907	-0.232693	92.5	225.863
102	1	0.412955	-0.222403	92.5	225.361
103	1	0.417004	-0.209575	92.5	224.734
104	1	0.421053	-0.199336	92.5	224.234
105	1	0.425101	-0.189118	92.5	223.735
106	1	0.42915	-0.17892	92.5	223.237
107	1	0.433198	-0.168741	92.5	222.74
108	1	0.437247	-0.158579	92.5	222.244
109	1	0.441296	-0.148434	92.5	221.749
110	1	0.445344	-0.138305	92.5	221.254

111	1	0.449393	-0.128189	92.5	220.76
112	1	0.453441	-0.118085	92.5	220.267
113	1	0.45749	-0.107995	92.5	219.774
114	1	0.461538	-0.0979139	92.5	219.281
115	1	0.465587	-0.0878447	92.5	218.79
116	1	0.469636	-0.0777834	92.5	218.298
117	1	0.473684	-0.0677301	92.5	217.807
118	1	0.477733	-0.0576847	92.5	217.317
119	1	0.481781	-0.0476439	92.5	216.827
120	1	0.48583	-0.0376076	92.5	216.337
121	1	0.489879	-0.0275759	92.5	215.847
122	1	0.493927	-0.0175476	92.5	215.357
123	1	0.497976	-0.00751925	92.5	214.867
124	1	0.502024	0.00751925	92.5	214.133
125	1	0.506073	0.0175476	92.5	213.643
126	1	0.510121	0.0275759	92.5	213.153
127	1	0.51417	0.0376076	92.5	212.663
128	1	0.518219	0.0476439	92.5	212.173
129	1	0.522267	0.0576847	92.5	211.683
130	1	0.526316	0.0677301	92.5	211.193
131	1	0.530364	0.0777834	92.5	210.702
132	1	0.534413	0.0878447	92.5	210.21
133	1	0.538462	0.0979139	92.5	209.719
134	1	0.54251	0.107995	92.5	209.226
135	1	0.546559	0.118085	92.5	208.733
136	1	0.550607	0.128189	92.5	208.24
137	1	0.554656	0.138305	92.5	207.746
138	1	0.558704	0.148434	92.5	207.251
139	1	0.562753	0.158579	92.5	206.756
140	1	0.566802	0.168741	92.5	206.26
141	1	0.57085	0.17892	92.5	205.763
142	1	0.574899	0.189118	92.5	205.265
143	1	0.578947	0.199336	92.5	204.766
144	1	0.582996	0.209575	92.5	204.266
145	1	0.587045	0.222403	92.5	203.639
146	1	0.591093	0.232693	92.5	203.137
147	1	0.595142	0.243007	92.5	202.633
148	1	0.59919	0.253347	92.5	202.128
149	1	0.603239	0.263715	92.5	201.622
150	1	0.607287	0.27411	92.5	201.114
151	1	0.611336	0.284535	92.5	200.605
152	1	0.615385	0.294992	92.5	200.095
153	1	0.619433	0.305481	92.5	199.582
154	1	0.623482	0.316004	92.5	199.068
155	1	0.62753	0.326561	92.5	198.553
156	1	0.631579	0.337155	92.5	198.036
157	1	0.635628	0.347787	92.5	197.516
158	1	0.639676	0.358459	92.5	196.995
159	1	0.643725	0.369171	92.5	196.472
160	1	0.647773	0.379927	92.5	195.947
161	1	0.651822	0.390726	92.5	195.42
162	1	0.65587	0.401571	92.5	194.89
163	1	0.659919	0.412463	92.5	194.358
164	1	0.663968	0.423405	92.5	193.824
165	1	0.668016	0.437153	92.5	193.152
166	1	0.672065	0.448213	92.5	192.612
167	1	0.676113	0.459327	92.5	192.07
168	1	0.680162	0.470498	92.5	191.524
169	1	0.684211	0.481728	92.5	190.976
170	1	0.688259	0.493018	92.5	190.424
171	1	0.692308	0.504372	92.5	189.87
172	1	0.696356	0.515791	92.5	189.312

173	1	0.700405	0.52728	92.5	188.751	
174	1	0.704453	0.538836		92.5	188.187
175	1	0.708502	0.550465		92.5	187.619
176	1	0.712551	0.56217	92.5	187.047	
177	1	0.716599	0.573953		92.5	186.472
178	1	0.720648	0.585815		92.5	185.893
179	1	0.724696	0.597761		92.5	185.309
180	1	0.728745	0.609791		92.5	184.722
181	1	0.732794	0.621911		92.5	184.13
182	1	0.736842	0.634124		92.5	183.534
183	1	0.740891	0.646431		92.5	182.933
184	1	0.744939	0.658838		92.5	182.327
185	1	0.748988	0.671346		92.5	181.716
186	1	0.753036	0.687131		92.5	180.945
187	1	0.757085	0.699883		92.5	180.322
188	1	0.761134	0.712751		92.5	179.694
189	1	0.765182	0.725736		92.5	179.06
190	1	0.769231	0.738846		92.5	178.42
191	1	0.773279	0.752084		92.5	177.773
192	1	0.777328	0.765456		92.5	177.12
193	1	0.781377	0.778966		92.5	176.46
194	1	0.785425	0.792618		92.5	175.794
195	1	0.789474	0.806422		92.5	175.12
196	1	0.793522	0.820379		92.5	174.438
197	1	0.797571	0.834498		92.5	173.749
198	1	0.801619	0.848786		92.5	173.051
199	1	0.805668	0.863249		92.5	172.345
200	1	0.809717	0.877897		92.5	171.629
201	1	0.813765	0.892733		92.5	170.905
202	1	0.817814	0.907769		92.5	170.171
203	1	0.821862	0.923014		92.5	169.426
204	1	0.825911	0.938476		92.5	168.671
205	1	0.82996	0.954165	92.5	167.905	
206	1	0.834008	0.974114		92.5	166.931
207	1	0.838057	0.990356		92.5	166.138
208	1	0.842105	1.00687	92.5	165.331	
209	1	0.846154	1.02365	92.5	164.512	
210	1	0.850202	1.04073	92.5	163.678	
211	1	0.854251	1.05812	92.5	162.828	
212	1	0.8583	1.07584	92.5	161.963	
213	1	0.862348	1.0939	92.5	161.081	
214	1	0.866397	1.11232	92.5	160.182	
215	1	0.870445	1.13113	92.5	159.263	
216	1	0.874494	1.15035	92.5	158.325	
217	1	0.878543	1.17	92.5	157.365	
218	1	0.882591	1.19012	92.5	156.383	
219	1	0.88664	1.21073	92.5	155.376	
220	1	0.890688	1.23187	92.5	154.344	
221	1	0.894737	1.25357	92.5	153.284	
222	1	0.898785	1.27588	92.5	152.195	
223	1	0.902834	1.29884	92.5	151.074	
224	1	0.906883	1.32251	92.5	149.918	
225	1	0.910931	1.34694	92.5	148.724	
226	1	0.91498	1.3722	92.5	147.491	
227	1	0.919028	1.40507	92.5	145.886	
228	1	0.923077	1.4325	92.5	144.546	
229	1	0.927126	1.46106	92.5	143.152	
230	1	0.931174	1.49085	92.5	141.697	
231	1	0.935223	1.52203	92.5	140.174	
232	1	0.939271	1.55477	92.5	138.575	
233	1	0.94332	1.58927	92.5	136.891	
234	1	0.947368	1.62576	92.5	135.109	

235	1	0.951417	1.66456	92.5	133.214
236	1.1	0.955466	1.70604	97.85	131.188
237	1.2	0.959514	1.75069	103.2	129.008
238	1.23	0.963563	1.79912	104.805	126.643
239	1.47	0.967611	1.85218	117.645	124.052
240	1.7	0.97166	1.91103	129.95	121.178
241	1.9	0.975709	1.97737	140.65	117.938
242	2.1	0.979757	2.05375	151.35	114.209
243	2.1	0.983806	2.14441	151.35	109.781
244	2.27	0.987854	2.25713	160.445	104.277
245	2.74	0.991903	2.40892	185.59	96.8642
246	9.1	0.995951	2.65209	525.85	84.9898

Shapiro-Francia Test of Normality

Parameter: Ethyl Chloride

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-1.60944	-2.65209	7.03356	4.26837	
2	-1.51413	-2.40892	12.8365	7.91579	
3	-1.30933	-2.25713	17.9311	10.8711	
4	-1.20397	-2.14441	22.5296	13.4529	
5	-0.967584		-2.05375	26.7475	15.4401
6	-0.916291		-1.97737	30.6575	17.2519
7	-0.916291		-1.91103	34.3095	19.003
8	-0.916291		-1.85218	37.7401	20.7001
9	-0.916291		-1.79912	40.9769	22.3487
10	-0.867501		-1.75069	44.0418	23.8674
11	-0.84397	-1.70604	46.9524	25.3072	
12	-0.693147		-1.66456	49.7231	26.461
13	-0.693147		-1.62576	52.3662	27.5879
14	-0.693147		-1.58927	54.892	28.6895
15	-0.693147		-1.55477	57.3093	29.7672
16	-0.693147		-1.52203	59.6259	30.8222
17	-0.693147		-1.49085	61.8486	31.8556
18	-0.693147		-1.46106	63.9833	32.8683
19	-0.693147		-1.4325	66.0353	33.8612
20	-0.693147		-1.40507	68.0096	34.8351
21	-0.693147		-1.3722	69.8925	35.7863
22	-0.693147		-1.34694	71.7067	36.7199
23	-0.693147		-1.32251	73.4558	37.6366
24	-0.693147		-1.29884	75.1427	38.5369
25	-0.693147		-1.27588	76.7706	39.4213
26	-0.693147		-1.25357	78.342	40.2902
27	-0.693147		-1.23187	79.8595	41.144
28	-0.693147		-1.21073	81.3254	41.9832
29	-0.693147		-1.19012	82.7418	42.8082
30	-0.693147		-1.17	84.1107	43.6192
31	-0.693147		-1.15035	85.434	44.4165
32	-0.693147		-1.13113	86.7134	45.2006
33	-0.693147		-1.11232	87.9507	45.9716
34	-0.693147		-1.0939	89.1473	46.7298
35	-0.693147		-1.07584	90.3047	47.4755
36	-0.693147		-1.05812	91.4243	48.2089
37	-0.693147		-1.04073	92.5075	48.9303
38	-0.693147		-1.02365	93.5553	49.6399
39	-0.693147		-1.00687	94.5691	50.3378
40	-0.693147		-0.990356		95.5499 51.0242
41	-0.693147		-0.974114		96.4988 51.6994
42	-0.693147		-0.954165		97.4092 52.3608
43	-0.693147		-0.938476		98.29 53.0113
44	-0.693147		-0.923014		99.1419 53.6511
45	-0.693147		-0.907769		99.966 54.2803
46	-0.693147		-0.892733		100.763 54.8991
47	-0.693147		-0.877897		101.534 55.5076
48	-0.693147		-0.863249		102.279 56.106
49	-0.693147		-0.848786		102.999 56.6943
50	-0.693147		-0.834498		103.696 57.2727
51	-0.693147		-0.820379		104.369 57.8414

52	-0.693147	-0.806422	105.019	58.4004
53	-0.693147	-0.792618	105.647	58.9498
54	-0.693147	-0.778966	106.254	59.4897
55	-0.693147	-0.765456	106.84	60.0203
56	-0.693147	-0.752084	107.406	60.5416
57	-0.693147	-0.738846	107.951	61.0537
58	-0.693147	-0.725736	108.478	61.5567
59	-0.693147	-0.712751	108.986	62.0508
60	-0.693147	-0.699883	109.476	62.5359
61	-0.693147	-0.687131	109.948	63.0122
62	-0.693147	-0.671346	110.399	63.4775
63	-0.693147	-0.658838	110.833	63.9342
64	-0.693147	-0.646431	111.251	64.3823
65	-0.693147	-0.634124	111.653	64.8218
66	-0.693147	-0.621911	112.04	65.2529
67	-0.634878	-0.609791	112.412	65.64
68	-0.579818	-0.597761	112.769	65.9866
69	-0.356675	-0.585815	113.112	66.1956
70	-0.328504	-0.573953	113.441	66.3841
71	-0.287682	-0.56217	113.758	66.5458
72	-0.274437	-0.550465	114.061	66.6969
73	-0.198451	-0.538836	114.351	66.8038
74	-0.18633	-0.52728	114.629	66.9021
75	-0.105361	-0.515791	114.895	66.9564
76	-0.105361	-0.504372	115.149	67.0096
77	-0.040822	-0.493018	115.392	67.0297
78	-0.0202027	-0.481728	115.624	67.0394
79	0	-0.470498	115.846	67.0394
80	0	-0.459327	116.057	67.0394
81	0	-0.448213	116.258	67.0394
82	0	-0.437153	116.449	67.0394
83	0	-0.423405	116.628	67.0394
84	0	-0.412463	116.798	67.0394
85	0	-0.401571	116.959	67.0394
86	0	-0.390726	117.112	67.0394
87	0	-0.379927	117.256	67.0394
88	0	-0.369171	117.393	67.0394
89	0	-0.358459	117.521	67.0394
90	0	-0.347787	117.642	67.0394
91	0	-0.337155	117.756	67.0394
92	0	-0.326561	117.863	67.0394
93	0	-0.316004	117.962	67.0394
94	0	-0.305481	118.056	67.0394
95	0	-0.294992	118.143	67.0394
96	0	-0.284535	118.224	67.0394
97	0	-0.27411	118.299	67.0394
98	0	-0.263715	118.368	67.0394
99	0	-0.253347	118.433	67.0394
100	0	-0.243007	118.492	67.0394
101	0	-0.232693	118.546	67.0394
102	0	-0.222403	118.595	67.0394
103	0	-0.209575	118.639	67.0394
104	0	-0.199336	118.679	67.0394
105	0	-0.189118	118.715	67.0394
106	0	-0.17892	118.747	67.0394
107	0	-0.168741	118.775	67.0394
108	0	-0.158579	118.8	67.0394
109	0	-0.148434	118.822	67.0394
110	0	-0.138305	118.841	67.0394
111	0	-0.128189	118.858	67.0394
112	0	-0.118085	118.872	67.0394
113	0	-0.107995	118.883	67.0394

114	0	-0.0979139	118.893	67.0394
115	0	-0.0878447	118.901	67.0394
116	0	-0.0777834	118.907	67.0394
117	0	-0.0677301	118.911	67.0394
118	0	-0.0576847	118.915	67.0394
119	0	-0.0476439	118.917	67.0394
120	0	-0.0376076	118.918	67.0394
121	0	-0.0275759	118.919	67.0394
122	0	-0.0175476	118.919	67.0394
123	0	-0.00751925	118.92	67.0394
124	0	0.00751925	118.92	67.0394
125	0	0.0175476	118.92	67.0394
126	0	0.0275759	118.921	67.0394
127	0	0.0376076	118.922	67.0394
128	0	0.0476439	118.924	67.0394
129	0	0.0576847	118.928	67.0394
130	0	0.0677301	118.932	67.0394
131	0	0.0777834	118.938	67.0394
132	0	0.0878447	118.946	67.0394
133	0	0.0979139	118.956	67.0394
134	0	0.107995	118.967	67.0394
135	0	0.118085	118.981	67.0394
136	0	0.128189	118.998	67.0394
137	0	0.138305	119.017	67.0394
138	0	0.148434	119.039	67.0394
139	0	0.158579	119.064	67.0394
140	0	0.168741	119.092	67.0394
141	0	0.17892	119.124	67.0394
142	0	0.189118	119.16	67.0394
143	0	0.199336	119.2	67.0394
144	0	0.209575	119.244	67.0394
145	0	0.222403	119.293	67.0394
146	0	0.232693	119.347	67.0394
147	0	0.243007	119.407	67.0394
148	0	0.253347	119.471	67.0394
149	0	0.263715	119.54	67.0394
150	0	0.27411	119.615	67.0394
151	0	0.284535	119.696	67.0394
152	0	0.294992	119.783	67.0394
153	0	0.305481	119.877	67.0394
154	0	0.316004	119.977	67.0394
155	0	0.326561	120.083	67.0394
156	0	0.337155	120.197	67.0394
157	0	0.347787	120.318	67.0394
158	0	0.358459	120.446	67.0394
159	0	0.369171	120.583	67.0394
160	0	0.379927	120.727	67.0394
161	0	0.390726	120.88	67.0394
162	0	0.401571	121.041	67.0394
163	0	0.412463	121.211	67.0394
164	0	0.423405	121.39	67.0394
165	0	0.437153	121.581	67.0394
166	0	0.448213	121.782	67.0394
167	0	0.459327	121.993	67.0394
168	0	0.470498	122.215	67.0394
169	0	0.481728	122.447	67.0394
170	0	0.493018	122.69	67.0394
171	0	0.504372	122.944	67.0394
172	0	0.515791	123.21	67.0394
173	0	0.52728	123.488	67.0394
174	0	0.538836	123.779	67.0394
175	0	0.550465	124.082	67.0394

176	0	0.56217	124.398	67.0394	
177	0	0.573953		124.727	67.0394
178	0	0.585815		125.07	67.0394
179	0	0.597761		125.428	67.0394
180	0	0.609791		125.799	67.0394
181	0	0.621911		126.186	67.0394
182	0	0.634124		126.588	67.0394
183	0	0.646431		127.006	67.0394
184	0	0.658838		127.44	67.0394
185	0	0.671346		127.891	67.0394
186	0	0.687131		128.363	67.0394
187	0	0.699883		128.853	67.0394
188	0	0.712751		129.361	67.0394
189	0	0.725736		129.888	67.0394
190	0	0.738846		130.433	67.0394
191	0	0.752084		130.999	67.0394
192	0	0.765456		131.585	67.0394
193	0	0.778966		132.192	67.0394
194	0	0.792618		132.82	67.0394
195	0	0.806422		133.47	67.0394
196	0	0.820379		134.143	67.0394
197	0	0.834498		134.84	67.0394
198	0	0.848786		135.56	67.0394
199	0	0.863249		136.305	67.0394
200	0	0.877897		137.076	67.0394
201	0	0.892733		137.873	67.0394
202	0	0.907769		138.697	67.0394
203	0	0.923014		139.549	67.0394
204	0	0.938476		140.43	67.0394
205	0	0.954165		141.34	67.0394
206	0	0.974114		142.289	67.0394
207	0	0.990356		143.27	67.0394
208	0	1.00687	144.284	67.0394	
209	0	1.02365	145.332	67.0394	
210	0	1.04073	146.415	67.0394	
211	0	1.05812	147.534	67.0394	
212	0	1.07584	148.692	67.0394	
213	0	1.0939	149.888	67.0394	
214	0	1.11232	151.126	67.0394	
215	0	1.13113	152.405	67.0394	
216	0	1.15035	153.728	67.0394	
217	0	1.17	155.097	67.0394	
218	0	1.19012	156.514	67.0394	
219	0	1.21073	157.98	67.0394	
220	0	1.23187	159.497	67.0394	
221	0	1.25357	161.068	67.0394	
222	0	1.27588	162.696	67.0394	
223	0	1.29884	164.383	67.0394	
224	0	1.32251	166.132	67.0394	
225	0	1.34694	167.947	67.0394	
226	0	1.3722	169.83	67.0394	
227	0	1.40507	171.804	67.0394	
228	0	1.4325	173.856	67.0394	
229	0	1.46106	175.991	67.0394	
230	0	1.49085	178.213	67.0394	
231	0	1.52203	180.53	67.0394	
232	0	1.55477	182.947	67.0394	
233	0	1.58927	185.473	67.0394	
234	0	1.62576	188.116	67.0394	
235	0	1.66456	190.887	67.0394	
236	0.0953102		1.70604	193.797	67.202
237	0.182322		1.75069	196.862	67.5212

238	0.207014		1.79912	200.099	67.8937
239	0.385262		1.85218	203.53	68.6072
240	0.530628		1.91103	207.182	69.6213
241	0.641854		1.97737	211.092	70.8905
242	0.741937		2.05375	215.309	72.4142
243	0.741937		2.14441	219.908	74.0052
244	0.81978	2.25713	225.003	75.8556	
245	1.00796	2.40892	230.806	78.2837	
246	2.20827	2.65209	237.839	84.1402	

Data Set Standard Deviation = 0.411961
Numerator = 7079.58
Denominator = 9889.22
W Statistic = 0.715889 = 7079.58 / 9889.22

5% Critical value of 0.976 exceeds 0.715889
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.715889
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Ethyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.851296
0.851296 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00404858	-2.65209	80.7901	344.01
2	-1.51413	0.00809717	-2.40892	90.9883	332.136
3	-1.30933	0.0121457	-2.25713	112.901	324.723
4	-1.20397	0.0161943	-2.14441	124.175	319.219
5	-0.967584	0.0202429	-2.05375	149.469	314.791
6	-0.916291	0.0242915	-1.97737	154.957	311.062
7	-0.916291	0.0283401	-1.91103	154.957	307.822
8	-0.916291	0.0323887	-1.85218	154.957	304.948
9	-0.916291	0.0364372	-1.79912	154.957	302.357
10	-0.867501	0.0404858	-1.75069	160.177	299.992
11	-0.84397	0.0445344	-1.70604	162.695	297.812
12	-0.693147	0.048583	-1.66456	178.833	295.786
13	-0.693147	0.0526316	-1.62576	178.833	293.891
14	-0.693147	0.0566802	-1.58927	178.833	292.109
15	-0.693147	0.0607287	-1.55477	178.833	290.425
16	-0.693147	0.0647773	-1.52203	178.833	288.826
17	-0.693147	0.0688259	-1.49085	178.833	287.303
18	-0.693147	0.0728745	-1.46106	178.833	285.848
19	-0.693147	0.0769231	-1.4325	178.833	284.454
20	-0.693147	0.0809717	-1.40507	178.833	283.114
21	-0.693147	0.0850202	-1.3722	178.833	281.509
22	-0.693147	0.0890688	-1.34694	178.833	280.276
23	-0.693147	0.0931174	-1.32251	178.833	279.082
24	-0.693147	0.097166	-1.29884	178.833	277.926
25	-0.693147	0.101215	-1.27588	178.833	276.805
26	-0.693147	0.105263	-1.25357	178.833	275.716
27	-0.693147	0.109312	-1.23187	178.833	274.656
28	-0.693147	0.11336	-1.21073	178.833	273.624
29	-0.693147	0.117409	-1.19012	178.833	272.617
30	-0.693147	0.121457	-1.17	178.833	271.635
31	-0.693147	0.125506	-1.15035	178.833	270.675
32	-0.693147	0.129555	-1.13113	178.833	269.737
33	-0.693147	0.133603	-1.11232	178.833	268.818
34	-0.693147	0.137652	-1.0939	178.833	267.919
35	-0.693147	0.1417	-1.07584	178.833	267.037
36	-0.693147	0.145749	-1.05812	178.833	266.172
37	-0.693147	0.149798	-1.04073	178.833	265.322
38	-0.693147	0.153846	-1.02365	178.833	264.488
39	-0.693147	0.157895	-1.00687	178.833	263.669
40	-0.693147	0.161943	-0.990356	178.833	262.862
41	-0.693147	0.165992	-0.974114	178.833	262.069
42	-0.693147	0.17004	-0.954165	178.833	261.095
43	-0.693147	0.174089	-0.938476	178.833	260.329
44	-0.693147	0.178138	-0.923014	178.833	259.574
45	-0.693147	0.182186	-0.907769	178.833	258.829
46	-0.693147	0.186235	-0.892733	178.833	258.095
47	-0.693147	0.190283	-0.877897	178.833	257.371
48	-0.693147	0.194332	-0.863249	178.833	256.655

49	-0.693147	0.198381	-0.848786	178.833	255.949
50	-0.693147	0.202429	-0.834498	178.833	255.251
51	-0.693147	0.206478	-0.820379	178.833	254.562
52	-0.693147	0.210526	-0.806422	178.833	253.88
53	-0.693147	0.214575	-0.792618	178.833	253.206
54	-0.693147	0.218623	-0.778966	178.833	252.54
55	-0.693147	0.222672	-0.765456	178.833	251.88
56	-0.693147	0.226721	-0.752084	178.833	251.227
57	-0.693147	0.230769	-0.738846	178.833	250.58
58	-0.693147	0.234818	-0.725736	178.833	249.94
59	-0.693147	0.238866	-0.712751	178.833	249.306
60	-0.693147	0.242915	-0.699883	178.833	248.678
61	-0.693147	0.246964	-0.687131	178.833	248.055
62	-0.693147	0.251012	-0.671346	178.833	247.284
63	-0.693147	0.255061	-0.658838	178.833	246.673
64	-0.693147	0.259109	-0.646431	178.833	246.067
65	-0.693147	0.263158	-0.634124	178.833	245.466
66	-0.693147	0.267206	-0.621911	178.833	244.87
67	-0.634878	0.271255	-0.609791	185.068	244.278
68	-0.579818	0.275304	-0.597761	190.959	243.691
69	-0.356675	0.279352	-0.585815	214.836	243.107
70	-0.328504	0.283401	-0.573953	217.85	242.528
71	-0.287682	0.287449	-0.56217	222.218	241.953
72	-0.274437	0.291498	-0.550465	223.635	241.381
73	-0.198451	0.295547	-0.538836	231.766	240.813
74	-0.18633	0.299595	-0.52728	233.063	240.249
75	-0.105361	0.303644	-0.515791	241.726	239.688
76	-0.105361	0.307692	-0.504372	241.726	239.13
77	-0.040822	0.311741	-0.493018	248.632	238.576
78	-0.0202027	0.315789	-0.481728	250.838	238.024
79	0	0.319838	-0.470498	253	237.476
80	0	0.323887	-0.459327	253	236.93
81	0	0.327935	-0.448213	253	236.388
82	0	0.331984	-0.437153	253	235.848
83	0	0.336032	-0.423405	253	235.176
84	0	0.340081	-0.412463	253	234.642
85	0	0.34413	-0.401571	253	234.11
86	0	0.348178	-0.390726	253	233.58
87	0	0.352227	-0.379927	253	233.053
88	0	0.356275	-0.369171	253	232.528
89	0	0.360324	-0.358459	253	232.005
90	0	0.364372	-0.347787	253	231.484
91	0	0.368421	-0.337155	253	230.964
92	0	0.37247	-0.326561	253	230.447
93	0	0.376518	-0.316004	253	229.932
94	0	0.380567	-0.305481	253	229.418
95	0	0.384615	-0.294992	253	228.905
96	0	0.388664	-0.284535	253	228.395
97	0	0.392713	-0.27411	253	227.886
98	0	0.396761	-0.263715	253	227.378
99	0	0.40081	-0.253347	253	226.872
100	0	0.404858	-0.243007	253	226.367
101	0	0.408907	-0.232693	253	225.863
102	0	0.412955	-0.222403	253	225.361
103	0	0.417004	-0.209575	253	224.734
104	0	0.421053	-0.199336	253	224.234
105	0	0.425101	-0.189118	253	223.735
106	0	0.42915	-0.17892	253	223.237
107	0	0.433198	-0.168741	253	222.74
108	0	0.437247	-0.158579	253	222.244
109	0	0.441296	-0.148434	253	221.749
110	0	0.445344	-0.138305	253	221.254

111	0	0.449393	-0.128189	253	220.76
112	0	0.453441	-0.118085	253	220.267
113	0	0.45749	-0.107995	253	219.774
114	0	0.461538	-0.0979139	253	219.281
115	0	0.465587	-0.0878447	253	218.79
116	0	0.469636	-0.0777834	253	218.298
117	0	0.473684	-0.0677301	253	217.807
118	0	0.477733	-0.0576847	253	217.317
119	0	0.481781	-0.0476439	253	216.827
120	0	0.48583	-0.0376076	253	216.337
121	0	0.489879	-0.0275759	253	215.847
122	0	0.493927	-0.0175476	253	215.357
123	0	0.497976	-0.00751925	253	214.867
124	0	0.502024	0.00751925	253	214.133
125	0	0.506073	0.0175476	253	213.643
126	0	0.510121	0.0275759	253	213.153
127	0	0.51417	0.0376076	253	212.663
128	0	0.518219	0.0476439	253	212.173
129	0	0.522267	0.0576847	253	211.683
130	0	0.526316	0.0677301	253	211.193
131	0	0.530364	0.0777834	253	210.702
132	0	0.534413	0.0878447	253	210.21
133	0	0.538462	0.0979139	253	209.719
134	0	0.54251	0.107995	253	209.226
135	0	0.546559	0.118085	253	208.733
136	0	0.550607	0.128189	253	208.24
137	0	0.554656	0.138305	253	207.746
138	0	0.558704	0.148434	253	207.251
139	0	0.562753	0.158579	253	206.756
140	0	0.566802	0.168741	253	206.26
141	0	0.57085	0.17892	253	205.763
142	0	0.574899	0.189118	253	205.265
143	0	0.578947	0.199336	253	204.766
144	0	0.582996	0.209575	253	204.266
145	0	0.587045	0.222403	253	203.639
146	0	0.591093	0.232693	253	203.137
147	0	0.595142	0.243007	253	202.633
148	0	0.59919	0.253347	253	202.128
149	0	0.603239	0.263715	253	201.622
150	0	0.607287	0.27411	253	201.114
151	0	0.611336	0.284535	253	200.605
152	0	0.615385	0.294992	253	200.095
153	0	0.619433	0.305481	253	199.582
154	0	0.623482	0.316004	253	199.068
155	0	0.62753	0.326561	253	198.553
156	0	0.631579	0.337155	253	198.036
157	0	0.635628	0.347787	253	197.516
158	0	0.639676	0.358459	253	196.995
159	0	0.643725	0.369171	253	196.472
160	0	0.647773	0.379927	253	195.947
161	0	0.651822	0.390726	253	195.42
162	0	0.65587	0.401571	253	194.89
163	0	0.659919	0.412463	253	194.358
164	0	0.663968	0.423405	253	193.824
165	0	0.668016	0.437153	253	193.152
166	0	0.672065	0.448213	253	192.612
167	0	0.676113	0.459327	253	192.07
168	0	0.680162	0.470498	253	191.524
169	0	0.684211	0.481728	253	190.976
170	0	0.688259	0.493018	253	190.424
171	0	0.692308	0.504372	253	189.87
172	0	0.696356	0.515791	253	189.312

173	0	0.700405	0.52728	253	188.751	
174	0	0.704453	0.538836	253	188.187	
175	0	0.708502	0.550465	253	187.619	
176	0	0.712551	0.56217	253	187.047	
177	0	0.716599	0.573953	253	186.472	
178	0	0.720648	0.585815	253	185.893	
179	0	0.724696	0.597761	253	185.309	
180	0	0.728745	0.609791	253	184.722	
181	0	0.732794	0.621911	253	184.13	
182	0	0.736842	0.634124	253	183.534	
183	0	0.740891	0.646431	253	182.933	
184	0	0.744939	0.658838	253	182.327	
185	0	0.748988	0.671346	253	181.716	
186	0	0.753036	0.687131	253	180.945	
187	0	0.757085	0.699883	253	180.322	
188	0	0.761134	0.712751	253	179.694	
189	0	0.765182	0.725736	253	179.06	
190	0	0.769231	0.738846	253	178.42	
191	0	0.773279	0.752084	253	177.773	
192	0	0.777328	0.765456	253	177.12	
193	0	0.781377	0.778966	253	176.46	
194	0	0.785425	0.792618	253	175.794	
195	0	0.789474	0.806422	253	175.12	
196	0	0.793522	0.820379	253	174.438	
197	0	0.797571	0.834498	253	173.749	
198	0	0.801619	0.848786	253	173.051	
199	0	0.805668	0.863249	253	172.345	
200	0	0.809717	0.877897	253	171.629	
201	0	0.813765	0.892733	253	170.905	
202	0	0.817814	0.907769	253	170.171	
203	0	0.821862	0.923014	253	169.426	
204	0	0.825911	0.938476	253	168.671	
205	0	0.82996	0.954165	253	167.905	
206	0	0.834008	0.974114	253	166.931	
207	0	0.838057	0.990356	253	166.138	
208	0	0.842105	1.00687	253	165.331	
209	0	0.846154	1.02365	253	164.512	
210	0	0.850202	1.04073	253	163.678	
211	0	0.854251	1.05812	253	162.828	
212	0	0.8583	1.07584	253	161.963	
213	0	0.862348	1.0939	253	161.081	
214	0	0.866397	1.11232	253	160.182	
215	0	0.870445	1.13113	253	159.263	
216	0	0.874494	1.15035	253	158.325	
217	0	0.878543	1.17	253	157.365	
218	0	0.882591	1.19012	253	156.383	
219	0	0.88664	1.21073	253	155.376	
220	0	0.890688	1.23187	253	154.344	
221	0	0.894737	1.25357	253	153.284	
222	0	0.898785	1.27588	253	152.195	
223	0	0.902834	1.29884	253	151.074	
224	0	0.906883	1.32251	253	149.918	
225	0	0.910931	1.34694	253	148.724	
226	0	0.91498	1.3722	253	147.491	
227	0	0.919028	1.40507	253	145.886	
228	0	0.923077	1.4325	253	144.546	
229	0	0.927126	1.46106	253	143.152	
230	0	0.931174	1.49085	253	141.697	
231	0	0.935223	1.52203	253	140.174	
232	0	0.939271	1.55477	253	138.575	
233	0	0.94332	1.58927	253	136.891	
234	0	0.947368	1.62576	253	135.109	

235	0	0.951417	1.66456	253	133.214	
236	0.0953102	0.955466		1.70604	263.198	131.188
237	0.182322	0.959514		1.75069	272.508	129.008
238	0.207014	0.963563		1.79912	275.151	126.643
239	0.385262	0.967611		1.85218	294.223	124.052
240	0.530628	0.97166	1.91103	309.777	121.178	
241	0.641854	0.975709		1.97737	321.678	117.938
242	0.741937	0.979757		2.05375	332.387	114.209
243	0.741937	0.983806		2.14441	332.387	109.781
244	0.81978	0.987854	2.25713	340.716	104.277	
245	1.00796	0.991903	2.40892	360.851	96.8642	
246	2.20827	0.995951	2.65209	489.285	84.9898	

Kruskal-Wallis Non-Parametric Test

Parameter: Ethyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	106.5
	9/23/1999	ND<0	106.5
	3/15/2000	ND<0	106.5
	9/24/2003	ND<0	106.5
	3/11/2004	ND<0	106.5
	10/12/2004	ND<0	106.5
	4/1/2005	ND<0	106.5
	10/25/2005	ND<0	106.5
	4/29/2006	ND<0	106.5
	11/18/2006	ND<0	106.5
	5/23/2007	ND<0	106.5
	11/28/2007	ND<0	106.5
	6/5/2008	ND<0	106.5
	11/20/2008	ND<0	106.5
	6/11/2009	ND<-0.693147	106.5
	11/16/2009	ND<-0.693147	106.5
	6/30/2010	ND<-0.693147	106.5
	11/12/2010	ND<-0.693147 U	106.5
	7/5/2011	ND<-0.693147 U	106.5

Rank Sum = 2023.5
Rank Mean = 106.5

Background Rank Sum = 2023.5
Background Rank Mean = 106.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<0	106.5
	8/24/1995	-1.30933 J	215
	9/28/1995	ND<0	106.5
	10/26/1995	-0.916291 J	218
	11/19/1996	ND<0	106.5
	12/19/1996	ND<0	106.5
	3/24/1997	ND<0	106.5
	9/24/1997	ND<0	106.5
	4/7/1998	ND<0	106.5
	9/23/1998	ND<0	106.5
	3/16/1999	ND<0	106.5
	9/23/1999	ND<0	106.5
	3/15/2000	ND<0	106.5
	9/24/2003	ND<0	106.5
	3/11/2004	ND<0	106.5
	10/12/2004	ND<0	106.5
	4/1/2005	ND<0	106.5
	10/25/2005	ND<0	106.5
	4/29/2006	ND<0	106.5
	11/18/2006	ND<0	106.5
	5/23/2007	ND<0	106.5

	11/28/2007	ND<0	106.5		
	6/5/2008	ND<0	106.5		
	11/20/2008	ND<0	106.5		
	6/11/2009	ND<-0.693147			106.5
	11/16/2009	ND<-0.693147			106.5
	6/30/2010	ND<-0.693147			106.5
	11/12/2010	ND<-0.693147		U	106.5
	7/5/2011	ND<-0.693147		U	106.5
	11/22/2011	ND<-0.693147		U	106.5
	11/22/2011	ND<-0.693147		U	106.5

Rank Sum = 3521.5
Rank Mean = 113.597

MW-7	7/20/1995	0.182322		J	237
	8/24/1995	-0.287682		J	228
	9/28/1995	-0.105361		J	232
	10/26/1995	-0.105361		J	233
	11/19/1996	ND<0	106.5		
	12/19/1996	ND<0	106.5		
	3/24/1997	ND<0	106.5		
	9/24/1997	ND<0	106.5		
	4/7/1998	ND<0	106.5		
	9/23/1998	ND<0	106.5		
	3/16/1999	ND<0	106.5		
	9/23/1999	ND<0	106.5		
	3/15/2000	ND<0	106.5		
	9/24/2003	ND<0	106.5		
	3/11/2004	ND<0	106.5		
	10/12/2004	ND<0	106.5		
	4/1/2005	1.00796	245		
	10/25/2005	0.385262		J	239
	4/29/2006	0.81978			244
	11/18/2006	-0.328504		J	227
	5/23/2007	ND<0	106.5		
	11/28/2007	-0.020202		7 J	235
	6/5/2008	-0.18633		J	231
	11/20/2008	0.207014		J	238
	6/11/2009	ND<-0.693147			106.5
	11/16/2009	ND<-0.693147			106.5
	6/30/2010	ND<-0.693147			106.5
	11/12/2010	ND<-0.693147		U	106.5
	7/5/2011	0.530628	240		
	11/22/2011	ND<-0.693147		U	106.5
	11/22/2011	ND<-0.693147		U	106.5

Rank Sum = 4852.5
Rank Mean = 156.532

MW-8	7/20/1995	ND<0	106.5		
	8/24/1995	ND<0	106.5		
	9/28/1995	ND<0	106.5		
	10/26/1995	ND<0	106.5		
	11/19/1996	ND<0	106.5		
	12/19/1996	ND<0	106.5		
	3/24/1997	ND<0	106.5		
	9/24/1997	ND<0	106.5		
	4/7/1998	ND<0	106.5		
	9/23/1998	ND<0	106.5		
	3/16/1999	ND<0	106.5		
	9/23/1999	ND<0	106.5		
	3/15/2000	ND<0	106.5		
	9/24/2003	ND<0	106.5		
	3/11/2004	ND<0	106.5		

	10/12/2004	ND<0	106.5	
	4/1/2005	-0.274437 J	229	
	10/25/2005	-0.040822 J		234
	4/29/2006	-1.20397 J		216
	11/18/2006	-0.967584 J		217
	5/23/2007	ND<0	106.5	
	11/28/2007	ND<0	106.5	
	6/5/2008	ND<0	106.5	
	11/20/2008	0.095310 2 J		236
	6/11/2009	2.20827		246
	6/30/2010	ND<-0.693147		106.5
	11/12/2010	0.641854		241
	7/5/2011	ND<-0.693147 U	106.5	
	11/22/2011	0.741937		242
	11/22/2011	0.741937		243

Rank Sum = 4340.5
Rank Mean = 144.683

MW-6	7/20/1995	ND<0	106.5	
	8/24/1995	ND<0	106.5	
	9/28/1995	ND<0	106.5	
	10/26/1995	ND<0	106.5	
	11/19/1996	ND<0	106.5	
	12/19/1996	ND<0	106.5	
	3/24/1997	ND<0	106.5	
	9/24/1997	ND<0	106.5	
	4/7/1998	ND<0	106.5	
	9/23/1998	ND<0	106.5	
	3/16/1999	ND<0	106.5	
	9/23/1999	ND<0	106.5	
	3/15/2000	ND<0	106.5	
	9/24/2003	ND<0	106.5	
	3/11/2004	ND<0	106.5	
	10/12/2004	ND<0	106.5	
	4/1/2005	ND<0	106.5	
	10/25/2005	ND<0	106.5	
	4/29/2006	ND<0	106.5	
	11/18/2006	ND<0	106.5	
	5/23/2007	ND<0	106.5	
	11/28/2007	ND<0	106.5	
	6/5/2008	ND<0	106.5	
	11/20/2008	ND<0	106.5	
	6/11/2009	ND<-0.693147		106.5
	11/16/2009	ND<-0.693147		106.5
	6/30/2010	ND<-0.693147		106.5
	11/12/2010	ND<-0.693147 U		106.5
	7/5/2011	ND<-0.693147 U	106.5	
	11/22/2011	ND<-0.693147 U		106.5
	11/22/2011	ND<-0.693147 U		106.5

Rank Sum = 3301.5
Rank Mean = 106.5

MW-11R	7/20/1995	-0.916291 J		219
	8/24/1995	ND<0	106.5	
	9/28/1995	-0.916291 J		220
	10/26/1995	-0.356675 J		226
	11/19/1996	ND<0	106.5	
	12/19/1996	ND<0	106.5	
	3/24/1997	ND<0	106.5	
	9/24/1997	ND<0	106.5	
	4/7/1998	ND<0	106.5	
	9/23/1998	ND<0	106.5	

	3/16/1999	ND<0	106.5	
	9/23/1999	ND<0	106.5	
	3/15/2000	ND<0	106.5	
	9/24/2003	ND<0	106.5	
	3/11/2004	ND<0	106.5	
	10/12/2004	ND<0	106.5	
	4/1/2005	ND<0	106.5	
	10/25/2005	-0.867501	J	222
	4/29/2006	-0.579818	J	225
	11/18/2006	-0.198451	J	230
	5/23/2007	ND<0	106.5	
	11/28/2007	-1.60944	J	213
	6/5/2008	ND<0	106.5	
	11/20/2008	ND<0	106.5	
	6/11/2009	ND<-0.693147		106.5
	11/16/2009	ND<-0.693147		106.5
	6/30/2010	ND<-0.693147		106.5
	11/12/2010	ND<-0.693147	U	106.5
	7/5/2011	ND<-0.693147	U	106.5
	11/22/2011	ND<-0.693147	U	106.5
	11/22/2011	ND<-0.693147	U	106.5

Rank Sum = 4111
Rank Mean = 132.613

MW-12BR	3/16/1999	ND<0	106.5	
	9/23/1999	ND<0	106.5	
	3/15/2000	ND<0	106.5	
	9/24/2003	ND<0	106.5	
	3/11/2004	ND<0	106.5	
	10/12/2004	ND<0	106.5	
	4/1/2005	-0.916291	J	221
	10/25/2005	ND<0	106.5	
	4/29/2006	ND<0	106.5	
	11/18/2006	ND<0	106.5	
	5/23/2007	ND<0	106.5	
	11/28/2007	ND<0	106.5	
	6/5/2008	ND<0	106.5	
	11/20/2008	ND<0	106.5	
	6/11/2009	ND<-0.693147		106.5
	11/16/2009	ND<-0.693147		106.5
	6/30/2010	ND<-0.693147		106.5
	11/12/2010	ND<-0.693147	U	106.5
	7/5/2011	ND<-0.693147	U	106.5
	11/22/2011	ND<-0.693147	U	106.5
	11/22/2011	ND<-0.693147	U	106.5

Rank Sum = 2351
Rank Mean = 111.952

MW-9	7/20/1995	ND<0	106.5
	8/24/1995	ND<0	106.5
	9/28/1995	ND<0	106.5
	10/26/1995	ND<0	106.5
	11/19/1996	ND<0	106.5
	12/19/1996	ND<0	106.5
	3/24/1997	ND<0	106.5
	9/24/1997	ND<0	106.5
	4/7/1998	ND<0	106.5
	9/23/1998	ND<0	106.5
	3/16/1999	ND<0	106.5
	9/23/1999	ND<0	106.5
	3/15/2000	ND<0	106.5
	9/24/2003	ND<0	106.5

	3/11/2004	ND<0	106.5		
	10/12/2004	ND<0	106.5		
	4/1/2005	ND<0	106.5		
	10/25/2005	ND<0	106.5		
	4/29/2006	ND<0	106.5		
	11/18/2006	-1.51413	J	214	
	5/23/2007	ND<0	106.5		
	11/28/2007	-0.634878	J	224	
	6/5/2008	-0.84397	J	223	
	11/20/2008	ND<0	106.5		
	6/11/2009	ND<-0.693147		106.5	
	11/16/2009	ND<-0.693147		106.5	
	6/30/2010	ND<-0.693147		106.5	
	11/12/2010	ND<-0.693147	U	106.5	
	7/5/2011	ND<-0.693147	U	106.5	
	11/22/2011	ND<-0.693147	U	106.5	
	11/22/2011	ND<-0.693147	U	106.5	

Rank Sum = 3643
Rank Mean = 117.516

MW-12A	R	3/16/1999	ND<0	106.5	
	9/23/1999	ND<0	106.5		
	3/15/2000	ND<0	106.5		
	9/24/2003	ND<0	106.5		
	3/11/2004	ND<0	106.5		
	10/12/2004	ND<0	106.5		
	4/1/2005	ND<0	106.5		
	10/25/2005	ND<0	106.5		
	4/29/2006	ND<0	106.5		
	11/18/2006	ND<0	106.5		
	5/23/2007	ND<0	106.5		
	11/28/2007	ND<0	106.5		
	6/5/2008	ND<0	106.5		
	11/20/2008	ND<0	106.5		
	6/11/2009	ND<-0.693147		106.5	
	11/16/2009	ND<-0.693147		106.5	
	6/30/2010	ND<-0.693147		106.5	
	11/12/2010	ND<-0.693147	U	106.5	
	7/5/2011	ND<-0.693147	U	106.5	
	11/22/2011	ND<-0.693147	U	106.5	
	11/22/2011	ND<-0.693147	U	106.5	

Rank Sum = 2236.5
Rank Mean = 106.5

Calculation Results:

Kruskal-Wallis H Statistic = 15.2722
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 42.4264
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
15.2722 < 15.5073 indicating no significant group difference at 5% significance level
42.4264 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 106.5

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-10	**113.597**	**7.09677**	**48.231**	
MW-7	**156.532**	**50.0323**	**48.231**	
MW-8	**144.683**	**38.1833**	**48.5355**	
MW-6	**106.5**	**0**	**48.231**	

MW-11R	**132.613**	**26.1129**	**48.231**	
MW-12BR		**111.952**	**5.45238**	**52.4134**
MW-9	**117.516**	**11.0161**	**48.231**	
MW-12AR		**106.5**	**0**	**52.4134**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 106.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**113.597**	**7.09677**	**52.0829**
MW-7	**156.532**	**50.0323**	**52.0829**
MW-8	**144.683**	**38.1833**	**52.4118**
MW-6	**106.5**	**0**	**52.0829**
MW-11R	**132.613**	**26.1129**	**52.0829**
MW-12BR		**111.952**	**5.45238**	**56.5994**
MW-9	**117.516**	**11.0161**	**52.0829**
MW-12AR		**106.5**	**0**	**56.5994**

Shewhart-CUSUM Control Chart

Parameter: Ethyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.0526803
Baseline Std Dev = 0.155918
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std Mean	
3/24/1997	0	0		0.337871	
3/24/1997	0	0		0.337871	
9/24/1997	0	0		0.337871	
9/24/1997	0	0		0.337871	
4/7/1998	0	0	0.337871		
4/7/1998	0	0	0.337871		
9/23/1998	0	0		0.337871	
9/23/1998	0	0		0.337871	
3/16/1999	0	0		0.337871	
3/16/1999	0	0		0.337871	
9/23/1999	0	0		0.337871	
9/23/1999	0	0		0.337871	
3/15/2000	0	0		0.337871	
3/15/2000	0	0		0.337871	
9/24/2003	0	0		0.337871	
9/24/2003	0	0		0.337871	
3/11/2004	0	0		0.337871	
3/11/2004	0	0		0.337871	
10/12/2004	0	0		0.337871	
10/12/2004	0	0		0.337871	
4/1/2005	1.00796	5.80253	6.80253		
4/1/2005	1.00796	5.80253	6.80253		
10/25/2005		0.385262		7.61132	2.8088
10/25/2005		0.385262		7.61132	2.8088
4/29/2006		0.81978	12.2069	5.59562	
4/29/2006		0.81978	12.2069	5.59562	
11/18/2006		-0.328504		9.43792	-1.76903
11/18/2006		-0.328504		9.43792	-1.76903
5/23/2007		0	8.77579	0.337871	
5/23/2007		0	8.77579	0.337871	
11/28/2007		-0.0202027		7.98409	0.208299
11/28/2007		-0.0202027		7.98409	0.208299
6/5/2008	-0.18633	6.12691	-0.857175		
6/5/2008	-0.18633	6.12691	-0.857175		
11/20/2008		0.207014		6.79249	1.66558
11/20/2008		0.207014		6.79249	1.66558
6/11/2009		-0.693147		1.68478	-4.10771
6/11/2009		-0.693147		1.68478	-4.10771
11/16/2009		-0.693147		0	-4.10771
11/16/2009		-0.693147		0	-4.10771
6/30/2010		-0.693147		0	-4.10771
6/30/2010		-0.693147		0	-4.10771
11/12/2010		-0.693147		0	-4.10771
11/12/2010		-0.693147		0	-4.10771
7/5/2011	0.530628		2.74112	3.74112	

7/5/2011	0.530628	2.74112	3.74112	
11/22/2011	-0.693147	0	-5.80918	
11/22/2011	-0.693147	0	-5.80918	

Sen's Slope Analysis
Parameter: Ethyl Chloride
Location: MW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-0.287682 J (8/24/1995)	0.182322 J (7/20/1995)	(-0.287682 - 0.182322)/(2 - 1)	-0.470004
-0.105361 J (9/28/1995)	0.182322 J (7/20/1995)	(-0.105361 - 0.182322)/(3 - 1)	-0.143841
-0.105361 J (10/26/1995)	0.182322 J (7/20/1995)	(-0.105361 - 0.182322)/(4 - 1)	-0.095894
ND<0 (11/19/1996)	0.182322 J (7/20/1995)	(0 - 0.182322)/(5 - 1)	-0.0455804
ND<0 (12/19/1996)	0.182322 J (7/20/1995)	(0 - 0.182322)/(6 - 1)	-0.0364643
ND<0 (3/24/1997)	0.182322 J (7/20/1995)	(0 - 0.182322)/(7 - 1)	-0.0303869
ND<0 (9/24/1997)	0.182322 J (7/20/1995)	(0 - 0.182322)/(8 - 1)	-0.0260459
ND<0 (4/7/1998)	0.182322 J (7/20/1995)	(0 - 0.182322)/(9 - 1)	-0.0227902
ND<0 (9/23/1998)	0.182322 J (7/20/1995)	(0 - 0.182322)/(10 - 1)	-0.020258
ND<0 (3/16/1999)	0.182322 J (7/20/1995)	(0 - 0.182322)/(11 - 1)	-0.0182322
ND<0 (9/23/1999)	0.182322 J (7/20/1995)	(0 - 0.182322)/(12 - 1)	-0.0165747
ND<0 (3/15/2000)	0.182322 J (7/20/1995)	(0 - 0.182322)/(13 - 1)	-0.0151935
ND<0 (9/24/2003)	0.182322 J (7/20/1995)	(0 - 0.182322)/(14 - 1)	-0.0140247
ND<0 (3/11/2004)	0.182322 J (7/20/1995)	(0 - 0.182322)/(15 - 1)	-0.013023
ND<0 (10/12/2004)	0.182322 J (7/20/1995)	(0 - 0.182322)/(16 - 1)	-0.0121548
1.00796 (4/1/2005)	0.182322 J (7/20/1995)	(1.00796 - 0.182322)/(17 - 1)	0.0516023
0.385262 J (10/25/2005)	0.182322 J (7/20/1995)	(0.385262 - 0.182322)/(18 - 1)	0.0119377
0.81978 (4/29/2006)	0.182322 J (7/20/1995)	(0.81978 - 0.182322)/(19 - 1)	0.0354143
-0.328504 J (11/18/2006)	0.182322 J (7/20/1995)	(-0.328504 - 0.182322)/(20 - 1)	-0.0268856
ND<0 (5/23/2007)	0.182322 J (7/20/1995)	(0 - 0.182322)/(21 - 1)	-0.00911608
-0.0202027 J (11/28/2007)	0.182322 J (7/20/1995)	(-0.0202027 - 0.182322)/(22 - 1)	-0.00964401
-0.18633 J (6/5/2008)	0.182322 J (7/20/1995)	(-0.18633 - 0.182322)/(23 - 1)	-0.0167569
0.207014 J (11/20/2008)	0.182322 J (7/20/1995)	(0.207014 - 0.182322)/(24 - 1)	0.00107359
ND<-0.693147 (6/11/2009)	0.182322 J (7/20/1995)	(-0.693147 - 0.182322)/(25 - 1)	-0.0364779
ND<-0.693147 (11/16/2009)	0.182322 J (7/20/1995)	(-0.693147 - 0.182322)/(26 - 1)	-0.0350187

ND<-0.693147 (6/30/2010) 0.182322 J (7/20/1995) (-0.693147 - 0.182322)/(27 - 1)
-0.0336719
ND<-0.693147 U (11/12/2010) 0.182322 J (7/20/1995) (-0.693147 - 0.182322)/(28 - 1)
-0.0324248
0.530628 (7/5/2011) 0.182322 J (7/20/1995) (0.530628 - 0.182322)/(29 - 1)
0.0124395
ND<-0.693147 U (11/22/2011) 0.182322 J (7/20/1995) (-0.693147 - 0.182322)/(30 - 1)
-0.0301886
ND<-0.693147 U (11/22/2011) 0.182322 J (7/20/1995) (-0.693147 - 0.182322)/(30 - 1)
-0.0301886

-0.105361 J (9/28/1995) -0.287682 J (8/24/1995) (-0.105361 - -0.287682)/(3 - 2)
0.182322
-0.105361 J (10/26/1995) -0.287682 J (8/24/1995) (-0.105361 - -0.287682)/(4 - 2)
0.0911608
ND<0 (11/19/1996) -0.287682 J (8/24/1995) (0 - -0.287682)/(5 - 2)
0.095894
ND<0 (12/19/1996) -0.287682 J (8/24/1995) (0 - -0.287682)/(6 - 2)
0.0719205
ND<0 (3/24/1997) -0.287682 J (8/24/1995) (0 - -0.287682)/(7 - 2)
0.0575364
ND<0 (9/24/1997) -0.287682 J (8/24/1995) (0 - -0.287682)/(8 - 2)
0.047947
ND<0 (4/7/1998) -0.287682 J (8/24/1995) (0 - -0.287682)/(9 - 2)
0.0410974
ND<0 (9/23/1998) -0.287682 J (8/24/1995) (0 - -0.287682)/(10 - 2)
0.0359603
ND<0 (3/16/1999) -0.287682 J (8/24/1995) (0 - -0.287682)/(11 - 2)
0.0319647
ND<0 (9/23/1999) -0.287682 J (8/24/1995) (0 - -0.287682)/(12 - 2)
0.0287682
ND<0 (3/15/2000) -0.287682 J (8/24/1995) (0 - -0.287682)/(13 - 2)
0.0261529
ND<0 (9/24/2003) -0.287682 J (8/24/1995) (0 - -0.287682)/(14 - 2)
0.0239735
ND<0 (3/11/2004) -0.287682 J (8/24/1995) (0 - -0.287682)/(15 - 2)
0.0221294
ND<0 (10/12/2004) -0.287682 J (8/24/1995) (0 - -0.287682)/(16 - 2)
0.0205487
1.00796 (4/1/2005) -0.287682 J (8/24/1995) (1.00796 - -0.287682)/(17 - 2)
0.086376
0.385262 J (10/25/2005) -0.287682 J (8/24/1995) (0.385262 - -0.287682)/(18 - 2)
0.042059
0.81978 (4/29/2006) -0.287682 J (8/24/1995) (0.81978 - -0.287682)/(19 - 2)
0.0651448
-0.328504 J (11/18/2006) -0.287682 J (8/24/1995) (-0.328504 - -0.287682)/(20 - 2)
-0.00226789
ND<0 (5/23/2007) -0.287682 J (8/24/1995) (0 - -0.287682)/(21 - 2)
0.0151412
-0.0202027 J (11/28/2007) -0.287682 J (8/24/1995) (-0.0202027 - -0.287682)/(22 - 2)
0.013374
-0.18633 J (6/5/2008) -0.287682 J (8/24/1995) (-0.18633 - -0.287682)/(23 - 2)
0.00482631
0.207014 J (11/20/2008) -0.287682 J (8/24/1995) (0.207014 - -0.287682)/(24 - 2)
0.0224862
ND<-0.693147 (6/11/2009) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(25 - 2)
-0.0176289
ND<-0.693147 (11/16/2009) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(26 - 2)
-0.0168944
ND<-0.693147 (6/30/2010) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(27 - 2)
-0.0162186

ND<-0.693147 U (11/12/2010) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(28 - 2)
-0.0155948
0.530628 (7/5/2011) -0.287682 J (8/24/1995) (0.530628 - -0.287682)/(29 - 2)
0.0303078
ND<-0.693147 U (11/22/2011) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(30 - 2)
-0.0144809
ND<-0.693147 U (11/22/2011) -0.287682 J (8/24/1995) (-0.693147 - -0.287682)/(30 - 2)
-0.0144809

-0.105361 J (10/26/1995) -0.105361 J (9/28/1995) (-0.105361 - -0.105361)/(4 - 3)
0
ND<0 (11/19/1996) -0.105361 J (9/28/1995) (0 - -0.105361)/(5 - 3)
0.0526803
ND<0 (12/19/1996) -0.105361 J (9/28/1995) (0 - -0.105361)/(6 - 3)
0.0351202
ND<0 (3/24/1997) -0.105361 J (9/28/1995) (0 - -0.105361)/(7 - 3)
0.0263401
ND<0 (9/24/1997) -0.105361 J (9/28/1995) (0 - -0.105361)/(8 - 3)
0.0210721
ND<0 (4/7/1998) -0.105361 J (9/28/1995) (0 - -0.105361)/(9 - 3)
0.0175601
ND<0 (9/23/1998) -0.105361 J (9/28/1995) (0 - -0.105361)/(10 - 3)
0.0150515
ND<0 (3/16/1999) -0.105361 J (9/28/1995) (0 - -0.105361)/(11 - 3)
0.0131701
ND<0 (9/23/1999) -0.105361 J (9/28/1995) (0 - -0.105361)/(12 - 3)
0.0117067
ND<0 (3/15/2000) -0.105361 J (9/28/1995) (0 - -0.105361)/(13 - 3)
0.0105361
ND<0 (9/24/2003) -0.105361 J (9/28/1995) (0 - -0.105361)/(14 - 3)
0.00957823
ND<0 (3/11/2004) -0.105361 J (9/28/1995) (0 - -0.105361)/(15 - 3)
0.00878004
ND<0 (10/12/2004) -0.105361 J (9/28/1995) (0 - -0.105361)/(16 - 3)
0.00810466
1.00796 (4/1/2005) -0.105361 J (9/28/1995) (1.00796 - -0.105361)/(17 - 3)
0.0795227
0.385262 J (10/25/2005) -0.105361 J (9/28/1995) (0.385262 - -0.105361)/(18 - 3)
0.0327082
0.81978 (4/29/2006) -0.105361 J (9/28/1995) (0.81978 - -0.105361)/(19 - 3)
0.0578213
-0.328504 J (11/18/2006) -0.105361 J (9/28/1995) (-0.328504 - -0.105361)/(20 - 3)
-0.0131261
ND<0 (5/23/2007) -0.105361 J (9/28/1995) (0 - -0.105361)/(21 - 3)
0.00585336
-0.0202027 J (11/28/2007) -0.105361 J (9/28/1995) (-0.0202027 - -0.105361)/(22 - 3)
0.00448199
-0.18633 J (6/5/2008) -0.105361 J (9/28/1995) (-0.18633 - -0.105361)/(23 - 3)
-0.00404845
0.207014 J (11/20/2008) -0.105361 J (9/28/1995) (0.207014 - -0.105361)/(24 - 3)
0.014875
ND<-0.693147 (6/11/2009) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(25 - 3)
-0.0267176
ND<-0.693147 (11/16/2009) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(26 - 3)
-0.0255559
ND<-0.693147 (6/30/2010) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(27 - 3)
-0.0244911
ND<-0.693147 U (11/12/2010) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(28 - 3)
-0.0235115
0.530628 (7/5/2011) -0.105361 J (9/28/1995) (0.530628 - -0.105361)/(29 - 3)
0.0244611

ND<-0.693147 U (11/22/2011) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(30 - 3)
-0.0217699
ND<-0.693147 U (11/22/2011) -0.105361 J (9/28/1995) (-0.693147 - -0.105361)/(30 - 3)
-0.0217699

ND<0 (11/19/1996) -0.105361 J (10/26/1995) (0 - -0.105361)/(5 - 4)
0.105361
ND<0 (12/19/1996) -0.105361 J (10/26/1995) (0 - -0.105361)/(6 - 4)
0.0526803
ND<0 (3/24/1997) -0.105361 J (10/26/1995) (0 - -0.105361)/(7 - 4)
0.0351202
ND<0 (9/24/1997) -0.105361 J (10/26/1995) (0 - -0.105361)/(8 - 4)
0.0263401
ND<0 (4/7/1998) -0.105361 J (10/26/1995) (0 - -0.105361)/(9 - 4)
0.0210721
ND<0 (9/23/1998) -0.105361 J (10/26/1995) (0 - -0.105361)/(10 - 4)
0.0175601
ND<0 (3/16/1999) -0.105361 J (10/26/1995) (0 - -0.105361)/(11 - 4)
0.0150515
ND<0 (9/23/1999) -0.105361 J (10/26/1995) (0 - -0.105361)/(12 - 4)
0.0131701
ND<0 (3/15/2000) -0.105361 J (10/26/1995) (0 - -0.105361)/(13 - 4)
0.0117067
ND<0 (9/24/2003) -0.105361 J (10/26/1995) (0 - -0.105361)/(14 - 4)
0.0105361
ND<0 (3/11/2004) -0.105361 J (10/26/1995) (0 - -0.105361)/(15 - 4)
0.00957823
ND<0 (10/12/2004) -0.105361 J (10/26/1995) (0 - -0.105361)/(16 - 4)
0.00878004
1.00796 (4/1/2005) -0.105361 J (10/26/1995) (1.00796 - -0.105361)/(17 - 4)
0.0856399
0.385262 J (10/25/2005) -0.105361 J (10/26/1995) (0.385262 - -0.105361)/(18 - 4)
0.0350445
0.81978 (4/29/2006) -0.105361 J (10/26/1995) (0.81978 - -0.105361)/(19 - 4)
0.061676
-0.328504 J (11/18/2006) -0.105361 J (10/26/1995) (-0.328504 - -0.105361)/(20 - 4)
-0.0139465
ND<0 (5/23/2007) -0.105361 J (10/26/1995) (0 - -0.105361)/(21 - 4)
0.00619768
-0.0202027 J (11/28/2007) -0.105361 J (10/26/1995) (-0.0202027 - -0.105361)/(22 - 4)
0.00473099
-0.18633 J (6/5/2008) -0.105361 J (10/26/1995) (-0.18633 - -0.105361)/(23 - 4)
-0.00426153
0.207014 J (11/20/2008) -0.105361 J (10/26/1995) (0.207014 - -0.105361)/(24 - 4)
0.0156187
ND<-0.693147 (6/11/2009) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(25 - 4)
-0.0279898
ND<-0.693147 (11/16/2009) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(26 - 4)
-0.0267176
ND<-0.693147 (6/30/2010) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(27 - 4)
-0.0255559
ND<-0.693147 U (11/12/2010) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(28 - 4)
-0.0244911
0.530628 (7/5/2011) -0.105361 J (10/26/1995) (0.530628 - -0.105361)/(29 - 4)
0.0254396
ND<-0.693147 U (11/22/2011) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(30 - 4)
-0.0226072
ND<-0.693147 U (11/22/2011) -0.105361 J (10/26/1995) (-0.693147 - -0.105361)/(30 - 4)
-0.0226072

ND<0 (12/19/1996) ND<0 (11/19/1996) (0 - 0)/(6 - 5) 0
ND<0 (3/24/1997) ND<0 (11/19/1996) (0 - 0)/(7 - 5) 0

ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0	
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
1.00796 (4/1/2005)	ND<0 (11/19/1996)	(1.00796 - 0)/(17 - 5)		
0.0839965				
0.385262 J (10/25/2005)	ND<0 (11/19/1996)	(0.385262 - 0)/(18 - 5)		
0.0296356				
0.81978 (4/29/2006)	ND<0 (11/19/1996)	(0.81978 - 0)/(19 - 5)		
0.0585557				
-0.328504 J (11/18/2006)	ND<0 (11/19/1996)	(-0.328504 - 0)/(20 - 5)		
-0.0219003				
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
-0.0202027 J (11/28/2007)	ND<0 (11/19/1996)	(-0.0202027 - 0)/(22 - 5)		
-0.00118839				
-0.18633 J (6/5/2008)	ND<0 (11/19/1996)	(-0.18633 - 0)/(23 - 5)		
-0.0103516				
0.207014 J (11/20/2008)	ND<0 (11/19/1996)	(0.207014 - 0)/(24 - 5)		
0.0108955				
ND<-0.693147 (6/11/2009)	ND<0 (11/19/1996)	(-0.693147 - 0)/(25 - 5)		
-0.0346574				
ND<-0.693147 (11/16/2009)	ND<0 (11/19/1996)	(-0.693147 - 0)/(26 - 5)		
-0.033007				
ND<-0.693147 (6/30/2010)	ND<0 (11/19/1996)	(-0.693147 - 0)/(27 - 5)		
-0.0315067				
ND<-0.693147 U (11/12/2010)	ND<0 (11/19/1996)	(-0.693147 - 0)/(28 - 5)		
-0.0301368				
0.530628 (7/5/2011)	ND<0 (11/19/1996)	(0.530628 - 0)/(29 - 5)		
0.0221095				
ND<-0.693147 U (11/22/2011)	ND<0 (11/19/1996)	(-0.693147 - 0)/(30 - 5)		
-0.0277259				
ND<-0.693147 U (11/22/2011)	ND<0 (11/19/1996)	(-0.693147 - 0)/(30 - 5)		
-0.0277259				
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0	
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0	
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
1.00796 (4/1/2005)	ND<0 (12/19/1996)	(1.00796 - 0)/(17 - 6)		
0.0916325				
0.385262 J (10/25/2005)	ND<0 (12/19/1996)	(0.385262 - 0)/(18 - 6)		
0.0321052				
0.81978 (4/29/2006)	ND<0 (12/19/1996)	(0.81978 - 0)/(19 - 6)		0.06306
-0.328504 J (11/18/2006)	ND<0 (12/19/1996)	(-0.328504 - 0)/(20 - 6)		
-0.0234646				
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0	
-0.0202027 J (11/28/2007)	ND<0 (12/19/1996)	(-0.0202027 - 0)/(22 - 6)		
-0.00126267				
-0.18633 J (6/5/2008)	ND<0 (12/19/1996)	(-0.18633 - 0)/(23 - 6)		
-0.0109606				

0.207014 J (11/20/2008)	ND<0 (12/19/1996)	(0.207014 - 0)/(24 - 6)	
0.0115008			
ND<-0.693147 (6/11/2009)	ND<0 (12/19/1996)	(-0.693147 - 0)/(25 - 6)	
-0.0364814			
ND<-0.693147 (11/16/2009)	ND<0 (12/19/1996)	(-0.693147 - 0)/(26 - 6)	
-0.0346574			
ND<-0.693147 (6/30/2010)	ND<0 (12/19/1996)	(-0.693147 - 0)/(27 - 6)	
-0.033007			
ND<-0.693147 U (11/12/2010)	ND<0 (12/19/1996)	(-0.693147 - 0)/(28 - 6)	
-0.0315067			
0.530628 (7/5/2011)	ND<0 (12/19/1996)	(0.530628 - 0)/(29 - 6)	
0.0230708			
ND<-0.693147 U (11/22/2011)	ND<0 (12/19/1996)	(-0.693147 - 0)/(30 - 6)	
-0.0288811			
ND<-0.693147 U (11/22/2011)	ND<0 (12/19/1996)	(-0.693147 - 0)/(30 - 6)	
-0.0288811			
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
1.00796 (4/1/2005)	ND<0 (3/24/1997)	(1.00796 - 0)/(17 - 7)	
0.100796			
0.385262 J (10/25/2005)	ND<0 (3/24/1997)	(0.385262 - 0)/(18 - 7)	
0.0350239			
0.81978 (4/29/2006)	ND<0 (3/24/1997)	(0.81978 - 0)/(19 - 7)	
0.068315			
-0.328504 J (11/18/2006)	ND<0 (3/24/1997)	(-0.328504 - 0)/(20 - 7)	
-0.0252695			
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
-0.0202027 J (11/28/2007)	ND<0 (3/24/1997)	(-0.0202027 - 0)/(22 - 7)	
-0.00134685			
-0.18633 J (6/5/2008)	ND<0 (3/24/1997)	(-0.18633 - 0)/(23 - 7)	
-0.0116456			
0.207014 J (11/20/2008)	ND<0 (3/24/1997)	(0.207014 - 0)/(24 - 7)	
0.0121773			
ND<-0.693147 (6/11/2009)	ND<0 (3/24/1997)	(-0.693147 - 0)/(25 - 7)	
-0.0385082			
ND<-0.693147 (11/16/2009)	ND<0 (3/24/1997)	(-0.693147 - 0)/(26 - 7)	
-0.0364814			
ND<-0.693147 (6/30/2010)	ND<0 (3/24/1997)	(-0.693147 - 0)/(27 - 7)	
-0.0346574			
ND<-0.693147 U (11/12/2010)	ND<0 (3/24/1997)	(-0.693147 - 0)/(28 - 7)	
-0.033007			
0.530628 (7/5/2011)	ND<0 (3/24/1997)	(0.530628 - 0)/(29 - 7)	
0.0241195			
ND<-0.693147 U (11/22/2011)	ND<0 (3/24/1997)	(-0.693147 - 0)/(30 - 7)	
-0.0301368			
ND<-0.693147 U (11/22/2011)	ND<0 (3/24/1997)	(-0.693147 - 0)/(30 - 7)	
-0.0301368			
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0

ND<0 (3/11/2004) ND<0 (9/24/1997) (0 - 0)/(15 - 8) 0
ND<0 (10/12/2004) ND<0 (9/24/1997) (0 - 0)/(16 - 8) 0
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0.111995
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ND<-0.693147 (6/30/2010) ND<0 (9/24/1997) (-0.693147 - 0)/(27 - 8)
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ND<-0.693147 U (11/12/2010) ND<0 (9/24/1997) (-0.693147 - 0)/(28 - 8)
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ND<-0.693147 U (11/22/2011) ND<0 (9/24/1997) (-0.693147 - 0)/(30 - 8)
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ND<0 (9/23/1998) ND<0 (4/7/1998) (0 - 0)/(10 - 9) 0
ND<0 (3/16/1999) ND<0 (4/7/1998) (0 - 0)/(11 - 9) 0
ND<0 (9/23/1999) ND<0 (4/7/1998) (0 - 0)/(12 - 9) 0
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ND<-0.693147 (11/16/2009) ND<0 (4/7/1998) (-0.693147 - 0)/(26 - 9)
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ND<-0.693147 (6/30/2010) ND<0 (4/7/1998) (-0.693147 - 0)/(27 - 9)
-0.0385082
ND<-0.693147 U (11/12/2010) ND<0 (4/7/1998) (-0.693147 - 0)/(28 - 9)
-0.0364814

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ND<-0.693147 U (11/22/2011) ND<0 (4/7/1998) (-0.693147 - 0)/(30 - 9)
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ND<0 (3/16/1999) ND<0 (9/23/1998) (0 - 0)/(11 - 10) 0
ND<0 (9/23/1999) ND<0 (9/23/1998) (0 - 0)/(12 - 10) 0
ND<0 (3/15/2000) ND<0 (9/23/1998) (0 - 0)/(13 - 10) 0
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ND<-0.693147 (11/16/2009) ND<0 (9/23/1998) (-0.693147 - 0)/(26 - 10)
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ND<-0.693147 (6/30/2010) ND<0 (9/23/1998) (-0.693147 - 0)/(27 - 10)
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ND<-0.693147 U (11/12/2010) ND<0 (9/23/1998) (-0.693147 - 0)/(28 - 10)
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ND<-0.693147 U (11/22/2011) ND<0 (9/23/1998) (-0.693147 - 0)/(30 - 10)
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ND<-0.693147 U (11/12/2010) ND<0 (3/16/1999) (-0.693147 - 0)/(28 - 11)
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ND<0 (3/15/2000) ND<0 (9/23/1999) (0 - 0)/(13 - 12) 0
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ND<0 (3/11/2004) ND<0 (9/23/1999) (0 - 0)/(15 - 12) 0
ND<0 (10/12/2004) ND<0 (9/23/1999) (0 - 0)/(16 - 12) 0
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ND<-0.693147 (11/16/2009) ND<0 (9/23/1999) (-0.693147 - 0)/(26 - 12)
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ND<-0.693147 (6/30/2010) ND<0 (9/23/1999) (-0.693147 - 0)/(27 - 12)
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ND<-0.693147 U (11/12/2010) ND<0 (9/23/1999) (-0.693147 - 0)/(28 - 12)
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ND<0 (9/24/2003) ND<0 (3/15/2000) (0 - 0)/(14 - 13) 0
ND<0 (3/11/2004) ND<0 (3/15/2000) (0 - 0)/(15 - 13) 0
ND<0 (10/12/2004) ND<0 (3/15/2000) (0 - 0)/(16 - 13) 0
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ND<0 (5/23/2007) ND<0 (3/15/2000) (0 - 0)/(21 - 13) 0

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ND<-0.693147 (11/16/2009) ND<0 (3/15/2000) (-0.693147 - 0)/(26 - 13)
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ND<-0.693147 (6/30/2010) ND<0 (3/15/2000) (-0.693147 - 0)/(27 - 13)
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ND<-0.693147 U (11/12/2010) ND<0 (3/15/2000) (-0.693147 - 0)/(28 - 13)
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ND<-0.693147 U (11/22/2011) ND<0 (3/15/2000) (-0.693147 - 0)/(30 - 13)
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ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
ND<0 (10/12/2004) ND<0 (9/24/2003) (0 - 0)/(16 - 14) 0
1.00796 (4/1/2005) ND<0 (9/24/2003) (1.00796 - 0)/(17 - 14)
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ND<0 (5/23/2007) ND<0 (9/24/2003) (0 - 0)/(21 - 14) 0
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ND<-0.693147 (11/16/2009) ND<0 (9/24/2003) (-0.693147 - 0)/(26 - 14)
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ND<-0.693147 (6/30/2010) ND<0 (9/24/2003) (-0.693147 - 0)/(27 - 14)
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ND<-0.693147 U (11/12/2010) ND<0 (9/24/2003) (-0.693147 - 0)/(28 - 14)
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ND<-0.693147 U (11/22/2011) ND<0 (9/24/2003) (-0.693147 - 0)/(30 - 14)
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0.204945
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ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0	
-0.0202027 J (11/28/2007)	ND<0 (3/11/2004)	(-0.0202027 - 0)/(22 - 15)		
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ND<-0.693147 (6/11/2009)	ND<0 (3/11/2004)	(-0.693147 - 0)/(25 - 15)		
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ND<-0.693147 (11/16/2009)	ND<0 (3/11/2004)	(-0.693147 - 0)/(26 - 15)		
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ND<-0.693147 (6/30/2010)	ND<0 (3/11/2004)	(-0.693147 - 0)/(27 - 15)		
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ND<-0.693147 U (11/12/2010)	ND<0 (3/11/2004)	(-0.693147 - 0)/(28 - 15)		
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ND<-0.693147 U (11/22/2011)	ND<0 (3/11/2004)	(-0.693147 - 0)/(30 - 15)		
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ND<-0.693147 U (11/22/2011)	ND<0 (3/11/2004)	(-0.693147 - 0)/(30 - 15)		
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1.00796 (4/1/2005)	ND<0 (10/12/2004)	(1.00796 - 0)/(17 - 16)		1.00796
0.385262 J (10/25/2005)	ND<0 (10/12/2004)	(0.385262 - 0)/(18 - 16)		
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ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
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ND<-0.693147 (6/11/2009)	ND<0 (10/12/2004)	(-0.693147 - 0)/(25 - 16)		
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ND<-0.693147 (11/16/2009)	ND<0 (10/12/2004)	(-0.693147 - 0)/(26 - 16)		
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ND<-0.693147 (6/30/2010)	ND<0 (10/12/2004)	(-0.693147 - 0)/(27 - 16)		
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ND<-0.693147 U (11/12/2010)	ND<0 (10/12/2004)	(-0.693147 - 0)/(28 - 16)		
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ND<-0.693147 U (11/22/2011)	ND<0 (10/12/2004)	(-0.693147 - 0)/(30 - 16)		
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ND<0 (5/23/2007)	1.00796 (4/1/2005)	(0 - 1.00796)/(21 - 17)		
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-0.205632				
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ND<-0.693147 (6/11/2009) 0.385262 J (10/25/2005) (-0.693147 - 0.385262)/(25 - 18)
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ND<-0.693147 (11/16/2009) 0.385262 J (10/25/2005) (-0.693147 - 0.385262)/(26 - 18)
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ND<-0.693147 U (11/12/2010) 0.385262 J (10/25/2005) (-0.693147 - 0.385262)/(28 - 18)
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ND<-0.693147 U (11/22/2011) 0.385262 J (10/25/2005) (-0.693147 - 0.385262)/(30 - 18)
-0.0898675

-0.328504 J (11/18/2006) 0.81978 (4/29/2006) (-0.328504 - 0.81978)/(20 - 19)
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ND<0 (5/23/2007) 0.81978 (4/29/2006) (0 - 0.81978)/(21 - 19) -0.40989
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-0.18633 J (6/5/2008) 0.81978 (4/29/2006) (-0.18633 - 0.81978)/(23 - 19)
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ND<-0.693147 U (11/22/2011) 0.81978 (4/29/2006) (-0.693147 - 0.81978)/(30 - 19)
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-0.0729286
ND<-0.693147 (11/16/2009) -0.328504 J (11/18/2006) (-0.693147 - -0.328504)/(26 - 20)
-0.0607739
ND<-0.693147 (6/30/2010) -0.328504 J (11/18/2006) (-0.693147 - -0.328504)/(27 - 20)
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-0.0364643
ND<-0.693147 U (11/22/2011) -0.328504 J (11/18/2006) (-0.693147 - -0.328504)/(30 - 20)
-0.0364643

-0.0202027 J (11/28/2007) ND<0 (5/23/2007) (-0.0202027 - 0)/(22 - 21)
-0.0202027
-0.18633 J (6/5/2008) ND<0 (5/23/2007) (-0.18633 - 0)/(23 - 21)
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ND<-0.693147 (11/16/2009) ND<0 (5/23/2007) (-0.693147 - 0)/(26 - 21)
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ND<-0.693147 (6/30/2010) ND<0 (5/23/2007) (-0.693147 - 0)/(27 - 21)
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ND<-0.693147 U (11/12/2010) ND<0 (5/23/2007) (-0.693147 - 0)/(28 - 21)
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ND<-0.693147 U (11/22/2011) ND<0 (5/23/2007) (-0.693147 - 0)/(30 - 21)
-0.0770164

-0.18633 J (6/5/2008) -0.0202027 J (11/28/2007) (-0.18633 - -0.0202027)/(23 - 22)
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0.113608
ND<-0.693147 (6/11/2009) -0.0202027 J (11/28/2007) (-0.693147 - -0.0202027)/(25 - 22)
-0.224315
ND<-0.693147 (11/16/2009) -0.0202027 J (11/28/2007) (-0.693147 - -0.0202027)/(26 - 22)
-0.168236
ND<-0.693147 (6/30/2010) -0.0202027 J (11/28/2007) (-0.693147 - -0.0202027)/(27 - 22)
-0.134589

ND<-0.693147 U (11/12/2010) -0.0202027 J (11/28/2007) (-0.693147 - -0.0202027)/(28 - 22)
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0.530628 (7/5/2011) -0.0202027 J (11/28/2007) (0.530628 - -0.0202027)/(29 - 22)
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-0.0841181
ND<-0.693147 U (11/22/2011) -0.0202027 J (11/28/2007) (-0.693147 - -0.0202027)/(30 - 22)
-0.0841181

0.207014 J (11/20/2008) -0.18633 J (6/5/2008) (0.207014 - -0.18633)/(24 - 23)
0.393344
ND<-0.693147 (6/11/2009) -0.18633 J (6/5/2008) (-0.693147 - -0.18633)/(25 - 23)
-0.253409
ND<-0.693147 (11/16/2009) -0.18633 J (6/5/2008) (-0.693147 - -0.18633)/(26 - 23)
-0.168939
ND<-0.693147 (6/30/2010) -0.18633 J (6/5/2008) (-0.693147 - -0.18633)/(27 - 23)
-0.126704
ND<-0.693147 U (11/12/2010) -0.18633 J (6/5/2008) (-0.693147 - -0.18633)/(28 - 23)
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0.530628 (7/5/2011) -0.18633 J (6/5/2008) (0.530628 - -0.18633)/(29 - 23)
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-0.0724025
ND<-0.693147 U (11/22/2011) -0.18633 J (6/5/2008) (-0.693147 - -0.18633)/(30 - 23)
-0.0724025

ND<-0.693147 (6/11/2009) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(25 - 24)
-0.900161
ND<-0.693147 (11/16/2009) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(26 - 24)
-0.450081
ND<-0.693147 (6/30/2010) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(27 - 24)
-0.300054
ND<-0.693147 U (11/12/2010) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(28 - 24)
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0.530628 (7/5/2011) 0.207014 J (11/20/2008) (0.530628 - 0.207014)/(29 - 24)
0.0647228
ND<-0.693147 U (11/22/2011) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(30 - 24)
-0.150027
ND<-0.693147 U (11/22/2011) 0.207014 J (11/20/2008) (-0.693147 - 0.207014)/(30 - 24)
-0.150027

ND<-0.693147 (11/16/2009) ND<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(26 - 25) 0
ND<-0.693147 (6/30/2010) ND<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(27 - 25) 0
ND<-0.693147 U (11/12/2010) ND<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(28 - 25) 0
0.530628 (7/5/2011) ND<-0.693147 (6/11/2009) (0.530628 - -0.693147)/(29 - 25)
0.305944
ND<-0.693147 U (11/22/2011) ND<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(30 - 25) 0
ND<-0.693147 U (11/22/2011) ND<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(30 - 25) 0

ND<-0.693147 (6/30/2010) ND<-0.693147 (11/16/2009) (-0.693147 -
-0.693147)/(27 - 26) 0
ND<-0.693147 U (11/12/2010) ND<-0.693147 (11/16/2009) (-0.693147 -
-0.693147)/(28 - 26) 0
0.530628 (7/5/2011) ND<-0.693147 (11/16/2009) (0.530628 - -0.693147)/(29 - 26)
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ND<-0.693147 U (11/22/2011) ND<-0.693147 (11/16/2009) (-0.693147 -
-0.693147)/(30 - 26) 0

ND<-0.693147 U (11/22/2011) ND<-0.693147 (11/16/2009) (-0.693147 - -0.693147)/(30 - 26) 0

ND<-0.693147 U (11/12/2010) ND<-0.693147 (6/30/2010) (-0.693147 - -0.693147)/(28 - 27) 0
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ND<-0.693147 U (11/22/2011) ND<-0.693147 (6/30/2010) (-0.693147 - -0.693147)/(30 - 27) 0

0.530628 (7/5/2011) ND<-0.693147 U (11/12/2010) (0.530628 - -0.693147)/(29 - 28) 1.22378
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ND<-0.693147 U (11/22/2011) 0.530628 (7/5/2011) (-0.693147 - 0.530628)/(30 - 29) -1.22378
ND<-0.693147 U (11/22/2011) 0.530628 (7/5/2011) (-0.693147 - 0.530628)/(30 - 29) -1.22378

ND<-0.693147 U (11/22/2011) ND<-0.693147 U (11/22/2011) (-0.693147 - -0.693147)/(30 - 30) Same Date

Number of Q values = 464

Ordered Q Values

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2	-1.22378
3	-1.14828
4	-0.900161
5	-0.622696
6	-0.470004
7	-0.450081
8	-0.445487
9	-0.40989
10	-0.356883
11	-0.300054
12	-0.279994
13	-0.253409
14	-0.252155
15	-0.251989
16	-0.251527
17	-0.22504
18	-0.224315
19	-0.216132
20	-0.212638
21	-0.205632
22	-0.199048
23	-0.189116
24	-0.189012
25	-0.173287
26	-0.170111
27	-0.168939
28	-0.168236
29	-0.168103

30	-0.166127
31	-0.154646
32	-0.154059
33	-0.150027
34	-0.150027
35	-0.143841
36	-0.138629
37	-0.137539
38	-0.137539
39	-0.134801
40	-0.134589
41	-0.130854
42	-0.130854
43	-0.128421
44	-0.126704
45	-0.122553
46	-0.119823
47	-0.115525
48	-0.114421
49	-0.114318
50	-0.112157
51	-0.107841
52	-0.101366
53	-0.101364
54	-0.099021
55	-0.095894
56	-0.094089
57	-0.0931648
58	-0.0898675
59	-0.0898675
60	-0.0841181
61	-0.0841181
62	-0.082126
63	-0.0770164
64	-0.0770164
65	-0.0770164
66	-0.0729286
67	-0.0724025
68	-0.0724025
69	-0.0693147
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71	-0.0657008
72	-0.0630134
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75	-0.0607739
76	-0.0577623
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328	0.00810466
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330	0.00878004
331	0.00957823
332	0.00957823
333	0.0105361
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335	0.0108955
336	0.0115008
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338	0.0117067
339	0.0119377

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347	0.0138009
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351	0.0150515
352	0.0151412
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354	0.0159242
355	0.0172512
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364	0.0221294
365	0.0224862
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369	0.0241195
370	0.0244611
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387	0.0331643
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392	0.0353752
393	0.0354143
394	0.0359603
395	0.037902
396	0.0385262
397	0.0408176
398	0.0410974
399	0.042059
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407	0.0550375
408	0.0575364
409	0.0578213
410	0.0585557
411	0.061676
412	0.06306
413	0.0642104
414	0.0647228
415	0.0651448
416	0.0663285
417	0.068315
418	0.0690047
419	0.0719205
420	0.0745254
421	0.0770525
422	0.0786901
423	0.0795227
424	0.081978
425	0.0839965
426	0.0856399
427	0.086376
428	0.0910866
429	0.0911608
430	0.0916325
431	0.0954591
432	0.095894
433	0.0963156
434	0.100796
435	0.102472
436	0.105361
437	0.111995
438	0.113608
439	0.117111
440	0.119493
441	0.125995
442	0.128421
443	0.13388
444	0.13663
445	0.143994
446	0.154151
447	0.163956
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449	0.182322
450	0.192631
451	0.201592
452	0.204945
453	0.251989
454	0.27326
455	0.305944
456	0.328504
457	0.335986
458	0.393344
459	0.407925
460	0.434517
461	0.503979
462	0.611888
463	1.00796

464 1.22378
Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	-0.105361	2
2	0	13
3	-0.693147	6

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 5364
B = 18
C = 1836
D = 0
E = 188
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3162.87
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.5055
M1 = (464 - 92.5055)/2.0 = 185.747
M2 = (464 + 92.5055)/2.0 + 1 = 279.253
Lower limit is -0.020258 = Q(186)
Upper limit is 0 = Q(279)
-0.020258 < 0 < 0 indicating no trend in data.

Concentrations (ppb)

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 168
Percent Non-Detects: 70%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	15 (78.9474%)	3/16/1999	5	5
			9/23/1999	8	8
			3/15/2000	21	21
			9/24/2003	ND<1	ND<1
			3/11/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/25/2005	ND<1	ND<1
			4/29/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			5/23/2007	ND<1	ND<1
			11/28/2007	ND<1	ND<1
			6/5/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.08	ND<0.08
			11/16/2009	ND<0.08	ND<0.08
			6/30/2010	ND<0.08	ND<0.08
			11/12/2010	0.12 J	0.12 J
			7/5/2011	ND<0.08 U	ND<0.08 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	31	25 (80.6452%)	7/20/1995	4	4
			8/24/1995	3	3
			9/28/1995	3.5	3.5
			10/26/1995	ND<1	ND<1
			11/19/1996	ND<1	ND<1
			12/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			9/24/1997	22	22
			4/7/1998	ND<1	ND<1
			9/23/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/15/2000	ND<1	ND<1
			9/24/2003	ND<1	ND<1
			3/11/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/25/2005	ND<1	ND<1
			4/29/2006	0.66 J	0.66 J
			11/18/2006	ND<1	ND<1
			5/23/2007	ND<1	ND<1
			11/28/2007	ND<1	ND<1
			6/5/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

			6/11/2009	ND<0.08		ND<0.08
			11/16/2009	ND<0.08		ND<0.08
			6/30/2010	ND<0.08		ND<0.08
			11/12/2010	ND<0.08 U		ND<0.08 U
			7/5/2011 0.09 J	0.09 J		
			11/22/2011	ND<0.08 U		ND<0.08 U
			11/22/2011	ND<0.08 U		ND<0.08 U
MW-11R	31	24 (77.4194%)	7/20/1995		3.8	3.8
			8/24/1995	6	6	
			9/28/1995	3.7	3.7	
			10/26/1995	11.9	11.9	
			11/19/1996	ND<1	ND<1	
			12/19/1996	ND<1	ND<1	
			3/24/1997	ND<1	ND<1	
			9/24/1997	ND<1	ND<1	
			4/7/1998 ND<1	ND<1		
			9/23/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	9	9	
			3/15/2000	ND<1	ND<1	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005 ND<1	ND<1		
			10/25/2005	ND<1	ND<1	
			4/29/2006	1.22	1.22	
			11/18/2006	ND<1	ND<1	
			5/23/2007	ND<1	ND<1	
			11/28/2007	ND<1	ND<1	
			6/5/2008 ND<1	ND<1		
			11/20/2008	0.636 J	0.636 J	
			6/11/2009	ND<0.08		ND<0.08
			11/16/2009	ND<0.08		ND<0.08
			6/30/2010	ND<0.08		ND<0.08
			11/12/2010	ND<0.08 U		ND<0.08 U
			7/5/2011 ND<0.08 U H		ND<0.08 U H	
			11/22/2011	ND<0.08 U		ND<0.08 U
			11/22/2011	ND<0.08 U		ND<0.08 U
MW-7	30	16 (53.3333%)	7/20/1995		ND<1	ND<1
			8/24/1995	12.8	12.8	
			9/28/1995	40.6	40.6	
			10/26/1995	14.1	14.1	
			11/19/1996	ND<1	ND<1	
			12/19/1996	21.5	21.5	
			3/24/1997	ND<1	ND<1	
			9/24/1997	ND<1	ND<1	
			4/7/1998 ND<1	ND<1		
			9/23/1998	ND<1	ND<1	
			3/16/1999	9	9	
			9/23/1999	5	5	
			3/15/2000	ND<1	ND<1	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005 ND<1	ND<1		
			10/25/2005	ND<1	ND<1	
			4/29/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			5/23/2007	ND<1	ND<1	
			11/28/2007	ND<1	ND<1	

			6/5/2008	0.522 J	0.522 J	
			11/20/2008	0.734 J	0.734 J	
			6/11/2009	0.17 J	0.17 J	
			11/16/2009	0.16 J	0.16 J	
			6/30/2010	0.16 J H	0.16 J H	
			11/12/2010	0.18 J	0.18 J	
			7/5/2011	0.15 J	0.15 J	
			11/22/2011	0.12 J	0.12 J	
MW-12A R		20	9 (45%)	3/16/1999	ND<1	ND<1
			9/23/1999	6	6	
			3/15/2000	11	11	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/25/2005	ND<1	ND<1	
			4/29/2006	0.68 J	0.68 J	
			11/18/2006	ND<1	ND<1	
			5/23/2007	0.819 J	0.819 J	
			11/28/2007	ND<1	ND<1	
			6/5/2008	ND<1	ND<1	
			11/20/2008	0.738 J	0.738 J	
			6/11/2009	0.34	0.34	
			11/16/2009	0.44	0.44	
			6/30/2010	0.45	0.45	
			11/12/2010	0.49	0.49	
			7/5/2011	0.54	0.54	
			11/22/2011	0.34	0.34	
MW-10	30	26 (86.6667%)	7/20/1995	ND<1	ND<1	
			8/24/1995	4.8	4.8	
			9/28/1995	ND<1	ND<1	
			10/26/1995	ND<1	ND<1	
			11/19/1996	ND<1	ND<1	
			12/19/1996	ND<1	ND<1	
			3/24/1997	ND<1	ND<1	
			9/24/1997	ND<1	ND<1	
			4/7/1998	ND<1	ND<1	
			9/23/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	5	5	
			3/15/2000	ND<1	ND<1	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/25/2005	ND<1	ND<1	
			4/29/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			5/23/2007	ND<1	ND<1	
			11/28/2007	ND<1	ND<1	
			6/5/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	0.14 J	0.14 J	
			11/16/2009	ND<0.08	ND<0.08	
			6/30/2010	ND<0.08	ND<0.08	
			11/12/2010	ND<0.08 U	ND<0.08 U	
			7/5/2011	3.3 H	3.3 H	
			11/22/2011	ND<0.08 U	ND<0.08 U	
MW-12B R		20	10 (50%)	3/16/1999	ND<1	ND<1

			9/23/1999	6	6	
			3/15/2000	ND<1	ND<1	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/25/2005	0.623 J	0.623 J	
			4/29/2006	0.5 J	0.5 J	
			11/18/2006	ND<1	ND<1	
			5/23/2007	ND<1	ND<1	
			11/28/2007	ND<1	ND<1	
			6/5/2008	ND<1	ND<1	
			11/20/2008	2.72	2.72	
			6/11/2009	0.17 J	0.17 J	
			11/16/2009	0.26 J	0.26 J	
			6/30/2010	0.27 J	0.27 J	
			11/12/2010	0.72	0.72	
			7/5/2011	0.28 J	0.28 J	
			11/22/2011	0.19 J	0.19 J	
MW-6	30	21 (70%)	7/20/1995	8.1	8.1	
			8/24/1995	5.9	5.9	
			9/28/1995	3.4	3.4	
			10/26/1995	ND<1	ND<1	
			11/19/1996	ND<1	ND<1	
			12/19/1996	10.3	10.3	
			3/24/1997	ND<1	ND<1	
			9/24/1997	12	12	
			4/7/1998	13	13	
			9/23/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/15/2000	ND<1	ND<1	
			9/24/2003	ND<1	ND<1	
			3/11/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/25/2005	ND<1	ND<1	
			4/29/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			5/23/2007	ND<1	ND<1	
			11/28/2007	ND<1	ND<1	
			6/5/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.08	ND<0.08	
			11/16/2009	0.085 J	0.085 J	
			6/30/2010	ND<0.08	ND<0.08	
			11/12/2010	0.11 J	0.11 J	
			7/5/2011	0.15 J	0.15 J	
			11/22/2011	ND<0.08 U	ND<0.08 U	
MW-8	29	22 (75.8621%)	7/20/1995	3	3	
			8/24/1995	8.9	8.9	
			9/28/1995	19.6	19.6	
			10/26/1995	ND<1	ND<1	
			11/19/1996	ND<1	ND<1	
			12/19/1996	13.3	13.3	
			3/24/1997	ND<1	ND<1	
			9/24/1997	ND<1	ND<1	
			4/7/1998	ND<1	ND<1	
			9/23/1998	13	13	
			3/16/1999	ND<1	ND<1	

9/23/1999	73	73	
3/15/2000	ND<1	ND<1	
9/24/2003	ND<1	ND<1	
3/11/2004	ND<1	ND<1	
10/12/2004	ND<1	ND<1	
4/1/2005 ND<1	ND<1		
10/25/2005	ND<1	ND<1	
4/29/2006	ND<1	ND<1	
11/18/2006	ND<1	ND<1	
5/23/2007	ND<1	ND<1	
11/28/2007	ND<1	ND<1	
6/5/2008 ND<1	ND<1		
11/20/2008	0.658 J	0.658 J	
6/11/2009	ND<0.08		ND<0.08
6/30/2010	ND<0.08		ND<0.08
11/12/2010	ND<0.08 U		ND<0.08 U
7/5/2011 ND<0.08 U		ND<0.08 U	
11/22/2011	ND<0.08 U		ND<0.08 U

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: Lead

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.04	-2.65209	7.03356	-0.106083
2	0.04	-2.40892	12.8365	-0.20244
3	0.04	-2.25713	17.9311	-0.292726
4	0.04	-2.14441	22.5296	-0.378502
5	0.04	-2.05375	26.7475	-0.460652
6	0.04	-1.97737	30.6575	-0.539747
7	0.04	-1.8957	34.2511	-0.615574
8	0.04	-1.83843	37.6309	-0.689111
9	0.04	-1.78661	40.8229	-0.760576
10	0.04	-1.7392	43.8477	-0.830144
11	0.04	-1.6954	46.7221	-0.89796
12	0.04	-1.65463	49.4599	-0.964145
13	0.04	-1.61644	52.0728	-1.0288
14	0.04	-1.57179	54.5433	-1.09167
15	0.04	-1.5382	56.9093	-1.1532
16	0.04	-1.50626	59.1782	-1.21345
17	0.04	-1.47579	61.3561	-1.27248
18	0.04	-1.44663	63.4489	-1.33035
19	0.04	-1.41865	65.4614	-1.3871
20	0.04	-1.39175	67.3984	-1.44277
21	0.04	-1.35946	69.2465	-1.49714
22	0.04	-1.33462	71.0278	-1.55053
23	0.04	-1.31058	72.7454	-1.60295
24	0.04	-1.28727	74.4024	-1.65444
25	0.04	-1.26464	76.0018	-1.70503
26	0.04	-1.24264	77.5459	-1.75473
27	0.04	-1.21596	79.0245	-1.80337
28	0.04	-1.19522	80.453	-1.85118
29	0.04	-1.17499	81.8336	-1.89818
30	0.085	-1.15522	83.1682	-1.99637
31	0.09	-1.1359	84.4584	-2.09861
32	0.11	-1.11699	85.7061	-2.22147
33	0.12	-1.09847	86.9127	-2.35329
34	0.12	-1.07584	88.0701	-2.48239
35	0.14	-1.05812	89.1898	-2.63053
36	0.15	-1.04073	90.2729	-2.78664
37	0.15	-1.02365	91.3208	-2.94019
38	0.16	-1.00687	92.3345	-3.10128
39	0.16	-0.990356	93.3153	-3.25974
40	0.17	-0.974114	94.2642	-3.42534
41	0.17	-0.954165	95.1747	-3.58755
42	0.18	-0.938476	96.0554	-3.75647
43	0.19	-0.923014	96.9074	-3.93185
44	0.26	-0.907769	97.7314	-4.16787
45	0.27	-0.892733	98.5284	-4.4089
46	0.28	-0.877897	99.2991	-4.65472
47	0.34	-0.859618	100.038	-4.94699
48	0.34	-0.845198	100.752	-5.23435
49	0.44	-0.830953	101.443	-5.59997
50	0.45	-0.816874	102.11	-5.96757
51	0.49	-0.802956	102.755	-6.36101

52	0.5	-0.789191	103.378	-6.75561
53	0.5	-0.775574	103.979	-7.1434
54	0.5	-0.758753	104.555	-7.52277
55	0.5	-0.745449	105.111	-7.8955
56	0.5	-0.732275	105.647	-8.26164
57	0.5	-0.719228	106.164	-8.62125
58	0.5	-0.706302	106.663	-8.9744
59	0.5	-0.693493	107.144	-9.32115
60	0.5	-0.680797	107.607	-9.66155
61	0.5	-0.665079	108.05	-9.99408
62	0.5	-0.652622	108.476	-10.3204
63	0.5	-0.640266	108.886	-10.6405
64	0.5	-0.628006	109.28	-10.9545
65	0.5	-0.615839	109.659	-11.2625
66	0.5	-0.603765	110.024	-11.5643
67	0.5	-0.588793	110.37	-11.8587
68	0.5	-0.576911	110.703	-12.1472
69	0.5	-0.565108	111.023	-12.4297
70	0.5	-0.553384	111.329	-12.7064
71	0.5	-0.541736	111.622	-12.9773
72	0.5	-0.530162	111.903	-13.2424
73	0.5	-0.518658	112.172	-13.5017
74	0.5	-0.504372	112.427	-13.7539
75	0.5	-0.493018	112.67	-14.0004
76	0.5	-0.481728	112.902	-14.2413
77	0.5	-0.470498	113.123	-14.4765
78	0.5	-0.459327	113.334	-14.7062
79	0.5	-0.448213	113.535	-14.9303
80	0.5	-0.437153	113.726	-15.1489
81	0.5	-0.423405	113.906	-15.3606
82	0.5	-0.412463	114.076	-15.5668
83	0.5	-0.401571	114.237	-15.7676
84	0.5	-0.390726	114.39	-15.9629
85	0.5	-0.379927	114.534	-16.1529
86	0.5	-0.369171	114.67	-16.3375
87	0.5	-0.358459	114.799	-16.5167
88	0.5	-0.345126	114.918	-16.6893
89	0.5	-0.334503	115.03	-16.8565
90	0.5	-0.323919	115.135	-17.0185
91	0.5	-0.31337	115.233	-17.1752
92	0.5	-0.302855	115.325	-17.3266
93	0.5	-0.292375	115.41	-17.4728
94	0.5	-0.279319	115.488	-17.6125
95	0.5	-0.268908	115.56	-17.7469
96	0.5	-0.258527	115.627	-17.8762
97	0.5	-0.248174	115.689	-18.0003
98	0.5	-0.237847	115.745	-18.1192
99	0.5	-0.227545	115.797	-18.233
100	0.5	-0.217267	115.844	-18.3416
101	0.5	-0.204452	115.886	-18.4438
102	0.5	-0.194225	115.924	-18.5409
103	0.5	-0.184017	115.958	-18.6329
104	0.5	-0.173829	115.988	-18.7199
105	0.5	-0.163659	116.015	-18.8017
106	0.5	-0.153505	116.038	-18.8784
107	0.5	-0.143367	116.059	-18.9501
108	0.5	-0.130716	116.076	-19.0155
109	0.5	-0.12061	116.091	-19.0758
110	0.5	-0.110516	116.103	-19.131
111	0.5	-0.100433	116.113	-19.1813
112	0.5	-0.0903606	116.121	-19.2264
113	0.5	-0.0802981	116.127	-19.2666

114	0.5	-0.0677301	116.132	-19.3005
115	0.5	-0.0576847	116.135	-19.3293
116	0.5	-0.0476439	116.138	-19.3531
117	0.5	-0.0376076	116.139	-19.3719
118	0.5	-0.0275759	116.14	-19.3857
119	0.5	-0.0175476	116.14	-19.3945
120	0.5	-0.00751925	116.14	-19.3982
121	0.5	0.00751925	116.14	-19.3945
122	0.5	0.0175476	116.141	-19.3857
123	0.5	0.0275759	116.141	-19.3719
124	0.5	0.0376076	116.143	-19.3531
125	0.5	0.0476439	116.145	-19.3293
126	0.5	0.0576847	116.148	-19.3005
127	0.5	0.0677301	116.153	-19.2666
128	0.5	0.0802981	116.159	-19.2264
129	0.5	0.0903606	116.167	-19.1813
130	0.5	0.100433	116.178	-19.131
131	0.5	0.110516	116.19	-19.0758
132	0.5	0.12061	116.204	-19.0155
133	0.5	0.130716	116.221	-18.9501
134	0.5	0.143367	116.242	-18.8784
135	0.5	0.153505	116.266	-18.8017
136	0.5	0.163659	116.292	-18.7199
137	0.5	0.173829	116.323	-18.6329
138	0.5	0.184017	116.356	-18.5409
139	0.5	0.194225	116.394	-18.4438
140	0.5	0.204452	116.436	-18.3416
141	0.5	0.217267	116.483	-18.233
142	0.5	0.227545	116.535	-18.1192
143	0.5	0.237847	116.591	-18.0003
144	0.5	0.248174	116.653	-17.8762
145	0.5	0.258527	116.72	-17.7469
146	0.5	0.268908	116.792	-17.6125
147	0.5	0.279319	116.87	-17.4728
148	0.5	0.292375	116.956	-17.3266
149	0.5	0.302855	117.047	-17.1752
150	0.5	0.31337	117.146	-17.0185
151	0.5	0.323919	117.251	-16.8565
152	0.5	0.334503	117.362	-16.6893
153	0.5	0.345126	117.482	-16.5167
154	0.5	0.358459	117.61	-16.3375
155	0.5	0.369171	117.746	-16.1529
156	0.5	0.379927	117.891	-15.9629
157	0.5	0.390726	118.043	-15.7676
158	0.5	0.401571	118.205	-15.5668
159	0.5	0.412463	118.375	-15.3606
160	0.5	0.423405	118.554	-15.1489
161	0.5	0.437153	118.745	-14.9303
162	0.5	0.448213	118.946	-14.7062
163	0.5	0.459327	119.157	-14.4765
164	0.5	0.470498	119.378	-14.2413
165	0.5	0.481728	119.61	-14.0004
166	0.5	0.493018	119.853	-13.7539
167	0.5	0.504372	120.108	-13.5017
168	0.5	0.518658	120.377	-13.2424
169	0.5	0.530162	120.658	-12.9773
170	0.5	0.541736	120.951	-12.7064
171	0.5	0.553384	121.258	-12.4297
172	0.5	0.565108	121.577	-12.1472
173	0.5	0.576911	121.91	-11.8587
174	0.5	0.588793	122.257	-11.5643
175	0.5	0.603765	122.621	-11.2625

176	0.5	0.615839		123	-10.9545
177	0.5	0.628006		123.395	-10.6405
178	0.5	0.640266		123.805	-10.3204
179	0.5	0.652622		124.231	-9.99408
180	0.5	0.665079		124.673	-9.66155
181	0.5	0.680797		125.136	-9.32115
182	0.5	0.693493		125.617	-8.9744
183	0.5	0.706302		126.116	-8.62125
184	0.5	0.719228		126.633	-8.26164
185	0.5	0.732275		127.17	-7.8955
186	0.5	0.745449		127.725	-7.52277
187	0.5	0.758753		128.301	-7.1434
188	0.5	0.775574		128.903	-6.75561
189	0.5	0.789191		129.525	-6.36101
190	0.5	0.802956		130.17	-5.95954
191	0.5	0.816874		130.837	-5.5511
192	0.522	0.830953		131.528	-5.11734
193	0.54	0.845198		132.242	-4.66093
194	0.623	0.859618		132.981	-4.12539
195	0.636	0.877897		133.752	-3.56705
196	0.658	0.892733		134.549	-2.97963
197	0.66	0.907769		135.373	-2.3805
198	0.68	0.923014		136.225	-1.75285
199	0.72	0.938476		137.106	-1.07715
200	0.734	0.954165		138.016	-0.376795
201	0.738	0.974114		138.965	0.342101
202	0.819	0.990356		139.946	1.1532
203	1.22	1.00687	140.96	2.38158	
204	2.72	1.02365	142.007	5.16591	
205	3	1.04073	143.091	8.28811	
206	3	1.05812	144.21	11.4625	
207	3.3	1.07584	145.368	15.0127	
208	3.4	1.09847	146.574	18.7475	
209	3.5	1.11699	147.822	22.657	
210	3.7	1.1359	149.112	26.8598	
211	3.8	1.15522	150.447	31.2496	
212	4	1.17499	151.827	35.9496	
213	4.8	1.19522	153.256	41.6867	
214	5	1.21596	154.734	47.7665	
215	5	1.24264	156.279	53.9797	
216	5	1.26464	157.878	60.3029	
217	5.9	1.28727	159.535	67.8978	
218	6	1.31058	161.253	75.7613	
219	6	1.33462	163.034	83.769	
220	6	1.35946	164.882	91.9258	
221	8	1.39175	166.819	103.06	
222	8.1	1.41865	168.831	114.551	
223	8.9	1.44663	170.924	127.426	
224	9	1.47579	173.102	140.708	
225	9	1.50626	175.371	154.264	
226	10.3	1.5382	177.737	170.108	
227	11	1.57179	180.208	187.397	
228	11.9	1.61644	182.82	206.633	
229	12	1.65463	185.558	226.489	
230	12.8	1.6954	188.433	248.19	
231	13	1.7392	191.457	270.799	
232	13	1.78661	194.649	294.025	
233	13.3	1.83843	198.029	318.476	
234	14.1	1.8957	201.623	345.206	
235	19.6	1.97737	205.533	383.962	
236	21	2.05375	209.751	427.091	
237	21.5	2.14441	214.349	473.195	

238	22	2.25713	219.444	522.852
239	40.6	2.40892	225.247	620.655
240	73	2.65209	232.28	814.257

Data Set Standard Deviation = 6.40693
Numerator = 663014
Denominator = 2.27882e+006
W Statistic = 0.290946 = 663014 / 2.27882e+006

5% Critical value of 0.976 exceeds 0.290946
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.290946
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Lead

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.548742
0.548742 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.04	0.00414938	-2.65209	39.2675	344.01	
2	0.04	0.00829876	-2.40892	39.2675	332.136	
3	0.04	0.0124481	-2.25713	39.2675	324.723	
4	0.04	0.0165975	-2.14441	39.2675	319.219	
5	0.04	0.0207469	-2.05375	39.2675	314.791	
6	0.04	0.0248963	-1.97737	39.2675	311.062	
7	0.04	0.0290456	-1.8957	39.2675	307.073	
8	0.04	0.033195	-1.83843	39.2675	304.276	
9	0.04	0.0373444	-1.78661	39.2675	301.746	
10	0.04	0.0414938	-1.7392	39.2675	299.431	
11	0.04	0.0456432	-1.6954	39.2675	297.292	
12	0.04	0.0497925	-1.65463	39.2675	295.301	
13	0.04	0.0539419	-1.61644	39.2675	293.436	
14	0.04	0.0580913	-1.57179	39.2675	291.256	
15	0.04	0.0622407	-1.5382	39.2675	289.615	
16	0.04	0.06639	-1.50626	39.2675	288.056	
17	0.04	0.0705394	-1.47579	39.2675	286.568	
18	0.04	0.0746888	-1.44663	39.2675	285.144	
19	0.04	0.0788382	-1.41865	39.2675	283.778	
20	0.04	0.0829876	-1.39175	39.2675	282.464	
21	0.04	0.0871369	-1.35946	39.2675	280.887	
22	0.04	0.0912863	-1.33462	39.2675	279.674	
23	0.04	0.0954357	-1.31058	39.2675	278.5	
24	0.04	0.0995851	-1.28727	39.2675	277.362	
25	0.04	0.103734	-1.26464	39.2675	276.257	
26	0.04	0.107884	-1.24264	39.2675	275.182	
27	0.04	0.112033	-1.21596	39.2675	273.879	
28	0.04	0.116183	-1.19522	39.2675	272.867	
29	0.04	0.120332	-1.17499	39.2675	271.879	
30	0.085	0.124481	-1.15522	39.5684	270.913	
31	0.09	0.128631	-1.1359	39.6019	269.97	
32	0.11	0.13278	-1.11699	39.7356	269.046	
33	0.12	0.136929	-1.09847	39.8025	268.142	
34	0.12	0.141079	-1.07584	39.8025	267.037	
35	0.14	0.145228	-1.05812	39.9363	266.172	
36	0.15	0.149378	-1.04073	40.0031	265.322	
37	0.15	0.153527	-1.02365	40.0031	264.488	
38	0.16	0.157676	-1.00687	40.07	263.669	
39	0.16	0.161826	-0.990356	40.07	262.862	
40	0.17	0.165975	-0.974114	40.1369	262.069	
41	0.17	0.170124	-0.954165	40.1369	261.095	
42	0.18	0.174274	-0.938476	40.2037	260.329	
43	0.19	0.178423	-0.923014	40.2706	259.574	
44	0.26	0.182573	-0.907769	40.7388	258.829	
45	0.27	0.186722	-0.892733	40.8056	258.095	
46	0.28	0.190871	-0.877897	40.8725	257.371	
47	0.34	0.195021	-0.859618	41.2738	256.478	
48	0.34	0.19917	-0.845198	41.2738	255.774	

49	0.44	0.20332	-0.830953	41.9425	255.078	
50	0.45	0.207469	-0.816874	42.0094	254.391	
51	0.49	0.211618	-0.802956	42.2769	253.711	
52	0.5	0.215768	-0.789191	42.3438	253.039	
53	0.5	0.219917	-0.775574	42.3438	252.374	
54	0.5	0.224066	-0.758753	42.3438	251.552	
55	0.5	0.228216	-0.745449	42.3438	250.903	
56	0.5	0.232365	-0.732275	42.3438	250.259	
57	0.5	0.236515	-0.719228	42.3438	249.622	
58	0.5	0.240664	-0.706302	42.3438	248.991	
59	0.5	0.244813	-0.693493	42.3438	248.366	
60	0.5	0.248963	-0.680797	42.3438	247.746	
61	0.5	0.253112	-0.665079	42.3438	246.978	
62	0.5	0.257261	-0.652622	42.3438	246.37	
63	0.5	0.261411	-0.640266	42.3438	245.766	
64	0.5	0.26556	-0.628006	42.3438	245.168	
65	0.5	0.26971	-0.615839	42.3438	244.573	
66	0.5	0.273859	-0.603765	42.3438	243.984	
67	0.5	0.278008	-0.588793	42.3438	243.253	
68	0.5	0.282158	-0.576911	42.3438	242.672	
69	0.5	0.286307	-0.565108	42.3438	242.096	
70	0.5	0.290456	-0.553384	42.3438	241.524	
71	0.5	0.294606	-0.541736	42.3438	240.955	
72	0.5	0.298755	-0.530162	42.3438	240.39	
73	0.5	0.302905	-0.518658	42.3438	239.828	
74	0.5	0.307054	-0.504372	42.3438	239.13	
75	0.5	0.311203	-0.493018	42.3438	238.576	
76	0.5	0.315353	-0.481728	42.3438	238.024	
77	0.5	0.319502	-0.470498	42.3438	237.476	
78	0.5	0.323651	-0.459327	42.3438	236.93	
79	0.5	0.327801	-0.448213	42.3438	236.388	
80	0.5	0.33195	-0.437153	42.3438	235.848	
81	0.5	0.3361	-0.423405	42.3438	235.176	
82	0.5	0.340249	-0.412463	42.3438	234.642	
83	0.5	0.344398	-0.401571	42.3438	234.11	
84	0.5	0.348548	-0.390726	42.3438	233.58	
85	0.5	0.352697	-0.379927	42.3438	233.053	
86	0.5	0.356846	-0.369171	42.3438	232.528	
87	0.5	0.360996	-0.358459	42.3438	232.005	
88	0.5	0.365145	-0.345126	42.3438	231.354	
89	0.5	0.369295	-0.334503	42.3438	230.835	
90	0.5	0.373444	-0.323919	42.3438	230.318	
91	0.5	0.377593	-0.31337	42.3438	229.803	
92	0.5	0.381743	-0.302855	42.3438	229.289	
93	0.5	0.385892	-0.292375	42.3438	228.778	
94	0.5	0.390041	-0.279319	42.3438	228.14	
95	0.5	0.394191	-0.268908	42.3438	227.632	
96	0.5	0.39834	-0.258527	42.3438	227.125	
97	0.5	0.40249	-0.248174	42.3438	226.619	
98	0.5	0.406639	-0.237847	42.3438	226.115	
99	0.5	0.410788	-0.227545	42.3438	225.612	
100	0.5	0.414938	-0.217267	42.3438	225.11	
101	0.5	0.419087	-0.204452	42.3438	224.484	
102	0.5	0.423237	-0.194225	42.3438	223.985	
103	0.5	0.427386	-0.184017	42.3438	223.486	
104	0.5	0.431535	-0.173829	42.3438	222.989	
105	0.5	0.435685	-0.163659	42.3438	222.492	
106	0.5	0.439834	-0.153505	42.3438	221.996	
107	0.5	0.443983	-0.143367	42.3438	221.501	
108	0.5	0.448133	-0.130716	42.3438	220.883	
109	0.5	0.452282	-0.12061	42.3438	220.39	
110	0.5	0.456432	-0.110516	42.3438	219.897	

111	0.5	0.460581	-0.100433	42.3438	219.404
112	0.5	0.46473	-0.0903606	42.3438	218.913
113	0.5	0.46888	-0.0802981	42.3438	218.421
114	0.5	0.473029	-0.0677301	42.3438	217.807
115	0.5	0.477178	-0.0576847	42.3438	217.317
116	0.5	0.481328	-0.0476439	42.3438	216.827
117	0.5	0.485477	-0.0376076	42.3438	216.337
118	0.5	0.489627	-0.0275759	42.3438	215.847
119	0.5	0.493776	-0.0175476	42.3438	215.357
120	0.5	0.497925	-0.00751925	42.3438	214.867
121	0.5	0.502075	0.00751925	42.3438	214.133
122	0.5	0.506224	0.0175476	42.3438	213.643
123	0.5	0.510373	0.0275759	42.3438	213.153
124	0.5	0.514523	0.0376076	42.3438	212.663
125	0.5	0.518672	0.0476439	42.3438	212.173
126	0.5	0.522822	0.0576847	42.3438	211.683
127	0.5	0.526971	0.0677301	42.3438	211.193
128	0.5	0.53112	0.0802981	42.3438	210.579
129	0.5	0.53527	0.0903606	42.3438	210.087
130	0.5	0.539419	0.100433	42.3438	209.596
131	0.5	0.543568	0.110516	42.3438	209.103
132	0.5	0.547718	0.12061	42.3438	208.61
133	0.5	0.551867	0.130716	42.3438	208.117
134	0.5	0.556017	0.143367	42.3438	207.499
135	0.5	0.560166	0.153505	42.3438	207.004
136	0.5	0.564315	0.163659	42.3438	206.508
137	0.5	0.568465	0.173829	42.3438	206.011
138	0.5	0.572614	0.184017	42.3438	205.514
139	0.5	0.576763	0.194225	42.3438	205.015
140	0.5	0.580913	0.204452	42.3438	204.516
141	0.5	0.585062	0.217267	42.3438	203.89
142	0.5	0.589212	0.227545	42.3438	203.388
143	0.5	0.593361	0.237847	42.3438	202.885
144	0.5	0.59751	0.248174	42.3438	202.381
145	0.5	0.60166	0.258527	42.3438	201.875
146	0.5	0.605809	0.268908	42.3438	201.368
147	0.5	0.609959	0.279319	42.3438	200.86
148	0.5	0.614108	0.292375	42.3438	200.222
149	0.5	0.618257	0.302855	42.3438	199.711
150	0.5	0.622407	0.31337	42.3438	199.197
151	0.5	0.626556	0.323919	42.3438	198.682
152	0.5	0.630705	0.334503	42.3438	198.165
153	0.5	0.634855	0.345126	42.3438	197.646
154	0.5	0.639004	0.358459	42.3438	196.995
155	0.5	0.643154	0.369171	42.3438	196.472
156	0.5	0.647303	0.379927	42.3438	195.947
157	0.5	0.651452	0.390726	42.3438	195.42
158	0.5	0.655602	0.401571	42.3438	194.89
159	0.5	0.659751	0.412463	42.3438	194.358
160	0.5	0.6639	0.423405	42.3438	193.824
161	0.5	0.66805	0.437153	42.3438	193.152
162	0.5	0.672199	0.448213	42.3438	192.612
163	0.5	0.676349	0.459327	42.3438	192.07
164	0.5	0.680498	0.470498	42.3438	191.524
165	0.5	0.684647	0.481728	42.3438	190.976
166	0.5	0.688797	0.493018	42.3438	190.424
167	0.5	0.692946	0.504372	42.3438	189.87
168	0.5	0.697095	0.518658	42.3438	189.172
169	0.5	0.701245	0.530162	42.3438	188.61
170	0.5	0.705394	0.541736	42.3438	188.045
171	0.5	0.709544	0.553384	42.3438	187.476
172	0.5	0.713693	0.565108	42.3438	186.904

173	0.5	0.717842	0.576911		42.3438	186.328
174	0.5	0.721992	0.588793		42.3438	185.747
175	0.5	0.726141	0.603765		42.3438	185.016
176	0.5	0.73029	0.615839	42.3438	184.427	
177	0.5	0.73444	0.628006	42.3438	183.832	
178	0.5	0.738589	0.640266		42.3438	183.234
179	0.5	0.742739	0.652622		42.3438	182.63
180	0.5	0.746888	0.665079		42.3438	182.022
181	0.5	0.751037	0.680797		42.3438	181.254
182	0.5	0.755187	0.693493		42.3438	180.634
183	0.5	0.759336	0.706302		42.3438	180.009
184	0.5	0.763485	0.719228		42.3438	179.378
185	0.5	0.767635	0.732275		42.3438	178.741
186	0.5	0.771784	0.745449		42.3438	178.097
187	0.5	0.775934	0.758753		42.3438	177.448
188	0.5	0.780083	0.775574		42.3438	176.626
189	0.5	0.784232	0.789191		42.3438	175.961
190	0.5	0.788382	0.802956		42.3438	175.289
191	0.5	0.792531	0.816874		42.3438	174.609
192	0.522	0.79668	0.830953	42.4909	173.922	
193	0.54	0.80083	0.845198	42.6112	173.226	
194	0.623	0.804979	0.859618		43.1663	172.522
195	0.636	0.809129	0.877897		43.2533	171.629
196	0.658	0.813278	0.892733		43.4004	170.905
197	0.66	0.817427	0.907769		43.4138	170.171
198	0.68	0.821577	0.923014		43.5475	169.426
199	0.72	0.825726	0.938476		43.815	168.671
200	0.734	0.829876	0.954165		43.9086	167.905
201	0.738	0.834025	0.974114		43.9354	166.931
202	0.819	0.838174	0.990356		44.4771	166.138
203	1.22	0.842324	1.00687	47.1587	165.331	
204	2.72	0.846473	1.02365	57.19	164.512	
205	3	0.850622	1.04073	59.0625	163.678	
206	3	0.854772	1.05812	59.0625	162.828	
207	3.3	0.858921	1.07584	61.0687	161.963	
208	3.4	0.863071	1.09847	61.7375	160.858	
209	3.5	0.86722	1.11699	62.4063	159.954	
210	3.7	0.871369	1.1359	63.7437	159.03	
211	3.8	0.875519	1.15522	64.4125	158.087	
212	4	0.879668	1.17499	65.75	157.121	
213	4.8	0.883817	1.19522	71.1	156.133	
214	5	0.887967	1.21596	72.4375	155.121	
215	5	0.892116	1.24264	72.4375	153.818	
216	5	0.896266	1.26464	72.4375	152.743	
217	5.9	0.900415	1.28727	78.4563	151.638	
218	6	0.904564	1.31058	79.125	150.5	
219	6	0.908714	1.33462	79.125	149.326	
220	6	0.912863	1.35946	79.125	148.113	
221	8	0.917012	1.39175	92.5	146.536	
222	8.1	0.921162	1.41865	93.1687	145.222	
223	8.9	0.925311	1.44663	98.5188	143.856	
224	9	0.929461	1.47579	99.1875	142.432	
225	9	0.93361	1.50626	99.1875	140.944	
226	10.3	0.937759	1.5382	107.881	139.385	
227	11	0.941909	1.57179	112.563	137.744	
228	11.9	0.946058	1.61644	118.581	135.564	
229	12	0.950207	1.65463	119.25	133.699	
230	12.8	0.954357	1.6954	124.6	131.708	
231	13	0.958506	1.7392	125.938	129.569	
232	13	0.962656	1.78661	125.938	127.254	
233	13.3	0.966805	1.83843	127.944	124.724	
234	14.1	0.970954	1.8957	133.294	121.927	

235	19.6	0.975104	1.97737	170.075	117.938
236	21	0.979253	2.05375	179.438	114.209
237	21.5	0.983402	2.14441	182.781	109.781
238	22	0.987552	2.25713	186.125	104.277
239	40.6	0.991701	2.40892	310.513	96.8642
240	73	0.995851	2.65209	527.188	84.9898

Shapiro-Francia Test of Normality

Parameter: Lead

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-3.21888	-2.65209	7.03356	8.53674	
2	-3.21888	-2.40892	12.8365	16.2908	
3	-3.21888	-2.25713	17.9311	23.5562	
4	-3.21888	-2.14441	22.5296	30.4588	
5	-3.21888	-2.05375	26.7475	37.0695	
6	-3.21888	-1.97737	30.6575	43.4344	
7	-3.21888	-1.8957	34.2511	49.5364	
8	-3.21888	-1.83843	37.6309	55.4541	
9	-3.21888	-1.78661	40.8229	61.205	
10	-3.21888	-1.7392	43.8477	66.8032	
11	-3.21888	-1.6954	46.7221	72.2605	
12	-3.21888	-1.65463	49.4599	77.5866	
13	-3.21888	-1.61644	52.0728	82.7897	
14	-3.21888	-1.57179	54.5433	87.8491	
15	-3.21888	-1.5382	56.9093	92.8003	
16	-3.21888	-1.50626	59.1782	97.6488	
17	-3.21888	-1.47579	61.3561	102.399	
18	-3.21888	-1.44663	63.4489	107.056	
19	-3.21888	-1.41865	65.4614	111.622	
20	-3.21888	-1.39175	67.3984	116.102	
21	-3.21888	-1.35946	69.2465	120.478	
22	-3.21888	-1.33462	71.0278	124.774	
23	-3.21888	-1.31058	72.7454	128.993	
24	-3.21888	-1.28727	74.4024	133.136	
25	-3.21888	-1.26464	76.0018	137.207	
26	-3.21888	-1.24264	77.5459	141.207	
27	-3.21888	-1.21596	79.0245	145.121	
28	-3.21888	-1.19522	80.453	148.968	
29	-3.21888	-1.17499	81.8336	152.75	
30	-2.4651	-1.15522	83.1682	155.598	
31	-2.40795	-1.1359	84.4584	158.333	
32	-2.20727	-1.11699	85.7061	160.799	
33	-2.12026	-1.09847	86.9127	163.128	
34	-2.12026	-1.07584	88.0701	165.409	
35	-1.96611	-1.05812	89.1898	167.489	
36	-1.89712	-1.04073	90.2729	169.464	
37	-1.89712	-1.02365	91.3208	171.405	
38	-1.83258	-1.00687	92.3345	173.251	
39	-1.83258	-0.990356	93.3153	175.066	
40	-1.77196	-0.974114	94.2642	176.792	
41	-1.77196	-0.954165	95.1747	178.482	
42	-1.7148	-0.938476	96.0554	180.092	
43	-1.66073	-0.923014	96.9074	181.625	
44	-1.34707	-0.907769	97.7314	182.847	
45	-1.30933	-0.892733	98.5284	184.016	
46	-1.27297	-0.877897	99.2991	185.134	
47	-1.07881	-0.859618	100.038	186.061	
48	-1.07881	-0.845198	100.752	186.973	
49	-0.820981	-0.830953	101.443	187.655	
50	-0.798508	-0.816874	102.11	188.307	
51	-0.71335	-0.802956	102.755	188.88	

52	-0.693147	-0.789191	103.378	189.427
53	-0.693147	-0.775574	103.979	189.965
54	-0.693147	-0.758753	104.555	190.491
55	-0.693147	-0.745449	105.111	191.007
56	-0.693147	-0.732275	105.647	191.515
57	-0.693147	-0.719228	106.164	192.014
58	-0.693147	-0.706302	106.663	192.503
59	-0.693147	-0.693493	107.144	192.984
60	-0.693147	-0.680797	107.607	193.456
61	-0.693147	-0.665079	108.05	193.917
62	-0.693147	-0.652622	108.476	194.369
63	-0.693147	-0.640266	108.886	194.813
64	-0.693147	-0.628006	109.28	195.248
65	-0.693147	-0.615839	109.659	195.675
66	-0.693147	-0.603765	110.024	196.094
67	-0.693147	-0.588793	110.37	196.502
68	-0.693147	-0.576911	110.703	196.902
69	-0.693147	-0.565108	111.023	197.293
70	-0.693147	-0.553384	111.329	197.677
71	-0.693147	-0.541736	111.622	198.052
72	-0.693147	-0.530162	111.903	198.42
73	-0.693147	-0.518658	112.172	198.779
74	-0.693147	-0.504372	112.427	199.129
75	-0.693147	-0.493018	112.67	199.471
76	-0.693147	-0.481728	112.902	199.805
77	-0.693147	-0.470498	113.123	200.131
78	-0.693147	-0.459327	113.334	200.449
79	-0.693147	-0.448213	113.535	200.76
80	-0.693147	-0.437153	113.726	201.063
81	-0.693147	-0.423405	113.906	201.356
82	-0.693147	-0.412463	114.076	201.642
83	-0.693147	-0.401571	114.237	201.921
84	-0.693147	-0.390726	114.39	202.191
85	-0.693147	-0.379927	114.534	202.455
86	-0.693147	-0.369171	114.67	202.711
87	-0.693147	-0.358459	114.799	202.959
88	-0.693147	-0.345126	114.918	203.198
89	-0.693147	-0.334503	115.03	203.43
90	-0.693147	-0.323919	115.135	203.655
91	-0.693147	-0.31337	115.233	203.872
92	-0.693147	-0.302855	115.325	204.082
93	-0.693147	-0.292375	115.41	204.284
94	-0.693147	-0.279319	115.488	204.478
95	-0.693147	-0.268908	115.56	204.664
96	-0.693147	-0.258527	115.627	204.844
97	-0.693147	-0.248174	115.689	205.016
98	-0.693147	-0.237847	115.745	205.181
99	-0.693147	-0.227545	115.797	205.338
100	-0.693147	-0.217267	115.844	205.489
101	-0.693147	-0.204452	115.886	205.631
102	-0.693147	-0.194225	115.924	205.765
103	-0.693147	-0.184017	115.958	205.893
104	-0.693147	-0.173829	115.988	206.013
105	-0.693147	-0.163659	116.015	206.127
106	-0.693147	-0.153505	116.038	206.233
107	-0.693147	-0.143367	116.059	206.332
108	-0.693147	-0.130716	116.076	206.423
109	-0.693147	-0.12061	116.091	206.507
110	-0.693147	-0.110516	116.103	206.583
111	-0.693147	-0.100433	116.113	206.653
112	-0.693147	-0.0903606	116.121	206.716
113	-0.693147	-0.0802981	116.127	206.771

114	-0.693147	-0.0677301	116.132	206.818
115	-0.693147	-0.0576847	116.135	206.858
116	-0.693147	-0.0476439	116.138	206.891
117	-0.693147	-0.0376076	116.139	206.917
118	-0.693147	-0.0275759	116.14	206.936
119	-0.693147	-0.0175476	116.14	206.948
120	-0.693147	-0.00751925	116.14	206.954
121	-0.693147	0.00751925	116.14	206.948
122	-0.693147	0.0175476	116.141	206.936
123	-0.693147	0.0275759	116.141	206.917
124	-0.693147	0.0376076	116.143	206.891
125	-0.693147	0.0476439	116.145	206.858
126	-0.693147	0.0576847	116.148	206.818
127	-0.693147	0.0677301	116.153	206.771
128	-0.693147	0.0802981	116.159	206.716
129	-0.693147	0.0903606	116.167	206.653
130	-0.693147	0.100433	116.178	206.583
131	-0.693147	0.110516	116.19	206.507
132	-0.693147	0.12061	116.204	206.423
133	-0.693147	0.130716	116.221	206.332
134	-0.693147	0.143367	116.242	206.233
135	-0.693147	0.153505	116.266	206.127
136	-0.693147	0.163659	116.292	206.013
137	-0.693147	0.173829	116.323	205.893
138	-0.693147	0.184017	116.356	205.765
139	-0.693147	0.194225	116.394	205.631
140	-0.693147	0.204452	116.436	205.489
141	-0.693147	0.217267	116.483	205.338
142	-0.693147	0.227545	116.535	205.181
143	-0.693147	0.237847	116.591	205.016
144	-0.693147	0.248174	116.653	204.844
145	-0.693147	0.258527	116.72	204.664
146	-0.693147	0.268908	116.792	204.478
147	-0.693147	0.279319	116.87	204.284
148	-0.693147	0.292375	116.956	204.082
149	-0.693147	0.302855	117.047	203.872
150	-0.693147	0.31337	117.146	203.655
151	-0.693147	0.323919	117.251	203.43
152	-0.693147	0.334503	117.362	203.198
153	-0.693147	0.345126	117.482	202.959
154	-0.693147	0.358459	117.61	202.711
155	-0.693147	0.369171	117.746	202.455
156	-0.693147	0.379927	117.891	202.191
157	-0.693147	0.390726	118.043	201.921
158	-0.693147	0.401571	118.205	201.642
159	-0.693147	0.412463	118.375	201.356
160	-0.693147	0.423405	118.554	201.063
161	-0.693147	0.437153	118.745	200.76
162	-0.693147	0.448213	118.946	200.449
163	-0.693147	0.459327	119.157	200.131
164	-0.693147	0.470498	119.378	199.805
165	-0.693147	0.481728	119.61	199.471
166	-0.693147	0.493018	119.853	199.129
167	-0.693147	0.504372	120.108	198.779
168	-0.693147	0.518658	120.377	198.42
169	-0.693147	0.530162	120.658	198.052
170	-0.693147	0.541736	120.951	197.677
171	-0.693147	0.553384	121.258	197.293
172	-0.693147	0.565108	121.577	196.902
173	-0.693147	0.576911	121.91	196.502
174	-0.693147	0.588793	122.257	196.094
175	-0.693147	0.603765	122.621	195.675

176	-0.693147		0.615839		123	195.248
177	-0.693147		0.628006		123.395	194.813
178	-0.693147		0.640266		123.805	194.369
179	-0.693147		0.652622		124.231	193.917
180	-0.693147		0.665079		124.673	193.456
181	-0.693147		0.680797		125.136	192.984
182	-0.693147		0.693493		125.617	192.503
183	-0.693147		0.706302		126.116	192.014
184	-0.693147		0.719228		126.633	191.515
185	-0.693147		0.732275		127.17	191.007
186	-0.693147		0.745449		127.725	190.491
187	-0.693147		0.758753		128.301	189.965
188	-0.693147		0.775574		128.903	189.427
189	-0.693147		0.789191		129.525	188.88
190	-0.693147		0.802956		130.17	188.324
191	-0.693147		0.816874		130.837	187.757
192	-0.650088		0.830953		131.528	187.217
193	-0.616186		0.845198		132.242	186.696
194	-0.473209		0.859618		132.981	186.29
195	-0.452557		0.877897		133.752	185.892
196	-0.41855	0.892733		134.549	185.519	
197	-0.415515		0.907769		135.373	185.142
198	-0.385662		0.923014		136.225	184.786
199	-0.328504		0.938476		137.106	184.477
200	-0.309246		0.954165		138.016	184.182
201	-0.303811		0.974114		138.965	183.886
202	-0.199671		0.990356		139.946	183.689
203	0.198851		1.00687	140.96	183.889	
204	1.00063	1.02365	142.007	184.913		
205	1.09861	1.04073	143.091	186.056		
206	1.09861	1.05812	144.21	187.219		
207	1.19392	1.07584	145.368	188.503		
208	1.22378	1.09847	146.574	189.848		
209	1.25276	1.11699	147.822	191.247		
210	1.30833	1.1359	149.112	192.733		
211	1.335	1.15522	150.447	194.275		
212	1.38629	1.17499	151.827	195.904		
213	1.56862	1.19522	153.256	197.779		
214	1.60944	1.21596	154.734	199.736		
215	1.60944	1.24264	156.279	201.736		
216	1.60944	1.26464	157.878	203.771		
217	1.77495	1.28727	159.535	206.056		
218	1.79176	1.31058	161.253	208.404		
219	1.79176	1.33462	163.034	210.796		
220	1.79176	1.35946	164.882	213.232		
221	2.07944	1.39175	166.819	216.126		
222	2.09186	1.41865	168.831	219.093		
223	2.18605	1.44663	170.924	222.256		
224	2.19722	1.47579	173.102	225.498		
225	2.19722	1.50626	175.371	228.808		
226	2.33214	1.5382	177.737	232.395		
227	2.3979	1.57179	180.208	236.164		
228	2.47654	1.61644	182.82	240.167		
229	2.48491	1.65463	185.558	244.279		
230	2.54945	1.6954	188.433	248.601		
231	2.56495	1.7392	191.457	253.062		
232	2.56495	1.78661	194.649	257.645		
233	2.58776	1.83843	198.029	262.402		
234	2.64617	1.8957	201.623	267.419		
235	2.97553	1.97737	205.533	273.302		
236	3.04452	2.05375	209.751	279.555		
237	3.06805	2.14441	214.349	286.134		

238	3.09104	2.25713	219.444	293.111
239	3.70377	2.40892	225.247	302.033
240	4.29046	2.65209	232.28	313.412

Data Set Standard Deviation = 1.47904
Numerator = 98226.9
Denominator = 121442
W Statistic = 0.808839 = 98226.9 / 121442

5% Critical value of 0.976 exceeds 0.808839
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.808839
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Lead

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.899991
0.899991 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.21888	0.00414938	-2.65209	85.4335	344.01
2	-3.21888	0.00829876	-2.40892	85.4335	332.136
3	-3.21888	0.0124481	-2.25713	85.4335	324.723
4	-3.21888	0.0165975	-2.14441	85.4335	319.219
5	-3.21888	0.0207469	-2.05375	85.4335	314.791
6	-3.21888	0.0248963	-1.97737	85.4335	311.062
7	-3.21888	0.0290456	-1.8957	85.4335	307.073
8	-3.21888	0.033195	-1.83843	85.4335	304.276
9	-3.21888	0.0373444	-1.78661	85.4335	301.746
10	-3.21888	0.0414938	-1.7392	85.4335	299.431
11	-3.21888	0.0456432	-1.6954	85.4335	297.292
12	-3.21888	0.0497925	-1.65463	85.4335	295.301
13	-3.21888	0.0539419	-1.61644	85.4335	293.436
14	-3.21888	0.0580913	-1.57179	85.4335	291.256
15	-3.21888	0.0622407	-1.5382	85.4335	289.615
16	-3.21888	0.06639	-1.50626	85.4335	288.056
17	-3.21888	0.0705394	-1.47579	85.4335	286.568
18	-3.21888	0.0746888	-1.44663	85.4335	285.144
19	-3.21888	0.0788382	-1.41865	85.4335	283.778
20	-3.21888	0.0829876	-1.39175	85.4335	282.464
21	-3.21888	0.0871369	-1.35946	85.4335	280.887
22	-3.21888	0.0912863	-1.33462	85.4335	279.674
23	-3.21888	0.0954357	-1.31058	85.4335	278.5
24	-3.21888	0.0995851	-1.28727	85.4335	277.362
25	-3.21888	0.103734	-1.26464	85.4335	276.257
26	-3.21888	0.107884	-1.24264	85.4335	275.182
27	-3.21888	0.112033	-1.21596	85.4335	273.879
28	-3.21888	0.116183	-1.19522	85.4335	272.867
29	-3.21888	0.120332	-1.17499	85.4335	271.879
30	-2.4651	0.124481	-1.15522	130.241	270.913
31	-2.40795	0.128631	-1.1359	133.639	269.97
32	-2.20727	0.13278	-1.11699	145.568	269.046
33	-2.12026	0.136929	-1.09847	150.74	268.142
34	-2.12026	0.141079	-1.07584	150.74	267.037
35	-1.96611	0.145228	-1.05812	159.903	266.172
36	-1.89712	0.149378	-1.04073	164.005	265.322
37	-1.89712	0.153527	-1.02365	164.005	264.488
38	-1.83258	0.157676	-1.00687	167.841	263.669
39	-1.83258	0.161826	-0.990356	167.841	262.862
40	-1.77196	0.165975	-0.974114	171.445	262.069
41	-1.77196	0.170124	-0.954165	171.445	261.095
42	-1.7148	0.174274	-0.938476	174.843	260.329
43	-1.66073	0.178423	-0.923014	178.057	259.574
44	-1.34707	0.182573	-0.907769	196.702	258.829
45	-1.30933	0.186722	-0.892733	198.945	258.095
46	-1.27297	0.190871	-0.877897	201.107	257.371
47	-1.07881	0.195021	-0.859618	212.649	256.478
48	-1.07881	0.19917	-0.845198	212.649	255.774

49	-0.820981	0.20332	-0.830953	227.975	255.078	
50	-0.798508	0.207469	-0.816874		229.311	254.391
51	-0.71335	0.211618	-0.802956	234.373	253.711	
52	-0.693147	0.215768	-0.789191		235.574	253.039
53	-0.693147	0.219917	-0.775574		235.574	252.374
54	-0.693147	0.224066	-0.758753		235.574	251.552
55	-0.693147	0.228216	-0.745449		235.574	250.903
56	-0.693147	0.232365	-0.732275		235.574	250.259
57	-0.693147	0.236515	-0.719228		235.574	249.622
58	-0.693147	0.240664	-0.706302		235.574	248.991
59	-0.693147	0.244813	-0.693493		235.574	248.366
60	-0.693147	0.248963	-0.680797		235.574	247.746
61	-0.693147	0.253112	-0.665079		235.574	246.978
62	-0.693147	0.257261	-0.652622		235.574	246.37
63	-0.693147	0.261411	-0.640266		235.574	245.766
64	-0.693147	0.26556	-0.628006	235.574	245.168	
65	-0.693147	0.26971	-0.615839	235.574	244.573	
66	-0.693147	0.273859	-0.603765		235.574	243.984
67	-0.693147	0.278008	-0.588793		235.574	243.253
68	-0.693147	0.282158	-0.576911		235.574	242.672
69	-0.693147	0.286307	-0.565108		235.574	242.096
70	-0.693147	0.290456	-0.553384		235.574	241.524
71	-0.693147	0.294606	-0.541736		235.574	240.955
72	-0.693147	0.298755	-0.530162		235.574	240.39
73	-0.693147	0.302905	-0.518658		235.574	239.828
74	-0.693147	0.307054	-0.504372		235.574	239.13
75	-0.693147	0.311203	-0.493018		235.574	238.576
76	-0.693147	0.315353	-0.481728		235.574	238.024
77	-0.693147	0.319502	-0.470498		235.574	237.476
78	-0.693147	0.323651	-0.459327		235.574	236.93
79	-0.693147	0.327801	-0.448213		235.574	236.388
80	-0.693147	0.33195	-0.437153	235.574	235.848	
81	-0.693147	0.3361	-0.423405	235.574	235.176	
82	-0.693147	0.340249	-0.412463		235.574	234.642
83	-0.693147	0.344398	-0.401571		235.574	234.11
84	-0.693147	0.348548	-0.390726		235.574	233.58
85	-0.693147	0.352697	-0.379927		235.574	233.053
86	-0.693147	0.356846	-0.369171		235.574	232.528
87	-0.693147	0.360996	-0.358459		235.574	232.005
88	-0.693147	0.365145	-0.345126		235.574	231.354
89	-0.693147	0.369295	-0.334503		235.574	230.835
90	-0.693147	0.373444	-0.323919		235.574	230.318
91	-0.693147	0.377593	-0.31337	235.574	229.803	
92	-0.693147	0.381743	-0.302855		235.574	229.289
93	-0.693147	0.385892	-0.292375		235.574	228.778
94	-0.693147	0.390041	-0.279319		235.574	228.14
95	-0.693147	0.394191	-0.268908		235.574	227.632
96	-0.693147	0.39834	-0.258527	235.574	227.125	
97	-0.693147	0.40249	-0.248174	235.574	226.619	
98	-0.693147	0.406639	-0.237847		235.574	226.115
99	-0.693147	0.410788	-0.227545		235.574	225.612
100	-0.693147	0.414938	-0.217267		235.574	225.11
101	-0.693147	0.419087	-0.204452		235.574	224.484
102	-0.693147	0.423237	-0.194225		235.574	223.985
103	-0.693147	0.427386	-0.184017		235.574	223.486
104	-0.693147	0.431535	-0.173829		235.574	222.989
105	-0.693147	0.435685	-0.163659		235.574	222.492
106	-0.693147	0.439834	-0.153505		235.574	221.996
107	-0.693147	0.443983	-0.143367		235.574	221.501
108	-0.693147	0.448133	-0.130716		235.574	220.883
109	-0.693147	0.452282	-0.12061	235.574	220.39	
110	-0.693147	0.456432	-0.110516		235.574	219.897

111	-0.693147	0.460581	-0.100433	235.574	219.404
112	-0.693147	0.46473	-0.0903606	235.574	218.913
113	-0.693147	0.46888	-0.0802981	235.574	218.421
114	-0.693147	0.473029	-0.0677301	235.574	217.807
115	-0.693147	0.477178	-0.0576847	235.574	217.317
116	-0.693147	0.481328	-0.0476439	235.574	216.827
117	-0.693147	0.485477	-0.0376076	235.574	216.337
118	-0.693147	0.489627	-0.0275759	235.574	215.847
119	-0.693147	0.493776	-0.0175476	235.574	215.357
120	-0.693147	0.497925	-0.00751925	235.574	214.867
121	-0.693147	0.502075	0.00751925	235.574	214.133
122	-0.693147	0.506224	0.0175476	235.574	213.643
123	-0.693147	0.510373	0.0275759	235.574	213.153
124	-0.693147	0.514523	0.0376076	235.574	212.663
125	-0.693147	0.518672	0.0476439	235.574	212.173
126	-0.693147	0.522822	0.0576847	235.574	211.683
127	-0.693147	0.526971	0.0677301	235.574	211.193
128	-0.693147	0.53112	0.0802981	235.574	210.579
129	-0.693147	0.53527	0.0903606	235.574	210.087
130	-0.693147	0.539419	0.100433	235.574	209.596
131	-0.693147	0.543568	0.110516	235.574	209.103
132	-0.693147	0.547718	0.12061	235.574	208.61
133	-0.693147	0.551867	0.130716	235.574	208.117
134	-0.693147	0.556017	0.143367	235.574	207.499
135	-0.693147	0.560166	0.153505	235.574	207.004
136	-0.693147	0.564315	0.163659	235.574	206.508
137	-0.693147	0.568465	0.173829	235.574	206.011
138	-0.693147	0.572614	0.184017	235.574	205.514
139	-0.693147	0.576763	0.194225	235.574	205.015
140	-0.693147	0.580913	0.204452	235.574	204.516
141	-0.693147	0.585062	0.217267	235.574	203.89
142	-0.693147	0.589212	0.227545	235.574	203.388
143	-0.693147	0.593361	0.237847	235.574	202.885
144	-0.693147	0.59751	0.248174	235.574	202.381
145	-0.693147	0.60166	0.258527	235.574	201.875
146	-0.693147	0.605809	0.268908	235.574	201.368
147	-0.693147	0.609959	0.279319	235.574	200.86
148	-0.693147	0.614108	0.292375	235.574	200.222
149	-0.693147	0.618257	0.302855	235.574	199.711
150	-0.693147	0.622407	0.31337	235.574	199.197
151	-0.693147	0.626556	0.323919	235.574	198.682
152	-0.693147	0.630705	0.334503	235.574	198.165
153	-0.693147	0.634855	0.345126	235.574	197.646
154	-0.693147	0.639004	0.358459	235.574	196.995
155	-0.693147	0.643154	0.369171	235.574	196.472
156	-0.693147	0.647303	0.379927	235.574	195.947
157	-0.693147	0.651452	0.390726	235.574	195.42
158	-0.693147	0.655602	0.401571	235.574	194.89
159	-0.693147	0.659751	0.412463	235.574	194.358
160	-0.693147	0.6639	0.423405	235.574	193.824
161	-0.693147	0.66805	0.437153	235.574	193.152
162	-0.693147	0.672199	0.448213	235.574	192.612
163	-0.693147	0.676349	0.459327	235.574	192.07
164	-0.693147	0.680498	0.470498	235.574	191.524
165	-0.693147	0.684647	0.481728	235.574	190.976
166	-0.693147	0.688797	0.493018	235.574	190.424
167	-0.693147	0.692946	0.504372	235.574	189.87
168	-0.693147	0.697095	0.518658	235.574	189.172
169	-0.693147	0.701245	0.530162	235.574	188.61
170	-0.693147	0.705394	0.541736	235.574	188.045
171	-0.693147	0.709544	0.553384	235.574	187.476
172	-0.693147	0.713693	0.565108	235.574	186.904

173	-0.693147	0.717842	0.576911	235.574	186.328	
174	-0.693147	0.721992	0.588793	235.574	185.747	
175	-0.693147	0.726141	0.603765	235.574	185.016	
176	-0.693147	0.73029	0.615839	235.574	184.427	
177	-0.693147	0.73444	0.628006	235.574	183.832	
178	-0.693147	0.738589	0.640266	235.574	183.234	
179	-0.693147	0.742739	0.652622	235.574	182.63	
180	-0.693147	0.746888	0.665079	235.574	182.022	
181	-0.693147	0.751037	0.680797	235.574	181.254	
182	-0.693147	0.755187	0.693493	235.574	180.634	
183	-0.693147	0.759336	0.706302	235.574	180.009	
184	-0.693147	0.763485	0.719228	235.574	179.378	
185	-0.693147	0.767635	0.732275	235.574	178.741	
186	-0.693147	0.771784	0.745449	235.574	178.097	
187	-0.693147	0.775934	0.758753	235.574	177.448	
188	-0.693147	0.780083	0.775574	235.574	176.626	
189	-0.693147	0.784232	0.789191	235.574	175.961	
190	-0.693147	0.788382	0.802956	235.574	175.289	
191	-0.693147	0.792531	0.816874	235.574	174.609	
192	-0.650088	0.79668	0.830953	238.134	173.922	
193	-0.616186	0.80083	0.845198	240.149	173.226	
194	-0.473209	0.804979	0.859618	248.648	172.522	
195	-0.452557	0.809129	0.877897	249.876	171.629	
196	-0.41855	0.813278	0.892733	251.897	170.905	
197	-0.415515	0.817427	0.907769	252.078	170.171	
198	-0.385662	0.821577	0.923014	253.852	169.426	
199	-0.328504	0.825726	0.938476	257.25	168.671	
200	-0.309246	0.829876	0.954165	258.395	167.905	
201	-0.303811	0.834025	0.974114	258.718	166.931	
202	-0.199671	0.838174	0.990356	264.908	166.138	
203	0.198851	0.842324	1.00687	288.598	165.331	
204	1.00063	0.846473	1.02365	336.26	164.512	
205	1.09861	0.850622	1.04073	342.084	163.678	
206	1.09861	0.854772	1.05812	342.084	162.828	
207	1.19392	0.858921	1.07584	347.75	161.963	
208	1.22378	0.863071	1.09847	349.524	160.858	
209	1.25276	0.86722	1.11699	351.248	159.954	
210	1.30833	0.871369	1.1359	354.551	159.03	
211	1.335	0.875519	1.15522	356.136	158.087	
212	1.38629	0.879668	1.17499	359.185	157.121	
213	1.56862	0.883817	1.19522	370.023	156.133	
214	1.60944	0.887967	1.21596	372.45	155.121	
215	1.60944	0.892116	1.24264	372.45	153.818	
216	1.60944	0.896266	1.26464	372.45	152.743	
217	1.77495	0.900415	1.28727	382.289	151.638	
218	1.79176	0.904564	1.31058	383.288	150.5	
219	1.79176	0.908714	1.33462	383.288	149.326	
220	1.79176	0.912863	1.35946	383.288	148.113	
221	2.07944	0.917012	1.39175	400.389	146.536	
222	2.09186	0.921162	1.41865	401.127	145.222	
223	2.18605	0.925311	1.44663	406.726	143.856	
224	2.19722	0.929461	1.47579	407.391	142.432	
225	2.19722	0.93361	1.50626	407.391	140.944	
226	2.33214	0.937759	1.5382	415.411	139.385	
227	2.3979	0.941909	1.57179	419.319	137.744	
228	2.47654	0.946058	1.61644	423.994	135.564	
229	2.48491	0.950207	1.65463	424.492	133.699	
230	2.54945	0.954357	1.6954	428.328	131.708	
231	2.56495	0.958506	1.7392	429.25	129.569	
232	2.56495	0.962656	1.78661	429.25	127.254	
233	2.58776	0.966805	1.83843	430.606	124.724	
234	2.64617	0.970954	1.8957	434.078	121.927	

235	2.97553	0.975104	1.97737	453.656	117.938
236	3.04452	0.979253	2.05375	457.758	114.209
237	3.06805	0.983402	2.14441	459.156	109.781
238	3.09104	0.987552	2.25713	460.523	104.277
239	3.70377	0.991701	2.40892	496.946	96.8642
240	4.29046	0.995851	2.65209	531.822	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Lead

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	1.60944	214
	9/23/1999	2.07944	221
	3/15/2000	3.04452	236
	9/24/2003	ND<-0.693147	84.5
	3/11/2004	ND<-0.693147	84.5
	10/12/2004	ND<-0.693147	84.5
	4/1/2005	ND<-0.693147	84.5
	10/25/2005	ND<-0.693147	84.5
	4/29/2006	ND<-0.693147	84.5
	11/18/2006	ND<-0.693147	84.5
	5/23/2007	ND<-0.693147	84.5
	11/28/2007	ND<-0.693147	84.5
	6/5/2008	ND<-0.693147	84.5
	11/20/2008	ND<-0.693147	84.5
	6/11/2009	ND<-3.21888	84.5
	11/16/2009	ND<-3.21888	84.5
	6/30/2010	ND<-3.21888	84.5
	11/12/2010	-2.12026 J	172
	7/5/2011	ND<-3.21888 U	84.5

Rank Sum = 2110.5
Rank Mean = 111.079

Background Rank Sum = 2110.5
Background Rank Mean = 111.079

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	1.38629	212
	8/24/1995	1.09861	205
	9/28/1995	1.25276	209
	10/26/1995	ND<-0.693147	84.5
	11/19/1996	ND<-0.693147	84.5
	12/19/1996	ND<-0.693147	84.5
	3/24/1997	ND<-0.693147	84.5
	9/24/1997	3.09104	238
	4/7/1998	ND<-0.693147	84.5
	9/23/1998	ND<-0.693147	84.5
	3/16/1999	ND<-0.693147	84.5
	9/23/1999	ND<-0.693147	84.5
	3/15/2000	ND<-0.693147	84.5
	9/24/2003	ND<-0.693147	84.5
	3/11/2004	ND<-0.693147	84.5
	10/12/2004	ND<-0.693147	84.5
	4/1/2005	ND<-0.693147	84.5
	10/25/2005	ND<-0.693147	84.5
	4/29/2006	-0.415515 J	197
	11/18/2006	ND<-0.693147	84.5
	5/23/2007	ND<-0.693147	84.5

	11/28/2007	ND<-0.693147	84.5
	6/5/2008	ND<-0.693147	84.5
	11/20/2008	ND<-0.693147	84.5
	6/11/2009	ND<-3.21888	84.5
	11/16/2009	ND<-3.21888	84.5
	6/30/2010	ND<-3.21888	84.5
	11/12/2010	ND<-3.21888 U	84.5
	7/5/2011	-2.40795 J	170
	11/22/2011	ND<-3.21888 U	84.5
	11/22/2011	ND<-3.21888 U	84.5

Rank Sum = 3343.5
Rank Mean = 107.855

MW-11R	7/20/1995	1.335	211
	8/24/1995	1.79176	218
	9/28/1995	1.30833	210
	10/26/1995	2.47654	228
	11/19/1996	ND<-0.693147	84.5
	12/19/1996	ND<-0.693147	84.5
	3/24/1997	ND<-0.693147	84.5
	9/24/1997	ND<-0.693147	84.5
	4/7/1998	ND<-0.693147	84.5
	9/23/1998	ND<-0.693147	84.5
	3/16/1999	ND<-0.693147	84.5
	9/23/1999	2.19722	224
	3/15/2000	ND<-0.693147	84.5
	9/24/2003	ND<-0.693147	84.5
	3/11/2004	ND<-0.693147	84.5
	10/12/2004	ND<-0.693147	84.5
	4/1/2005	ND<-0.693147	84.5
	10/25/2005	ND<-0.693147	84.5
	4/29/2006	0.198851	203
	11/18/2006	ND<-0.693147	84.5
	5/23/2007	ND<-0.693147	84.5
	11/28/2007	ND<-0.693147	84.5
	6/5/2008	ND<-0.693147	84.5
	11/20/2008	-0.452557 J	195
	6/11/2009	ND<-3.21888	84.5
	11/16/2009	ND<-3.21888	84.5
	6/30/2010	ND<-3.21888	84.5
	11/12/2010	ND<-3.21888 U	84.5
	7/5/2011	ND<-3.21888 U H	84.5
	11/22/2011	ND<-3.21888 U	84.5
	11/22/2011	ND<-3.21888 U	84.5

Rank Sum = 3517
Rank Mean = 113.452

MW-7	7/20/1995	ND<-0.693147	84.5
	8/24/1995	2.54945	230
	9/28/1995	3.70377	239
	10/26/1995	2.64617	234
	11/19/1996	ND<-0.693147	84.5
	12/19/1996	3.06805	237
	3/24/1997	ND<-0.693147	84.5
	9/24/1997	ND<-0.693147	84.5
	4/7/1998	ND<-0.693147	84.5
	9/23/1998	ND<-0.693147	84.5
	3/16/1999	2.19722	225
	9/23/1999	1.60944	215
	3/15/2000	ND<-0.693147	84.5
	9/24/2003	ND<-0.693147	84.5
	3/11/2004	ND<-0.693147	84.5

	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	ND<-0.693147		84.5
	4/29/2006	ND<-0.693147		84.5
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	ND<-0.693147		84.5
	11/28/2007	ND<-0.693147		84.5
	6/5/2008	-0.650088	J	192
	11/20/2008	-0.309246	J	200
	6/11/2009	-1.77196	J	179
	11/16/2009	-1.83258	J	177
	6/30/2010	-1.83258	J H	178
	11/12/2010	-1.7148	J	181
	7/5/2011	-1.89712	J	175
	11/22/2011	-2.12026	J	173

Rank Sum = 4187
Rank Mean = 139.567

MW-12A	R	3/16/1999	ND<-0.693147	84.5
	9/23/1999	1.79176		219
	3/15/2000	2.3979		227
	9/24/2003	ND<-0.693147		84.5
	3/11/2004	ND<-0.693147		84.5
	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	ND<-0.693147		84.5
	4/29/2006	-0.385662	J	198
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	-0.199671	J	202
	11/28/2007	ND<-0.693147		84.5
	6/5/2008	ND<-0.693147		84.5
	11/20/2008	-0.303811	J	201
	6/11/2009	-1.07881		186
	11/16/2009	-0.820981		188
	6/30/2010	-0.798508		189
	11/12/2010	-0.71335		190
	7/5/2011	-0.616186		193
	11/22/2011	-1.07881		187

Rank Sum = 2940.5
Rank Mean = 147.025

MW-10	7/20/1995	ND<-0.693147		84.5
	8/24/1995	1.56862		213
	9/28/1995	ND<-0.693147		84.5
	10/26/1995	ND<-0.693147		84.5
	11/19/1996	ND<-0.693147		84.5
	12/19/1996	ND<-0.693147		84.5
	3/24/1997	ND<-0.693147		84.5
	9/24/1997	ND<-0.693147		84.5
	4/7/1998	ND<-0.693147		84.5
	9/23/1998	ND<-0.693147		84.5
	3/16/1999	ND<-0.693147		84.5
	9/23/1999	1.60944		216
	3/15/2000	ND<-0.693147		84.5
	9/24/2003	ND<-0.693147		84.5
	3/11/2004	ND<-0.693147		84.5
	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	ND<-0.693147		84.5
	4/29/2006	ND<-0.693147		84.5
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	ND<-0.693147		84.5

	11/28/2007	ND<-0.693147		84.5
	6/5/2008	ND<-0.693147		84.5
	11/20/2008	ND<-0.693147		84.5
	6/11/2009	-1.96611	J	174
	11/16/2009	ND<-3.21888		84.5
	6/30/2010	ND<-3.21888		84.5
	11/12/2010	ND<-3.21888	U	84.5
	7/5/2011	1.19392	H	207
	11/22/2011	ND<-3.21888	U	84.5

Rank Sum = 3007
Rank Mean = 100.233

MW-12BR	3/16/1999	ND<-0.693147		84.5
	9/23/1999	1.79176		220
	3/15/2000	ND<-0.693147		84.5
	9/24/2003	ND<-0.693147		84.5
	3/11/2004	ND<-0.693147		84.5
	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	-0.473209	J	194
	4/29/2006	-0.693147	J	191
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	ND<-0.693147		84.5
	11/28/2007	ND<-0.693147		84.5
	6/5/2008	ND<-0.693147		84.5
	11/20/2008	1.00063		204
	6/11/2009	-1.77196	J	180
	11/16/2009	-1.34707	J	183
	6/30/2010	-1.30933	J	184
	11/12/2010	-0.328504		199
	7/5/2011	-1.27297	J	185
	11/22/2011	-1.66073	J	182

Rank Sum = 2767
Rank Mean = 138.35

MW-6	7/20/1995	2.09186		222
	8/24/1995	1.77495		217
	9/28/1995	1.22378		208
	10/26/1995	ND<-0.693147		84.5
	11/19/1996	ND<-0.693147		84.5
	12/19/1996	2.33214		226
	3/24/1997	ND<-0.693147		84.5
	9/24/1997	2.48491		229
	4/7/1998	2.56495		231
	9/23/1998	ND<-0.693147		84.5
	3/16/1999	ND<-0.693147		84.5
	9/23/1999	ND<-0.693147		84.5
	3/15/2000	ND<-0.693147		84.5
	9/24/2003	ND<-0.693147		84.5
	3/11/2004	ND<-0.693147		84.5
	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	ND<-0.693147		84.5
	4/29/2006	ND<-0.693147		84.5
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	ND<-0.693147		84.5
	11/28/2007	ND<-0.693147		84.5
	6/5/2008	ND<-0.693147		84.5
	11/20/2008	ND<-0.693147		84.5
	6/11/2009	ND<-3.21888		84.5
	11/16/2009	-2.4651	J	169
	6/30/2010	ND<-3.21888		84.5

	11/12/2010	-2.20727	J	171
	7/5/2011	-1.89712	J	176
	11/22/2011	ND<-3.21888	U	84.5

Rank Sum = 3623.5
Rank Mean = 120.783

MW-8	7/20/1995	1.09861		206
	8/24/1995	2.18605		223
	9/28/1995	2.97553		235
	10/26/1995	ND<-0.693147		84.5
	11/19/1996	ND<-0.693147		84.5
	12/19/1996	2.58776		233
	3/24/1997	ND<-0.693147		84.5
	9/24/1997	ND<-0.693147		84.5
	4/7/1998	ND<-0.693147		84.5
	9/23/1998	2.56495		232
	3/16/1999	ND<-0.693147		84.5
	9/23/1999	4.29046		240
	3/15/2000	ND<-0.693147		84.5
	9/24/2003	ND<-0.693147		84.5
	3/11/2004	ND<-0.693147		84.5
	10/12/2004	ND<-0.693147		84.5
	4/1/2005	ND<-0.693147		84.5
	10/25/2005	ND<-0.693147		84.5
	4/29/2006	ND<-0.693147		84.5
	11/18/2006	ND<-0.693147		84.5
	5/23/2007	ND<-0.693147		84.5
	11/28/2007	ND<-0.693147		84.5
	6/5/2008	ND<-0.693147		84.5
	11/20/2008	-0.41855	J	196
	6/11/2009	ND<-3.21888		84.5
	6/30/2010	ND<-3.21888		84.5
	11/12/2010	ND<-3.21888	U	84.5
	7/5/2011	ND<-3.21888	U	84.5
	11/22/2011	ND<-3.21888	U	84.5

Rank Sum = 3424
Rank Mean = 118.069

Calculation Results:

Kruskal-Wallis H Statistic = 10.7945
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 16.4298
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
10.7945 < 15.5073 indicating no significant group difference at 5% significance level
16.4298 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 111.079

Well	Mean Rank	Dif from Bkg	Critical Value
MW-9	**107.855**	**-3.22411**	**47.057**
MW-11R	**113.452**	**2.37267**	**47.057**
MW-7	**139.567**	**28.4877**	**47.3541**
MW-12AR	**147.025**	**35.9461**	**51.7413**
MW-10	**100.233**	**-10.8456**	**47.3541**
MW-12BR	**138.35**	**27.2711**	**51.7413**
MW-6	**120.783**	**9.70439**	**47.3541**
MW-8	**118.069**	**6.99002**	**47.6696**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 111.079

Well	Mean Rank	Dif from Bkg	Critical Value
MW-9	**107.855**	**-3.22411**	**50.8152**
MW-11R	**113.452**	**2.37267**	**50.8152**
MW-7	**139.567**	**28.4877**	**51.136**
MW-12AR	**147.025**	**35.9461**	**55.8736**
MW-10	**100.233**	**-10.8456**	**51.136**
MW-12BR	**138.35**	**27.2711**	**55.8736**
MW-6	**120.783**	**9.70439**	**51.136**
MW-8	**118.069**	**6.99002**	**51.4767**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lead

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 70%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 3.04452
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-9	11/22/2011	2	-3.21888	FALSE
MW-11R	11/22/2011	2	-3.21888	FALSE
MW-7	11/22/2011	1	-2.12026	FALSE
MW-12AR	11/22/2011	1	-1.07881	FALSE
MW-10	11/22/2011	1	-3.21888	FALSE
MW-12BR	11/22/2011	1	-1.66073	FALSE
MW-6	11/22/2011	1	-3.21888	FALSE
MW-8	11/22/2011	1	-3.21888	FALSE

Concentrations (ppb)

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 235
Total Non-Detect: 218
Percent Non-Detects: 92.766%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	17 (89.4737%)	3/16/1999	0.5	0.5
			9/23/1999	ND<0.5	ND<0.5
			3/15/2000	ND<0.5	ND<0.5
			9/24/2003	ND<0.5	ND<0.5
			3/11/2004	ND<0.5	ND<0.5
			10/12/2004	ND<0.5	ND<0.5
			4/1/2005	ND<0.5	ND<0.5
			10/25/2005	ND<0.5	ND<0.5
			4/29/2006	ND<0.5	ND<0.5
			11/18/2006	ND<0.5	ND<0.5
			5/23/2007	0.12 J	0.12 J
			11/28/2007	ND<0.5	ND<0.5
			6/5/2008	ND<0.5	ND<0.5
			11/20/2008	ND<0.5	ND<0.5
			6/11/2009	ND<0.091	ND<0.091
			11/16/2009	ND<0.091	ND<0.091
			6/30/2010	ND<0.091	ND<0.091
			11/12/2010	ND<0.091 U	ND<0.091 U
			7/5/2011	ND<0.091 U	ND<0.091 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	30	30 (100%)	7/20/1995	ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5
			9/28/1995	ND<0.5	ND<0.5
			10/26/1995	ND<0.5	ND<0.5
			11/19/1996	ND<0.5	ND<0.5
			12/19/1996	ND<0.5	ND<0.5
			3/24/1997	ND<0.5	ND<0.5
			9/24/1997	ND<0.5	ND<0.5
			4/7/1998	ND<0.5	ND<0.5
			9/23/1998	ND<0.5	ND<0.5
			3/16/1999	ND<0.5	ND<0.5
			9/23/1999	ND<0.5	ND<0.5
			3/15/2000	ND<0.5	ND<0.5
			9/24/2003	ND<0.5	ND<0.5
			3/11/2004	ND<0.5	ND<0.5
			10/12/2004	ND<0.5	ND<0.5
			4/1/2005	ND<0.5	ND<0.5
			10/25/2005	ND<0.5	ND<0.5
			4/29/2006	ND<0.5	ND<0.5
			11/18/2006	ND<0.5	ND<0.5
			5/23/2007	ND<0.5	ND<0.5
			11/28/2007	ND<0.5	ND<0.5
			6/5/2008	ND<0.5	ND<0.5
			11/20/2008	ND<0.5	ND<0.5

			6/11/2009	ND<0.091		ND<0.091
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	ND<0.091 U		ND<0.091 U
			11/22/2011	ND<0.091 U		ND<0.091 U
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-10	29	27 (93.1034%)	7/20/1995		ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5	
			9/28/1995	ND<0.5	ND<0.5	
			10/26/1995	ND<0.5	ND<0.5	
			11/19/1996	ND<0.5	ND<0.5	
			12/19/1996	ND<0.5	ND<0.5	
			3/24/1997	ND<0.5	ND<0.5	
			9/24/1997	ND<0.5	ND<0.5	
			4/7/1998	ND<0.5	ND<0.5	
			9/23/1998	ND<0.5	ND<0.5	
			3/16/1999	1	1	
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005	ND<0.5	ND<0.5	
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008	ND<0.5	ND<0.5	
			11/20/2008	ND<0.5	ND<0.5	
			6/11/2009	ND<0.091		ND<0.091
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	ND<0.091 U		ND<0.091 U
			11/22/2011	0.091 U J		0.091 U J
MW-12BR	20	19 (95%)	3/16/1999		0.5	0.5
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005	ND<0.5	ND<0.5	
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008	ND<0.5	ND<0.5	
			11/20/2008	ND<0.5	ND<0.5	
			6/11/2009	ND<0.091		ND<0.091
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	ND<0.091 U		ND<0.091 U
			7/5/2011	ND<0.091 U	ND<0.091 U	
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-11R	30	26 (86.6667%)	7/20/1995		ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5	
			9/28/1995	ND<0.5	ND<0.5	
			10/26/1995	ND<0.5	ND<0.5	

			11/19/1996	ND<0.5	ND<0.5	
			12/19/1996	ND<0.5	ND<0.5	
			3/24/1997	ND<0.5	ND<0.5	
			9/24/1997	ND<0.5	ND<0.5	
			4/7/1998 ND<0.5	ND<0.5		
			9/23/1998	ND<0.5	ND<0.5	
			3/16/1999	1.5	1.5	
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005 ND<0.5	ND<0.5		
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008 ND<0.5	ND<0.5		
			11/20/2008	0.2 J	0.2 J	
			6/11/2009	0.11 J	0.11 J	
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	0.11 J	0.11 J	
			11/22/2011	ND<0.091 U		ND<0.091 U
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-7	29	28 (96.5517%)	7/20/1995		ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5	
			9/28/1995	ND<0.5	ND<0.5	
			10/26/1995	ND<0.5	ND<0.5	
			11/19/1996	ND<0.5	ND<0.5	
			12/19/1996	ND<0.5	ND<0.5	
			3/24/1997	ND<0.5	ND<0.5	
			9/24/1997	ND<0.5	ND<0.5	
			4/7/1998 ND<0.5	ND<0.5		
			9/23/1998	ND<0.5	ND<0.5	
			3/16/1999	1.4	1.4	
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005 ND<0.5	ND<0.5		
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008 ND<0.5	ND<0.5		
			11/20/2008	ND<0.5	ND<0.5	
			6/11/2009	ND<0.091		ND<0.091
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	ND<0.091 U		ND<0.091 U
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-8	28	24 (85.7143%)	7/20/1995		ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5	
			9/28/1995	ND<0.5	ND<0.5	
			10/26/1995	ND<0.5	ND<0.5	
			11/19/1996	1.03	1.03	

			12/19/1996	1.62	1.62	
			3/24/1997	ND<0.5	ND<0.5	
			9/24/1997	ND<0.5	ND<0.5	
			4/7/1998 1.2	1.2		
			9/23/1998	ND<0.5	ND<0.5	
			3/16/1999	0.4 J	0.4 J	
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005 ND<0.5	ND<0.5		
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008 ND<0.5	ND<0.5		
			11/20/2008	ND<0.5	ND<0.5	
			6/11/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	ND<0.091 U		ND<0.091 U
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-6	30	27 (90%)	7/20/1995		ND<0.5	ND<0.5
			8/24/1995	ND<0.5	ND<0.5	
			9/28/1995	ND<0.5	ND<0.5	
			10/26/1995	ND<0.5	ND<0.5	
			11/19/1996	5.19	5.19	
			12/19/1996	ND<0.5	ND<0.5	
			3/24/1997	ND<0.5	ND<0.5	
			9/24/1997	ND<0.5	ND<0.5	
			4/7/1998 ND<0.5	ND<0.5		
			9/23/1998	ND<0.5	ND<0.5	
			3/16/1999	ND<0.5	ND<0.5	
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005 ND<0.5	ND<0.5		
			10/25/2005	ND<0.5	ND<0.5	
			4/29/2006	ND<0.5	ND<0.5	
			11/18/2006	ND<0.5	ND<0.5	
			5/23/2007	ND<0.5	ND<0.5	
			11/28/2007	ND<0.5	ND<0.5	
			6/5/2008 ND<0.5	ND<0.5		
			11/20/2008	ND<0.5	ND<0.5	
			6/11/2009	ND<0.091		ND<0.091
			11/16/2009	ND<0.091		ND<0.091
			6/30/2010	ND<0.091		ND<0.091
			11/12/2010	0.37	0.37	
			7/5/2011 0.31	0.31		
			11/22/2011	ND<0.091 U		ND<0.091 U
MW-12A R	20	20 (100%)	3/16/1999		ND<0.5	ND<0.5
			9/23/1999	ND<0.5	ND<0.5	
			3/15/2000	ND<0.5	ND<0.5	
			9/24/2003	ND<0.5	ND<0.5	
			3/11/2004	ND<0.5	ND<0.5	
			10/12/2004	ND<0.5	ND<0.5	
			4/1/2005 ND<0.5	ND<0.5		

10/25/2005	ND<0.5	ND<0.5	
4/29/2006	ND<0.5	ND<0.5	
11/18/2006	ND<0.5	ND<0.5	
5/23/2007	ND<0.5	ND<0.5	
11/28/2007	ND<0.5	ND<0.5	
6/5/2008	ND<0.5	ND<0.5	
11/20/2008	ND<0.5	ND<0.5	
6/11/2009	ND<0.091		ND<0.091
11/16/2009	ND<0.091		ND<0.091
6/30/2010	ND<0.091		ND<0.091
11/12/2010	ND<0.091 U		ND<0.091 U
7/5/2011	ND<0.091 U Q		ND<0.091 U Q
11/22/2011	ND<0.091 U		ND<0.091 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Mercury

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 235

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.0455	-2.65209	7.03356	-0.12067
2	0.0455	-2.40892	12.8365	-0.230276
3	0.0455	-2.25713	17.9311	-0.332975
4	0.0455	-2.14441	22.5296	-0.430546
5	0.0455	-2.03352	26.6648	-0.523071
6	0.0455	-1.95996	30.5062	-0.612249
7	0.0455	-1.8957	34.0999	-0.698503
8	0.0455	-1.83843	37.4797	-0.782152
9	0.0455	-1.77438	40.6281	-0.862886
10	0.0455	-1.72793	43.6139	-0.941507
11	0.0455	-1.68494	46.4529	-1.01817
12	0.0455	-1.64485	49.1584	-1.09301
13	0.0455	-1.59819	51.7127	-1.16573
14	0.0455	-1.56322	54.1563	-1.23686
15	0.0455	-1.53007	56.4974	-1.30647
16	0.0455	-1.49852	58.743	-1.37466
17	0.0455	-1.46106	60.8777	-1.44114
18	0.0455	-1.4325	62.9297	-1.50631
19	0.0455	-1.40507	64.904	-1.57025
20	0.0455	-1.37866	66.8047	-1.63297
21	0.0455	-1.35317	68.6357	-1.69454
22	0.0455	-1.32251	70.3848	-1.75472
23	0.0455	-1.29884	72.0717	-1.81381
24	0.0455	-1.27588	73.6996	-1.87187
25	0.0455	-1.25357	75.271	-1.9289
26	0.0455	-1.22653	76.7754	-1.98471
27	0.0455	-1.20553	78.2287	-2.03956
28	0.0455	-1.18504	79.633	-2.09348
29	0.0455	-1.16505	80.9903	-2.14649
30	0.0455	-1.14069	82.2915	-2.19839
31	0.0455	-1.12168	83.5497	-2.24943
32	0.0455	-1.10306	84.7664	-2.29962
33	0.0455	-1.08482	85.9433	-2.34898
34	0.0455	-1.06252	87.0722	-2.39732
35	0.0455	-1.04505	88.1643	-2.44487
36	0.0455	-1.02789	89.2209	-2.49164
37	0.0455	-1.01104	90.2431	-2.53764
38	0.0455	-0.990356	91.2239	-2.5827
39	0.0455	-0.974114	92.1728	-2.62703
40	0.0455	-0.958125	93.0908	-2.67062
41	0.0455	-0.942375	93.9789	-2.7135
42	0.0455	-0.926859	94.8379	-2.75567
43	0.0455	-0.907769	95.662	-2.79698
44	0.0455	-0.892733	96.459	-2.83759
45	0.091	-0.877897	97.2297	-2.91748
46	0.11	-0.863249	97.9749	-3.01244
47	0.11	-0.845198	98.6892	-3.10541
48	0.12	-0.830953	99.3797	-3.20513
49	0.2	-0.816874	100.047	-3.3685
50	0.25	-0.802956	100.692	-3.56924
51	0.25	-0.785774	101.309	-3.76568

52	0.25	-0.772193	101.905	-3.95873
53	0.25	-0.758753	102.481	-4.14842
54	0.25	-0.745449	103.037	-4.33478
55	0.25	-0.729003	103.568	-4.51703
56	0.25	-0.715986	104.081	-4.69603
57	0.25	-0.703089	104.575	-4.8718
58	0.25	-0.690309	105.052	-5.04438
59	0.25	-0.67449	105.507	-5.213
60	0.25	-0.661955	105.945	-5.37849
61	0.25	-0.649522	106.367	-5.54087
62	0.25	-0.637192	106.773	-5.70017
63	0.25	-0.624956	107.163	-5.85641
64	0.25	-0.609791	107.535	-6.00886
65	0.25	-0.597761	107.893	-6.1583
66	0.25	-0.585815	108.236	-6.30475
67	0.25	-0.573953	108.565	-6.44824
68	0.25	-0.559237	108.878	-6.58805
69	0.25	-0.547551	109.178	-6.72494
70	0.25	-0.53594	109.465	-6.85892
71	0.25	-0.524401	109.74	-6.99002
72	0.25	-0.510074	110	-7.11754
73	0.25	-0.498687	110.249	-7.24221
74	0.25	-0.487364	110.486	-7.36405
75	0.25	-0.476105	110.713	-7.48308
76	0.25	-0.462114	110.927	-7.59861
77	0.25	-0.450985	111.13	-7.71135
78	0.25	-0.439913	111.323	-7.82133
79	0.25	-0.428895	111.507	-7.92856
80	0.25	-0.417928	111.682	-8.03304
81	0.25	-0.40429	111.846	-8.13411
82	0.25	-0.393433	112	-8.23247
83	0.25	-0.382622	112.147	-8.32812
84	0.25	-0.371856	112.285	-8.42109
85	0.25	-0.358459	112.413	-8.5107
86	0.25	-0.347787	112.534	-8.59765
87	0.25	-0.337155	112.648	-8.68194
88	0.25	-0.326561	112.755	-8.76358
89	0.25	-0.31337	112.853	-8.84192
90	0.25	-0.302855	112.945	-8.91763
91	0.25	-0.292375	113.03	-8.99073
92	0.25	-0.281926	113.11	-9.06121
93	0.25	-0.268908	113.182	-9.12844
94	0.25	-0.258527	113.249	-9.19307
95	0.25	-0.248174	113.31	-9.25511
96	0.25	-0.237847	113.367	-9.31457
97	0.25	-0.224974	113.418	-9.37082
98	0.25	-0.214702	113.464	-9.42449
99	0.25	-0.204452	113.505	-9.47561
100	0.25	-0.194225	113.543	-9.52416
101	0.25	-0.184017	113.577	-9.57017
102	0.25	-0.171285	113.606	-9.61299
103	0.25	-0.161119	113.632	-9.65327
104	0.25	-0.150969	113.655	-9.69101
105	0.25	-0.140835	113.675	-9.72622
106	0.25	-0.128189	113.691	-9.75827
107	0.25	-0.118085	113.705	-9.78779
108	0.25	-0.107995	113.717	-9.81479
109	0.25	-0.0979139	113.727	-9.83926
110	0.25	-0.0853288	113.734	-9.8606
111	0.25	-0.0752698	113.74	-9.87941
112	0.25	-0.0652187	113.744	-9.89572
113	0.25	-0.0551734	113.747	-9.90951

114	0.25	-0.0426257	113.749	-9.92017
115	0.25	-0.0325917	113.75	-9.92832
116	0.25	-0.0225612	113.75	-9.93396
117	0.25	-0.0125328	113.75	-9.93709
118	0.25	0	113.75	-9.93709
119	0.25	0.0125328	113.751	-9.93396
120	0.25	0.0225612	113.751	-9.92832
121	0.25	0.0325917	113.752	-9.92017
122	0.25	0.0426257	113.754	-9.90951
123	0.25	0.0551734	113.757	-9.89572
124	0.25	0.0652187	113.761	-9.87941
125	0.25	0.0752698	113.767	-9.8606
126	0.25	0.0853288	113.774	-9.83926
127	0.25	0.0979139	113.784	-9.81479
128	0.25	0.107995	113.795	-9.78779
129	0.25	0.118085	113.809	-9.75827
130	0.25	0.128189	113.826	-9.72622
131	0.25	0.140835	113.846	-9.69101
132	0.25	0.150969	113.868	-9.65327
133	0.25	0.161119	113.894	-9.61299
134	0.25	0.171285	113.924	-9.57017
135	0.25	0.184017	113.958	-9.52416
136	0.25	0.194225	113.995	-9.47561
137	0.25	0.204452	114.037	-9.42449
138	0.25	0.214702	114.083	-9.37082
139	0.25	0.224974	114.134	-9.31457
140	0.25	0.237847	114.19	-9.25511
141	0.25	0.248174	114.252	-9.19307
142	0.25	0.258527	114.319	-9.12844
143	0.25	0.268908	114.391	-9.06121
144	0.25	0.281926	114.471	-8.99073
145	0.25	0.292375	114.556	-8.91763
146	0.25	0.302855	114.648	-8.84192
147	0.25	0.31337	114.746	-8.76358
148	0.25	0.326561	114.853	-8.68194
149	0.25	0.337155	114.966	-8.59765
150	0.25	0.347787	115.087	-8.5107
151	0.25	0.358459	115.216	-8.42109
152	0.25	0.371856	115.354	-8.32812
153	0.25	0.382622	115.5	-8.23247
154	0.25	0.393433	115.655	-8.13411
155	0.25	0.40429	115.819	-8.03304
156	0.25	0.417928	115.993	-7.92856
157	0.25	0.428895	116.177	-7.82133
158	0.25	0.439913	116.371	-7.71135
159	0.25	0.450985	116.574	-7.59861
160	0.25	0.462114	116.788	-7.48308
161	0.25	0.476105	117.014	-7.36405
162	0.25	0.487364	117.252	-7.24221
163	0.25	0.498687	117.501	-7.11754
164	0.25	0.510074	117.761	-6.99002
165	0.25	0.524401	118.036	-6.85892
166	0.25	0.53594	118.323	-6.72494
167	0.25	0.547551	118.623	-6.58805
168	0.25	0.559237	118.936	-6.44824
169	0.25	0.573953	119.265	-6.30475
170	0.25	0.585815	119.608	-6.1583
171	0.25	0.597761	119.966	-6.00886
172	0.25	0.609791	120.337	-5.85641
173	0.25	0.624956	120.728	-5.70017
174	0.25	0.637192	121.134	-5.54087
175	0.25	0.649522	121.556	-5.37849

176	0.25	0.661955		121.994	-5.213
177	0.25	0.67449	122.449	-5.04438	
178	0.25	0.690309		122.925	-4.8718
179	0.25	0.703089		123.42	-4.69603
180	0.25	0.715986		123.932	-4.51703
181	0.25	0.729003		124.464	-4.33478
182	0.25	0.745449		125.02	-4.14842
183	0.25	0.758753		125.595	-3.95873
184	0.25	0.772193		126.192	-3.76568
185	0.25	0.785774		126.809	-3.56924
186	0.25	0.802956		127.454	-3.3685
187	0.25	0.816874		128.121	-3.16428
188	0.25	0.830953		128.812	-2.95654
189	0.25	0.845198		129.526	-2.74525
190	0.25	0.863249		130.271	-2.52943
191	0.25	0.877897		131.042	-2.30996
192	0.25	0.892733		131.839	-2.08678
193	0.25	0.907769		132.663	-1.85983
194	0.25	0.926859		133.522	-1.62812
195	0.25	0.942375		134.41	-1.39252
196	0.25	0.958125		135.328	-1.15299
197	0.25	0.974114		136.277	-0.909465
198	0.25	0.990356		137.258	-0.661876
199	0.25	1.01104	138.28	-0.409117	
200	0.25	1.02789	139.336	-0.152144	
201	0.25	1.04505	140.429	0.109118	
202	0.25	1.06252	141.557	0.374748	
203	0.25	1.08482	142.734	0.645954	
204	0.25	1.10306	143.951	0.92172	
205	0.25	1.12168	145.209	1.20214	
206	0.25	1.14069	146.51	1.48731	
207	0.25	1.16505	147.868	1.77857	
208	0.25	1.18504	149.272	2.07483	
209	0.25	1.20553	150.725	2.37622	
210	0.25	1.22653	152.23	2.68285	
211	0.25	1.25357	153.801	2.99624	
212	0.25	1.27588	155.429	3.31521	
213	0.25	1.29884	157.116	3.63992	
214	0.25	1.32251	158.865	3.97054	
215	0.25	1.35317	160.696	4.30884	
216	0.25	1.37866	162.597	4.6535	
217	0.25	1.40507	164.571	5.00477	
218	0.25	1.4325	166.623	5.3629	
219	0.25	1.46106	168.758	5.72816	
220	0.25	1.49852	171.003	6.10279	
221	0.25	1.53007	173.344	6.4853	
222	0.25	1.56322	175.788	6.87611	
223	0.25	1.59819	178.342	7.27566	
224	0.31	1.64485	181.048	7.78556	
225	0.37	1.68494	183.887	8.40899	
226	0.4	1.72793	186.873	9.10016	
227	0.5	1.77438	190.021	9.98735	
228	0.5	1.83843	193.401	10.9066	
229	1	1.8957	196.995	12.8023	
230	1.03	1.95996	200.836	14.821	
231	1.2	2.03352	204.971	17.2612	
232	1.4	2.14441	209.57	20.2634	
233	1.5	2.25713	214.664	23.6491	
234	1.62	2.40892	220.467	27.5516	
235	5.19	2.65209	227.501	41.3159	

Data Set Standard Deviation = 0.377258
Numerator = 1707
Denominator = 7576.64
W Statistic = 0.225298 = 1707 / 7576.64

5% Critical value of 0.976 exceeds 0.225298
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.225298
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Mercury

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.485445
0.485445 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.0455	0.00423729	-2.65209	43.0571	344.01	
2	0.0455	0.00847458	-2.40892	43.0571	332.136	
3	0.0455	0.0127119	-2.25713	43.0571	324.723	
4	0.0455	0.0169492	-2.14441	43.0571	319.219	
5	0.0455	0.0211864	-2.03352	43.0571	313.804	
6	0.0455	0.0254237	-1.95996	43.0571	310.211	
7	0.0455	0.029661	-1.8957	43.0571	307.073	
8	0.0455	0.0338983	-1.83843	43.0571	304.276	
9	0.0455	0.0381356	-1.77438	43.0571	301.149	
10	0.0455	0.0423729	-1.72793	43.0571	298.881	
11	0.0455	0.0466102	-1.68494	43.0571	296.781	
12	0.0455	0.0508475	-1.64485	43.0571	294.824	
13	0.0455	0.0550847	-1.59819	43.0571	292.545	
14	0.0455	0.059322	-1.56322	43.0571	290.837	
15	0.0455	0.0635593	-1.53007	43.0571	289.218	
16	0.0455	0.0677966	-1.49852	43.0571	287.677	
17	0.0455	0.0720339	-1.46106	43.0571	285.848	
18	0.0455	0.0762712	-1.4325	43.0571	284.454	
19	0.0455	0.0805085	-1.40507	43.0571	283.114	
20	0.0455	0.0847458	-1.37866	43.0571	281.824	
21	0.0455	0.0889831	-1.35317	43.0571	280.58	
22	0.0455	0.0932203	-1.32251	43.0571	279.082	
23	0.0455	0.0974576	-1.29884	43.0571	277.926	
24	0.0455	0.101695	-1.27588	43.0571	276.805	
25	0.0455	0.105932	-1.25357	43.0571	275.716	
26	0.0455	0.110169	-1.22653	43.0571	274.395	
27	0.0455	0.114407	-1.20553	43.0571	273.37	
28	0.0455	0.118644	-1.18504	43.0571	272.37	
29	0.0455	0.122881	-1.16505	43.0571	271.393	
30	0.0455	0.127119	-1.14069	43.0571	270.204	
31	0.0455	0.131356	-1.12168	43.0571	269.275	
32	0.0455	0.135593	-1.10306	43.0571	268.366	
33	0.0455	0.139831	-1.08482	43.0571	267.476	
34	0.0455	0.144068	-1.06252	43.0571	266.386	
35	0.0455	0.148305	-1.04505	43.0571	265.533	
36	0.0455	0.152542	-1.02789	43.0571	264.695	
37	0.0455	0.15678	-1.01104	43.0571	263.872	
38	0.0455	0.161017	-0.990356	43.0571	262.862	
39	0.0455	0.165254	-0.974114	43.0571	262.069	
40	0.0455	0.169492	-0.958125	43.0571	261.288	
41	0.0455	0.173729	-0.942375	43.0571	260.519	
42	0.0455	0.177966	-0.926859	43.0571	259.762	
43	0.0455	0.182203	-0.907769	43.0571	258.829	
44	0.0455	0.186441	-0.892733	43.0571	258.095	
45	0.091	0.190678	-0.877897	47.1142	257.371	
46	0.11	0.194915	-0.863249	48.8083	256.655	
47	0.11	0.199153	-0.845198	48.8083	255.774	
48	0.12	0.20339	-0.830953	49.7	255.078	

49	0.2	0.207627	-0.816874	56.8333	254.391
50	0.25	0.211864	-0.802956	61.2917	253.711
51	0.25	0.216102	-0.785774	61.2917	252.872
52	0.25	0.220339	-0.772193	61.2917	252.209
53	0.25	0.224576	-0.758753	61.2917	251.552
54	0.25	0.228814	-0.745449	61.2917	250.903
55	0.25	0.233051	-0.729003	61.2917	250.1
56	0.25	0.237288	-0.715986	61.2917	249.464
57	0.25	0.241525	-0.703089	61.2917	248.834
58	0.25	0.245763	-0.690309	61.2917	248.21
59	0.25	0.25	-0.67449	61.2917	247.438
60	0.25	0.254237	-0.661955	61.2917	246.825
61	0.25	0.258475	-0.649522	61.2917	246.218
62	0.25	0.262712	-0.637192	61.2917	245.616
63	0.25	0.266949	-0.624956	61.2917	245.019
64	0.25	0.271186	-0.609791	61.2917	244.278
65	0.25	0.275424	-0.597761	61.2917	243.691
66	0.25	0.279661	-0.585815	61.2917	243.107
67	0.25	0.283898	-0.573953	61.2917	242.528
68	0.25	0.288136	-0.559237	61.2917	241.809
69	0.25	0.292373	-0.547551	61.2917	241.239
70	0.25	0.29661	-0.53594	61.2917	240.672
71	0.25	0.300847	-0.524401	61.2917	240.108
72	0.25	0.305085	-0.510074	61.2917	239.409
73	0.25	0.309322	-0.498687	61.2917	238.853
74	0.25	0.313559	-0.487364	61.2917	238.3
75	0.25	0.317797	-0.476105	61.2917	237.75
76	0.25	0.322034	-0.462114	61.2917	237.067
77	0.25	0.326271	-0.450985	61.2917	236.523
78	0.25	0.330508	-0.439913	61.2917	235.982
79	0.25	0.334746	-0.428895	61.2917	235.444
80	0.25	0.338983	-0.417928	61.2917	234.909
81	0.25	0.34322	-0.40429	61.2917	234.243
82	0.25	0.347458	-0.393433	61.2917	233.713
83	0.25	0.351695	-0.382622	61.2917	233.185
84	0.25	0.355932	-0.371856	61.2917	232.659
85	0.25	0.360169	-0.358459	61.2917	232.005
86	0.25	0.364407	-0.347787	61.2917	231.484
87	0.25	0.368644	-0.337155	61.2917	230.964
88	0.25	0.372881	-0.326561	61.2917	230.447
89	0.25	0.377119	-0.31337	61.2917	229.803
90	0.25	0.381356	-0.302855	61.2917	229.289
91	0.25	0.385593	-0.292375	61.2917	228.778
92	0.25	0.389831	-0.281926	61.2917	228.267
93	0.25	0.394068	-0.268908	61.2917	227.632
94	0.25	0.398305	-0.258527	61.2917	227.125
95	0.25	0.402542	-0.248174	61.2917	226.619
96	0.25	0.40678	-0.237847	61.2917	226.115
97	0.25	0.411017	-0.224974	61.2917	225.486
98	0.25	0.415254	-0.214702	61.2917	224.985
99	0.25	0.419492	-0.204452	61.2917	224.484
100	0.25	0.423729	-0.194225	61.2917	223.985
101	0.25	0.427966	-0.184017	61.2917	223.486
102	0.25	0.432203	-0.171285	61.2917	222.864
103	0.25	0.436441	-0.161119	61.2917	222.368
104	0.25	0.440678	-0.150969	61.2917	221.872
105	0.25	0.444915	-0.140835	61.2917	221.377
106	0.25	0.449153	-0.128189	61.2917	220.76
107	0.25	0.45339	-0.118085	61.2917	220.267
108	0.25	0.457627	-0.107995	61.2917	219.774
109	0.25	0.461864	-0.0979139	61.2917	219.281
110	0.25	0.466102	-0.0853288	61.2917	218.667

111	0.25	0.470339	-0.0752698	61.2917	218.176
112	0.25	0.474576	-0.0652187	61.2917	217.685
113	0.25	0.478814	-0.0551734	61.2917	217.194
114	0.25	0.483051	-0.0426257	61.2917	216.582
115	0.25	0.487288	-0.0325917	61.2917	216.092
116	0.25	0.491525	-0.0225612	61.2917	215.602
117	0.25	0.495763	-0.0125328	61.2917	215.112
118	0.25	0.5	0	61.2917	214.5
119	0.25	0.504237	0.0125328	61.2917	213.888
120	0.25	0.508475	0.0225612	61.2917	213.398
121	0.25	0.512712	0.0325917	61.2917	212.908
122	0.25	0.516949	0.0426257	61.2917	212.418
123	0.25	0.521186	0.0551734	61.2917	211.806
124	0.25	0.525424	0.0652187	61.2917	211.315
125	0.25	0.529661	0.0752698	61.2917	210.824
126	0.25	0.533898	0.0853288	61.2917	210.333
127	0.25	0.538136	0.0979139	61.2917	209.719
128	0.25	0.542373	0.107995	61.2917	209.226
129	0.25	0.54661	0.118085	61.2917	208.733
130	0.25	0.550847	0.128189	61.2917	208.24
131	0.25	0.555085	0.140835	61.2917	207.623
132	0.25	0.559322	0.150969	61.2917	207.128
133	0.25	0.563559	0.161119	61.2917	206.632
134	0.25	0.567797	0.171285	61.2917	206.136
135	0.25	0.572034	0.184017	61.2917	205.514
136	0.25	0.576271	0.194225	61.2917	205.015
137	0.25	0.580508	0.204452	61.2917	204.516
138	0.25	0.584746	0.214702	61.2917	204.015
139	0.25	0.588983	0.224974	61.2917	203.514
140	0.25	0.59322	0.237847	61.2917	202.885
141	0.25	0.597458	0.248174	61.2917	202.381
142	0.25	0.601695	0.258527	61.2917	201.875
143	0.25	0.605932	0.268908	61.2917	201.368
144	0.25	0.610169	0.281926	61.2917	200.733
145	0.25	0.614407	0.292375	61.2917	200.222
146	0.25	0.618644	0.302855	61.2917	199.711
147	0.25	0.622881	0.31337	61.2917	199.197
148	0.25	0.627119	0.326561	61.2917	198.553
149	0.25	0.631356	0.337155	61.2917	198.036
150	0.25	0.635593	0.347787	61.2917	197.516
151	0.25	0.639831	0.358459	61.2917	196.995
152	0.25	0.644068	0.371856	61.2917	196.341
153	0.25	0.648305	0.382622	61.2917	195.815
154	0.25	0.652542	0.393433	61.2917	195.287
155	0.25	0.65678	0.40429	61.2917	194.757
156	0.25	0.661017	0.417928	61.2917	194.091
157	0.25	0.665254	0.428895	61.2917	193.556
158	0.25	0.669492	0.439913	61.2917	193.018
159	0.25	0.673729	0.450985	61.2917	192.477
160	0.25	0.677966	0.462114	61.2917	191.933
161	0.25	0.682203	0.476105	61.2917	191.25
162	0.25	0.686441	0.487364	61.2917	190.7
163	0.25	0.690678	0.498687	61.2917	190.147
164	0.25	0.694915	0.510074	61.2917	189.591
165	0.25	0.699153	0.524401	61.2917	188.892
166	0.25	0.70339	0.53594	61.2917	188.328
167	0.25	0.707627	0.547551	61.2917	187.761
168	0.25	0.711864	0.559237	61.2917	187.191
169	0.25	0.716102	0.573953	61.2917	186.472
170	0.25	0.720339	0.585815	61.2917	185.893
171	0.25	0.724576	0.597761	61.2917	185.309
172	0.25	0.728814	0.609791	61.2917	184.722

173	0.25	0.733051	0.624956	61.2917	183.981
174	0.25	0.737288	0.637192	61.2917	183.384
175	0.25	0.741525	0.649522	61.2917	182.782
176	0.25	0.745763	0.661955	61.2917	182.175
177	0.25	0.75	0.67449	61.2917	181.562
178	0.25	0.754237	0.690309	61.2917	180.79
179	0.25	0.758475	0.703089	61.2917	180.166
180	0.25	0.762712	0.715986	61.2917	179.536
181	0.25	0.766949	0.729003	61.2917	178.9
182	0.25	0.771186	0.745449	61.2917	178.097
183	0.25	0.775424	0.758753	61.2917	177.448
184	0.25	0.779661	0.772193	61.2917	176.791
185	0.25	0.783898	0.785774	61.2917	176.128
186	0.25	0.788136	0.802956	61.2917	175.289
187	0.25	0.792373	0.816874	61.2917	174.609
188	0.25	0.79661	0.830953	61.2917	173.922
189	0.25	0.800847	0.845198	61.2917	173.226
190	0.25	0.805085	0.863249	61.2917	172.345
191	0.25	0.809322	0.877897	61.2917	171.629
192	0.25	0.813559	0.892733	61.2917	170.905
193	0.25	0.817797	0.907769	61.2917	170.171
194	0.25	0.822034	0.926859	61.2917	169.238
195	0.25	0.826271	0.942375	61.2917	168.481
196	0.25	0.830508	0.958125	61.2917	167.712
197	0.25	0.834746	0.974114	61.2917	166.931
198	0.25	0.838983	0.990356	61.2917	166.138
199	0.25	0.84322	1.01104	61.2917	165.128
200	0.25	0.847458	1.02789	61.2917	164.305
201	0.25	0.851695	1.04505	61.2917	163.467
202	0.25	0.855932	1.06252	61.2917	162.614
203	0.25	0.860169	1.08482	61.2917	161.524
204	0.25	0.864407	1.10306	61.2917	160.634
205	0.25	0.868644	1.12168	61.2917	159.725
206	0.25	0.872881	1.14069	61.2917	158.796
207	0.25	0.877119	1.16505	61.2917	157.607
208	0.25	0.881356	1.18504	61.2917	156.63
209	0.25	0.885593	1.20553	61.2917	155.63
210	0.25	0.889831	1.22653	61.2917	154.605
211	0.25	0.894068	1.25357	61.2917	153.284
212	0.25	0.898305	1.27588	61.2917	152.195
213	0.25	0.902542	1.29884	61.2917	151.074
214	0.25	0.90678	1.32251	61.2917	149.918
215	0.25	0.911017	1.35317	61.2917	148.42
216	0.25	0.915254	1.37866	61.2917	147.176
217	0.25	0.919492	1.40507	61.2917	145.886
218	0.25	0.923729	1.4325	61.2917	144.546
219	0.25	0.927966	1.46106	61.2917	143.152
220	0.25	0.932203	1.49852	61.2917	141.323
221	0.25	0.936441	1.53007	61.2917	139.782
222	0.25	0.940678	1.56322	61.2917	138.163
223	0.25	0.944915	1.59819	61.2917	136.455
224	0.31	0.949153	1.64485	66.6417	134.176
225	0.37	0.95339	1.68494	71.9917	132.219
226	0.4	0.957627	1.72793	74.6667	130.119
227	0.5	0.961864	1.77438	83.5833	127.851
228	0.5	0.966102	1.83843	83.5833	124.724
229	1	0.970339	1.8957	128.167	121.927
230	1.03	0.974576	1.95996	130.842	118.789
231	1.2	0.978814	2.03352	146	115.196
232	1.4	0.983051	2.14441	163.833	109.781
233	1.5	0.987288	2.25713	172.75	104.277
234	1.62	0.991525	2.40892	183.45	96.8642

235	5.19	0.995763	2.65209	501.775	84.9898

Shapiro-Francia Test of Normality

Parameter: Mercury

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 235

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.09004	-2.65209	7.03356	8.19506
2	-3.09004	-2.40892	12.8365	15.6387
3	-3.09004	-2.25713	17.9311	22.6134
4	-3.09004	-2.14441	22.5296	29.2397
5	-3.09004	-2.03352	26.6648	35.5233
6	-3.09004	-1.95996	30.5062	41.5797
7	-3.09004	-1.8957	34.0999	47.4375
8	-3.09004	-1.83843	37.4797	53.1183
9	-3.09004	-1.77438	40.6281	58.6012
10	-3.09004	-1.72793	43.6139	63.9406
11	-3.09004	-1.68494	46.4529	69.1471
12	-3.09004	-1.64485	49.1584	74.2298
13	-3.09004	-1.59819	51.7127	79.1683
14	-3.09004	-1.56322	54.1563	83.9987
15	-3.09004	-1.53007	56.4974	88.7267
16	-3.09004	-1.49852	58.743	93.3571
17	-3.09004	-1.46106	60.8777	97.8719
18	-3.09004	-1.4325	62.9297	102.298
19	-3.09004	-1.40507	64.904	106.64
20	-3.09004	-1.37866	66.8047	110.9
21	-3.09004	-1.35317	68.6357	115.082
22	-3.09004	-1.32251	70.3848	119.168
23	-3.09004	-1.29884	72.0717	123.182
24	-3.09004	-1.27588	73.6996	127.124
25	-3.09004	-1.25357	75.271	130.998
26	-3.09004	-1.22653	76.7754	134.788
27	-3.09004	-1.20553	78.2287	138.513
28	-3.09004	-1.18504	79.633	142.175
29	-3.09004	-1.16505	80.9903	145.775
30	-3.09004	-1.14069	82.2915	149.3
31	-3.09004	-1.12168	83.5497	152.766
32	-3.09004	-1.10306	84.7664	156.174
33	-3.09004	-1.08482	85.9433	159.526
34	-3.09004	-1.06252	87.0722	162.809
35	-3.09004	-1.04505	88.1643	166.039
36	-3.09004	-1.02789	89.2209	169.215
37	-3.09004	-1.01104	90.2431	172.339
38	-3.09004	-0.990356	91.2239	175.399
39	-3.09004	-0.974114	92.1728	178.409
40	-3.09004	-0.958125	93.0908	181.37
41	-3.09004	-0.942375	93.9789	184.282
42	-3.09004	-0.926859	94.8379	187.146
43	-3.09004	-0.907769	95.662	189.951
44	-3.09004	-0.892733	96.459	192.71
45	-2.3969	-0.877897	97.2297	194.814
46	-2.20727	-0.863249	97.9749	196.719
47	-2.20727	-0.845198	98.6892	198.585
48	-2.12026	-0.830953	99.3797	200.347
49	-1.60944	-0.816874	100.047	201.661
50	-1.38629	-0.802956	100.692	202.775
51	-1.38629	-0.785774	101.309	203.864

52	-1.38629	-0.772193	101.905	204.934
53	-1.38629	-0.758753	102.481	205.986
54	-1.38629	-0.745449	103.037	207.02
55	-1.38629	-0.729003	103.568	208.03
56	-1.38629	-0.715986	104.081	209.023
57	-1.38629	-0.703089	104.575	209.998
58	-1.38629	-0.690309	105.052	210.954
59	-1.38629	-0.67449	105.507	211.89
60	-1.38629	-0.661955	105.945	212.807
61	-1.38629	-0.649522	106.367	213.708
62	-1.38629	-0.637192	106.773	214.591
63	-1.38629	-0.624956	107.163	215.457
64	-1.38629	-0.609791	107.535	216.303
65	-1.38629	-0.597761	107.893	217.131
66	-1.38629	-0.585815	108.236	217.943
67	-1.38629	-0.573953	108.565	218.739
68	-1.38629	-0.559237	108.878	219.514
69	-1.38629	-0.547551	109.178	220.273
70	-1.38629	-0.53594	109.465	221.016
71	-1.38629	-0.524401	109.74	221.743
72	-1.38629	-0.510074	110	222.451
73	-1.38629	-0.498687	110.249	223.142
74	-1.38629	-0.487364	110.486	223.817
75	-1.38629	-0.476105	110.713	224.478
76	-1.38629	-0.462114	110.927	225.118
77	-1.38629	-0.450985	111.13	225.743
78	-1.38629	-0.439913	111.323	226.353
79	-1.38629	-0.428895	111.507	226.948
80	-1.38629	-0.417928	111.682	227.527
81	-1.38629	-0.40429	111.846	228.088
82	-1.38629	-0.393433	112	228.633
83	-1.38629	-0.382622	112.147	229.163
84	-1.38629	-0.371856	112.285	229.679
85	-1.38629	-0.358459	112.413	230.176
86	-1.38629	-0.347787	112.534	230.658
87	-1.38629	-0.337155	112.648	231.125
88	-1.38629	-0.326561	112.755	231.578
89	-1.38629	-0.31337	112.853	232.013
90	-1.38629	-0.302855	112.945	232.432
91	-1.38629	-0.292375	113.03	232.838
92	-1.38629	-0.281926	113.11	233.229
93	-1.38629	-0.268908	113.182	233.601
94	-1.38629	-0.258527	113.249	233.96
95	-1.38629	-0.248174	113.31	234.304
96	-1.38629	-0.237847	113.367	234.633
97	-1.38629	-0.224974	113.418	234.945
98	-1.38629	-0.214702	113.464	235.243
99	-1.38629	-0.204452	113.505	235.526
100	-1.38629	-0.194225	113.543	235.796
101	-1.38629	-0.184017	113.577	236.051
102	-1.38629	-0.171285	113.606	236.288
103	-1.38629	-0.161119	113.632	236.512
104	-1.38629	-0.150969	113.655	236.721
105	-1.38629	-0.140835	113.675	236.916
106	-1.38629	-0.128189	113.691	237.094
107	-1.38629	-0.118085	113.705	237.258
108	-1.38629	-0.107995	113.717	237.407
109	-1.38629	-0.0979139	113.727	237.543
110	-1.38629	-0.0853288	113.734	237.661
111	-1.38629	-0.0752698	113.74	237.766
112	-1.38629	-0.0652187	113.744	237.856
113	-1.38629	-0.0551734	113.747	237.933

114	-1.38629	-0.0426257		113.749	237.992
115	-1.38629	-0.0325917		113.75	238.037
116	-1.38629	-0.0225612		113.75	238.068
117	-1.38629	-0.0125328		113.75	238.085
118	-1.38629	0	113.75	238.085	
119	-1.38629	0.0125328		113.751	238.068
120	-1.38629	0.0225612		113.751	238.037
121	-1.38629	0.0325917		113.752	237.992
122	-1.38629	0.0426257		113.754	237.933
123	-1.38629	0.0551734		113.757	237.856
124	-1.38629	0.0652187		113.761	237.766
125	-1.38629	0.0752698		113.767	237.661
126	-1.38629	0.0853288		113.774	237.543
127	-1.38629	0.0979139		113.784	237.407
128	-1.38629	0.107995		113.795	237.258
129	-1.38629	0.118085		113.809	237.094
130	-1.38629	0.128189		113.826	236.916
131	-1.38629	0.140835		113.846	236.721
132	-1.38629	0.150969		113.868	236.512
133	-1.38629	0.161119		113.894	236.288
134	-1.38629	0.171285		113.924	236.051
135	-1.38629	0.184017		113.958	235.796
136	-1.38629	0.194225		113.995	235.526
137	-1.38629	0.204452		114.037	235.243
138	-1.38629	0.214702		114.083	234.945
139	-1.38629	0.224974		114.134	234.633
140	-1.38629	0.237847		114.19	234.304
141	-1.38629	0.248174		114.252	233.96
142	-1.38629	0.258527		114.319	233.601
143	-1.38629	0.268908		114.391	233.229
144	-1.38629	0.281926		114.471	232.838
145	-1.38629	0.292375		114.556	232.432
146	-1.38629	0.302855		114.648	232.013
147	-1.38629	0.31337	114.746	231.578	
148	-1.38629	0.326561		114.853	231.125
149	-1.38629	0.337155		114.966	230.658
150	-1.38629	0.347787		115.087	230.176
151	-1.38629	0.358459		115.216	229.679
152	-1.38629	0.371856		115.354	229.163
153	-1.38629	0.382622		115.5	228.633
154	-1.38629	0.393433		115.655	228.088
155	-1.38629	0.40429	115.819	227.527	
156	-1.38629	0.417928		115.993	226.948
157	-1.38629	0.428895		116.177	226.353
158	-1.38629	0.439913		116.371	225.743
159	-1.38629	0.450985		116.574	225.118
160	-1.38629	0.462114		116.788	224.478
161	-1.38629	0.476105		117.014	223.817
162	-1.38629	0.487364		117.252	223.142
163	-1.38629	0.498687		117.501	222.451
164	-1.38629	0.510074		117.761	221.743
165	-1.38629	0.524401		118.036	221.016
166	-1.38629	0.53594	118.323	220.273	
167	-1.38629	0.547551		118.623	219.514
168	-1.38629	0.559237		118.936	218.739
169	-1.38629	0.573953		119.265	217.943
170	-1.38629	0.585815		119.608	217.131
171	-1.38629	0.597761		119.966	216.303
172	-1.38629	0.609791		120.337	215.457
173	-1.38629	0.624956		120.728	214.591
174	-1.38629	0.637192		121.134	213.708
175	-1.38629	0.649522		121.556	212.807

176	-1.38629	0.661955		121.994	211.89
177	-1.38629	0.67449	122.449	210.954	
178	-1.38629	0.690309		122.925	209.998
179	-1.38629	0.703089		123.42	209.023
180	-1.38629	0.715986		123.932	208.03
181	-1.38629	0.729003		124.464	207.02
182	-1.38629	0.745449		125.02	205.986
183	-1.38629	0.758753		125.595	204.934
184	-1.38629	0.772193		126.192	203.864
185	-1.38629	0.785774		126.809	202.775
186	-1.38629	0.802956		127.454	201.661
187	-1.38629	0.816874		128.121	200.529
188	-1.38629	0.830953		128.812	199.377
189	-1.38629	0.845198		129.526	198.205
190	-1.38629	0.863249		130.271	197.009
191	-1.38629	0.877897		131.042	195.792
192	-1.38629	0.892733		131.839	194.554
193	-1.38629	0.907769		132.663	193.296
194	-1.38629	0.926859		133.522	192.011
195	-1.38629	0.942375		134.41	190.704
196	-1.38629	0.958125		135.328	189.376
197	-1.38629	0.974114		136.277	188.026
198	-1.38629	0.990356		137.258	186.653
199	-1.38629	1.01104	138.28	185.251	
200	-1.38629	1.02789	139.336	183.826	
201	-1.38629	1.04505	140.429	182.377	
202	-1.38629	1.06252	141.557	180.904	
203	-1.38629	1.08482	142.734	179.401	
204	-1.38629	1.10306	143.951	177.871	
205	-1.38629	1.12168	145.209	176.316	
206	-1.38629	1.14069	146.51	174.735	
207	-1.38629	1.16505	147.868	173.12	
208	-1.38629	1.18504	149.272	171.477	
209	-1.38629	1.20553	150.725	169.806	
210	-1.38629	1.22653	152.23	168.106	
211	-1.38629	1.25357	153.801	166.368	
212	-1.38629	1.27588	155.429	164.599	
213	-1.38629	1.29884	157.116	162.799	
214	-1.38629	1.32251	158.865	160.965	
215	-1.38629	1.35317	160.696	159.089	
216	-1.38629	1.37866	162.597	157.178	
217	-1.38629	1.40507	164.571	155.23	
218	-1.38629	1.4325	166.623	153.244	
219	-1.38629	1.46106	168.758	151.219	
220	-1.38629	1.49852	171.003	149.141	
221	-1.38629	1.53007	173.344	147.02	
222	-1.38629	1.56322	175.788	144.853	
223	-1.38629	1.59819	178.342	142.638	
224	-1.17118	1.64485	181.048	140.711	
225	-0.994252		1.68494	183.887	139.036
226	-0.916291		1.72793	186.873	137.453
227	-0.693147		1.77438	190.021	136.223
228	-0.693147		1.83843	193.401	134.949
229	0	1.8957	196.995	134.949	
230	0.0295588		1.95996	200.836	135.006
231	0.182322		2.03352	204.971	135.377
232	0.336472		2.14441	209.57	136.099
233	0.405465		2.25713	214.664	137.014
234	0.482426		2.40892	220.467	138.176
235	1.64673	2.65209	227.501	142.543	

Data Set Standard Deviation = 0.774194
Numerator = 20318.6
Denominator = 31907.9
W Statistic = 0.636789 = 20318.6 / 31907.9

5% Critical value of 0.976 exceeds 0.636789
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.636789
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Mercury

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.800108
0.800108 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.09004	0.00423729	-2.65209	120.138	344.01
2	-3.09004	0.00847458	-2.40892	120.138	332.136
3	-3.09004	0.0127119	-2.25713	120.138	324.723
4	-3.09004	0.0169492	-2.14441	120.138	319.219
5	-3.09004	0.0211864	-2.03352	120.138	313.804
6	-3.09004	0.0254237	-1.95996	120.138	310.211
7	-3.09004	0.029661	-1.8957	120.138	307.073
8	-3.09004	0.0338983	-1.83843	120.138	304.276
9	-3.09004	0.0381356	-1.77438	120.138	301.149
10	-3.09004	0.0423729	-1.72793	120.138	298.881
11	-3.09004	0.0466102	-1.68494	120.138	296.781
12	-3.09004	0.0508475	-1.64485	120.138	294.824
13	-3.09004	0.0550847	-1.59819	120.138	292.545
14	-3.09004	0.059322	-1.56322	120.138	290.837
15	-3.09004	0.0635593	-1.53007	120.138	289.218
16	-3.09004	0.0677966	-1.49852	120.138	287.677
17	-3.09004	0.0720339	-1.46106	120.138	285.848
18	-3.09004	0.0762712	-1.4325	120.138	284.454
19	-3.09004	0.0805085	-1.40507	120.138	283.114
20	-3.09004	0.0847458	-1.37866	120.138	281.824
21	-3.09004	0.0889831	-1.35317	120.138	280.58
22	-3.09004	0.0932203	-1.32251	120.138	279.082
23	-3.09004	0.0974576	-1.29884	120.138	277.926
24	-3.09004	0.101695	-1.27588	120.138	276.805
25	-3.09004	0.105932	-1.25357	120.138	275.716
26	-3.09004	0.110169	-1.22653	120.138	274.395
27	-3.09004	0.114407	-1.20553	120.138	273.37
28	-3.09004	0.118644	-1.18504	120.138	272.37
29	-3.09004	0.122881	-1.16505	120.138	271.393
30	-3.09004	0.127119	-1.14069	120.138	270.204
31	-3.09004	0.131356	-1.12168	120.138	269.275
32	-3.09004	0.135593	-1.10306	120.138	268.366
33	-3.09004	0.139831	-1.08482	120.138	267.476
34	-3.09004	0.144068	-1.06252	120.138	266.386
35	-3.09004	0.148305	-1.04505	120.138	265.533
36	-3.09004	0.152542	-1.02789	120.138	264.695
37	-3.09004	0.15678	-1.01104	120.138	263.872
38	-3.09004	0.161017	-0.990356	120.138	262.862
39	-3.09004	0.165254	-0.974114	120.138	262.069
40	-3.09004	0.169492	-0.958125	120.138	261.288
41	-3.09004	0.173729	-0.942375	120.138	260.519
42	-3.09004	0.177966	-0.926859	120.138	259.762
43	-3.09004	0.182203	-0.907769	120.138	258.829
44	-3.09004	0.186441	-0.892733	120.138	258.095
45	-2.3969	0.190678	-0.877897	181.943	257.371
46	-2.20727	0.194915	-0.863249	198.851	256.655
47	-2.20727	0.199153	-0.845198	198.851	255.774
48	-2.12026	0.20339	-0.830953	206.61	255.078

49	-1.60944	0.207627	-0.816874	252.158	254.391
50	-1.38629	0.211864	-0.802956	272.055	253.711
51	-1.38629	0.216102	-0.785774	272.055	252.872
52	-1.38629	0.220339	-0.772193	272.055	252.209
53	-1.38629	0.224576	-0.758753	272.055	251.552
54	-1.38629	0.228814	-0.745449	272.055	250.903
55	-1.38629	0.233051	-0.729003	272.055	250.1
56	-1.38629	0.237288	-0.715986	272.055	249.464
57	-1.38629	0.241525	-0.703089	272.055	248.834
58	-1.38629	0.245763	-0.690309	272.055	248.21
59	-1.38629	0.25	-0.67449	272.055	247.438
60	-1.38629	0.254237	-0.661955	272.055	246.825
61	-1.38629	0.258475	-0.649522	272.055	246.218
62	-1.38629	0.262712	-0.637192	272.055	245.616
63	-1.38629	0.266949	-0.624956	272.055	245.019
64	-1.38629	0.271186	-0.609791	272.055	244.278
65	-1.38629	0.275424	-0.597761	272.055	243.691
66	-1.38629	0.279661	-0.585815	272.055	243.107
67	-1.38629	0.283898	-0.573953	272.055	242.528
68	-1.38629	0.288136	-0.559237	272.055	241.809
69	-1.38629	0.292373	-0.547551	272.055	241.239
70	-1.38629	0.29661	-0.53594	272.055	240.672
71	-1.38629	0.300847	-0.524401	272.055	240.108
72	-1.38629	0.305085	-0.510074	272.055	239.409
73	-1.38629	0.309322	-0.498687	272.055	238.853
74	-1.38629	0.313559	-0.487364	272.055	238.3
75	-1.38629	0.317797	-0.476105	272.055	237.75
76	-1.38629	0.322034	-0.462114	272.055	237.067
77	-1.38629	0.326271	-0.450985	272.055	236.523
78	-1.38629	0.330508	-0.439913	272.055	235.982
79	-1.38629	0.334746	-0.428895	272.055	235.444
80	-1.38629	0.338983	-0.417928	272.055	234.909
81	-1.38629	0.34322	-0.40429	272.055	234.243
82	-1.38629	0.347458	-0.393433	272.055	233.713
83	-1.38629	0.351695	-0.382622	272.055	233.185
84	-1.38629	0.355932	-0.371856	272.055	232.659
85	-1.38629	0.360169	-0.358459	272.055	232.005
86	-1.38629	0.364407	-0.347787	272.055	231.484
87	-1.38629	0.368644	-0.337155	272.055	230.964
88	-1.38629	0.372881	-0.326561	272.055	230.447
89	-1.38629	0.377119	-0.31337	272.055	229.803
90	-1.38629	0.381356	-0.302855	272.055	229.289
91	-1.38629	0.385593	-0.292375	272.055	228.778
92	-1.38629	0.389831	-0.281926	272.055	228.267
93	-1.38629	0.394068	-0.268908	272.055	227.632
94	-1.38629	0.398305	-0.258527	272.055	227.125
95	-1.38629	0.402542	-0.248174	272.055	226.619
96	-1.38629	0.40678	-0.237847	272.055	226.115
97	-1.38629	0.411017	-0.224974	272.055	225.486
98	-1.38629	0.415254	-0.214702	272.055	224.985
99	-1.38629	0.419492	-0.204452	272.055	224.484
100	-1.38629	0.423729	-0.194225	272.055	223.985
101	-1.38629	0.427966	-0.184017	272.055	223.486
102	-1.38629	0.432203	-0.171285	272.055	222.864
103	-1.38629	0.436441	-0.161119	272.055	222.368
104	-1.38629	0.440678	-0.150969	272.055	221.872
105	-1.38629	0.444915	-0.140835	272.055	221.377
106	-1.38629	0.449153	-0.128189	272.055	220.76
107	-1.38629	0.45339	-0.118085	272.055	220.267
108	-1.38629	0.457627	-0.107995	272.055	219.774
109	-1.38629	0.461864	-0.097913 9	272.055	219.281
110	-1.38629	0.466102	-0.085328 8	272.055	218.667

111	-1.38629	0.470339	-0.0752698	272.055	218.176
112	-1.38629	0.474576	-0.0652187	272.055	217.685
113	-1.38629	0.478814	-0.0551734	272.055	217.194
114	-1.38629	0.483051	-0.0426257	272.055	216.582
115	-1.38629	0.487288	-0.0325917	272.055	216.092
116	-1.38629	0.491525	-0.0225612	272.055	215.602
117	-1.38629	0.495763	-0.0125328	272.055	215.112
118	-1.38629	0.5	0	272.055	214.5
119	-1.38629	0.504237	0.0125328	272.055	213.888
120	-1.38629	0.508475	0.0225612	272.055	213.398
121	-1.38629	0.512712	0.0325917	272.055	212.908
122	-1.38629	0.516949	0.0426257	272.055	212.418
123	-1.38629	0.521186	0.0551734	272.055	211.806
124	-1.38629	0.525424	0.0652187	272.055	211.315
125	-1.38629	0.529661	0.0752698	272.055	210.824
126	-1.38629	0.533898	0.0853288	272.055	210.333
127	-1.38629	0.538136	0.0979139	272.055	209.719
128	-1.38629	0.542373	0.107995	272.055	209.226
129	-1.38629	0.54661	0.118085	272.055	208.733
130	-1.38629	0.550847	0.128189	272.055	208.24
131	-1.38629	0.555085	0.140835	272.055	207.623
132	-1.38629	0.559322	0.150969	272.055	207.128
133	-1.38629	0.563559	0.161119	272.055	206.632
134	-1.38629	0.567797	0.171285	272.055	206.136
135	-1.38629	0.572034	0.184017	272.055	205.514
136	-1.38629	0.576271	0.194225	272.055	205.015
137	-1.38629	0.580508	0.204452	272.055	204.516
138	-1.38629	0.584746	0.214702	272.055	204.015
139	-1.38629	0.588983	0.224974	272.055	203.514
140	-1.38629	0.59322	0.237847	272.055	202.885
141	-1.38629	0.597458	0.248174	272.055	202.381
142	-1.38629	0.601695	0.258527	272.055	201.875
143	-1.38629	0.605932	0.268908	272.055	201.368
144	-1.38629	0.610169	0.281926	272.055	200.733
145	-1.38629	0.614407	0.292375	272.055	200.222
146	-1.38629	0.618644	0.302855	272.055	199.711
147	-1.38629	0.622881	0.31337	272.055	199.197
148	-1.38629	0.627119	0.326561	272.055	198.553
149	-1.38629	0.631356	0.337155	272.055	198.036
150	-1.38629	0.635593	0.347787	272.055	197.516
151	-1.38629	0.639831	0.358459	272.055	196.995
152	-1.38629	0.644068	0.371856	272.055	196.341
153	-1.38629	0.648305	0.382622	272.055	195.815
154	-1.38629	0.652542	0.393433	272.055	195.287
155	-1.38629	0.65678	0.40429	272.055	194.757
156	-1.38629	0.661017	0.417928	272.055	194.091
157	-1.38629	0.665254	0.428895	272.055	193.556
158	-1.38629	0.669492	0.439913	272.055	193.018
159	-1.38629	0.673729	0.450985	272.055	192.477
160	-1.38629	0.677966	0.462114	272.055	191.933
161	-1.38629	0.682203	0.476105	272.055	191.25
162	-1.38629	0.686441	0.487364	272.055	190.7
163	-1.38629	0.690678	0.498687	272.055	190.147
164	-1.38629	0.694915	0.510074	272.055	189.591
165	-1.38629	0.699153	0.524401	272.055	188.892
166	-1.38629	0.70339	0.53594	272.055	188.328
167	-1.38629	0.707627	0.547551	272.055	187.761
168	-1.38629	0.711864	0.559237	272.055	187.191
169	-1.38629	0.716102	0.573953	272.055	186.472
170	-1.38629	0.720339	0.585815	272.055	185.893
171	-1.38629	0.724576	0.597761	272.055	185.309
172	-1.38629	0.728814	0.609791	272.055	184.722

173	-1.38629	0.733051		0.624956		272.055	183.981
174	-1.38629	0.737288		0.637192		272.055	183.384
175	-1.38629	0.741525		0.649522		272.055	182.782
176	-1.38629	0.745763		0.661955		272.055	182.175
177	-1.38629	0.75	0.67449	272.055	181.562		
178	-1.38629	0.754237		0.690309		272.055	180.79
179	-1.38629	0.758475		0.703089		272.055	180.166
180	-1.38629	0.762712		0.715986		272.055	179.536
181	-1.38629	0.766949		0.729003		272.055	178.9
182	-1.38629	0.771186		0.745449		272.055	178.097
183	-1.38629	0.775424		0.758753		272.055	177.448
184	-1.38629	0.779661		0.772193		272.055	176.791
185	-1.38629	0.783898		0.785774		272.055	176.128
186	-1.38629	0.788136		0.802956		272.055	175.289
187	-1.38629	0.792373		0.816874		272.055	174.609
188	-1.38629	0.79661	0.830953		272.055	173.922	
189	-1.38629	0.800847		0.845198		272.055	173.226
190	-1.38629	0.805085		0.863249		272.055	172.345
191	-1.38629	0.809322		0.877897		272.055	171.629
192	-1.38629	0.813559		0.892733		272.055	170.905
193	-1.38629	0.817797		0.907769		272.055	170.171
194	-1.38629	0.822034		0.926859		272.055	169.238
195	-1.38629	0.826271		0.942375		272.055	168.481
196	-1.38629	0.830508		0.958125		272.055	167.712
197	-1.38629	0.834746		0.974114		272.055	166.931
198	-1.38629	0.838983		0.990356		272.055	166.138
199	-1.38629	0.84322	1.01104	272.055	165.128		
200	-1.38629	0.847458		1.02789	272.055	164.305	
201	-1.38629	0.851695		1.04505	272.055	163.467	
202	-1.38629	0.855932		1.06252	272.055	162.614	
203	-1.38629	0.860169		1.08482	272.055	161.524	
204	-1.38629	0.864407		1.10306	272.055	160.634	
205	-1.38629	0.868644		1.12168	272.055	159.725	
206	-1.38629	0.872881		1.14069	272.055	158.796	
207	-1.38629	0.877119		1.16505	272.055	157.607	
208	-1.38629	0.881356		1.18504	272.055	156.63	
209	-1.38629	0.885593		1.20553	272.055	155.63	
210	-1.38629	0.889831		1.22653	272.055	154.605	
211	-1.38629	0.894068		1.25357	272.055	153.284	
212	-1.38629	0.898305		1.27588	272.055	152.195	
213	-1.38629	0.902542		1.29884	272.055	151.074	
214	-1.38629	0.90678	1.32251	272.055	149.918		
215	-1.38629	0.911017		1.35317	272.055	148.42	
216	-1.38629	0.915254		1.37866	272.055	147.176	
217	-1.38629	0.919492		1.40507	272.055	145.886	
218	-1.38629	0.923729		1.4325	272.055	144.546	
219	-1.38629	0.927966		1.46106	272.055	143.152	
220	-1.38629	0.932203		1.49852	272.055	141.323	
221	-1.38629	0.936441		1.53007	272.055	139.782	
222	-1.38629	0.940678		1.56322	272.055	138.163	
223	-1.38629	0.944915		1.59819	272.055	136.455	
224	-1.17118	0.949153		1.64485	291.236	134.176	
225	-0.994252		0.95339	1.68494	307.013	132.219	
226	-0.916291		0.957627		1.72793	313.964	130.119
227	-0.693147		0.961864		1.77438	333.861	127.851
228	-0.693147		0.966102		1.83843	333.861	124.724
229	0	0.970339		1.8957	395.667	121.927	
230	0.0295588		0.974576		1.95996	398.302	118.789
231	0.182322		0.978814		2.03352	411.924	115.196
232	0.336472		0.983051		2.14441	425.669	109.781
233	0.405465		0.987288		2.25713	431.821	104.277
234	0.482426		0.991525		2.40892	438.683	96.8642

235	1.64673	0.995763	2.65209	542.5	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Mercury

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 92.766%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 0
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-9	11/22/2011	2	-3.09004	FALSE
MW-10	11/22/2011	1	-2.3969	FALSE
MW-12BR	11/22/2011	1	-3.09004	FALSE
MW-11R	11/22/2011	2	-3.09004	FALSE
MW-7	11/22/2011	1	-3.09004	FALSE
MW-8	11/22/2011	1	-3.09004	FALSE
MW-6	11/22/2011	1	-3.09004	FALSE
MW-12AR	11/22/2011	1	-3.09004	FALSE

Concentrations (ppb)

Parameter: Nickel

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 169
Percent Non-Detects: 70.4167%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original	
MW-13	19	13 (68.4211%)	3/16/1999	6 J	6 J	
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005	ND<50	ND<50	
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	1.27 J	1.27 J	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008	1.04 J	1.04 J	
			11/20/2008	ND<50	ND<50	
			6/11/2009	0.36 J	0.36 J	
			11/16/2009	0.42 J	0.42 J	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	0.57 J	0.57 J	

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original	
MW-11R	31	21 (67.7419%)	7/20/1995	ND<50	ND<50	
			8/24/1995	ND<50	ND<50	
			9/28/1995	ND<50	ND<50	
			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	10 J	10 J	
			4/7/1998	ND<50	ND<50	
			9/23/1998	ND<50	ND<50	
			3/16/1999	ND<50	ND<50	
			9/23/1999	6 J	6 J	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005	ND<50	ND<50	
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	1.41 J	1.41 J	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008	ND<50	ND<50	
			11/20/2008	ND<50	ND<50	

			6/11/2009	0.63	0.63	
			11/16/2009	0.58	0.58	
			6/30/2010	0.62 J H	0.62 J H	
			11/12/2010	0.44 J	0.44 J	
			7/5/2011	0.84 J	0.84 J	
			11/22/2011	0.57 J	0.57 J	
			11/22/2011	0.57 J	0.57 J	
MW-12A	R	20	13 (65%)	3/16/1999	ND<50	ND<50
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005	ND<50	ND<50	
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	ND<50	ND<50	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008	1.25 J	1.25 J	
			11/20/2008	ND<50	ND<50	
			6/11/2009	1.1	1.1	
			11/16/2009	1	1	
			6/30/2010	0.97 J	0.97 J	
			11/12/2010	0.64 J	0.64 J	
			7/5/2011	1.4	1.4	
			11/22/2011	0.84 J	0.84 J	
MW-10	30	23 (76.6667%)	7/20/1995	ND<50	ND<50	
			8/24/1995	ND<50	ND<50	
			9/28/1995	ND<50	ND<50	
			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	ND<50	ND<50	
			4/7/1998	180	180	
			9/23/1998	ND<50	ND<50	
			3/16/1999	5 J	5 J	
			9/23/1999	38 J	38 J	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005	ND<50	ND<50	
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	ND<50	ND<50	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008	1.31 J	1.31 J	
			11/20/2008	ND<50	ND<50	
			6/11/2009	0.59 J	0.59 J	
			11/16/2009	ND<0.2	ND<0.2	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	0.46 J	0.46 J	
			7/5/2011	0.4 U J	0.4 U J	
			11/22/2011	ND<0.4 U	ND<0.4 U	
MW-7	30	19 (63.3333%)	7/20/1995	ND<50	ND<50	
			8/24/1995	ND<50	ND<50	

			9/28/1995	ND<50	ND<50	
			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	ND<50	ND<50	
			4/7/1998 63	63		
			9/23/1998	ND<50	ND<50	
			3/16/1999	6	6	
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005 ND<50	ND<50		
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	1.74 J	1.74 J	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008 1.89 J	1.89 J		
			11/20/2008	16 J	16 J	
			6/11/2009	0.71	0.71	
			11/16/2009	1.5	1.5	
			6/30/2010	0.5 J H	0.5 J H	
			11/12/2010	1.7	1.7	
			7/5/2011 2.3	2.3		
			11/22/2011	0.54 J	0.54 J	
MW-8	29	22 (75.8621%)	7/20/1995		ND<50	ND<50
			8/24/1995	ND<50	ND<50	
			9/28/1995	ND<50	ND<50	
			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	ND<50	ND<50	
			4/7/1998 60	60		
			9/23/1998	ND<50	ND<50	
			3/16/1999	ND<50	ND<50	
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005 ND<50	ND<50		
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	ND<50	ND<50	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008 1.03 J	1.03 J		
			11/20/2008	ND<50	ND<50	
			6/11/2009	0.54 J	0.54 J	
			6/30/2010	0.68 J H	0.68 J H	
			11/12/2010	1.9	1.9	
			7/5/2011 1.2	1.2		
			11/22/2011	0.51 J	0.51 J	
MW-6	30	24 (80%)	7/20/1995		ND<50	ND<50
			8/24/1995	ND<50	ND<50	
			9/28/1995	ND<50	ND<50	

			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	ND<50	ND<50	
			4/7/1998 ND<50	ND<50		
			9/23/1998	ND<50	ND<50	
			3/16/1999	ND<50	ND<50	
			9/23/1999	10 J	10 J	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005 ND<50	ND<50		
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	4.96 J	4.96 J	
			5/23/2007	ND<50	ND<50	
			11/28/2007	ND<50	ND<50	
			6/5/2008 ND<50	ND<50		
			11/20/2008	ND<50	ND<50	
			6/11/2009	0.35 J	0.35 J	
			11/16/2009	0.32 J	0.32 J	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011 0.73 J	0.73 J		
			11/22/2011	0.46 J	0.46 J	
MW-12BR		20	11 (55%)	3/16/1999		ND<50 ND<50
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	
			9/24/2003	ND<50	ND<50	
			3/11/2004	ND<50	ND<50	
			10/12/2004	ND<50	ND<50	
			4/1/2005 ND<50	ND<50		
			10/25/2005	ND<50	ND<50	
			4/29/2006	ND<50	ND<50	
			11/18/2006	2.29 J	2.29 J	
			5/23/2007	ND<50	ND<50	
			11/28/2007	4 J	4 J	
			6/5/2008 3.1 J	3.1 J		
			11/20/2008	ND<50	ND<50	
			6/11/2009	2.2	2.2	
			11/16/2009	1.8	1.8	
			6/30/2010	2.1	2.1	
			11/12/2010	2.6	2.6	
			7/5/2011 2.2	2.2		
			11/22/2011	2	2	
MW-9	31	23 (74.1935%)	7/20/1995		ND<50	ND<50
			8/24/1995	ND<50	ND<50	
			9/28/1995	ND<50	ND<50	
			10/26/1995	ND<50	ND<50	
			11/19/1996	ND<50	ND<50	
			12/19/1996	ND<50	ND<50	
			3/24/1997	ND<50	ND<50	
			9/24/1997	ND<50	ND<50	
			4/7/1998 72	72		
			9/23/1998	ND<50	ND<50	
			3/16/1999	ND<50	ND<50	
			9/23/1999	ND<50	ND<50	
			3/15/2000	ND<50	ND<50	

9/24/2003	ND<50	ND<50	
3/11/2004	ND<50	ND<50	
10/12/2004	ND<50	ND<50	
4/1/2005	ND<50	ND<50	
10/25/2005	ND<50	ND<50	
4/29/2006	ND<50	ND<50	
11/18/2006	ND<50	ND<50	
5/23/2007	ND<50	ND<50	
11/28/2007	ND<50	ND<50	
6/5/2008	1.03 J	1.03 J	
11/20/2008	ND<50	ND<50	
6/11/2009	0.87	0.87	
11/16/2009	0.69 J	0.69 J	
6/30/2010	0.53 J H	0.53 J H	
11/12/2010	ND<0.4 U		ND<0.4 U
7/5/2011	2.8	2.8	
11/22/2011	0.82 J	0.82 J	
11/22/2011	0.82 J	0.82 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Nickel

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.1	-2.65209	7.03356	-0.265209
2	0.2	-2.40892	12.8365	-0.746993
3	0.2	-2.25713	17.9311	-1.19842
4	0.2	-2.14441	22.5296	-1.6273
5	0.2	-2.05375	26.7475	-2.03805
6	0.2	-1.97737	30.6575	-2.43352
7	0.2	-1.8957	34.2511	-2.81266
8	0.2	-1.83843	37.6309	-3.18035
9	0.32	-1.78661	40.8229	-3.75206
10	0.35	-1.7392	43.8477	-4.36078
11	0.36	-1.6954	46.7221	-4.97113
12	0.4	-1.65463	49.4599	-5.63298
13	0.42	-1.61644	52.0728	-6.31188
14	0.44	-1.57179	54.5433	-7.00347
15	0.46	-1.5382	56.9093	-7.71104
16	0.46	-1.50626	59.1782	-8.40392
17	0.5	-1.47579	61.3561	-9.14182
18	0.51	-1.44663	63.4489	-9.8796
19	0.53	-1.41865	65.4614	-10.6315
20	0.54	-1.39175	67.3984	-11.383
21	0.54	-1.35946	69.2465	-12.1171
22	0.57	-1.33462	71.0278	-12.8779
23	0.57	-1.31058	72.7454	-13.6249
24	0.57	-1.28727	74.4024	-14.3586
25	0.58	-1.26464	76.0018	-15.0921
26	0.59	-1.24264	77.5459	-15.8253
27	0.62	-1.21596	79.0245	-16.5792
28	0.63	-1.19522	80.453	-17.3322
29	0.64	-1.17499	81.8336	-18.0842
30	0.68	-1.15522	83.1682	-18.8697
31	0.69	-1.1359	84.4584	-19.6535
32	0.71	-1.11699	85.7061	-20.4466
33	0.73	-1.09847	86.9127	-21.2484
34	0.82	-1.07584	88.0701	-22.1306
35	0.82	-1.05812	89.1898	-22.9983
36	0.84	-1.04073	90.2729	-23.8725
37	0.84	-1.02365	91.3208	-24.7324
38	0.87	-1.00687	92.3345	-25.6083
39	0.97	-0.990356	93.3153	-26.569
40	1	-0.974114	94.2642	-27.5431
41	1.03	-0.954165	95.1747	-28.5259
42	1.03	-0.938476	96.0554	-29.4925
43	1.04	-0.923014	96.9074	-30.4525
44	1.1	-0.907769	97.7314	-31.451
45	1.2	-0.892733	98.5284	-32.5223
46	1.25	-0.877897	99.2991	-33.6196
47	1.27	-0.859618	100.038	-34.7114
48	1.31	-0.845198	100.752	-35.8186
49	1.4	-0.830953	101.443	-36.9819
50	1.41	-0.816874	102.11	-38.1337
51	1.5	-0.802956	102.755	-39.3381

52	1.7	-0.789191	103.378	-40.6798
53	1.74	-0.775574	103.979	-42.0293
54	1.8	-0.758753	104.555	-43.395
55	1.89	-0.745449	105.111	-44.8039
56	1.9	-0.732275	105.647	-46.1952
57	2	-0.719228	106.164	-47.6337
58	2.1	-0.706302	106.663	-49.1169
59	2.2	-0.693493	107.144	-50.6426
60	2.2	-0.680797	107.607	-52.1404
61	2.29	-0.665079	108.05	-53.6634
62	2.3	-0.652622	108.476	-55.1644
63	2.6	-0.640266	108.886	-56.8291
64	2.8	-0.628006	109.28	-58.5875
65	3.1	-0.615839	109.659	-60.4966
66	4	-0.603765	110.024	-62.9117
67	4.96	-0.588793	110.37	-65.8321
68	5	-0.576911	110.703	-68.7167
69	6	-0.565108	111.023	-72.1073
70	6	-0.553384	111.329	-75.4276
71	6	-0.541736	111.622	-78.678
72	10	-0.530162	111.903	-83.9796
73	10	-0.518658	112.172	-89.1662
74	16	-0.504372	112.427	-97.2362
75	25	-0.493018	112.67	-109.562
76	25	-0.481728	112.902	-121.605
77	25	-0.470498	113.123	-133.367
78	25	-0.459327	113.334	-144.85
79	25	-0.448213	113.535	-156.056
80	25	-0.437153	113.726	-166.985
81	25	-0.423405	113.906	-177.57
82	25	-0.412463	114.076	-187.881
83	25	-0.401571	114.237	-197.921
84	25	-0.390726	114.39	-207.689
85	25	-0.379927	114.534	-217.187
86	25	-0.369171	114.67	-226.416
87	25	-0.358459	114.799	-235.378
88	25	-0.345126	114.918	-244.006
89	25	-0.334503	115.03	-252.368
90	25	-0.323919	115.135	-260.466
91	25	-0.31337	115.233	-268.301
92	25	-0.302855	115.325	-275.872
93	25	-0.292375	115.41	-283.181
94	25	-0.279319	115.488	-290.164
95	25	-0.268908	115.56	-296.887
96	25	-0.258527	115.627	-303.35
97	25	-0.248174	115.689	-309.554
98	25	-0.237847	115.745	-315.501
99	25	-0.227545	115.797	-321.189
100	25	-0.217267	115.844	-326.621
101	25	-0.204452	115.886	-331.732
102	25	-0.194225	115.924	-336.588
103	25	-0.184017	115.958	-341.188
104	25	-0.173829	115.988	-345.534
105	25	-0.163659	116.015	-349.626
106	25	-0.153505	116.038	-353.463
107	25	-0.143367	116.059	-357.047
108	25	-0.130716	116.076	-360.315
109	25	-0.12061	116.091	-363.33
110	25	-0.110516	116.103	-366.093
111	25	-0.100433	116.113	-368.604
112	25	-0.0903606	116.121	-370.863
113	25	-0.0802981	116.127	-372.871

114	25	-0.0677301	116.132	-374.564
115	25	-0.0576847	116.135	-376.006
116	25	-0.0476439	116.138	-377.197
117	25	-0.0376076	116.139	-378.137
118	25	-0.0275759	116.14	-378.827
119	25	-0.0175476	116.14	-379.265
120	25	-0.00751925	116.14	-379.453
121	25	0.00751925	116.14	-379.265
122	25	0.0175476	116.141	-378.827
123	25	0.0275759	116.141	-378.137
124	25	0.0376076	116.143	-377.197
125	25	0.0476439	116.145	-376.006
126	25	0.0576847	116.148	-374.564
127	25	0.0677301	116.153	-372.871
128	25	0.0802981	116.159	-370.863
129	25	0.0903606	116.167	-368.604
130	25	0.100433	116.178	-366.093
131	25	0.110516	116.19	-363.33
132	25	0.12061	116.204	-360.315
133	25	0.130716	116.221	-357.047
134	25	0.143367	116.242	-353.463
135	25	0.153505	116.266	-349.626
136	25	0.163659	116.292	-345.534
137	25	0.173829	116.323	-341.188
138	25	0.184017	116.356	-336.588
139	25	0.194225	116.394	-331.732
140	25	0.204452	116.436	-326.621
141	25	0.217267	116.483	-321.189
142	25	0.227545	116.535	-315.501
143	25	0.237847	116.591	-309.554
144	25	0.248174	116.653	-303.35
145	25	0.258527	116.72	-296.887
146	25	0.268908	116.792	-290.164
147	25	0.279319	116.87	-283.181
148	25	0.292375	116.956	-275.872
149	25	0.302855	117.047	-268.301
150	25	0.31337	117.146	-260.466
151	25	0.323919	117.251	-252.368
152	25	0.334503	117.362	-244.006
153	25	0.345126	117.482	-235.378
154	25	0.358459	117.61	-226.416
155	25	0.369171	117.746	-217.187
156	25	0.379927	117.891	-207.689
157	25	0.390726	118.043	-197.921
158	25	0.401571	118.205	-187.881
159	25	0.412463	118.375	-177.57
160	25	0.423405	118.554	-166.985
161	25	0.437153	118.745	-156.056
162	25	0.448213	118.946	-144.85
163	25	0.459327	119.157	-133.367
164	25	0.470498	119.378	-121.605
165	25	0.481728	119.61	-109.562
166	25	0.493018	119.853	-97.2362
167	25	0.504372	120.108	-84.6269
168	25	0.518658	120.377	-71.6604
169	25	0.530162	120.658	-58.4064
170	25	0.541736	120.951	-44.863
171	25	0.553384	121.258	-31.0284
172	25	0.565108	121.577	-16.9007
173	25	0.576911	121.91	-2.47793
174	25	0.588793	122.257	12.2419
175	25	0.603765	122.621	27.336

176	25	0.615839		123	42.732
177	25	0.628006		123.395	58.4322
178	25	0.640266		123.805	74.4388
179	25	0.652622		124.231	90.7543
180	25	0.665079		124.673	107.381
181	25	0.680797		125.136	124.401
182	25	0.693493		125.617	141.739
183	25	0.706302		126.116	159.396
184	25	0.719228		126.633	177.377
185	25	0.732275		127.17	195.684
186	25	0.745449		127.725	214.32
187	25	0.758753		128.301	233.289
188	25	0.775574		128.903	252.678
189	25	0.789191		129.525	272.408
190	25	0.802956		130.17	292.482
191	25	0.816874		130.837	312.904
192	25	0.830953		131.528	333.677
193	25	0.845198		132.242	354.807
194	25	0.859618		132.981	376.298
195	25	0.877897		133.752	398.245
196	25	0.892733		134.549	420.564
197	25	0.907769		135.373	443.258
198	25	0.923014		136.225	466.333
199	25	0.938476		137.106	489.795
200	25	0.954165		138.016	513.649
201	25	0.974114		138.965	538.002
202	25	0.990356		139.946	562.761
203	25	1.00687	140.96	587.933	
204	25	1.02365	142.007	613.524	
205	25	1.04073	143.091	639.542	
206	25	1.05812	144.21	665.995	
207	25	1.07584	145.368	692.891	
208	25	1.09847	146.574	720.353	
209	25	1.11699	147.822	748.278	
210	25	1.1359	149.112	776.675	
211	25	1.15522	150.447	805.556	
212	25	1.17499	151.827	834.93	
213	25	1.19522	153.256	864.811	
214	25	1.21596	154.734	895.21	
215	25	1.24264	156.279	926.276	
216	25	1.26464	157.878	957.892	
217	25	1.28727	159.535	990.074	
218	25	1.31058	161.253	1022.84	
219	25	1.33462	163.034	1056.2	
220	25	1.35946	164.882	1090.19	
221	25	1.39175	166.819	1124.98	
222	25	1.41865	168.831	1160.45	
223	25	1.44663	170.924	1196.62	
224	25	1.47579	173.102	1233.51	
225	25	1.50626	175.371	1271.17	
226	25	1.5382	177.737	1309.62	
227	25	1.57179	180.208	1348.92	
228	25	1.61644	182.82	1389.33	
229	25	1.65463	185.558	1430.69	
230	25	1.6954	188.433	1473.08	
231	25	1.7392	191.457	1516.56	
232	25	1.78661	194.649	1561.22	
233	25	1.83843	198.029	1607.18	
234	25	1.8957	201.623	1654.58	
235	25	1.97737	205.533	1704.01	
236	38	2.05375	209.751	1782.05	
237	60	2.14441	214.349	1910.72	

238	63	2.25713	219.444	2052.92
239	72	2.40892	225.247	2226.36
240	180	2.65209	232.28	2703.74

Data Set Standard Deviation = 15.9609
Numerator = 7.31018e+006
Denominator = 1.41424e+007
W Statistic = 0.516897 = 7.31018e+006 / 1.41424e+007

5% Critical value of 0.976 exceeds 0.516897
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.516897
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nickel

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.725535
0.725535 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.1	0.00414938	-2.65209	39.2675	344.01	
2	0.2	0.00829876	-2.40892	39.535	332.136	
3	0.2	0.0124481	-2.25713	39.535	324.723	
4	0.2	0.0165975	-2.14441	39.535	319.219	
5	0.2	0.0207469	-2.05375	39.535	314.791	
6	0.2	0.0248963	-1.97737	39.535	311.062	
7	0.2	0.0290456	-1.8957	39.535	307.073	
8	0.2	0.033195	-1.83843	39.535	304.276	
9	0.32	0.0373444	-1.78661	39.856	301.746	
10	0.35	0.0414938	-1.7392	39.9363	299.431	
11	0.36	0.0456432	-1.6954	39.963	297.292	
12	0.4	0.0497925	-1.65463	40.07	295.301	
13	0.42	0.0539419	-1.61644	40.1235	293.436	
14	0.44	0.0580913	-1.57179	40.177	291.256	
15	0.46	0.0622407	-1.5382	40.2305	289.615	
16	0.46	0.06639	-1.50626	40.2305	288.056	
17	0.5	0.0705394	-1.47579	40.3375	286.568	
18	0.51	0.0746888	-1.44663	40.3642	285.144	
19	0.53	0.0788382	-1.41865	40.4177	283.778	
20	0.54	0.0829876	-1.39175	40.4445	282.464	
21	0.54	0.0871369	-1.35946	40.4445	280.887	
22	0.57	0.0912863	-1.33462	40.5247	279.674	
23	0.57	0.0954357	-1.31058	40.5247	278.5	
24	0.57	0.0995851	-1.28727	40.5247	277.362	
25	0.58	0.103734	-1.26464	40.5515	276.257	
26	0.59	0.107884	-1.24264	40.5782	275.182	
27	0.62	0.112033	-1.21596	40.6585	273.879	
28	0.63	0.116183	-1.19522	40.6852	272.867	
29	0.64	0.120332	-1.17499	40.712	271.879	
30	0.68	0.124481	-1.15522	40.819	270.913	
31	0.69	0.128631	-1.1359	40.8458	269.97	
32	0.71	0.13278	-1.11699	40.8993	269.046	
33	0.73	0.136929	-1.09847	40.9528	268.142	
34	0.82	0.141079	-1.07584	41.1935	267.037	
35	0.82	0.145228	-1.05812	41.1935	266.172	
36	0.84	0.149378	-1.04073	41.247	265.322	
37	0.84	0.153527	-1.02365	41.247	264.488	
38	0.87	0.157676	-1.00687	41.3272	263.669	
39	0.97	0.161826	-0.990356	41.5947	262.862	
40	1	0.165975	-0.974114	41.675	262.069	
41	1.03	0.170124	-0.954165	41.7553	261.095	
42	1.03	0.174274	-0.938476	41.7553	260.329	
43	1.04	0.178423	-0.923014	41.782	259.574	
44	1.1	0.182573	-0.907769	41.9425	258.829	
45	1.2	0.186722	-0.892733	42.21	258.095	
46	1.25	0.190871	-0.877897	42.3438	257.371	
47	1.27	0.195021	-0.859618	42.3973	256.478	
48	1.31	0.19917	-0.845198	42.5042	255.774	

49	1.4	0.20332	-0.830953	42.745	255.078	
50	1.41	0.207469	-0.816874		42.7717	254.391
51	1.5	0.211618	-0.802956		43.0125	253.711
52	1.7	0.215768	-0.789191		43.5475	253.039
53	1.74	0.219917	-0.775574		43.6545	252.374
54	1.8	0.224066	-0.758753		43.815	251.552
55	1.89	0.228216	-0.745449		44.0558	250.903
56	1.9	0.232365	-0.732275		44.0825	250.259
57	2	0.236515	-0.719228		44.35	249.622
58	2.1	0.240664	-0.706302		44.6175	248.991
59	2.2	0.244813	-0.693493		44.885	248.366
60	2.2	0.248963	-0.680797		44.885	247.746
61	2.29	0.253112	-0.665079		45.1257	246.978
62	2.3	0.257261	-0.652622		45.1525	246.37
63	2.6	0.261411	-0.640266		45.955	245.766
64	2.8	0.26556	-0.628006	46.49	245.168	
65	3.1	0.26971	-0.615839	47.2925	244.573	
66	4	0.273859	-0.603765		49.7	243.984
67	4.96	0.278008	-0.588793		52.268	243.253
68	5	0.282158	-0.576911		52.375	242.672
69	6	0.286307	-0.565108		55.05	242.096
70	6	0.290456	-0.553384		55.05	241.524
71	6	0.294606	-0.541736		55.05	240.955
72	10	0.298755	-0.530162		65.75	240.39
73	10	0.302905	-0.518658		65.75	239.828
74	16	0.307054	-0.504372		81.8	239.13
75	25	0.311203	-0.493018		105.875	238.576
76	25	0.315353	-0.481728		105.875	238.024
77	25	0.319502	-0.470498		105.875	237.476
78	25	0.323651	-0.459327		105.875	236.93
79	25	0.327801	-0.448213		105.875	236.388
80	25	0.33195	-0.437153	105.875	235.848	
81	25	0.3361	-0.423405	105.875	235.176	
82	25	0.340249	-0.412463		105.875	234.642
83	25	0.344398	-0.401571		105.875	234.11
84	25	0.348548	-0.390726		105.875	233.58
85	25	0.352697	-0.379927		105.875	233.053
86	25	0.356846	-0.369171		105.875	232.528
87	25	0.360996	-0.358459		105.875	232.005
88	25	0.365145	-0.345126		105.875	231.354
89	25	0.369295	-0.334503		105.875	230.835
90	25	0.373444	-0.323919		105.875	230.318
91	25	0.377593	-0.31337	105.875	229.803	
92	25	0.381743	-0.302855		105.875	229.289
93	25	0.385892	-0.292375		105.875	228.778
94	25	0.390041	-0.279319		105.875	228.14
95	25	0.394191	-0.268908		105.875	227.632
96	25	0.39834	-0.258527	105.875	227.125	
97	25	0.40249	-0.248174	105.875	226.619	
98	25	0.406639	-0.237847		105.875	226.115
99	25	0.410788	-0.227545		105.875	225.612
100	25	0.414938	-0.217267		105.875	225.11
101	25	0.419087	-0.204452		105.875	224.484
102	25	0.423237	-0.194225		105.875	223.985
103	25	0.427386	-0.184017		105.875	223.486
104	25	0.431535	-0.173829		105.875	222.989
105	25	0.435685	-0.163659		105.875	222.492
106	25	0.439834	-0.153505		105.875	221.996
107	25	0.443983	-0.143367		105.875	221.501
108	25	0.448133	-0.130716		105.875	220.883
109	25	0.452282	-0.12061	105.875	220.39	
110	25	0.456432	-0.110516		105.875	219.897

111	25	0.460581	-0.100433	105.875	219.404
112	25	0.46473	-0.0903606	105.875	218.913
113	25	0.46888	-0.0802981	105.875	218.421
114	25	0.473029	-0.0677301	105.875	217.807
115	25	0.477178	-0.0576847	105.875	217.317
116	25	0.481328	-0.0476439	105.875	216.827
117	25	0.485477	-0.0376076	105.875	216.337
118	25	0.489627	-0.0275759	105.875	215.847
119	25	0.493776	-0.0175476	105.875	215.357
120	25	0.497925	-0.00751925	105.875	214.867
121	25	0.502075	0.00751925	105.875	214.133
122	25	0.506224	0.0175476	105.875	213.643
123	25	0.510373	0.0275759	105.875	213.153
124	25	0.514523	0.0376076	105.875	212.663
125	25	0.518672	0.0476439	105.875	212.173
126	25	0.522822	0.0576847	105.875	211.683
127	25	0.526971	0.0677301	105.875	211.193
128	25	0.53112	0.0802981	105.875	210.579
129	25	0.53527	0.0903606	105.875	210.087
130	25	0.539419	0.100433	105.875	209.596
131	25	0.543568	0.110516	105.875	209.103
132	25	0.547718	0.12061	105.875	208.61
133	25	0.551867	0.130716	105.875	208.117
134	25	0.556017	0.143367	105.875	207.499
135	25	0.560166	0.153505	105.875	207.004
136	25	0.564315	0.163659	105.875	206.508
137	25	0.568465	0.173829	105.875	206.011
138	25	0.572614	0.184017	105.875	205.514
139	25	0.576763	0.194225	105.875	205.015
140	25	0.580913	0.204452	105.875	204.516
141	25	0.585062	0.217267	105.875	203.89
142	25	0.589212	0.227545	105.875	203.388
143	25	0.593361	0.237847	105.875	202.885
144	25	0.59751	0.248174	105.875	202.381
145	25	0.60166	0.258527	105.875	201.875
146	25	0.605809	0.268908	105.875	201.368
147	25	0.609959	0.279319	105.875	200.86
148	25	0.614108	0.292375	105.875	200.222
149	25	0.618257	0.302855	105.875	199.711
150	25	0.622407	0.31337	105.875	199.197
151	25	0.626556	0.323919	105.875	198.682
152	25	0.630705	0.334503	105.875	198.165
153	25	0.634855	0.345126	105.875	197.646
154	25	0.639004	0.358459	105.875	196.995
155	25	0.643154	0.369171	105.875	196.472
156	25	0.647303	0.379927	105.875	195.947
157	25	0.651452	0.390726	105.875	195.42
158	25	0.655602	0.401571	105.875	194.89
159	25	0.659751	0.412463	105.875	194.358
160	25	0.6639	0.423405	105.875	193.824
161	25	0.66805	0.437153	105.875	193.152
162	25	0.672199	0.448213	105.875	192.612
163	25	0.676349	0.459327	105.875	192.07
164	25	0.680498	0.470498	105.875	191.524
165	25	0.684647	0.481728	105.875	190.976
166	25	0.688797	0.493018	105.875	190.424
167	25	0.692946	0.504372	105.875	189.87
168	25	0.697095	0.518658	105.875	189.172
169	25	0.701245	0.530162	105.875	188.61
170	25	0.705394	0.541736	105.875	188.045
171	25	0.709544	0.553384	105.875	187.476
172	25	0.713693	0.565108	105.875	186.904

173	25	0.717842	0.576911	105.875	186.328
174	25	0.721992	0.588793	105.875	185.747
175	25	0.726141	0.603765	105.875	185.016
176	25	0.73029	0.615839	105.875	184.427
177	25	0.73444	0.628006	105.875	183.832
178	25	0.738589	0.640266	105.875	183.234
179	25	0.742739	0.652622	105.875	182.63
180	25	0.746888	0.665079	105.875	182.022
181	25	0.751037	0.680797	105.875	181.254
182	25	0.755187	0.693493	105.875	180.634
183	25	0.759336	0.706302	105.875	180.009
184	25	0.763485	0.719228	105.875	179.378
185	25	0.767635	0.732275	105.875	178.741
186	25	0.771784	0.745449	105.875	178.097
187	25	0.775934	0.758753	105.875	177.448
188	25	0.780083	0.775574	105.875	176.626
189	25	0.784232	0.789191	105.875	175.961
190	25	0.788382	0.802956	105.875	175.289
191	25	0.792531	0.816874	105.875	174.609
192	25	0.79668	0.830953	105.875	173.922
193	25	0.80083	0.845198	105.875	173.226
194	25	0.804979	0.859618	105.875	172.522
195	25	0.809129	0.877897	105.875	171.629
196	25	0.813278	0.892733	105.875	170.905
197	25	0.817427	0.907769	105.875	170.171
198	25	0.821577	0.923014	105.875	169.426
199	25	0.825726	0.938476	105.875	168.671
200	25	0.829876	0.954165	105.875	167.905
201	25	0.834025	0.974114	105.875	166.931
202	25	0.838174	0.990356	105.875	166.138
203	25	0.842324	1.00687	105.875	165.331
204	25	0.846473	1.02365	105.875	164.512
205	25	0.850622	1.04073	105.875	163.678
206	25	0.854772	1.05812	105.875	162.828
207	25	0.858921	1.07584	105.875	161.963
208	25	0.863071	1.09847	105.875	160.858
209	25	0.86722	1.11699	105.875	159.954
210	25	0.871369	1.1359	105.875	159.03
211	25	0.875519	1.15522	105.875	158.087
212	25	0.879668	1.17499	105.875	157.121
213	25	0.883817	1.19522	105.875	156.133
214	25	0.887967	1.21596	105.875	155.121
215	25	0.892116	1.24264	105.875	153.818
216	25	0.896266	1.26464	105.875	152.743
217	25	0.900415	1.28727	105.875	151.638
218	25	0.904564	1.31058	105.875	150.5
219	25	0.908714	1.33462	105.875	149.326
220	25	0.912863	1.35946	105.875	148.113
221	25	0.917012	1.39175	105.875	146.536
222	25	0.921162	1.41865	105.875	145.222
223	25	0.925311	1.44663	105.875	143.856
224	25	0.929461	1.47579	105.875	142.432
225	25	0.93361	1.50626	105.875	140.944
226	25	0.937759	1.5382	105.875	139.385
227	25	0.941909	1.57179	105.875	137.744
228	25	0.946058	1.61644	105.875	135.564
229	25	0.950207	1.65463	105.875	133.699
230	25	0.954357	1.6954	105.875	131.708
231	25	0.958506	1.7392	105.875	129.569
232	25	0.962656	1.78661	105.875	127.254
233	25	0.966805	1.83843	105.875	124.724
234	25	0.970954	1.8957	105.875	121.927

235	25	0.975104	1.97737	105.875	117.938
236	38	0.979253	2.05375	140.65	114.209
237	60	0.983402	2.14441	199.5	109.781
238	63	0.987552	2.25713	207.525	104.277
239	72	0.991701	2.40892	231.6	96.8642
240	180	0.995851	2.65209	520.5	84.9898

Shapiro-Francia Test of Normality

Parameter: Nickel

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.30259	-2.65209	7.03356	6.10665	
2	-1.60944	-2.40892	12.8365	9.98367	
3	-1.60944	-2.25713	17.9311	13.6164	
4	-1.60944	-2.14441	22.5296	17.0677	
5	-1.60944	-2.05375	26.7475	20.373	
6	-1.60944	-1.97737	30.6575	23.5555	
7	-1.60944	-1.8957	34.2511	26.6065	
8	-1.60944	-1.83843	37.6309	29.5653	
9	-1.13943	-1.78661	40.8229	31.6011	
10	-1.04982	-1.7392	43.8477	33.4269	
11	-1.02165	-1.6954	46.7221	35.159	
12	-0.916291		-1.65463	49.4599	36.6751
13	-0.867501		-1.61644	52.0728	38.0774
14	-0.820981		-1.57179	54.5433	39.3678
15	-0.776529		-1.5382	56.9093	40.5623
16	-0.776529		-1.50626	59.1782	41.7319
17	-0.693147		-1.47579	61.3561	42.7549
18	-0.673345		-1.44663	63.4489	43.7289
19	-0.634878		-1.41865	65.4614	44.6296
20	-0.616186		-1.39175	67.3984	45.4872
21	-0.616186		-1.35946	69.2465	46.3249
22	-0.562119		-1.33462	71.0278	47.0751
23	-0.562119		-1.31058	72.7454	47.8118
24	-0.562119		-1.28727	74.4024	48.5354
25	-0.544727		-1.26464	76.0018	49.2243
26	-0.527633		-1.24264	77.5459	49.8799
27	-0.478036		-1.21596	79.0245	50.4612
28	-0.462035		-1.19522	80.453	51.0134
29	-0.446287		-1.17499	81.8336	51.5378
30	-0.385662		-1.15522	83.1682	51.9833
31	-0.371064		-1.1359	84.4584	52.4048
32	-0.34249	-1.11699	85.7061	52.7874	
33	-0.314711		-1.09847	86.9127	53.1331
34	-0.198451		-1.07584	88.0701	53.3466
35	-0.198451		-1.05812	89.1898	53.5566
36	-0.174353		-1.04073	90.2729	53.738
37	-0.174353		-1.02365	91.3208	53.9165
38	-0.139262		-1.00687	92.3345	54.0567
39	-0.030459	2	-0.990356		93.3153 54.0869
40	0	-0.974114		94.2642	54.0869
41	0.0295588		-0.954165		95.1747 54.0587
42	0.0295588		-0.938476		96.0554 54.0309
43	0.0392207		-0.923014		96.9074 53.9947
44	0.0953102		-0.907769		97.7314 53.9082
45	0.182322		-0.892733		98.5284 53.7455
46	0.223144		-0.877897		99.2991 53.5496
47	0.239017		-0.859618		100.038 53.3441
48	0.270027		-0.845198		100.752 53.1159
49	0.336472		-0.830953		101.443 52.8363
50	0.34359	-0.816874		102.11	52.5556
51	0.405465		-0.802956		102.755 52.23

52	0.530628	-0.789191	103.378	51.8113
53	0.553885	-0.775574	103.979	51.3817
54	0.587787	-0.758753	104.555	50.9357
55	0.636577	-0.745449	105.111	50.4612
56	0.641854	-0.732275	105.647	49.9912
57	0.693147	-0.719228	106.164	49.4926
58	0.741937	-0.706302	106.663	48.9686
59	0.788457	-0.693493	107.144	48.4218
60	0.788457	-0.680797	107.607	47.885
61	0.828552	-0.665079	108.05	47.334
62	0.832909	-0.652622	108.476	46.7904
63	0.955511	-0.640266	108.886	46.1786
64	1.02962	-0.628006	109.28	45.532
65	1.1314	-0.615839	109.659	44.8353
66	1.38629	-0.603765	110.024	43.9983
67	1.60141	-0.588793	110.37	43.0554
68	1.60944	-0.576911	110.703	42.1269
69	1.79176	-0.565108	111.023	41.1143
70	1.79176	-0.553384	111.329	40.1228
71	1.79176	-0.541736	111.622	39.1521
72	2.30259	-0.530162	111.903	37.9314
73	2.30259	-0.518658	112.172	36.7371
74	2.77259	-0.504372	112.427	35.3387
75	3.21888	-0.493018	112.67	33.7518
76	3.21888	-0.481728	112.902	32.2011
77	3.21888	-0.470498	113.123	30.6867
78	3.21888	-0.459327	113.334	29.2081
79	3.21888	-0.448213	113.535	27.7654
80	3.21888	-0.437153	113.726	26.3583
81	3.21888	-0.423405	113.906	24.9954
82	3.21888	-0.412463	114.076	23.6677
83	3.21888	-0.401571	114.237	22.3751
84	3.21888	-0.390726	114.39	21.1174
85	3.21888	-0.379927	114.534	19.8945
86	3.21888	-0.369171	114.67	18.7062
87	3.21888	-0.358459	114.799	17.5523
88	3.21888	-0.345126	114.918	16.4414
89	3.21888	-0.334503	115.03	15.3647
90	3.21888	-0.323919	115.135	14.322
91	3.21888	-0.31337	115.233	13.3133
92	3.21888	-0.302855	115.325	12.3385
93	3.21888	-0.292375	115.41	11.3974
94	3.21888	-0.279319	115.488	10.4983
95	3.21888	-0.268908	115.56	9.63267
96	3.21888	-0.258527	115.627	8.80051
97	3.21888	-0.248174	115.689	8.00167
98	3.21888	-0.237847	115.745	7.23607
99	3.21888	-0.227545	115.797	6.50363
100	3.21888	-0.217267	115.844	5.80427
101	3.21888	-0.204452	115.886	5.14617
102	3.21888	-0.194225	115.924	4.52098
103	3.21888	-0.184017	115.958	3.92865
104	3.21888	-0.173829	115.988	3.36912
105	3.21888	-0.163659	116.015	2.84232
106	3.21888	-0.153505	116.038	2.34821
107	3.21888	-0.143367	116.059	1.88673
108	3.21888	-0.130716	116.076	1.46597
109	3.21888	-0.12061	116.091	1.07774
110	3.21888	-0.110516	116.103	0.722001
111	3.21888	-0.100433	116.113	0.398719
112	3.21888	-0.0903606	116.121	0.107859
113	3.21888	-0.0802981	116.127	-0.15061

114	3.21888	-0.0677301	116.132	-0.368625
115	3.21888	-0.0576847	116.135	-0.554305
116	3.21888	-0.0476439	116.138	-0.707665
117	3.21888	-0.0376076	116.139	-0.828719
118	3.21888	-0.0275759	116.14	-0.917482
119	3.21888	-0.0175476	116.14	-0.973966
120	3.21888	-0.00751925	116.14	-0.998169
121	3.21888	0.00751925	116.14	-0.973966
122	3.21888	0.0175476	116.141	-0.917482
123	3.21888	0.0275759	116.141	-0.828719
124	3.21888	0.0376076	116.143	-0.707665
125	3.21888	0.0476439	116.145	-0.554305
126	3.21888	0.0576847	116.148	-0.368625
127	3.21888	0.0677301	116.153	-0.15061
128	3.21888	0.0802981	116.159	0.107859
129	3.21888	0.0903606	116.167	0.398719
130	3.21888	0.100433	116.178	0.722001
131	3.21888	0.110516	116.19	1.07774
132	3.21888	0.12061	116.204	1.46597
133	3.21888	0.130716	116.221	1.88673
134	3.21888	0.143367	116.242	2.34821
135	3.21888	0.153505	116.266	2.84232
136	3.21888	0.163659	116.292	3.36912
137	3.21888	0.173829	116.323	3.92865
138	3.21888	0.184017	116.356	4.52098
139	3.21888	0.194225	116.394	5.14617
140	3.21888	0.204452	116.436	5.80427
141	3.21888	0.217267	116.483	6.50363
142	3.21888	0.227545	116.535	7.23607
143	3.21888	0.237847	116.591	8.00167
144	3.21888	0.248174	116.653	8.80051
145	3.21888	0.258527	116.72	9.63267
146	3.21888	0.268908	116.792	10.4983
147	3.21888	0.279319	116.87	11.3974
148	3.21888	0.292375	116.956	12.3385
149	3.21888	0.302855	117.047	13.3133
150	3.21888	0.31337	117.146	14.322
151	3.21888	0.323919	117.251	15.3647
152	3.21888	0.334503	117.362	16.4414
153	3.21888	0.345126	117.482	17.5523
154	3.21888	0.358459	117.61	18.7062
155	3.21888	0.369171	117.746	19.8945
156	3.21888	0.379927	117.891	21.1174
157	3.21888	0.390726	118.043	22.3751
158	3.21888	0.401571	118.205	23.6677
159	3.21888	0.412463	118.375	24.9954
160	3.21888	0.423405	118.554	26.3583
161	3.21888	0.437153	118.745	27.7654
162	3.21888	0.448213	118.946	29.2081
163	3.21888	0.459327	119.157	30.6867
164	3.21888	0.470498	119.378	32.2011
165	3.21888	0.481728	119.61	33.7518
166	3.21888	0.493018	119.853	35.3387
167	3.21888	0.504372	120.108	36.9622
168	3.21888	0.518658	120.377	38.6317
169	3.21888	0.530162	120.658	40.3382
170	3.21888	0.541736	120.951	42.082
171	3.21888	0.553384	121.258	43.8633
172	3.21888	0.565108	121.577	45.6823
173	3.21888	0.576911	121.91	47.5393
174	3.21888	0.588793	122.257	49.4346
175	3.21888	0.603765	122.621	51.378

176	3.21888	0.615839		123	53.3603
177	3.21888	0.628006		123.395	55.3818
178	3.21888	0.640266		123.805	57.4427
179	3.21888	0.652622		124.231	59.5434
180	3.21888	0.665079		124.673	61.6843
181	3.21888	0.680797		125.136	63.8757
182	3.21888	0.693493		125.617	66.1079
183	3.21888	0.706302		126.116	68.3814
184	3.21888	0.719228		126.633	70.6965
185	3.21888	0.732275		127.17	73.0536
186	3.21888	0.745449		127.725	75.4531
187	3.21888	0.758753		128.301	77.8955
188	3.21888	0.775574		128.903	80.3919
189	3.21888	0.789191		129.525	82.9323
190	3.21888	0.802956		130.17	85.5169
191	3.21888	0.816874		130.837	88.1463
192	3.21888	0.830953		131.528	90.821
193	3.21888	0.845198		132.242	93.5416
194	3.21888	0.859618		132.981	96.3086
195	3.21888	0.877897		133.752	99.1345
196	3.21888	0.892733		134.549	102.008
197	3.21888	0.907769		135.373	104.93
198	3.21888	0.923014		136.225	107.901
199	3.21888	0.938476		137.106	110.922
200	3.21888	0.954165		138.016	113.993
201	3.21888	0.974114		138.965	117.129
202	3.21888	0.990356		139.946	120.317
203	3.21888	1.00687	140.96	123.558	
204	3.21888	1.02365	142.007	126.853	
205	3.21888	1.04073	143.091	130.203	
206	3.21888	1.05812	144.21	133.609	
207	3.21888	1.07584	145.368	137.072	
208	3.21888	1.09847	146.574	140.607	
209	3.21888	1.11699	147.822	144.203	
210	3.21888	1.1359	149.112	147.859	
211	3.21888	1.15522	150.447	151.578	
212	3.21888	1.17499	151.827	155.36	
213	3.21888	1.19522	153.256	159.207	
214	3.21888	1.21596	154.734	163.121	
215	3.21888	1.24264	156.279	167.121	
216	3.21888	1.26464	157.878	171.192	
217	3.21888	1.28727	159.535	175.335	
218	3.21888	1.31058	161.253	179.554	
219	3.21888	1.33462	163.034	183.85	
220	3.21888	1.35946	164.882	188.226	
221	3.21888	1.39175	166.819	192.706	
222	3.21888	1.41865	168.831	197.272	
223	3.21888	1.44663	170.924	201.929	
224	3.21888	1.47579	173.102	206.679	
225	3.21888	1.50626	175.371	211.528	
226	3.21888	1.5382	177.737	216.479	
227	3.21888	1.57179	180.208	221.538	
228	3.21888	1.61644	182.82	226.741	
229	3.21888	1.65463	185.558	232.067	
230	3.21888	1.6954	188.433	237.525	
231	3.21888	1.7392	191.457	243.123	
232	3.21888	1.78661	194.649	248.874	
233	3.21888	1.83843	198.029	254.791	
234	3.21888	1.8957	201.623	260.893	
235	3.21888	1.97737	205.533	267.258	
236	3.63759	2.05375	209.751	274.729	
237	4.09434	2.14441	214.349	283.509	

238	4.14313	2.25713	219.444	292.861
239	4.27667	2.40892	225.247	303.163
240	5.19296	2.65209	232.28	316.935

Data Set Standard Deviation = 1.62178
Numerator = 100448
Denominator = 146014
W Statistic = 0.687932 = 100448 / 146014

5% Critical value of 0.976 exceeds 0.687932
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.687932
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nickel

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.829124
0.829124 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y	
1	-2.30259	0.00414938	-2.65209	80.4574	344.01	
2	-1.60944	0.00829876	-2.40892	121.661	332.136	
3	-1.60944	0.0124481	-2.25713	121.661	324.723	
4	-1.60944	0.0165975	-2.14441	121.661	319.219	
5	-1.60944	0.0207469	-2.05375	121.661	314.791	
6	-1.60944	0.0248963	-1.97737	121.661	311.062	
7	-1.60944	0.0290456	-1.8957	121.661	307.073	
8	-1.60944	0.033195	-1.83843	121.661	304.276	
9	-1.13943	0.0373444	-1.78661	149.6	301.746	
10	-1.04982	0.0414938	-1.7392	154.927	299.431	
11	-1.02165	0.0456432	-1.6954	156.602	297.292	
12	-0.916291	0.0497925	-1.65463	162.865	295.301	
13	-0.867501	0.0539419	-1.61644	165.765	293.436	
14	-0.820981	0.0580913	-1.57179	168.531	291.256	
15	-0.776529	0.0622407	-1.5382	171.173	289.615	
16	-0.776529	0.06639	-1.50626	171.173	288.056	
17	-0.693147	0.0705394	-1.47579	176.13	286.568	
18	-0.673345	0.0746888	-1.44663	177.307	285.144	
19	-0.634878	0.0788382	-1.41865	179.593	283.778	
20	-0.616186	0.0829876	-1.39175	180.704	282.464	
21	-0.616186	0.0871369	-1.35946	180.704	280.887	
22	-0.562119	0.0912863	-1.33462	183.918	279.674	
23	-0.562119	0.0954357	-1.31058	183.918	278.5	
24	-0.562119	0.0995851	-1.28727	183.918	277.362	
25	-0.544727	0.103734	-1.26464	184.952	276.257	
26	-0.527633	0.107884	-1.24264	185.968	275.182	
27	-0.478036	0.112033	-1.21596	188.917	273.879	
28	-0.462035	0.116183	-1.19522	189.868	272.867	
29	-0.446287	0.120332	-1.17499	190.804	271.879	
30	-0.385662	0.124481	-1.15522	194.408	270.913	
31	-0.371064	0.128631	-1.1359	195.276	269.97	
32	-0.34249	0.13278	-1.11699	196.974	269.046	
33	-0.314711	0.136929	-1.09847	198.626	268.142	
34	-0.198451	0.141079	-1.07584	205.537	267.037	
35	-0.198451	0.145228	-1.05812	205.537	266.172	
36	-0.174353	0.149378	-1.04073	206.969	265.322	
37	-0.174353	0.153527	-1.02365	206.969	264.488	
38	-0.139262	0.157676	-1.00687	209.055	263.669	
39	-0.030459 2	0.161826	-0.990356	215.523	262.862	
40	0	0.165975	-0.974114	217.333	262.069	
41	0.0295588	0.170124	-0.954165	219.09	261.095	
42	0.0295588	0.174274	-0.938476	219.09	260.329	
43	0.0392207	0.178423	-0.923014	219.665	259.574	
44	0.0953102	0.182573	-0.907769	222.999	258.829	
45	0.182322	0.186722	-0.892733	228.171	258.095	
46	0.223144	0.190871	-0.877897	230.598	257.371	
47	0.239017	0.195021	-0.859618	231.542	256.478	
48	0.270027	0.19917	-0.845198	233.385	255.774	

49	0.336472	0.20332	-0.830953	237.335	255.078	
50	0.34359	0.207469	-0.816874	237.758	254.391	
51	0.405465	0.211618	-0.802956	241.436	253.711	
52	0.530628	0.215768	-0.789191	248.876	253.039	
53	0.553885	0.219917	-0.775574	250.259	252.374	
54	0.587787	0.224066	-0.758753	252.274	251.552	
55	0.636577	0.228216	-0.745449	255.174	250.903	
56	0.641854	0.232365	-0.732275	255.488	250.259	
57	0.693147	0.236515	-0.719228	258.537	249.622	
58	0.741937	0.240664	-0.706302	261.437	248.991	
59	0.788457	0.244813	-0.693493	264.203	248.366	
60	0.788457	0.248963	-0.680797	264.203	247.746	
61	0.828552	0.253112	-0.665079	266.586	246.978	
62	0.832909	0.257261	-0.652622	266.845	246.37	
63	0.955511	0.261411	-0.640266	274.133	245.766	
64	1.02962	0.26556	-0.628006	278.538	245.168	
65	1.1314	0.26971	-0.615839	284.589	244.573	
66	1.38629	0.273859	-0.603765	299.741	243.984	
67	1.60141	0.278008	-0.588793	312.528	243.253	
68	1.60944	0.282158	-0.576911	313.005	242.672	
69	1.79176	0.286307	-0.565108	323.843	242.096	
70	1.79176	0.290456	-0.553384	323.843	241.524	
71	1.79176	0.294606	-0.541736	323.843	240.955	
72	2.30259	0.298755	-0.530162	354.209	240.39	
73	2.30259	0.302905	-0.518658	354.209	239.828	
74	2.77259	0.307054	-0.504372	382.148	239.13	
75	3.21888	0.311203	-0.493018	408.678	238.576	
76	3.21888	0.315353	-0.481728	408.678	238.024	
77	3.21888	0.319502	-0.470498	408.678	237.476	
78	3.21888	0.323651	-0.459327	408.678	236.93	
79	3.21888	0.327801	-0.448213	408.678	236.388	
80	3.21888	0.33195	-0.437153	408.678	235.848	
81	3.21888	0.3361	-0.423405	408.678	235.176	
82	3.21888	0.340249	-0.412463	408.678	234.642	
83	3.21888	0.344398	-0.401571	408.678	234.11	
84	3.21888	0.348548	-0.390726	408.678	233.58	
85	3.21888	0.352697	-0.379927	408.678	233.053	
86	3.21888	0.356846	-0.369171	408.678	232.528	
87	3.21888	0.360996	-0.358459	408.678	232.005	
88	3.21888	0.365145	-0.345126	408.678	231.354	
89	3.21888	0.369295	-0.334503	408.678	230.835	
90	3.21888	0.373444	-0.323919	408.678	230.318	
91	3.21888	0.377593	-0.31337	408.678	229.803	
92	3.21888	0.381743	-0.302855	408.678	229.289	
93	3.21888	0.385892	-0.292375	408.678	228.778	
94	3.21888	0.390041	-0.279319	408.678	228.14	
95	3.21888	0.394191	-0.268908	408.678	227.632	
96	3.21888	0.39834	-0.258527	408.678	227.125	
97	3.21888	0.40249	-0.248174	408.678	226.619	
98	3.21888	0.406639	-0.237847	408.678	226.115	
99	3.21888	0.410788	-0.227545	408.678	225.612	
100	3.21888	0.414938	-0.217267	408.678	225.11	
101	3.21888	0.419087	-0.204452	408.678	224.484	
102	3.21888	0.423237	-0.194225	408.678	223.985	
103	3.21888	0.427386	-0.184017	408.678	223.486	
104	3.21888	0.431535	-0.173829	408.678	222.989	
105	3.21888	0.435685	-0.163659	408.678	222.492	
106	3.21888	0.439834	-0.153505	408.678	221.996	
107	3.21888	0.443983	-0.143367	408.678	221.501	
108	3.21888	0.448133	-0.130716	408.678	220.883	
109	3.21888	0.452282	-0.12061	408.678	220.39	
110	3.21888	0.456432	-0.110516	408.678	219.897	

111	3.21888	0.460581	-0.100433	408.678	219.404
112	3.21888	0.46473	-0.0903606	408.678	218.913
113	3.21888	0.46888	-0.0802981	408.678	218.421
114	3.21888	0.473029	-0.0677301	408.678	217.807
115	3.21888	0.477178	-0.0576847	408.678	217.317
116	3.21888	0.481328	-0.0476439	408.678	216.827
117	3.21888	0.485477	-0.0376076	408.678	216.337
118	3.21888	0.489627	-0.0275759	408.678	215.847
119	3.21888	0.493776	-0.0175476	408.678	215.357
120	3.21888	0.497925	-0.00751925	408.678	214.867
121	3.21888	0.502075	0.00751925	408.678	214.133
122	3.21888	0.506224	0.0175476	408.678	213.643
123	3.21888	0.510373	0.0275759	408.678	213.153
124	3.21888	0.514523	0.0376076	408.678	212.663
125	3.21888	0.518672	0.0476439	408.678	212.173
126	3.21888	0.522822	0.0576847	408.678	211.683
127	3.21888	0.526971	0.0677301	408.678	211.193
128	3.21888	0.53112	0.0802981	408.678	210.579
129	3.21888	0.53527	0.0903606	408.678	210.087
130	3.21888	0.539419	0.100433	408.678	209.596
131	3.21888	0.543568	0.110516	408.678	209.103
132	3.21888	0.547718	0.12061	408.678	208.61
133	3.21888	0.551867	0.130716	408.678	208.117
134	3.21888	0.556017	0.143367	408.678	207.499
135	3.21888	0.560166	0.153505	408.678	207.004
136	3.21888	0.564315	0.163659	408.678	206.508
137	3.21888	0.568465	0.173829	408.678	206.011
138	3.21888	0.572614	0.184017	408.678	205.514
139	3.21888	0.576763	0.194225	408.678	205.015
140	3.21888	0.580913	0.204452	408.678	204.516
141	3.21888	0.585062	0.217267	408.678	203.89
142	3.21888	0.589212	0.227545	408.678	203.388
143	3.21888	0.593361	0.237847	408.678	202.885
144	3.21888	0.59751	0.248174	408.678	202.381
145	3.21888	0.60166	0.258527	408.678	201.875
146	3.21888	0.605809	0.268908	408.678	201.368
147	3.21888	0.609959	0.279319	408.678	200.86
148	3.21888	0.614108	0.292375	408.678	200.222
149	3.21888	0.618257	0.302855	408.678	199.711
150	3.21888	0.622407	0.31337	408.678	199.197
151	3.21888	0.626556	0.323919	408.678	198.682
152	3.21888	0.630705	0.334503	408.678	198.165
153	3.21888	0.634855	0.345126	408.678	197.646
154	3.21888	0.639004	0.358459	408.678	196.995
155	3.21888	0.643154	0.369171	408.678	196.472
156	3.21888	0.647303	0.379927	408.678	195.947
157	3.21888	0.651452	0.390726	408.678	195.42
158	3.21888	0.655602	0.401571	408.678	194.89
159	3.21888	0.659751	0.412463	408.678	194.358
160	3.21888	0.6639	0.423405	408.678	193.824
161	3.21888	0.66805	0.437153	408.678	193.152
162	3.21888	0.672199	0.448213	408.678	192.612
163	3.21888	0.676349	0.459327	408.678	192.07
164	3.21888	0.680498	0.470498	408.678	191.524
165	3.21888	0.684647	0.481728	408.678	190.976
166	3.21888	0.688797	0.493018	408.678	190.424
167	3.21888	0.692946	0.504372	408.678	189.87
168	3.21888	0.697095	0.518658	408.678	189.172
169	3.21888	0.701245	0.530162	408.678	188.61
170	3.21888	0.705394	0.541736	408.678	188.045
171	3.21888	0.709544	0.553384	408.678	187.476
172	3.21888	0.713693	0.565108	408.678	186.904

173	3.21888	0.717842	0.576911	408.678	186.328
174	3.21888	0.721992	0.588793	408.678	185.747
175	3.21888	0.726141	0.603765	408.678	185.016
176	3.21888	0.73029	0.615839	408.678	184.427
177	3.21888	0.73444	0.628006	408.678	183.832
178	3.21888	0.738589	0.640266	408.678	183.234
179	3.21888	0.742739	0.652622	408.678	182.63
180	3.21888	0.746888	0.665079	408.678	182.022
181	3.21888	0.751037	0.680797	408.678	181.254
182	3.21888	0.755187	0.693493	408.678	180.634
183	3.21888	0.759336	0.706302	408.678	180.009
184	3.21888	0.763485	0.719228	408.678	179.378
185	3.21888	0.767635	0.732275	408.678	178.741
186	3.21888	0.771784	0.745449	408.678	178.097
187	3.21888	0.775934	0.758753	408.678	177.448
188	3.21888	0.780083	0.775574	408.678	176.626
189	3.21888	0.784232	0.789191	408.678	175.961
190	3.21888	0.788382	0.802956	408.678	175.289
191	3.21888	0.792531	0.816874	408.678	174.609
192	3.21888	0.79668	0.830953	408.678	173.922
193	3.21888	0.80083	0.845198	408.678	173.226
194	3.21888	0.804979	0.859618	408.678	172.522
195	3.21888	0.809129	0.877897	408.678	171.629
196	3.21888	0.813278	0.892733	408.678	170.905
197	3.21888	0.817427	0.907769	408.678	170.171
198	3.21888	0.821577	0.923014	408.678	169.426
199	3.21888	0.825726	0.938476	408.678	168.671
200	3.21888	0.829876	0.954165	408.678	167.905
201	3.21888	0.834025	0.974114	408.678	166.931
202	3.21888	0.838174	0.990356	408.678	166.138
203	3.21888	0.842324	1.00687	408.678	165.331
204	3.21888	0.846473	1.02365	408.678	164.512
205	3.21888	0.850622	1.04073	408.678	163.678
206	3.21888	0.854772	1.05812	408.678	162.828
207	3.21888	0.858921	1.07584	408.678	161.963
208	3.21888	0.863071	1.09847	408.678	160.858
209	3.21888	0.86722	1.11699	408.678	159.954
210	3.21888	0.871369	1.1359	408.678	159.03
211	3.21888	0.875519	1.15522	408.678	158.087
212	3.21888	0.879668	1.17499	408.678	157.121
213	3.21888	0.883817	1.19522	408.678	156.133
214	3.21888	0.887967	1.21596	408.678	155.121
215	3.21888	0.892116	1.24264	408.678	153.818
216	3.21888	0.896266	1.26464	408.678	152.743
217	3.21888	0.900415	1.28727	408.678	151.638
218	3.21888	0.904564	1.31058	408.678	150.5
219	3.21888	0.908714	1.33462	408.678	149.326
220	3.21888	0.912863	1.35946	408.678	148.113
221	3.21888	0.917012	1.39175	408.678	146.536
222	3.21888	0.921162	1.41865	408.678	145.222
223	3.21888	0.925311	1.44663	408.678	143.856
224	3.21888	0.929461	1.47579	408.678	142.432
225	3.21888	0.93361	1.50626	408.678	140.944
226	3.21888	0.937759	1.5382	408.678	139.385
227	3.21888	0.941909	1.57179	408.678	137.744
228	3.21888	0.946058	1.61644	408.678	135.564
229	3.21888	0.950207	1.65463	408.678	133.699
230	3.21888	0.954357	1.6954	408.678	131.708
231	3.21888	0.958506	1.7392	408.678	129.569
232	3.21888	0.962656	1.78661	408.678	127.254
233	3.21888	0.966805	1.83843	408.678	124.724
234	3.21888	0.970954	1.8957	408.678	121.927

235	3.21888	0.975104	1.97737	408.678	117.938
236	3.63759	0.979253	2.05375	433.568	114.209
237	4.09434	0.983402	2.14441	460.719	109.781
238	4.14313	0.987552	2.25713	463.62	104.277
239	4.27667	0.991701	2.40892	471.557	96.8642
240	5.19296	0.995851	2.65209	526.026	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Nickel

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	1.79176 J	230
	9/23/1999	ND<3.21888	85
	3/15/2000	ND<3.21888	85
	9/24/2003	ND<3.21888	85
	3/11/2004	ND<3.21888	85
	10/12/2004	ND<3.21888	85
	4/1/2005	ND<3.21888	85
	10/25/2005	ND<3.21888	85
	4/29/2006	ND<3.21888	85
	11/18/2006	0.239017 J	208
	5/23/2007	ND<3.21888	85
	11/28/2007	ND<3.21888	85
	6/5/2008	0.0392207 J	204
	11/20/2008	ND<3.21888	85
	6/11/2009	-1.02165 J	172
	11/16/2009	-0.867501 J	174
	6/30/2010	ND<-1.60944	85
	11/12/2010	ND<-1.60944 U	85
	7/5/2011	-0.562119 J	183

Rank Sum = 2276
Rank Mean = 119.789

Background Rank Sum = 2276
Background Rank Mean = 119.789

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	ND<3.21888	85
	8/24/1995	ND<3.21888	85
	9/28/1995	ND<3.21888	85
	10/26/1995	ND<3.21888	85
	11/19/1996	ND<3.21888	85
	12/19/1996	ND<3.21888	85
	3/24/1997	ND<3.21888	85
	9/24/1997	2.30259 J	233
	4/7/1998	ND<3.21888	85
	9/23/1998	ND<3.21888	85
	3/16/1999	ND<3.21888	85
	9/23/1999	1.79176 J	231
	3/15/2000	ND<3.21888	85
	9/24/2003	ND<3.21888	85
	3/11/2004	ND<3.21888	85
	10/12/2004	ND<3.21888	85
	4/1/2005	ND<3.21888	85
	10/25/2005	ND<3.21888	85
	4/29/2006	ND<3.21888	85
	11/18/2006	0.34359 J	211
	5/23/2007	ND<3.21888	85

	11/28/2007	ND<3.21888		85
	6/5/2008	ND<3.21888		85
	11/20/2008	ND<3.21888		85
	6/11/2009	-0.462035		189
	11/16/2009	-0.544727		186
	6/30/2010	-0.478036	J H	188
	11/12/2010	-0.820981	J	175
	7/5/2011	-0.174353	J	197
	11/22/2011	-0.562119	J	184
	11/22/2011	-0.562119	J	185

Rank Sum = 3764
Rank Mean = 121.419

MW-12A	R	3/16/1999	ND<3.21888	85
	9/23/1999	ND<3.21888		85
	3/15/2000	ND<3.21888		85
	9/24/2003	ND<3.21888		85
	3/11/2004	ND<3.21888		85
	10/12/2004	ND<3.21888		85
	4/1/2005	ND<3.21888		85
	10/25/2005	ND<3.21888		85
	4/29/2006	ND<3.21888		85
	11/18/2006	ND<3.21888		85
	5/23/2007	ND<3.21888		85
	11/28/2007	ND<3.21888		85
	6/5/2008	0.223144	J	207
	11/20/2008	ND<3.21888		85
	6/11/2009	0.0953102		205
	11/16/2009	0		201
	6/30/2010	-0.030459	2 J	200
	11/12/2010	-0.446287	J	190
	7/5/2011	0.336472		210
	11/22/2011	-0.174353	J	198

Rank Sum = 2516
Rank Mean = 125.8

MW-10	7/20/1995	ND<3.21888		85
	8/24/1995	ND<3.21888		85
	9/28/1995	ND<3.21888		85
	10/26/1995	ND<3.21888		85
	11/19/1996	ND<3.21888		85
	12/19/1996	ND<3.21888		85
	3/24/1997	ND<3.21888		85
	9/24/1997	ND<3.21888		85
	4/7/1998	5.19296		240
	9/23/1998	ND<3.21888		85
	3/16/1999	1.60944	J	229
	9/23/1999	3.63759	J	236
	3/15/2000	ND<3.21888		85
	9/24/2003	ND<3.21888		85
	3/11/2004	ND<3.21888		85
	10/12/2004	ND<3.21888		85
	4/1/2005	ND<3.21888		85
	10/25/2005	ND<3.21888		85
	4/29/2006	ND<3.21888		85
	11/18/2006	ND<3.21888		85
	5/23/2007	ND<3.21888		85
	11/28/2007	ND<3.21888		85
	6/5/2008	0.270027	J	209
	11/20/2008	ND<3.21888		85
	6/11/2009	-0.527633	J	187
	11/16/2009	ND<-2.30259		85

	6/30/2010	ND<-1.60944	85
	11/12/2010	-0.776529 J	176
	7/5/2011	-0.916291 U J	173
	11/22/2011	ND<-1.60944 U	85

Rank Sum = 3405
Rank Mean = 113.5

MW-7	7/20/1995	ND<3.21888	85
	8/24/1995	ND<3.21888	85
	9/28/1995	ND<3.21888	85
	10/26/1995	ND<3.21888	85
	11/19/1996	ND<3.21888	85
	12/19/1996	ND<3.21888	85
	3/24/1997	ND<3.21888	85
	9/24/1997	ND<3.21888	85
	4/7/1998	4.14313	238
	9/23/1998	ND<3.21888	85
	3/16/1999	1.79176	232
	9/23/1999	ND<3.21888	85
	3/15/2000	ND<3.21888	85
	9/24/2003	ND<3.21888	85
	3/11/2004	ND<3.21888	85
	10/12/2004	ND<3.21888	85
	4/1/2005	ND<3.21888	85
	10/25/2005	ND<3.21888	85
	4/29/2006	ND<3.21888	85
	11/18/2006	0.553885 J	214
	5/23/2007	ND<3.21888	85
	11/28/2007	ND<3.21888	85
	6/5/2008	0.636577 J	216
	11/20/2008	2.77259 J	235
	6/11/2009	-0.34249	193
	11/16/2009	0.405465	212
	6/30/2010	-0.693147 J H	178
	11/12/2010	0.530628	213
	7/5/2011	0.832909	223
	11/22/2011	-0.616186 J	181

Rank Sum = 3950
Rank Mean = 131.667

MW-8	7/20/1995	ND<3.21888	85
	8/24/1995	ND<3.21888	85
	9/28/1995	ND<3.21888	85
	10/26/1995	ND<3.21888	85
	11/19/1996	ND<3.21888	85
	12/19/1996	ND<3.21888	85
	3/24/1997	ND<3.21888	85
	9/24/1997	ND<3.21888	85
	4/7/1998	4.09434	237
	9/23/1998	ND<3.21888	85
	3/16/1999	ND<3.21888	85
	9/23/1999	ND<3.21888	85
	3/15/2000	ND<3.21888	85
	9/24/2003	ND<3.21888	85
	3/11/2004	ND<3.21888	85
	10/12/2004	ND<3.21888	85
	4/1/2005	ND<3.21888	85
	10/25/2005	ND<3.21888	85
	4/29/2006	ND<3.21888	85
	11/18/2006	ND<3.21888	85
	5/23/2007	ND<3.21888	85
	11/28/2007	ND<3.21888	85

	6/5/2008	0.029558	8 J	202
	11/20/2008	ND<3.21888		85
	6/11/2009	-0.616186	J	182
	6/30/2010	-0.385662	J H	191
	11/12/2010	0.641854		217
	7/5/2011	0.182322		206
	11/22/2011	-0.673345	J	179

Rank Sum = 3284
Rank Mean = 113.241

MW-6	7/20/1995	ND<3.21888		85
	8/24/1995	ND<3.21888		85
	9/28/1995	ND<3.21888		85
	10/26/1995	ND<3.21888		85
	11/19/1996	ND<3.21888		85
	12/19/1996	ND<3.21888		85
	3/24/1997	ND<3.21888		85
	9/24/1997	ND<3.21888		85
	4/7/1998	ND<3.21888		85
	9/23/1998	ND<3.21888		85
	3/16/1999	ND<3.21888		85
	9/23/1999	2.30259	J	234
	3/15/2000	ND<3.21888		85
	9/24/2003	ND<3.21888		85
	3/11/2004	ND<3.21888		85
	10/12/2004	ND<3.21888		85
	4/1/2005	ND<3.21888		85
	10/25/2005	ND<3.21888		85
	4/29/2006	ND<3.21888		85
	11/18/2006	1.60141	J	228
	5/23/2007	ND<3.21888		85
	11/28/2007	ND<3.21888		85
	6/5/2008	ND<3.21888		85
	11/20/2008	ND<3.21888		85
	6/11/2009	-1.04982	J	171
	11/16/2009	-1.13943	J	170
	6/30/2010	ND<-1.60944		85
	11/12/2010	ND<-1.60944	U	85
	7/5/2011	-0.314711	J	194
	11/22/2011	-0.776529	J	177

Rank Sum = 3214
Rank Mean = 107.133

MW-12BR	3/16/1999	ND<3.21888		85
	9/23/1999	ND<3.21888		85
	3/15/2000	ND<3.21888		85
	9/24/2003	ND<3.21888		85
	3/11/2004	ND<3.21888		85
	10/12/2004	ND<3.21888		85
	4/1/2005	ND<3.21888		85
	10/25/2005	ND<3.21888		85
	4/29/2006	ND<3.21888		85
	11/18/2006	0.828552	J	222
	5/23/2007	ND<3.21888		85
	11/28/2007	1.38629	J	227
	6/5/2008	1.1314	J	226
	11/20/2008	ND<3.21888		85
	6/11/2009	0.788457		220
	11/16/2009	0.587787		215
	6/30/2010	0.741937		219
	11/12/2010	0.955511		224
	7/5/2011	0.788457		221

	11/22/2011	0.693147	218

Rank Sum = 2927
Rank Mean = 146.35

MW-9	7/20/1995	ND<3.21888	85
	8/24/1995	ND<3.21888	85
	9/28/1995	ND<3.21888	85
	10/26/1995	ND<3.21888	85
	11/19/1996	ND<3.21888	85
	12/19/1996	ND<3.21888	85
	3/24/1997	ND<3.21888	85
	9/24/1997	ND<3.21888	85
	4/7/1998	4.27667	239
	9/23/1998	ND<3.21888	85
	3/16/1999	ND<3.21888	85
	9/23/1999	ND<3.21888	85
	3/15/2000	ND<3.21888	85
	9/24/2003	ND<3.21888	85
	3/11/2004	ND<3.21888	85
	10/12/2004	ND<3.21888	85
	4/1/2005	ND<3.21888	85
	10/25/2005	ND<3.21888	85
	4/29/2006	ND<3.21888	85
	11/18/2006	ND<3.21888	85
	5/23/2007	ND<3.21888	85
	11/28/2007	ND<3.21888	85
	6/5/2008	0.029558 8 J	203
	11/20/2008	ND<3.21888	85
	6/11/2009	-0.139262	199
	11/16/2009	-0.371064 J	192
	6/30/2010	-0.634878 J H	180
	11/12/2010	ND<-1.60944 U	85
	7/5/2011	1.02962	225
	11/22/2011	-0.198451 J	195
	11/22/2011	-0.198451 J	196

Rank Sum = 3584
Rank Mean = 115.613

Calculation Results:

Kruskal-Wallis H Statistic = 5.56042
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 8.5434
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
5.56042 < 15.5073 indicating no significant group difference at 5% significance level
8.5434 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Nitrate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 190
Total Non-Detect: 146
Percent Non-Detects: 76.8421%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	13 (68.4211%)	3/16/1999	ND<30	ND<30
			9/23/1999	ND<30	ND<30
			3/15/2000	ND<30	ND<30
			9/24/2003	ND<30	ND<30
			3/11/2004	ND<30	ND<30
			10/12/2004	ND<30	ND<30
			4/1/2005	ND<40	ND<40
			10/25/2005	ND<40	ND<40
			4/29/2006	68	68
			11/18/2006	94	94
			5/23/2007	14 J	14 J
			11/28/2007	ND<30	ND<30
			6/5/2008	ND<30	ND<30
			11/20/2008	ND<30	ND<30
			6/11/2009	420 J	420 J
			11/16/2009	ND<360	ND<360
			6/30/2010	61 J	61 J
			11/12/2010	0.56 J	0.56 J
			7/5/2011	ND<75 U	ND<75 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-11R	23	15 (65.2174%)	9/23/1998	ND<30	ND<30
			3/16/1999	ND<30	ND<30
			9/23/1999	ND<30	ND<30
			3/15/2000	ND<30	ND<30
			9/24/2003	ND<30	ND<30
			3/11/2004	ND<30	ND<30
			10/12/2004	ND<30	ND<30
			4/1/2005	ND<40	ND<40
			10/25/2005	ND<40	ND<40
			4/29/2006	18 J	18 J
			11/18/2006	60	60
			5/23/2007	33	33
			11/28/2007	ND<30	ND<30
			6/5/2008	ND<30	ND<30
			11/20/2008	ND<30	ND<30
			6/11/2009	270 J M	270 J M
			11/16/2009	ND<360	ND<360
			11/16/2009	ND<360	ND<360
			6/30/2010	55 J	55 J
			11/12/2010	ND<0.36 U	ND<0.36 U
			7/5/2011	77 J	77 J
			11/22/2011	110 J	110 J
			11/22/2011	110 J	110 J

MW-6	21	17 (80.9524%)	9/23/1998		ND<30	ND<30
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	55	55	
			11/18/2006	21 J	21 J	
			5/23/2007	36	36	
			11/28/2007	ND<30	ND<30	
			6/5/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	200 J M	200 J M	
			11/16/2009	ND<360		ND<360
			6/30/2010	ND<36	ND<36	
			11/12/2010	ND<0.36 U		ND<0.36 U
			7/5/2011	ND<75 U M	ND<75 U M	
			11/22/2011	ND<75 U		ND<75 U
MW-8	20	16 (80%)	9/23/1998		ND<30	ND<30
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	ND<40	ND<40	
			11/18/2006	17 J	17 J	
			5/23/2007	35	35	
			11/28/2007	ND<30	ND<30	
			6/5/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	ND<100		ND<100
			6/30/2010	60 J	60 J	
			11/12/2010	ND<0.36 U		ND<0.36 U
			7/5/2011	840	840	
			11/22/2011	ND<75 U		ND<75 U
MW-7	22	17 (77.2727%)	9/23/1998		ND<30	ND<30
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	22 J	22 J	
			11/18/2006	58	58	
			5/23/2007	74	74	
			11/28/2007	ND<30	ND<30	
			6/5/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	180 J M	180 J M	
			11/16/2009	ND<360		ND<360
			11/16/2009	ND<360		ND<360
			6/30/2010	ND<36	ND<36	

			11/12/2010	0.46 J	0.46 J	
			7/5/2011	ND<150 U	ND<150 U	
			11/22/2011	ND<75 U	ND<75 U	
MW-12BR		21	16 (76.1905%)	3/16/1999	ND<30	ND<30
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	33 J	33 J	
			11/18/2006	22 J	22 J	
			5/23/2007	20 J	20 J	
			11/28/2007	ND<30	ND<30	
			6/5/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	150 J M	150 J M	
			11/16/2009	ND<360		ND<360
			11/16/2009	ND<360		ND<360
			6/30/2010	ND<36	ND<36	
			11/12/2010	ND<0.36 U		ND<0.36 U
			7/5/2011	120 J	120 J	
			11/22/2011	ND<75 U		ND<75 U
MW-9	22	19 (86.3636%)	9/23/1998		ND<30	ND<30
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	10 J	10 J	
			11/18/2006	15 J	15 J	
			5/23/2007	29 J	29 J	
			11/28/2007	ND<30	ND<30	
			6/5/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	ND<100		ND<100
			11/16/2009	ND<360		ND<360
			6/30/2010	ND<36	ND<36	
			11/12/2010	ND<0.36 U		ND<0.36 U
			7/5/2011	ND<150 U	ND<150 U	
			11/22/2011	ND<75 U		ND<75 U
			11/22/2011	ND<75 U		ND<75 U
MW-10	22	20 (90.9091%)	9/23/1998		ND<30	ND<30
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/15/2000	ND<30	ND<30	
			9/24/2003	ND<30	ND<30	
			3/11/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<40	ND<40	
			10/25/2005	ND<40	ND<40	
			4/29/2006	38 J	38 J	
			11/18/2006	ND<30	ND<30	
			5/23/2007	38	38	
			11/28/2007	ND<30	ND<30	

		6/5/2008	ND<30	ND<30	
		11/20/2008	ND<30	ND<30	
		6/11/2009	ND<100		ND<100
		11/16/2009	ND<360		ND<360
		11/16/2009	ND<360		ND<360
		6/30/2010	ND<36	ND<36	
		11/12/2010	ND<0.36 U		ND<0.36 U
		7/5/2011	ND<75 U M	ND<75 U M	
		11/22/2011	ND<75 U		ND<75 U
MW-12A R	20	13 (65%)	3/16/1999		ND<30 ND<30
		9/23/1999	ND<30	ND<30	
		3/15/2000	ND<30	ND<30	
		9/24/2003	ND<30	ND<30	
		3/11/2004	ND<30	ND<30	
		10/12/2004	ND<30	ND<30	
		4/1/2005	ND<40	ND<40	
		10/25/2005	ND<40	ND<40	
		4/29/2006	160	160	
		11/18/2006	276	276	
		5/23/2007	217	217	
		11/28/2007	ND<30	ND<30	
		6/5/2008	ND<30	ND<30	
		11/20/2008	ND<30	ND<30	
		6/11/2009	240 J M	240 J M	
		11/12/2009	640000 J		640000 J
		6/30/2010	ND<36	ND<36	
		11/12/2010	ND<0.36 U		ND<0.36 U
		7/5/2011	110 J	110 J	
		11/22/2011	220 J	220 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Nitrate

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 190

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.18	-2.57583	6.6349	-0.46365
2	0.18	-2.32634	12.0468	-0.882392
3	0.18	-2.17009	16.7561	-1.27301
4	0.18	-2.05375	20.974	-1.64268
5	0.18	-1.94314	24.7497	-1.99245
6	0.18	-1.86629	28.2328	-2.32838
7	0.18	-1.79912	31.4696	-2.65222
8	0.46	-1.7392	34.4944	-3.45225
9	0.56	-1.67466	37.2989	-4.39006
10	10	-1.62576	39.942	-20.6477
11	14	-1.58047	42.4399	-42.7742
12	15	-1.5382	44.806	-65.8472
13	15	-1.49085	47.0286	-88.21
14	15	-1.4538	49.1421	-110.017
15	15	-1.41865	51.1547	-131.297
16	15	-1.38517	53.0734	-152.074
17	15	-1.34694	54.8877	-172.279
18	15	-1.31652	56.6209	-192.026
19	15	-1.28727	58.278	-211.335
20	15	-1.25908	59.8633	-230.222
21	15	-1.23187	61.3807	-248.7
22	15	-1.20036	62.8216	-266.705
23	15	-1.17499	64.2022	-284.33
24	15	-1.15035	65.5255	-301.585
25	15	-1.12639	66.7943	-318.481
26	15	-1.09847	68.0009	-334.958
27	15	-1.07584	69.1583	-351.096
28	15	-1.05375	70.2687	-366.902
29	15	-1.03215	71.334	-382.384
30	15	-1.00687	72.3478	-397.487
31	15	-0.986272	73.3206	-412.281
32	15	-0.966088	74.2539	-426.772
33	15	-0.946291	75.1493	-440.967
34	15	-0.923014	76.0013	-454.812
35	15	-0.903992	76.8185	-468.372
36	15	-0.885291	77.6022	-481.651
37	15	-0.866894	78.3537	-494.655
38	15	-0.848786	79.0742	-507.386
39	15	-0.827417	79.7588	-519.798
40	15	-0.809896	80.4147	-531.946
41	15	-0.792618	81.043	-543.835
42	15	-0.775574	81.6445	-555.469
43	15	-0.755415	82.2151	-566.8
44	15	-0.738846	82.761	-577.883
45	15	-0.722479	83.283	-588.72
46	15	-0.706302	83.7819	-599.315
47	15	-0.687131	84.254	-609.622
48	15	-0.671346	84.7047	-619.692
49	15	-0.655726	85.1347	-629.528
50	15	-0.640266	85.5447	-639.132
51	15	-0.621911	85.9314	-648.46

52	15	-0.606775	86.2996	-657.562
53	15	-0.591776	86.6498	-666.439
54	15	-0.576911	86.9826	-675.092
55	15	-0.56217	87.2987	-683.525
56	15	-0.544642	87.5953	-691.694
57	15	-0.530162	87.8764	-699.647
58	15	-0.515791	88.1424	-707.384
59	15	-0.501527	88.3939	-714.907
60	15	-0.484544	88.6287	-722.175
61	15	-0.470498	88.8501	-729.232
62	15	-0.456542	89.0585	-736.08
63	15	-0.442676	89.2545	-742.721
64	15	-0.426148	89.4361	-749.113
65	15	-0.412463	89.6062	-755.3
66	15	-0.398855	89.7653	-761.283
67	15	-0.385321	89.9138	-767.062
68	15	-0.369171	90.0501	-772.6
69	15	-0.355788	90.1766	-777.937
70	15	-0.342466	90.2939	-783.074
71	15	-0.329206	90.4023	-788.012
72	15	-0.316004	90.5022	-792.752
73	15	-0.300232	90.5923	-797.255
74	15	-0.287147	90.6747	-801.563
75	15	-0.27411	90.7499	-805.674
76	15	-0.26112	90.8181	-809.591
77	15	-0.24559	90.8784	-813.275
78	15	-0.232693	90.9325	-816.765
79	15	-0.219834	90.9809	-820.063
80	15	-0.207012	91.0237	-823.168
81	15	-0.191671	91.0604	-826.043
82	15	-0.17892	91.0925	-828.727
83	15	-0.166199	91.1201	-831.22
84	15	-0.153505	91.1436	-833.522
85	15	-0.138305	91.1628	-835.597
86	15	-0.125661	91.1786	-837.482
87	15	-0.113039	91.1913	-839.177
88	15	-0.100433	91.2014	-840.684
89	15	-0.0878447	91.2091	-842.002
90	15	-0.0727562	91.2144	-843.093
91	15	-0.0601949	91.2181	-843.996
92	15	-0.0476439	91.2203	-844.711
93	15	-0.0350997	91.2216	-845.237
94	15	-0.0200544	91.222	-845.538
95	15	-0.00751925	91.222	-845.651
96	15	0.00751925	91.2221	-845.538
97	15	0.0200544	91.2225	-845.237
98	15	0.0350997	91.2237	-844.711
99	15	0.0476439	91.226	-843.996
100	15	0.0601949	91.2296	-843.093
101	17	0.0727562	91.2349	-841.856
102	18	0.0878447	91.2426	-840.275
103	18	0.100433	91.2527	-838.467
104	18	0.113039	91.2655	-836.432
105	18	0.125661	91.2813	-834.171
106	18	0.138305	91.3004	-831.681
107	18	0.153505	91.324	-828.918
108	18	0.166199	91.3516	-825.926
109	20	0.17892	91.3836	-822.348
110	20	0.191671	91.4203	-818.515
111	20	0.207012	91.4632	-814.374
112	20	0.219834	91.5115	-809.978
113	20	0.232693	91.5657	-805.324

114	20	0.24559	91.626	-800.412	
115	20	0.26112	91.6942	-795.19	
116	20	0.27411	91.7693	-789.707	
117	20	0.287147		91.8518	-783.964
118	20	0.300232		91.9419	-777.96
119	20	0.316004		92.0418	-771.64
120	20	0.329206		92.1501	-765.056
121	20	0.342466		92.2674	-758.206
122	20	0.355788		92.394	-751.091
123	20	0.369171		92.5303	-743.707
124	20	0.385321		92.6788	-736.001
125	20	0.398855		92.8378	-728.024
126	20	0.412463		93.008	-719.774
127	20	0.426148		93.1896	-711.251
128	20	0.442676		93.3855	-702.398
129	21	0.456542		93.594	-692.81
130	22	0.470498		93.8153	-682.459
131	22	0.484544		94.0501	-671.8
132	29	0.501527		94.3016	-657.255
133	33	0.515791		94.5677	-640.234
134	33	0.530162		94.8488	-622.739
135	35	0.544642		95.1454	-603.676
136	36	0.56217	95.4614	-583.438	
137	37.5	0.576911		95.7942	-561.804
138	37.5	0.591776		96.1444	-539.612
139	37.5	0.606775		96.5126	-516.858
140	37.5	0.621911		96.8994	-493.537
141	37.5	0.640266		97.3093	-469.527
142	37.5	0.655726		97.7393	-444.937
143	37.5	0.671346		98.19	-419.762
144	37.5	0.687131		98.6622	-393.994
145	37.5	0.706302		99.161	-367.508
146	37.5	0.722479		99.683	-340.415
147	38	0.738846		100.229	-312.339
148	38	0.755415		100.8	-283.633
149	50	0.775574		101.401	-244.854
150	50	0.792618		102.029	-205.223
151	50	0.809896		102.685	-164.728
152	55	0.827417		103.37	-119.221
153	55	0.848786		104.09	-72.5373
154	58	0.866894		104.842	-22.2575
155	60	0.885291		105.626	30.86
156	60	0.903992		106.443	85.0995
157	61	0.923014		107.295	141.403
158	68	0.946291		108.19	205.751
159	74	0.966088		109.123	277.242
160	75	0.986272		110.096	351.212
161	75	1.00687	111.11	426.727	
162	77	1.03215	112.175	506.203	
163	94	1.05375	113.286	605.255	
164	110	1.07584	114.443	723.597	
165	110	1.09847	115.65	844.429	
166	110	1.12639	116.919	968.332	
167	120	1.15035	118.242	1106.37	
168	150	1.17499	119.622	1282.62	
169	160	1.20036	121.063	1474.68	
170	180	1.23187	122.581	1696.41	
171	180	1.25908	124.166	1923.05	
172	180	1.28727	125.823	2154.76	
173	180	1.31652	127.556	2391.73	
174	180	1.34694	129.371	2634.18	
175	180	1.38517	131.289	2883.51	

176	180	1.41865	133.302	3138.87
177	180	1.4538	135.415	3400.55
178	180	1.49085	137.638	3668.91
179	180	1.5382	140.004	3945.78
180	180	1.58047	142.502	4230.27
181	180	1.62576	145.145	4522.91
182	200	1.67466	147.95	4857.84
183	217	1.7392	150.974	5235.24
184	220	1.79912	154.211	5631.05
185	240	1.86629	157.694	6078.96
186	270	1.94314	161.47	6603.61
187	276	2.05375	165.688	7170.44
188	420	2.17009	170.397	8081.88
189	840	2.32634	175.809	10036
190	640000	2.57583	182.444	1.65857e+006

Data Set Standard Deviation = 46427
Numerator = 2.75085e+012
Denominator = 7.43248e+013
W Statistic = 0.0370113 = 2.75085e+012 / 7.43248e+013

5% Critical value of 0.976 exceeds 0.0370113
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.0370113
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nitrate

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.202356
0.202356 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.18	0.0052356	-2.57583	39.0001	340.287	
2	0.18	0.0104712	-2.32634	39.0001	328.103	
3	0.18	0.0157068	-2.17009	39.0001	320.473	
4	0.18	0.0209424	-2.05375	39.0001	314.791	
5	0.18	0.026178	-1.94314	39.0001	309.39	
6	0.18	0.0314136	-1.86629	39.0001	305.637	
7	0.18	0.0366492	-1.79912	39.0001	302.357	
8	0.46	0.0418848	-1.7392	39.0004	299.431	
9	0.56	0.0471204	-1.67466	39.0004	296.279	
10	10	0.052356	-1.62576	39.0076	293.891	
11	14	0.0575916	-1.58047	39.0107	291.679	
12	15	0.0628272	-1.5382	39.0115	289.615	
13	15	0.0680628	-1.49085	39.0115	287.303	
14	15	0.0732984	-1.4538	39.0115	285.494	
15	15	0.078534	-1.41865	39.0115	283.778	
16	15	0.0837696	-1.38517	39.0115	282.143	
17	15	0.0890052	-1.34694	39.0115	280.276	
18	15	0.0942408	-1.31652	39.0115	278.79	
19	15	0.0994764	-1.28727	39.0115	277.362	
20	15	0.104712	-1.25908	39.0115	275.985	
21	15	0.109948	-1.23187	39.0115	274.656	
22	15	0.115183	-1.20036	39.0115	273.118	
23	15	0.120419	-1.17499	39.0115	271.879	
24	15	0.125654	-1.15035	39.0115	270.675	
25	15	0.13089	-1.12639	39.0115	269.505	
26	15	0.136126	-1.09847	39.0115	268.142	
27	15	0.141361	-1.07584	39.0115	267.037	
28	15	0.146597	-1.05375	39.0115	265.958	
29	15	0.151832	-1.03215	39.0115	264.904	
30	15	0.157068	-1.00687	39.0115	263.669	
31	15	0.162304	-0.986272	39.0115	262.663	
32	15	0.167539	-0.966088	39.0115	261.677	
33	15	0.172775	-0.946291	39.0115	260.711	
34	15	0.17801	-0.923014	39.0115	259.574	
35	15	0.183246	-0.903992	39.0115	258.645	
36	15	0.188482	-0.885291	39.0115	257.732	
37	15	0.193717	-0.866894	39.0115	256.833	
38	15	0.198953	-0.848786	39.0115	255.949	
39	15	0.204188	-0.827417	39.0115	254.906	
40	15	0.209424	-0.809896	39.0115	254.05	
41	15	0.21466	-0.792618	39.0115	253.206	
42	15	0.219895	-0.775574	39.0115	252.374	
43	15	0.225131	-0.755415	39.0115	251.389	
44	15	0.230366	-0.738846	39.0115	250.58	
45	15	0.235602	-0.722479	39.0115	249.781	
46	15	0.240838	-0.706302	39.0115	248.991	
47	15	0.246073	-0.687131	39.0115	248.055	
48	15	0.251309	-0.671346	39.0115	247.284	

49	15	0.256545	-0.655726	39.0115	246.521
50	15	0.26178	-0.640266	39.0115	245.766
51	15	0.267016	-0.621911	39.0115	244.87
52	15	0.272251	-0.606775	39.0115	244.131
53	15	0.277487	-0.591776	39.0115	243.398
54	15	0.282723	-0.576911	39.0115	242.672
55	15	0.287958	-0.56217	39.0115	241.953
56	15	0.293194	-0.544642	39.0115	241.097
57	15	0.298429	-0.530162	39.0115	240.39
58	15	0.303665	-0.515791	39.0115	239.688
59	15	0.308901	-0.501527	39.0115	238.991
60	15	0.314136	-0.484544	39.0115	238.162
61	15	0.319372	-0.470498	39.0115	237.476
62	15	0.324607	-0.456542	39.0115	236.794
63	15	0.329843	-0.442676	39.0115	236.117
64	15	0.335079	-0.426148	39.0115	235.31
65	15	0.340314	-0.412463	39.0115	234.642
66	15	0.34555	-0.398855	39.0115	233.977
67	15	0.350785	-0.385321	39.0115	233.317
68	15	0.356021	-0.369171	39.0115	232.528
69	15	0.361257	-0.355788	39.0115	231.874
70	15	0.366492	-0.342466	39.0115	231.224
71	15	0.371728	-0.329206	39.0115	230.576
72	15	0.376963	-0.316004	39.0115	229.932
73	15	0.382199	-0.300232	39.0115	229.161
74	15	0.387435	-0.287147	39.0115	228.522
75	15	0.39267	-0.27411	39.0115	227.886
76	15	0.397906	-0.26112	39.0115	227.251
77	15	0.403141	-0.24559	39.0115	226.493
78	15	0.408377	-0.232693	39.0115	225.863
79	15	0.413613	-0.219834	39.0115	225.235
80	15	0.418848	-0.207012	39.0115	224.609
81	15	0.424084	-0.191671	39.0115	223.86
82	15	0.429319	-0.17892	39.0115	223.237
83	15	0.434555	-0.166199	39.0115	222.616
84	15	0.439791	-0.153505	39.0115	221.996
85	15	0.445026	-0.138305	39.0115	221.254
86	15	0.450262	-0.125661	39.0115	220.636
87	15	0.455497	-0.113039	39.0115	220.02
88	15	0.460733	-0.100433	39.0115	219.404
89	15	0.465969	-0.0878447	39.0115	218.79
90	15	0.471204	-0.0727562	39.0115	218.053
91	15	0.47644	-0.0601949	39.0115	217.44
92	15	0.481675	-0.0476439	39.0115	216.827
93	15	0.486911	-0.0350997	39.0115	216.214
94	15	0.492147	-0.0200544	39.0115	215.479
95	15	0.497382	-0.00751925	39.0115	214.867
96	15	0.502618	0.00751925	39.0115	214.133
97	15	0.507853	0.0200544	39.0115	213.521
98	15	0.513089	0.0350997	39.0115	212.786
99	15	0.518325	0.0476439	39.0115	212.173
100	15	0.52356	0.0601949	39.0115	211.56
101	17	0.528796	0.0727562	39.013	210.947
102	18	0.534031	0.0878447	39.0138	210.21
103	18	0.539267	0.100433	39.0138	209.596
104	18	0.544503	0.113039	39.0138	208.98
105	18	0.549738	0.125661	39.0138	208.364
106	18	0.554974	0.138305	39.0138	207.746
107	18	0.560209	0.153505	39.0138	207.004
108	18	0.565445	0.166199	39.0138	206.384
109	20	0.570681	0.17892	39.0153	205.763
110	20	0.575916	0.191671	39.0153	205.14

111	20	0.581152	0.207012	39.0153	204.391
112	20	0.586387	0.219834	39.0153	203.765
113	20	0.591623	0.232693	39.0153	203.137
114	20	0.596859	0.24559	39.0153	202.507
115	20	0.602094	0.26112	39.0153	201.749
116	20	0.60733	0.27411	39.0153	201.114
117	20	0.612565	0.287147	39.0153	200.478
118	20	0.617801	0.300232	39.0153	199.839
119	20	0.623037	0.316004	39.0153	199.068
120	20	0.628272	0.329206	39.0153	198.424
121	20	0.633508	0.342466	39.0153	197.776
122	20	0.638743	0.355788	39.0153	197.126
123	20	0.643979	0.369171	39.0153	196.472
124	20	0.649215	0.385321	39.0153	195.683
125	20	0.65445	0.398855	39.0153	195.023
126	20	0.659686	0.412463	39.0153	194.358
127	20	0.664921	0.426148	39.0153	193.69
128	20	0.670157	0.442676	39.0153	192.883
129	21	0.675393	0.456542	39.0161	192.206
130	22	0.680628	0.470498	39.0168	191.524
131	22	0.685864	0.484544	39.0168	190.838
132	29	0.691099	0.501527	39.0222	190.009
133	33	0.696335	0.515791	39.0252	189.312
134	33	0.701571	0.530162	39.0252	188.61
135	35	0.706806	0.544642	39.0268	187.903
136	36	0.712042	0.56217	39.0275	187.047
137	37.5	0.717277	0.576911	39.0287	186.328
138	37.5	0.722513	0.591776	39.0287	185.602
139	37.5	0.727749	0.606775	39.0287	184.869
140	37.5	0.732984	0.621911	39.0287	184.13
141	37.5	0.73822	0.640266	39.0287	183.234
142	37.5	0.743455	0.655726	39.0287	182.479
143	37.5	0.748691	0.671346	39.0287	181.716
144	37.5	0.753927	0.687131	39.0287	180.945
145	37.5	0.759162	0.706302	39.0287	180.009
146	37.5	0.764398	0.722479	39.0287	179.219
147	38	0.769634	0.738846	39.029	178.42
148	38	0.774869	0.755415	39.029	177.611
149	50	0.780105	0.775574	39.0382	176.626
150	50	0.78534	0.792618	39.0382	175.794
151	50	0.790576	0.809896	39.0382	174.95
152	55	0.795812	0.827417	39.042	174.094
153	55	0.801047	0.848786	39.042	173.051
154	58	0.806283	0.866894	39.0443	172.167
155	60	0.811518	0.885291	39.0459	171.268
156	60	0.816754	0.903992	39.0459	170.355
157	61	0.82199	0.923014	39.0466	169.426
158	68	0.827225	0.946291	39.052	168.289
159	74	0.832461	0.966088	39.0566	167.323
160	75	0.837696	0.986272	39.0573	166.337
161	75	0.842932	1.00687	39.0573	165.331
162	77	0.848168	1.03215	39.0589	164.096
163	94	0.853403	1.05375	39.0718	163.042
164	110	0.858639	1.07584	39.0841	161.963
165	110	0.863874	1.09847	39.0841	160.858
166	110	0.86911	1.12639	39.0841	159.495
167	120	0.874346	1.15035	39.0917	158.325
168	150	0.879581	1.17499	39.1146	157.121
169	160	0.884817	1.20036	39.1223	155.882
170	180	0.890052	1.23187	39.1376	154.344
171	180	0.895288	1.25908	39.1376	153.015
172	180	0.900524	1.28727	39.1376	151.638

173	180	0.905759	1.31652	39.1376	150.21
174	180	0.910995	1.34694	39.1376	148.724
175	180	0.91623	1.38517	39.1376	146.857
176	180	0.921466	1.41865	39.1376	145.222
177	180	0.926702	1.4538	39.1376	143.506
178	180	0.931937	1.49085	39.1376	141.697
179	180	0.937173	1.5382	39.1376	139.385
180	180	0.942408	1.58047	39.1376	137.321
181	180	0.947644	1.62576	39.1376	135.109
182	200	0.95288	1.67466	39.1529	132.721
183	217	0.958115	1.7392	39.1658	129.569
184	220	0.963351	1.79912	39.1681	126.643
185	240	0.968586	1.86629	39.1834	123.363
186	270	0.973822	1.94314	39.2064	119.61
187	276	0.979058	2.05375	39.2109	114.209
188	420	0.984293	2.17009	39.321	108.527
189	840	0.989529	2.32634	39.642	100.897
190	640000	0.994764	2.57583	528.143	88.7134

Shapiro-Francia Test of Normality

Parameter: Nitrate

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 190

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.7148	-2.57583	6.63492	4.41704
2	-1.7148	-2.32634	12.0468	8.40624
3	-1.7148	-2.17009	16.7561	12.1275
4	-1.7148	-2.05375	20.974	15.6493
5	-1.7148	-1.94314	24.7497	18.9814
6	-1.7148	-1.86629	28.2328	22.1817
7	-1.7148	-1.79912	31.4696	25.2668
8	-0.776529	-1.7392	34.4944	26.6173
9	-0.579818	-1.67466	37.2989	27.5883
10	2.30259	-1.62576	39.942	23.8449
11	2.63906	-1.58047	42.4399	19.6739
12	2.70805	-1.5382	44.806	15.5084
13	2.70805	-1.49085	47.0286	11.4711
14	2.70805	-1.4538	49.1421	7.53414
15	2.70805	-1.41865	51.1547	3.69235
16	2.70805	-1.38517	53.0734	-0.05876
17	2.70805	-1.34694	54.8877	-3.70634
18	2.70805	-1.31652	56.6209	-7.27154
19	2.70805	-1.28727	58.278	-10.7575
20	2.70805	-1.25908	59.8633	-14.1672
21	2.70805	-1.23187	61.3807	-17.5032
22	2.70805	-1.20036	62.8216	-20.7538
23	2.70805	-1.17499	64.2022	-23.9357
24	2.70805	-1.15035	65.5255	-27.0509
25	2.70805	-1.12639	66.7943	-30.1012
26	2.70805	-1.09847	68.0009	-33.076
27	2.70805	-1.07584	69.1583	-35.9894
28	2.70805	-1.05375	70.2687	-38.843
29	2.70805	-1.03215	71.334	-41.6381
30	2.70805	-1.00687	72.3478	-44.3647
31	2.70805	-0.986272	73.3206	-47.0356
32	2.70805	-0.966088	74.2539	-49.6518
33	2.70805	-0.946291	75.1493	-52.2144
34	2.70805	-0.923014	76.0013	-54.714
35	2.70805	-0.903992	76.8185	-57.162
36	2.70805	-0.885291	77.6022	-59.5595
37	2.70805	-0.866894	78.3537	-61.9071
38	2.70805	-0.848786	79.0742	-64.2056
39	2.70805	-0.827417	79.7588	-66.4463
40	2.70805	-0.809896	80.4147	-68.6395
41	2.70805	-0.792618	81.043	-70.786
42	2.70805	-0.775574	81.6445	-72.8863
43	2.70805	-0.755415	82.2151	-74.932
44	2.70805	-0.738846	82.761	-76.9328
45	2.70805	-0.722479	83.283	-78.8893
46	2.70805	-0.706302	83.7819	-80.802
47	2.70805	-0.687131	84.254	-82.6628
48	2.70805	-0.671346	84.7047	-84.4808
49	2.70805	-0.655726	85.1347	-86.2566
50	2.70805	-0.640266	85.5447	-87.9905
51	2.70805	-0.621911	85.9314	-89.6746

52	2.70805	-0.606775	86.2996	-91.3178
53	2.70805	-0.591776	86.6498	-92.9204
54	2.70805	-0.576911	86.9826	-94.4827
55	2.70805	-0.56217	87.2987	-96.0051
56	2.70805	-0.544642	87.5953	-97.48
57	2.70805	-0.530162	87.8764	-98.9157
58	2.70805	-0.515791	88.1424	-100.312
59	2.70805	-0.501527	88.3939	-101.671
60	2.70805	-0.484544	88.6287	-102.983
61	2.70805	-0.470498	88.8501	-104.257
62	2.70805	-0.456542	89.0585	-105.493
63	2.70805	-0.442676	89.2545	-106.692
64	2.70805	-0.426148	89.4361	-107.846
65	2.70805	-0.412463	89.6062	-108.963
66	2.70805	-0.398855	89.7653	-110.043
67	2.70805	-0.385321	89.9138	-111.087
68	2.70805	-0.369171	90.0501	-112.086
69	2.70805	-0.355788	90.1766	-113.05
70	2.70805	-0.342466	90.2939	-113.977
71	2.70805	-0.329206	90.4023	-114.869
72	2.70805	-0.316004	90.5022	-115.725
73	2.70805	-0.300232	90.5923	-116.538
74	2.70805	-0.287147	90.6747	-117.315
75	2.70805	-0.27411	90.7499	-118.057
76	2.70805	-0.26112	90.8181	-118.765
77	2.70805	-0.24559	90.8784	-119.43
78	2.70805	-0.232693	90.9325	-120.06
79	2.70805	-0.219834	90.9809	-120.655
80	2.70805	-0.207012	91.0237	-121.216
81	2.70805	-0.191671	91.0604	-121.735
82	2.70805	-0.17892	91.0925	-122.219
83	2.70805	-0.166199	91.1201	-122.669
84	2.70805	-0.153505	91.1436	-123.085
85	2.70805	-0.138305	91.1628	-123.46
86	2.70805	-0.125661	91.1786	-123.8
87	2.70805	-0.113039	91.1913	-124.106
88	2.70805	-0.100433	91.2014	-124.378
89	2.70805	-0.0878447	91.2091	-124.616
90	2.70805	-0.0727562	91.2144	-124.813
91	2.70805	-0.0601949	91.2181	-124.976
92	2.70805	-0.0476439	91.2203	-125.105
93	2.70805	-0.0350997	91.2216	-125.2
94	2.70805	-0.0200544	91.222	-125.254
95	2.70805	-0.00751925	91.222	-125.275
96	2.70805	0.00751925	91.2221	-125.254
97	2.70805	0.0200544	91.2225	-125.2
98	2.70805	0.0350997	91.2237	-125.105
99	2.70805	0.0476439	91.226	-124.976
100	2.70805	0.0601949	91.2296	-124.813
101	2.83321	0.0727562	91.2349	-124.607
102	2.89037	0.0878447	91.2426	-124.353
103	2.89037	0.100433	91.2527	-124.063
104	2.89037	0.113039	91.2655	-123.736
105	2.89037	0.125661	91.2813	-123.373
106	2.89037	0.138305	91.3004	-122.973
107	2.89037	0.153505	91.324	-122.529
108	2.89037	0.166199	91.3516	-122.049
109	2.99573	0.17892	91.3836	-121.513
110	2.99573	0.191671	91.4203	-120.939
111	2.99573	0.207012	91.4632	-120.319
112	2.99573	0.219834	91.5115	-119.66
113	2.99573	0.232693	91.5657	-118.963

114	2.99573	0.24559	91.626	-118.227
115	2.99573	0.26112	91.6942	-117.445
116	2.99573	0.27411	91.7693	-116.624
117	2.99573	0.287147	91.8518	-115.764
118	2.99573	0.300232	91.9419	-114.864
119	2.99573	0.316004	92.0418	-113.917
120	2.99573	0.329206	92.1501	-112.931
121	2.99573	0.342466	92.2674	-111.905
122	2.99573	0.355788	92.394	-110.839
123	2.99573	0.369171	92.5303	-109.734
124	2.99573	0.385321	92.6788	-108.579
125	2.99573	0.398855	92.8378	-107.384
126	2.99573	0.412463	93.008	-106.149
127	2.99573	0.426148	93.1896	-104.872
128	2.99573	0.442676	93.3855	-103.546
129	3.04452	0.456542	93.594	-102.156
130	3.09104	0.470498	93.8153	-100.702
131	3.09104	0.484544	94.0501	-99.2039
132	3.3673	0.501527	94.3016	-97.5151
133	3.49651	0.515791	94.5677	-95.7117
134	3.49651	0.530162	94.8488	-93.858
135	3.55535	0.544642	95.1454	-91.9216
136	3.58352	0.56217	95.4614	-89.907
137	3.62434	0.576911	95.7942	-87.8161
138	3.62434	0.591776	96.1444	-85.6713
139	3.62434	0.606775	96.5126	-83.4721
140	3.62434	0.621911	96.8994	-81.2181
141	3.62434	0.640266	97.3093	-78.8976
142	3.62434	0.655726	97.7393	-76.521
143	3.62434	0.671346	98.19	-74.0878
144	3.62434	0.687131	98.6622	-71.5974
145	3.62434	0.706302	99.161	-69.0375
146	3.62434	0.722479	99.683	-66.419
147	3.63759	0.738846	100.229	-63.7314
148	3.63759	0.755415	100.8	-60.9835
149	3.91202	0.775574	101.401	-57.9495
150	3.91202	0.792618	102.029	-54.8487
151	3.91202	0.809896	102.685	-51.6804
152	4.00733	0.827417	103.37	-48.3647
153	4.00733	0.848786	104.09	-44.9633
154	4.06044	0.866894	104.842	-41.4433
155	4.09434	0.885291	105.626	-37.8186
156	4.09434	0.903992	106.443	-34.1174
157	4.11087	0.923014	107.295	-30.323
158	4.21951	0.946291	108.19	-26.3301
159	4.30407	0.966088	109.123	-22.172
160	4.31749	0.986272	110.096	-17.9138
161	4.31749	1.00687	111.11	-13.5666
162	4.34381	1.03215	112.175	-9.08317
163	4.54329	1.05375	113.286	-4.29569
164	4.70048	1.07584	114.443	0.761256
165	4.70048	1.09847	115.65	5.92459
166	4.70048	1.12639	116.919	11.2192
167	4.78749	1.15035	118.242	16.7265
168	5.01064	1.17499	119.622	22.6139
169	5.07517	1.20036	121.063	28.7059
170	5.19296	1.23187	122.581	35.103
171	5.19296	1.25908	124.166	41.6413
172	5.19296	1.28727	125.823	48.3261
173	5.19296	1.31652	127.556	55.1627
174	5.19296	1.34694	129.371	62.1573
175	5.19296	1.38517	131.289	69.3504

176	5.19296	1.41865	133.302	76.7174
177	5.19296	1.4538	135.415	84.267
178	5.19296	1.49085	137.638	92.0089
179	5.19296	1.5382	140.004	99.9967
180	5.19296	1.58047	142.502	108.204
181	5.19296	1.62576	145.145	116.647
182	5.29832	1.67466	147.95	125.519
183	5.3799	1.7392	150.974	134.876
184	5.39363	1.79912	154.211	144.58
185	5.48064	1.86629	157.694	154.808
186	5.59842	1.94314	161.47	165.687
187	5.6204	2.05375	165.688	177.23
188	6.04025	2.17009	170.397	190.338
189	6.7334	2.32634	175.809	206.002
190	13.3692	2.57583	182.444	240.439

Data Set Standard Deviation = 1.55673
Numerator = 57810.8
Denominator = 83564.1
W Statistic = 0.691813 = 57810.8 / 83564.1

5% Critical value of 0.976 exceeds 0.691813
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.691813
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.837218
0.837218 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.7148	0.0052356	-2.57583	186.753	340.287
2	-1.7148	0.0104712	-2.32634	186.753	328.103
3	-1.7148	0.0157068	-2.17009	186.753	320.473
4	-1.7148	0.0209424	-2.05375	186.753	314.791
5	-1.7148	0.026178	-1.94314	186.753	309.39
6	-1.7148	0.0314136	-1.86629	186.753	305.637
7	-1.7148	0.0366492	-1.79912	186.753	302.357
8	-0.776529	0.0418848	-1.7392	203.485	299.431
9	-0.579818	0.0471204	-1.67466	206.993	296.279
10	2.30259	0.052356	-1.62576	258.396	293.891
11	2.63906	0.0575916	-1.58047	264.397	291.679
12	2.70805	0.0628272	-1.5382	265.627	289.615
13	2.70805	0.0680628	-1.49085	265.627	287.303
14	2.70805	0.0732984	-1.4538	265.627	285.494
15	2.70805	0.078534	-1.41865	265.627	283.778
16	2.70805	0.0837696	-1.38517	265.627	282.143
17	2.70805	0.0890052	-1.34694	265.627	280.276
18	2.70805	0.0942408	-1.31652	265.627	278.79
19	2.70805	0.0994764	-1.28727	265.627	277.362
20	2.70805	0.104712	-1.25908	265.627	275.985
21	2.70805	0.109948	-1.23187	265.627	274.656
22	2.70805	0.115183	-1.20036	265.627	273.118
23	2.70805	0.120419	-1.17499	265.627	271.879
24	2.70805	0.125654	-1.15035	265.627	270.675
25	2.70805	0.13089	-1.12639	265.627	269.505
26	2.70805	0.136126	-1.09847	265.627	268.142
27	2.70805	0.141361	-1.07584	265.627	267.037
28	2.70805	0.146597	-1.05375	265.627	265.958
29	2.70805	0.151832	-1.03215	265.627	264.904
30	2.70805	0.157068	-1.00687	265.627	263.669
31	2.70805	0.162304	-0.986272	265.627	262.663
32	2.70805	0.167539	-0.966088	265.627	261.677
33	2.70805	0.172775	-0.946291	265.627	260.711
34	2.70805	0.17801	-0.923014	265.627	259.574
35	2.70805	0.183246	-0.903992	265.627	258.645
36	2.70805	0.188482	-0.885291	265.627	257.732
37	2.70805	0.193717	-0.866894	265.627	256.833
38	2.70805	0.198953	-0.848786	265.627	255.949
39	2.70805	0.204188	-0.827417	265.627	254.906
40	2.70805	0.209424	-0.809896	265.627	254.05
41	2.70805	0.21466	-0.792618	265.627	253.206
42	2.70805	0.219895	-0.775574	265.627	252.374
43	2.70805	0.225131	-0.755415	265.627	251.389
44	2.70805	0.230366	-0.738846	265.627	250.58
45	2.70805	0.235602	-0.722479	265.627	249.781
46	2.70805	0.240838	-0.706302	265.627	248.991
47	2.70805	0.246073	-0.687131	265.627	248.055
48	2.70805	0.251309	-0.671346	265.627	247.284

49	2.70805	0.256545	-0.655726	265.627	246.521
50	2.70805	0.26178	-0.640266	265.627	245.766
51	2.70805	0.267016	-0.621911	265.627	244.87
52	2.70805	0.272251	-0.606775	265.627	244.131
53	2.70805	0.277487	-0.591776	265.627	243.398
54	2.70805	0.282723	-0.576911	265.627	242.672
55	2.70805	0.287958	-0.56217	265.627	241.953
56	2.70805	0.293194	-0.544642	265.627	241.097
57	2.70805	0.298429	-0.530162	265.627	240.39
58	2.70805	0.303665	-0.515791	265.627	239.688
59	2.70805	0.308901	-0.501527	265.627	238.991
60	2.70805	0.314136	-0.484544	265.627	238.162
61	2.70805	0.319372	-0.470498	265.627	237.476
62	2.70805	0.324607	-0.456542	265.627	236.794
63	2.70805	0.329843	-0.442676	265.627	236.117
64	2.70805	0.335079	-0.426148	265.627	235.31
65	2.70805	0.340314	-0.412463	265.627	234.642
66	2.70805	0.34555	-0.398855	265.627	233.977
67	2.70805	0.350785	-0.385321	265.627	233.317
68	2.70805	0.356021	-0.369171	265.627	232.528
69	2.70805	0.361257	-0.355788	265.627	231.874
70	2.70805	0.366492	-0.342466	265.627	231.224
71	2.70805	0.371728	-0.329206	265.627	230.576
72	2.70805	0.376963	-0.316004	265.627	229.932
73	2.70805	0.382199	-0.300232	265.627	229.161
74	2.70805	0.387435	-0.287147	265.627	228.522
75	2.70805	0.39267	-0.27411	265.627	227.886
76	2.70805	0.397906	-0.26112	265.627	227.251
77	2.70805	0.403141	-0.24559	265.627	226.493
78	2.70805	0.408377	-0.232693	265.627	225.863
79	2.70805	0.413613	-0.219834	265.627	225.235
80	2.70805	0.418848	-0.207012	265.627	224.609
81	2.70805	0.424084	-0.191671	265.627	223.86
82	2.70805	0.429319	-0.17892	265.627	223.237
83	2.70805	0.434555	-0.166199	265.627	222.616
84	2.70805	0.439791	-0.153505	265.627	221.996
85	2.70805	0.445026	-0.138305	265.627	221.254
86	2.70805	0.450262	-0.125661	265.627	220.636
87	2.70805	0.455497	-0.113039	265.627	220.02
88	2.70805	0.460733	-0.100433	265.627	219.404
89	2.70805	0.465969	-0.0878447	265.627	218.79
90	2.70805	0.471204	-0.072756 2	265.627	218.053
91	2.70805	0.47644	-0.0601949	265.627	217.44
92	2.70805	0.481675	-0.0476439	265.627	216.827
93	2.70805	0.486911	-0.0350997	265.627	216.214
94	2.70805	0.492147	-0.0200544	265.627	215.479
95	2.70805	0.497382	-0.00751925	265.627	214.867
96	2.70805	0.502618	0.00751925	265.627	214.133
97	2.70805	0.507853	0.0200544	265.627	213.521
98	2.70805	0.513089	0.0350997	265.627	212.786
99	2.70805	0.518325	0.0476439	265.627	212.173
100	2.70805	0.52356	0.0601949	265.627	211.56
101	2.83321	0.528796	0.0727562	267.859	210.947
102	2.89037	0.534031	0.0878447	268.878	210.21
103	2.89037	0.539267	0.100433	268.878	209.596
104	2.89037	0.544503	0.113039	268.878	208.98
105	2.89037	0.549738	0.125661	268.878	208.364
106	2.89037	0.554974	0.138305	268.878	207.746
107	2.89037	0.560209	0.153505	268.878	207.004
108	2.89037	0.565445	0.166199	268.878	206.384
109	2.99573	0.570681	0.17892	270.757	205.763
110	2.99573	0.575916	0.191671	270.757	205.14

111	2.99573	0.581152	0.207012	270.757	204.391
112	2.99573	0.586387	0.219834	270.757	203.765
113	2.99573	0.591623	0.232693	270.757	203.137
114	2.99573	0.596859	0.24559	270.757	202.507
115	2.99573	0.602094	0.26112	270.757	201.749
116	2.99573	0.60733	0.27411	270.757	201.114
117	2.99573	0.612565	0.287147	270.757	200.478
118	2.99573	0.617801	0.300232	270.757	199.839
119	2.99573	0.623037	0.316004	270.757	199.068
120	2.99573	0.628272	0.329206	270.757	198.424
121	2.99573	0.633508	0.342466	270.757	197.776
122	2.99573	0.638743	0.355788	270.757	197.126
123	2.99573	0.643979	0.369171	270.757	196.472
124	2.99573	0.649215	0.385321	270.757	195.683
125	2.99573	0.65445	0.398855	270.757	195.023
126	2.99573	0.659686	0.412463	270.757	194.358
127	2.99573	0.664921	0.426148	270.757	193.69
128	2.99573	0.670157	0.442676	270.757	192.883
129	3.04452	0.675393	0.456542	271.627	192.206
130	3.09104	0.680628	0.470498	272.457	191.524
131	3.09104	0.685864	0.484544	272.457	190.838
132	3.3673	0.691099	0.501527	277.383	190.009
133	3.49651	0.696335	0.515791	279.688	189.312
134	3.49651	0.701571	0.530162	279.688	188.61
135	3.55535	0.706806	0.544642	280.737	187.903
136	3.58352	0.712042	0.56217	281.239	187.047
137	3.62434	0.717277	0.576911	281.967	186.328
138	3.62434	0.722513	0.591776	281.967	185.602
139	3.62434	0.727749	0.606775	281.967	184.869
140	3.62434	0.732984	0.621911	281.967	184.13
141	3.62434	0.73822	0.640266	281.967	183.234
142	3.62434	0.743455	0.655726	281.967	182.479
143	3.62434	0.748691	0.671346	281.967	181.716
144	3.62434	0.753927	0.687131	281.967	180.945
145	3.62434	0.759162	0.706302	281.967	180.009
146	3.62434	0.764398	0.722479	281.967	179.219
147	3.63759	0.769634	0.738846	282.204	178.42
148	3.63759	0.774869	0.755415	282.204	177.611
149	3.91202	0.780105	0.775574	287.098	176.626
150	3.91202	0.78534	0.792618	287.098	175.794
151	3.91202	0.790576	0.809896	287.098	174.95
152	4.00733	0.795812	0.827417	288.797	174.094
153	4.00733	0.801047	0.848786	288.797	173.051
154	4.06044	0.806283	0.866894	289.745	172.167
155	4.09434	0.811518	0.885291	290.349	171.268
156	4.09434	0.816754	0.903992	290.349	170.355
157	4.11087	0.82199	0.923014	290.644	169.426
158	4.21951	0.827225	0.946291	292.581	168.289
159	4.30407	0.832461	0.966088	294.089	167.323
160	4.31749	0.837696	0.986272	294.329	166.337
161	4.31749	0.842932	1.00687	294.329	165.331
162	4.34381	0.848168	1.03215	294.798	164.096
163	4.54329	0.853403	1.05375	298.355	163.042
164	4.70048	0.858639	1.07584	301.159	161.963
165	4.70048	0.863874	1.09847	301.159	160.858
166	4.70048	0.86911	1.12639	301.159	159.495
167	4.78749	0.874346	1.15035	302.71	158.325
168	5.01064	0.879581	1.17499	306.69	157.121
169	5.07517	0.884817	1.20036	307.841	155.882
170	5.19296	0.890052	1.23187	309.941	154.344
171	5.19296	0.895288	1.25908	309.941	153.015
172	5.19296	0.900524	1.28727	309.941	151.638

173	5.19296	0.905759	1.31652	309.941	150.21
174	5.19296	0.910995	1.34694	309.941	148.724
175	5.19296	0.91623	1.38517	309.941	146.857
176	5.19296	0.921466	1.41865	309.941	145.222
177	5.19296	0.926702	1.4538	309.941	143.506
178	5.19296	0.931937	1.49085	309.941	141.697
179	5.19296	0.937173	1.5382	309.941	139.385
180	5.19296	0.942408	1.58047	309.941	137.321
181	5.19296	0.947644	1.62576	309.941	135.109
182	5.29832	0.95288	1.67466	311.82	132.721
183	5.3799	0.958115	1.7392	313.275	129.569
184	5.39363	0.963351	1.79912	313.52	126.643
185	5.48064	0.968586	1.86629	315.071	123.363
186	5.59842	0.973822	1.94314	317.172	119.61
187	5.6204	0.979058	2.05375	317.564	114.209
188	6.04025	0.984293	2.17009	325.051	108.527
189	6.7334	0.989529	2.32634	337.412	100.897
190	13.3692	0.994764	2.57583	455.751	88.7134

Kruskal-Wallis Non-Parametric Test

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	4.21951	171
	11/18/2006	4.54329	174
	5/23/2007	2.63906 J	150
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	6.04025 J	188
	11/16/2009	ND<5.19296	73.5
	6/30/2010	4.11087 J	170
	11/12/2010	-0.579818 J	148
	7/5/2011	ND<3.62434 U	73.5

Rank Sum = 1956.5
Rank Mean = 102.974

Background Rank Sum = 1956.5
Background Rank Mean = 102.974

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	2.89037 J	153
	11/18/2006	4.09434	168
	5/23/2007	3.49651	159
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	5.59842 J M	186
	11/16/2009	ND<5.19296	73.5
	11/16/2009	ND<5.19296	73.5
	6/30/2010	4.00733 J	165
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	4.34381 J	173

	11/22/2011	4.70048 J	175
	11/22/2011	4.70048 J	176

Rank Sum = 2457.5
Rank Mean = 106.848

MW-6	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	4.00733	166
	11/18/2006	3.04452 J	155
	5/23/2007	3.58352	162
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	5.29832 J M	182
	11/16/2009	ND<5.19296	73.5
	6/30/2010	ND<2.89037	73.5
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	ND<3.62434 U M	73.5
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 1914.5
Rank Mean = 91.1667

MW-8	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	ND<2.99573	73.5
	11/18/2006	2.83321 J	152
	5/23/2007	3.55535	161
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	ND<3.91202	73.5
	6/30/2010	4.09434 J	169
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	6.7334	189
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 1847
Rank Mean = 92.35

MW-7	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	3.09104 J	156

	11/18/2006	4.06044	167
	5/23/2007	4.30407	172
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	5.19296 J M	181
	11/16/2009	ND<5.19296	73.5
	11/16/2009	ND<5.19296	73.5
	6/30/2010	ND<2.89037	73.5
	11/12/2010	-0.776529 J	147
	7/5/2011	ND<4.31749 U	73.5
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 2072.5
Rank Mean = 94.2045

MW-12BR	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	3.49651 J	160
	11/18/2006	3.09104 J	157
	5/23/2007	2.99573 J	154
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	5.01064 J M	179
	11/16/2009	ND<5.19296	73.5
	11/16/2009	ND<5.19296	73.5
	6/30/2010	ND<2.89037	73.5
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	4.78749 J	178
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 2004
Rank Mean = 95.4286

MW-9	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	2.30259 J	149
	11/18/2006	2.70805 J	151
	5/23/2007	3.3673 J	158
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	ND<3.91202	73.5
	11/16/2009	ND<5.19296	73.5
	6/30/2010	ND<2.89037	73.5
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	ND<4.31749 U	73.5
	11/22/2011	ND<3.62434 U	73.5
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 1854.5

Rank Mean = 84.2955

MW-10	9/23/1998	ND<2.70805	73.5
	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	3.63759 J	163
	11/18/2006	ND<2.70805	73.5
	5/23/2007	3.63759	164
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	ND<3.91202	73.5
	11/16/2009	ND<5.19296	73.5
	11/16/2009	ND<5.19296	73.5
	6/30/2010	ND<2.89037	73.5
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	ND<3.62434 U M	73.5
	11/22/2011	ND<3.62434 U	73.5

Rank Sum = 1797
Rank Mean = 81.6818

MW-12A R	3/16/1999	ND<2.70805	73.5
	9/23/1999	ND<2.70805	73.5
	3/15/2000	ND<2.70805	73.5
	9/24/2003	ND<2.70805	73.5
	3/11/2004	ND<2.70805	73.5
	10/12/2004	ND<2.70805	73.5
	4/1/2005	ND<2.99573	73.5
	10/25/2005	ND<2.99573	73.5
	4/29/2006	5.07517	180
	11/18/2006	5.6204	187
	5/23/2007	5.3799	183
	11/28/2007	ND<2.70805	73.5
	6/5/2008	ND<2.70805	73.5
	11/20/2008	ND<2.70805	73.5
	6/11/2009	5.48064 J M	185
	11/12/2009	13.3692 J	190
	6/30/2010	ND<2.89037	73.5
	11/12/2010	ND<-1.7148 U	73.5
	7/5/2011	4.70048 J	177
	11/22/2011	5.39363 J	184

Rank Sum = 2241.5
Rank Mean = 112.075

Calculation Results:

Kruskal-Wallis H Statistic = 5.6578
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.357
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
5.6578 < 15.5073 indicating no significant group difference at 5% significance level
10.357 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 202
Percent Non-Detects: 84.1667%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.21	ND<0.21
			11/16/2009	ND<0.21	ND<0.21
			6/30/2010	ND<0.21	ND<0.21
			11/12/2010	ND<0.21 U	ND<0.21 U
			7/5/2011	ND<0.21 U Q	ND<0.21 U Q

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-11R	31	25 (80.6452%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	20	20
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	1.39 J	1.39 J
			11/18/2006	1.12 J	1.12 J
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<0.21	ND<0.21	
			11/16/2009	ND<0.21	ND<0.21	
			6/30/2010	ND<0.21	ND<0.21	
			11/12/2010	ND<0.21 U	ND<0.21 U	
			7/5/2011 0.26 J	0.26 J		
			11/22/2011	0.21 U J	0.21 U J	
			11/22/2011	0.21 U J	0.21 U J	
MW-12A R	20	17 (85%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 ND<2	ND<2		
			10/25/2005	1.54 J	1.54 J	
			4/29/2006	1.83 J	1.83 J	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008 ND<2	ND<2		
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21	ND<0.21	
			11/16/2009	ND<0.21	ND<0.21	
			6/30/2010	ND<0.21	ND<0.21	
			11/12/2010	ND<0.21 U	ND<0.21 U	
			7/5/2011 ND<0.21 U	ND<0.21 U		
			11/22/2011	0.66	0.66	
MW-6	30	29 (96.6667%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998 ND<2	ND<2		
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005 ND<2	ND<2		
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008 ND<2	ND<2		
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21	ND<0.21	
			11/16/2009	ND<0.21	ND<0.21	
			6/30/2010	ND<0.21	ND<0.21	
			11/12/2010	ND<0.21 U	ND<0.21 U	
			7/5/2011 0.21 U Q J	0.21 U Q J		
			11/22/2011	ND<0.21 U	ND<0.21 U	
MW-12B R	20	19 (95%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	

			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.89 J	1.89 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21		ND<0.21
			11/16/2009	ND<0.21		ND<0.21
			6/30/2010	ND<0.21		ND<0.21
			11/12/2010	ND<0.21 U		ND<0.21 U
			7/5/2011	ND<0.21 U Q		ND<0.21 U Q
			11/22/2011	ND<0.21 U		ND<0.21 U
MW-8	29	22 (75.8621%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	52	52	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.63 J	1.63 J	
			10/25/2005	1.52 J	1.52 J	
			4/29/2006	1.04 J	1.04 J	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21		ND<0.21
			6/30/2010	ND<0.21		ND<0.21
			11/12/2010	0.22 J	0.22 J	
			7/5/2011	1	1	
			11/22/2011	0.54	0.54	
MW-9	31	25 (80.6452%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	27	27	
			9/24/1997	ND<2	ND<2	
			4/7/1998	68	68	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	

			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1.54 J	1.54 J	
			10/25/2005	1.83 J	1.83 J	
			4/29/2006	1.32 J	1.32 J	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21		ND<0.21
			11/16/2009	ND<0.21		ND<0.21
			6/30/2010	ND<0.21		ND<0.21
			11/12/2010	ND<0.21 U		ND<0.21 U
			7/5/2011	0.85	0.85	
			11/22/2011	ND<0.21 U		ND<0.21 U
			11/22/2011	ND<0.21 U		ND<0.21 U
MW-7	30	25 (83.3333%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	58	58	
			9/23/1998	ND<2	ND<2	
			3/16/1999	90	90	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	1.34 J	1.34 J	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	0.27 J	0.27 J	
			11/16/2009	ND<0.21		ND<0.21
			6/30/2010	ND<0.21		ND<0.21
			11/12/2010	ND<0.21 U		ND<0.21 U
			7/5/2011	2.5	2.5	
			11/22/2011	ND<0.21 U		ND<0.21 U
MW-10	30	21 (70%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	160	160	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	

3/15/2000	ND<2	ND<2
9/24/2003	ND<2	ND<2
3/11/2004	ND<2	ND<2
10/12/2004	ND<2	ND<2
4/1/2005 ND<2	ND<2	
10/25/2005	ND<2	ND<2
4/29/2006	ND<2	ND<2
11/18/2006	1.04 J	1.04 J
5/23/2007	ND<2	ND<2
11/28/2007	ND<2	ND<2
6/5/2008 2.06	2.06	
11/20/2008	ND<2	ND<2
6/11/2009	0.25 J	0.25 J
11/16/2009	0.25 J	0.25 J
6/30/2010	0.28 J H	0.28 J H
11/12/2010	0.38 J	0.38 J
7/5/2011 4 J	4 J	
11/22/2011	0.54	0.54

There are 0 unused locations

Loc. Meas. ND Date Conc. Original

Shapiro-Francia Test of Normality

Parameter: Selenium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.105	-2.65209	7.03356	-0.278469
2	0.105	-2.40892	12.8365	-0.531406
3	0.105	-2.25713	17.9311	-0.768405
4	0.105	-2.14441	22.5296	-0.993567
5	0.105	-2.05375	26.7475	-1.20921
6	0.105	-1.97737	30.6575	-1.41683
7	0.105	-1.8957	34.2511	-1.61588
8	0.105	-1.83843	37.6309	-1.80892
9	0.105	-1.78661	40.8229	-1.99651
10	0.105	-1.7392	43.8477	-2.17913
11	0.105	-1.6954	46.7221	-2.35714
12	0.105	-1.65463	49.4599	-2.53088
13	0.105	-1.61644	52.0728	-2.70061
14	0.105	-1.57179	54.5433	-2.86564
15	0.105	-1.5382	56.9093	-3.02715
16	0.105	-1.50626	59.1782	-3.18531
17	0.105	-1.47579	61.3561	-3.34027
18	0.105	-1.44663	63.4489	-3.49217
19	0.105	-1.41865	65.4614	-3.64113
20	0.105	-1.39175	67.3984	-3.78726
21	0.105	-1.35946	69.2465	-3.93
22	0.105	-1.33462	71.0278	-4.07014
23	0.105	-1.31058	72.7454	-4.20775
24	0.105	-1.28727	74.4024	-4.34291
25	0.105	-1.26464	76.0018	-4.4757
26	0.105	-1.24264	77.5459	-4.60618
27	0.105	-1.21596	79.0245	-4.73385
28	0.105	-1.19522	80.453	-4.85935
29	0.105	-1.17499	81.8336	-4.98272
30	0.105	-1.15522	83.1682	-5.10402
31	0.105	-1.1359	84.4584	-5.22329
32	0.105	-1.11699	85.7061	-5.34058
33	0.105	-1.09847	86.9127	-5.45591
34	0.105	-1.07584	88.0701	-5.56888
35	0.105	-1.05812	89.1898	-5.67998
36	0.105	-1.04073	90.2729	-5.78926
37	0.105	-1.02365	91.3208	-5.89674
38	0.21	-1.00687	92.3345	-6.10818
39	0.21	-0.990356	93.3153	-6.31616
40	0.21	-0.974114	94.2642	-6.52072
41	0.22	-0.954165	95.1747	-6.73064
42	0.25	-0.938476	96.0554	-6.96526
43	0.25	-0.923014	96.9074	-7.19601
44	0.26	-0.907769	97.7314	-7.43203
45	0.27	-0.892733	98.5284	-7.67307
46	0.28	-0.877897	99.2991	-7.91888
47	0.38	-0.859618	100.038	-8.24553
48	0.54	-0.845198	100.752	-8.70194
49	0.54	-0.830953	101.443	-9.15066
50	0.66	-0.816874	102.11	-9.68979
51	0.85	-0.802956	102.755	-10.3723

52	1	-0.789191	103.378	-11.1615
53	1	-0.775574	103.979	-11.9371
54	1	-0.758753	104.555	-12.6958
55	1	-0.745449	105.111	-13.4413
56	1	-0.732275	105.647	-14.1735
57	1	-0.719228	106.164	-14.8928
58	1	-0.706302	106.663	-15.5991
59	1	-0.693493	107.144	-16.2926
60	1	-0.680797	107.607	-16.9734
61	1	-0.665079	108.05	-17.6384
62	1	-0.652622	108.476	-18.2911
63	1	-0.640266	108.886	-18.9313
64	1	-0.628006	109.28	-19.5593
65	1	-0.615839	109.659	-20.1752
66	1	-0.603765	110.024	-20.7789
67	1	-0.588793	110.37	-21.3677
68	1	-0.576911	110.703	-21.9446
69	1	-0.565108	111.023	-22.5098
70	1	-0.553384	111.329	-23.0631
71	1	-0.541736	111.622	-23.6049
72	1	-0.530162	111.903	-24.135
73	1	-0.518658	112.172	-24.6537
74	1	-0.504372	112.427	-25.1581
75	1	-0.493018	112.67	-25.6511
76	1	-0.481728	112.902	-26.1328
77	1	-0.470498	113.123	-26.6033
78	1	-0.459327	113.334	-27.0626
79	1	-0.448213	113.535	-27.5108
80	1	-0.437153	113.726	-27.948
81	1	-0.423405	113.906	-28.3714
82	1	-0.412463	114.076	-28.7839
83	1	-0.401571	114.237	-29.1854
84	1	-0.390726	114.39	-29.5762
85	1	-0.379927	114.534	-29.9561
86	1	-0.369171	114.67	-30.3253
87	1	-0.358459	114.799	-30.6837
88	1	-0.345126	114.918	-31.0288
89	1	-0.334503	115.03	-31.3634
90	1	-0.323919	115.135	-31.6873
91	1	-0.31337	115.233	-32.0006
92	1	-0.302855	115.325	-32.3035
93	1	-0.292375	115.41	-32.5959
94	1	-0.279319	115.488	-32.8752
95	1	-0.268908	115.56	-33.1441
96	1	-0.258527	115.627	-33.4026
97	1	-0.248174	115.689	-33.6508
98	1	-0.237847	115.745	-33.8886
99	1	-0.227545	115.797	-34.1162
100	1	-0.217267	115.844	-34.3335
101	1	-0.204452	115.886	-34.5379
102	1	-0.194225	115.924	-34.7321
103	1	-0.184017	115.958	-34.9162
104	1	-0.173829	115.988	-35.09
105	1	-0.163659	116.015	-35.2536
106	1	-0.153505	116.038	-35.4071
107	1	-0.143367	116.059	-35.5505
108	1	-0.130716	116.076	-35.6812
109	1	-0.12061	116.091	-35.8018
110	1	-0.110516	116.103	-35.9124
111	1	-0.100433	116.113	-36.0128
112	1	-0.0903606	116.121	-36.1031
113	1	-0.0802981	116.127	-36.1834

114	1	-0.0677301	116.132	-36.2512
115	1	-0.0576847	116.135	-36.3089
116	1	-0.0476439	116.138	-36.3565
117	1	-0.0376076	116.139	-36.3941
118	1	-0.0275759	116.14	-36.4217
119	1	-0.0175476	116.14	-36.4392
120	1	-0.00751925	116.14	-36.4468
121	1	0.00751925	116.14	-36.4392
122	1	0.0175476	116.141	-36.4217
123	1	0.0275759	116.141	-36.3941
124	1	0.0376076	116.143	-36.3565
125	1	0.0476439	116.145	-36.3089
126	1	0.0576847	116.148	-36.2512
127	1	0.0677301	116.153	-36.1834
128	1	0.0802981	116.159	-36.1031
129	1	0.0903606	116.167	-36.0128
130	1	0.100433	116.178	-35.9124
131	1	0.110516	116.19	-35.8018
132	1	0.12061	116.204	-35.6812
133	1	0.130716	116.221	-35.5505
134	1	0.143367	116.242	-35.4071
135	1	0.153505	116.266	-35.2536
136	1	0.163659	116.292	-35.09
137	1	0.173829	116.323	-34.9162
138	1	0.184017	116.356	-34.7321
139	1	0.194225	116.394	-34.5379
140	1	0.204452	116.436	-34.3335
141	1	0.217267	116.483	-34.1162
142	1	0.227545	116.535	-33.8886
143	1	0.237847	116.591	-33.6508
144	1	0.248174	116.653	-33.4026
145	1	0.258527	116.72	-33.1441
146	1	0.268908	116.792	-32.8752
147	1	0.279319	116.87	-32.5959
148	1	0.292375	116.956	-32.3035
149	1	0.302855	117.047	-32.0006
150	1	0.31337	117.146	-31.6873
151	1	0.323919	117.251	-31.3634
152	1	0.334503	117.362	-31.0288
153	1	0.345126	117.482	-30.6837
154	1	0.358459	117.61	-30.3253
155	1	0.369171	117.746	-29.9561
156	1	0.379927	117.891	-29.5762
157	1	0.390726	118.043	-29.1854
158	1	0.401571	118.205	-28.7839
159	1	0.412463	118.375	-28.3714
160	1	0.423405	118.554	-27.948
161	1	0.437153	118.745	-27.5108
162	1	0.448213	118.946	-27.0626
163	1	0.459327	119.157	-26.6033
164	1	0.470498	119.378	-26.1328
165	1	0.481728	119.61	-25.6511
166	1	0.493018	119.853	-25.1581
167	1	0.504372	120.108	-24.6537
168	1	0.518658	120.377	-24.135
169	1	0.530162	120.658	-23.6049
170	1	0.541736	120.951	-23.0631
171	1	0.553384	121.258	-22.5098
172	1	0.565108	121.577	-21.9446
173	1	0.576911	121.91	-21.3677
174	1	0.588793	122.257	-20.7789
175	1	0.603765	122.621	-20.1752

176	1	0.615839		123	-19.5593
177	1	0.628006		123.395	-18.9313
178	1	0.640266		123.805	-18.2911
179	1	0.652622		124.231	-17.6384
180	1	0.665079		124.673	-16.9734
181	1	0.680797		125.136	-16.2926
182	1	0.693493		125.617	-15.5991
183	1	0.706302		126.116	-14.8928
184	1	0.719228		126.633	-14.1735
185	1	0.732275		127.17	-13.4413
186	1	0.745449		127.725	-12.6958
187	1	0.758753		128.301	-11.9371
188	1	0.775574		128.903	-11.1615
189	1	0.789191		129.525	-10.3723
190	1	0.802956		130.17	-9.56935
191	1	0.816874		130.837	-8.75247
192	1	0.830953		131.528	-7.92152
193	1	0.845198		132.242	-7.07632
194	1	0.859618		132.981	-6.21671
195	1	0.877897		133.752	-5.33881
196	1	0.892733		134.549	-4.44608
197	1	0.907769		135.373	-3.53831
198	1	0.923014		136.225	-2.61529
199	1	0.938476		137.106	-1.67682
200	1	0.954165		138.016	-0.722653
201	1	0.974114		138.965	0.251462
202	1	0.990356		139.946	1.24182
203	1	1.00687	140.96	2.24868	
204	1	1.02365	142.007	3.27233	
205	1	1.04073	143.091	4.31307	
206	1	1.05812	144.21	5.37119	
207	1	1.07584	145.368	6.44703	
208	1	1.09847	146.574	7.5455	
209	1	1.11699	147.822	8.66248	
210	1	1.1359	149.112	9.79838	
211	1	1.15522	150.447	10.9536	
212	1	1.17499	151.827	12.1286	
213	1	1.19522	153.256	13.3238	
214	1	1.21596	154.734	14.5398	
215	1	1.24264	156.279	15.7824	
216	1	1.26464	157.878	17.0471	
217	1	1.28727	159.535	18.3343	
218	1.04	1.31058	161.253	19.6973	
219	1.04	1.33462	163.034	21.0853	
220	1.12	1.35946	164.882	22.6079	
221	1.32	1.39175	166.819	24.445	
222	1.34	1.41865	168.831	26.346	
223	1.39	1.44663	170.924	28.3569	
224	1.52	1.47579	173.102	30.6001	
225	1.54	1.50626	175.371	32.9197	
226	1.54	1.5382	177.737	35.2885	
227	1.63	1.57179	180.208	37.8505	
228	1.83	1.61644	182.82	40.8086	
229	1.83	1.65463	185.558	43.8366	
230	1.89	1.6954	188.433	47.0409	
231	2.06	1.7392	191.457	50.6236	
232	2.5	1.78661	194.649	55.0902	
233	4	1.83843	198.029	62.4439	
234	20	1.8957	201.623	100.358	
235	27	1.97737	205.533	153.747	
236	52	2.05375	209.751	260.542	
237	58	2.14441	214.349	384.917	

238	68	2.25713	219.444	538.402
239	90	2.40892	225.247	755.205
240	160	2.65209	232.28	1179.54

Data Set Standard Deviation = 13.5424
Numerator = 1.39131e+006
Denominator = 1.01813e+007
W Statistic = 0.136653 = 1.39131e+006 / 1.01813e+007

5% Critical value of 0.976 exceeds 0.136653
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.136653
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Selenium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.380782
0.380782 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.105	0.00414938	-2.65209	39.2809	344.01	
2	0.105	0.00829876	-2.40892	39.2809	332.136	
3	0.105	0.0124481	-2.25713	39.2809	324.723	
4	0.105	0.0165975	-2.14441	39.2809	319.219	
5	0.105	0.0207469	-2.05375	39.2809	314.791	
6	0.105	0.0248963	-1.97737	39.2809	311.062	
7	0.105	0.0290456	-1.8957	39.2809	307.073	
8	0.105	0.033195	-1.83843	39.2809	304.276	
9	0.105	0.0373444	-1.78661	39.2809	301.746	
10	0.105	0.0414938	-1.7392	39.2809	299.431	
11	0.105	0.0456432	-1.6954	39.2809	297.292	
12	0.105	0.0497925	-1.65463	39.2809	295.301	
13	0.105	0.0539419	-1.61644	39.2809	293.436	
14	0.105	0.0580913	-1.57179	39.2809	291.256	
15	0.105	0.0622407	-1.5382	39.2809	289.615	
16	0.105	0.06639	-1.50626	39.2809	288.056	
17	0.105	0.0705394	-1.47579	39.2809	286.568	
18	0.105	0.0746888	-1.44663	39.2809	285.144	
19	0.105	0.0788382	-1.41865	39.2809	283.778	
20	0.105	0.0829876	-1.39175	39.2809	282.464	
21	0.105	0.0871369	-1.35946	39.2809	280.887	
22	0.105	0.0912863	-1.33462	39.2809	279.674	
23	0.105	0.0954357	-1.31058	39.2809	278.5	
24	0.105	0.0995851	-1.28727	39.2809	277.362	
25	0.105	0.103734	-1.26464	39.2809	276.257	
26	0.105	0.107884	-1.24264	39.2809	275.182	
27	0.105	0.112033	-1.21596	39.2809	273.879	
28	0.105	0.116183	-1.19522	39.2809	272.867	
29	0.105	0.120332	-1.17499	39.2809	271.879	
30	0.105	0.124481	-1.15522	39.2809	270.913	
31	0.105	0.128631	-1.1359	39.2809	269.97	
32	0.105	0.13278	-1.11699	39.2809	269.046	
33	0.105	0.136929	-1.09847	39.2809	268.142	
34	0.105	0.141079	-1.07584	39.2809	267.037	
35	0.105	0.145228	-1.05812	39.2809	266.172	
36	0.105	0.149378	-1.04073	39.2809	265.322	
37	0.105	0.153527	-1.02365	39.2809	264.488	
38	0.21	0.157676	-1.00687	39.5618	263.669	
39	0.21	0.161826	-0.990356	39.5618	262.862	
40	0.21	0.165975	-0.974114	39.5618	262.069	
41	0.22	0.170124	-0.954165	39.5885	261.095	
42	0.25	0.174274	-0.938476	39.6688	260.329	
43	0.25	0.178423	-0.923014	39.6688	259.574	
44	0.26	0.182573	-0.907769	39.6955	258.829	
45	0.27	0.186722	-0.892733	39.7223	258.095	
46	0.28	0.190871	-0.877897	39.749	257.371	
47	0.38	0.195021	-0.859618	40.0165	256.478	
48	0.54	0.19917	-0.845198	40.4445	255.774	

49	0.54	0.20332	-0.830953	40.4445	255.078	
50	0.66	0.207469	-0.816874		40.7655	254.391
51	0.85	0.211618	-0.802956		41.2738	253.711
52	1	0.215768	-0.789191		41.675	253.039
53	1	0.219917	-0.775574		41.675	252.374
54	1	0.224066	-0.758753		41.675	251.552
55	1	0.228216	-0.745449		41.675	250.903
56	1	0.232365	-0.732275		41.675	250.259
57	1	0.236515	-0.719228		41.675	249.622
58	1	0.240664	-0.706302		41.675	248.991
59	1	0.244813	-0.693493		41.675	248.366
60	1	0.248963	-0.680797		41.675	247.746
61	1	0.253112	-0.665079		41.675	246.978
62	1	0.257261	-0.652622		41.675	246.37
63	1	0.261411	-0.640266		41.675	245.766
64	1	0.26556	-0.628006	41.675	245.168	
65	1	0.26971	-0.615839	41.675	244.573	
66	1	0.273859	-0.603765		41.675	243.984
67	1	0.278008	-0.588793		41.675	243.253
68	1	0.282158	-0.576911		41.675	242.672
69	1	0.286307	-0.565108		41.675	242.096
70	1	0.290456	-0.553384		41.675	241.524
71	1	0.294606	-0.541736		41.675	240.955
72	1	0.298755	-0.530162		41.675	240.39
73	1	0.302905	-0.518658		41.675	239.828
74	1	0.307054	-0.504372		41.675	239.13
75	1	0.311203	-0.493018		41.675	238.576
76	1	0.315353	-0.481728		41.675	238.024
77	1	0.319502	-0.470498		41.675	237.476
78	1	0.323651	-0.459327		41.675	236.93
79	1	0.327801	-0.448213		41.675	236.388
80	1	0.33195	-0.437153	41.675	235.848	
81	1	0.3361	-0.423405	41.675	235.176	
82	1	0.340249	-0.412463		41.675	234.642
83	1	0.344398	-0.401571		41.675	234.11
84	1	0.348548	-0.390726		41.675	233.58
85	1	0.352697	-0.379927		41.675	233.053
86	1	0.356846	-0.369171		41.675	232.528
87	1	0.360996	-0.358459		41.675	232.005
88	1	0.365145	-0.345126		41.675	231.354
89	1	0.369295	-0.334503		41.675	230.835
90	1	0.373444	-0.323919		41.675	230.318
91	1	0.377593	-0.31337	41.675	229.803	
92	1	0.381743	-0.302855		41.675	229.289
93	1	0.385892	-0.292375		41.675	228.778
94	1	0.390041	-0.279319		41.675	228.14
95	1	0.394191	-0.268908		41.675	227.632
96	1	0.39834	-0.258527	41.675	227.125	
97	1	0.40249	-0.248174	41.675	226.619	
98	1	0.406639	-0.237847		41.675	226.115
99	1	0.410788	-0.227545		41.675	225.612
100	1	0.414938	-0.217267		41.675	225.11
101	1	0.419087	-0.204452		41.675	224.484
102	1	0.423237	-0.194225		41.675	223.985
103	1	0.427386	-0.184017		41.675	223.486
104	1	0.431535	-0.173829		41.675	222.989
105	1	0.435685	-0.163659		41.675	222.492
106	1	0.439834	-0.153505		41.675	221.996
107	1	0.443983	-0.143367		41.675	221.501
108	1	0.448133	-0.130716		41.675	220.883
109	1	0.452282	-0.12061	41.675	220.39	
110	1	0.456432	-0.110516		41.675	219.897

111	1	0.460581	-0.100433	41.675	219.404
112	1	0.46473	-0.0903606	41.675	218.913
113	1	0.46888	-0.0802981	41.675	218.421
114	1	0.473029	-0.0677301	41.675	217.807
115	1	0.477178	-0.0576847	41.675	217.317
116	1	0.481328	-0.0476439	41.675	216.827
117	1	0.485477	-0.0376076	41.675	216.337
118	1	0.489627	-0.0275759	41.675	215.847
119	1	0.493776	-0.0175476	41.675	215.357
120	1	0.497925	-0.00751925	41.675	214.867
121	1	0.502075	0.00751925	41.675	214.133
122	1	0.506224	0.0175476	41.675	213.643
123	1	0.510373	0.0275759	41.675	213.153
124	1	0.514523	0.0376076	41.675	212.663
125	1	0.518672	0.0476439	41.675	212.173
126	1	0.522822	0.0576847	41.675	211.683
127	1	0.526971	0.0677301	41.675	211.193
128	1	0.53112	0.0802981	41.675	210.579
129	1	0.53527	0.0903606	41.675	210.087
130	1	0.539419	0.100433	41.675	209.596
131	1	0.543568	0.110516	41.675	209.103
132	1	0.547718	0.12061	41.675	208.61
133	1	0.551867	0.130716	41.675	208.117
134	1	0.556017	0.143367	41.675	207.499
135	1	0.560166	0.153505	41.675	207.004
136	1	0.564315	0.163659	41.675	206.508
137	1	0.568465	0.173829	41.675	206.011
138	1	0.572614	0.184017	41.675	205.514
139	1	0.576763	0.194225	41.675	205.015
140	1	0.580913	0.204452	41.675	204.516
141	1	0.585062	0.217267	41.675	203.89
142	1	0.589212	0.227545	41.675	203.388
143	1	0.593361	0.237847	41.675	202.885
144	1	0.59751	0.248174	41.675	202.381
145	1	0.60166	0.258527	41.675	201.875
146	1	0.605809	0.268908	41.675	201.368
147	1	0.609959	0.279319	41.675	200.86
148	1	0.614108	0.292375	41.675	200.222
149	1	0.618257	0.302855	41.675	199.711
150	1	0.622407	0.31337	41.675	199.197
151	1	0.626556	0.323919	41.675	198.682
152	1	0.630705	0.334503	41.675	198.165
153	1	0.634855	0.345126	41.675	197.646
154	1	0.639004	0.358459	41.675	196.995
155	1	0.643154	0.369171	41.675	196.472
156	1	0.647303	0.379927	41.675	195.947
157	1	0.651452	0.390726	41.675	195.42
158	1	0.655602	0.401571	41.675	194.89
159	1	0.659751	0.412463	41.675	194.358
160	1	0.6639	0.423405	41.675	193.824
161	1	0.66805	0.437153	41.675	193.152
162	1	0.672199	0.448213	41.675	192.612
163	1	0.676349	0.459327	41.675	192.07
164	1	0.680498	0.470498	41.675	191.524
165	1	0.684647	0.481728	41.675	190.976
166	1	0.688797	0.493018	41.675	190.424
167	1	0.692946	0.504372	41.675	189.87
168	1	0.697095	0.518658	41.675	189.172
169	1	0.701245	0.530162	41.675	188.61
170	1	0.705394	0.541736	41.675	188.045
171	1	0.709544	0.553384	41.675	187.476
172	1	0.713693	0.565108	41.675	186.904

173	1	0.717842	0.576911		41.675	186.328
174	1	0.721992	0.588793		41.675	185.747
175	1	0.726141	0.603765		41.675	185.016
176	1	0.73029	0.615839	41.675	184.427	
177	1	0.73444	0.628006	41.675	183.832	
178	1	0.738589	0.640266		41.675	183.234
179	1	0.742739	0.652622		41.675	182.63
180	1	0.746888	0.665079		41.675	182.022
181	1	0.751037	0.680797		41.675	181.254
182	1	0.755187	0.693493		41.675	180.634
183	1	0.759336	0.706302		41.675	180.009
184	1	0.763485	0.719228		41.675	179.378
185	1	0.767635	0.732275		41.675	178.741
186	1	0.771784	0.745449		41.675	178.097
187	1	0.775934	0.758753		41.675	177.448
188	1	0.780083	0.775574		41.675	176.626
189	1	0.784232	0.789191		41.675	175.961
190	1	0.788382	0.802956		41.675	175.289
191	1	0.792531	0.816874		41.675	174.609
192	1	0.79668	0.830953	41.675	173.922	
193	1	0.80083	0.845198	41.675	173.226	
194	1	0.804979	0.859618		41.675	172.522
195	1	0.809129	0.877897		41.675	171.629
196	1	0.813278	0.892733		41.675	170.905
197	1	0.817427	0.907769		41.675	170.171
198	1	0.821577	0.923014		41.675	169.426
199	1	0.825726	0.938476		41.675	168.671
200	1	0.829876	0.954165		41.675	167.905
201	1	0.834025	0.974114		41.675	166.931
202	1	0.838174	0.990356		41.675	166.138
203	1	0.842324	1.00687	41.675	165.331	
204	1	0.846473	1.02365	41.675	164.512	
205	1	0.850622	1.04073	41.675	163.678	
206	1	0.854772	1.05812	41.675	162.828	
207	1	0.858921	1.07584	41.675	161.963	
208	1	0.863071	1.09847	41.675	160.858	
209	1	0.86722	1.11699	41.675	159.954	
210	1	0.871369	1.1359	41.675	159.03	
211	1	0.875519	1.15522	41.675	158.087	
212	1	0.879668	1.17499	41.675	157.121	
213	1	0.883817	1.19522	41.675	156.133	
214	1	0.887967	1.21596	41.675	155.121	
215	1	0.892116	1.24264	41.675	153.818	
216	1	0.896266	1.26464	41.675	152.743	
217	1	0.900415	1.28727	41.675	151.638	
218	1.04	0.904564	1.31058	41.782	150.5	
219	1.04	0.908714	1.33462	41.782	149.326	
220	1.12	0.912863	1.35946	41.996	148.113	
221	1.32	0.917012	1.39175	42.531	146.536	
222	1.34	0.921162	1.41865	42.5845	145.222	
223	1.39	0.925311	1.44663	42.7182	143.856	
224	1.52	0.929461	1.47579	43.066	142.432	
225	1.54	0.93361	1.50626	43.1195	140.944	
226	1.54	0.937759	1.5382	43.1195	139.385	
227	1.63	0.941909	1.57179	43.3603	137.744	
228	1.83	0.946058	1.61644	43.8952	135.564	
229	1.83	0.950207	1.65463	43.8952	133.699	
230	1.89	0.954357	1.6954	44.0558	131.708	
231	2.06	0.958506	1.7392	44.5105	129.569	
232	2.5	0.962656	1.78661	45.6875	127.254	
233	4	0.966805	1.83843	49.7	124.724	
234	20	0.970954	1.8957	92.5	121.927	

235	27	0.975104	1.97737	111.225	117.938
236	52	0.979253	2.05375	178.1	114.209
237	58	0.983402	2.14441	194.15	109.781
238	68	0.987552	2.25713	220.9	104.277
239	90	0.991701	2.40892	279.75	96.8642
240	160	0.995851	2.65209	467	84.9898

Shapiro-Francia Test of Normality

Parameter: Selenium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.25379	-2.65209	7.03356	5.97726
2	-2.25379	-2.40892	12.8365	11.4065
3	-2.25379	-2.25713	17.9311	16.4936
4	-2.25379	-2.14441	22.5296	21.3266
5	-2.25379	-2.05375	26.7475	25.9554
6	-2.25379	-1.97737	30.6575	30.412
7	-2.25379	-1.8957	34.2511	34.6845
8	-2.25379	-1.83843	37.6309	38.8279
9	-2.25379	-1.78661	40.8229	42.8546
10	-2.25379	-1.7392	43.8477	46.7743
11	-2.25379	-1.6954	46.7221	50.5954
12	-2.25379	-1.65463	49.4599	54.3246
13	-2.25379	-1.61644	52.0728	57.9677
14	-2.25379	-1.57179	54.5433	61.5102
15	-2.25379	-1.5382	56.9093	64.977
16	-2.25379	-1.50626	59.1782	68.3718
17	-2.25379	-1.47579	61.3561	71.6979
18	-2.25379	-1.44663	63.4489	74.9584
19	-2.25379	-1.41865	65.4614	78.1557
20	-2.25379	-1.39175	67.3984	81.2924
21	-2.25379	-1.35946	69.2465	84.3564
22	-2.25379	-1.33462	71.0278	87.3643
23	-2.25379	-1.31058	72.7454	90.3181
24	-2.25379	-1.28727	74.4024	93.2194
25	-2.25379	-1.26464	76.0018	96.0696
26	-2.25379	-1.24264	77.5459	98.8703
27	-2.25379	-1.21596	79.0245	101.611
28	-2.25379	-1.19522	80.453	104.305
29	-2.25379	-1.17499	81.8336	106.953
30	-2.25379	-1.15522	83.1682	109.556
31	-2.25379	-1.1359	84.4584	112.116
32	-2.25379	-1.11699	85.7061	114.634
33	-2.25379	-1.09847	86.9127	117.11
34	-2.25379	-1.07584	88.0701	119.534
35	-2.25379	-1.05812	89.1898	121.919
36	-2.25379	-1.04073	90.2729	124.265
37	-2.25379	-1.02365	91.3208	126.572
38	-1.56065	-1.00687	92.3345	128.143
39	-1.56065	-0.990356	93.3153	129.689
40	-1.56065	-0.974114	94.2642	131.209
41	-1.51413	-0.954165	95.1747	132.654
42	-1.38629	-0.938476	96.0554	133.955
43	-1.38629	-0.923014	96.9074	135.234
44	-1.34707	-0.907769	97.7314	136.457
45	-1.30933	-0.892733	98.5284	137.626
46	-1.27297	-0.877897	99.2991	138.744
47	-0.967584	-0.859618	100.038	139.575
48	-0.616186	-0.845198	100.752	140.096
49	-0.616186	-0.830953	101.443	140.608
50	-0.415515	-0.816874	102.11	140.948
51	-0.162519	-0.802956	102.755	141.078

52	0	-0.789191	103.378	141.078
53	0	-0.775574	103.979	141.078
54	0	-0.758753	104.555	141.078
55	0	-0.745449	105.111	141.078
56	0	-0.732275	105.647	141.078
57	0	-0.719228	106.164	141.078
58	0	-0.706302	106.663	141.078
59	0	-0.693493	107.144	141.078
60	0	-0.680797	107.607	141.078
61	0	-0.665079	108.05	141.078
62	0	-0.652622	108.476	141.078
63	0	-0.640266	108.886	141.078
64	0	-0.628006	109.28	141.078
65	0	-0.615839	109.659	141.078
66	0	-0.603765	110.024	141.078
67	0	-0.588793	110.37	141.078
68	0	-0.576911	110.703	141.078
69	0	-0.565108	111.023	141.078
70	0	-0.553384	111.329	141.078
71	0	-0.541736	111.622	141.078
72	0	-0.530162	111.903	141.078
73	0	-0.518658	112.172	141.078
74	0	-0.504372	112.427	141.078
75	0	-0.493018	112.67	141.078
76	0	-0.481728	112.902	141.078
77	0	-0.470498	113.123	141.078
78	0	-0.459327	113.334	141.078
79	0	-0.448213	113.535	141.078
80	0	-0.437153	113.726	141.078
81	0	-0.423405	113.906	141.078
82	0	-0.412463	114.076	141.078
83	0	-0.401571	114.237	141.078
84	0	-0.390726	114.39	141.078
85	0	-0.379927	114.534	141.078
86	0	-0.369171	114.67	141.078
87	0	-0.358459	114.799	141.078
88	0	-0.345126	114.918	141.078
89	0	-0.334503	115.03	141.078
90	0	-0.323919	115.135	141.078
91	0	-0.31337	115.233	141.078
92	0	-0.302855	115.325	141.078
93	0	-0.292375	115.41	141.078
94	0	-0.279319	115.488	141.078
95	0	-0.268908	115.56	141.078
96	0	-0.258527	115.627	141.078
97	0	-0.248174	115.689	141.078
98	0	-0.237847	115.745	141.078
99	0	-0.227545	115.797	141.078
100	0	-0.217267	115.844	141.078
101	0	-0.204452	115.886	141.078
102	0	-0.194225	115.924	141.078
103	0	-0.184017	115.958	141.078
104	0	-0.173829	115.988	141.078
105	0	-0.163659	116.015	141.078
106	0	-0.153505	116.038	141.078
107	0	-0.143367	116.059	141.078
108	0	-0.130716	116.076	141.078
109	0	-0.12061	116.091	141.078
110	0	-0.110516	116.103	141.078
111	0	-0.100433	116.113	141.078
112	0	-0.0903606	116.121	141.078
113	0	-0.0802981	116.127	141.078

114	0	-0.0677301	116.132	141.078
115	0	-0.0576847	116.135	141.078
116	0	-0.0476439	116.138	141.078
117	0	-0.0376076	116.139	141.078
118	0	-0.0275759	116.14	141.078
119	0	-0.0175476	116.14	141.078
120	0	-0.00751925	116.14	141.078
121	0	0.00751925	116.14	141.078
122	0	0.0175476	116.141	141.078
123	0	0.0275759	116.141	141.078
124	0	0.0376076	116.143	141.078
125	0	0.0476439	116.145	141.078
126	0	0.0576847	116.148	141.078
127	0	0.0677301	116.153	141.078
128	0	0.0802981	116.159	141.078
129	0	0.0903606	116.167	141.078
130	0	0.100433	116.178	141.078
131	0	0.110516	116.19	141.078
132	0	0.12061	116.204	141.078
133	0	0.130716	116.221	141.078
134	0	0.143367	116.242	141.078
135	0	0.153505	116.266	141.078
136	0	0.163659	116.292	141.078
137	0	0.173829	116.323	141.078
138	0	0.184017	116.356	141.078
139	0	0.194225	116.394	141.078
140	0	0.204452	116.436	141.078
141	0	0.217267	116.483	141.078
142	0	0.227545	116.535	141.078
143	0	0.237847	116.591	141.078
144	0	0.248174	116.653	141.078
145	0	0.258527	116.72	141.078
146	0	0.268908	116.792	141.078
147	0	0.279319	116.87	141.078
148	0	0.292375	116.956	141.078
149	0	0.302855	117.047	141.078
150	0	0.31337	117.146	141.078
151	0	0.323919	117.251	141.078
152	0	0.334503	117.362	141.078
153	0	0.345126	117.482	141.078
154	0	0.358459	117.61	141.078
155	0	0.369171	117.746	141.078
156	0	0.379927	117.891	141.078
157	0	0.390726	118.043	141.078
158	0	0.401571	118.205	141.078
159	0	0.412463	118.375	141.078
160	0	0.423405	118.554	141.078
161	0	0.437153	118.745	141.078
162	0	0.448213	118.946	141.078
163	0	0.459327	119.157	141.078
164	0	0.470498	119.378	141.078
165	0	0.481728	119.61	141.078
166	0	0.493018	119.853	141.078
167	0	0.504372	120.108	141.078
168	0	0.518658	120.377	141.078
169	0	0.530162	120.658	141.078
170	0	0.541736	120.951	141.078
171	0	0.553384	121.258	141.078
172	0	0.565108	121.577	141.078
173	0	0.576911	121.91	141.078
174	0	0.588793	122.257	141.078
175	0	0.603765	122.621	141.078

176	0	0.615839		123	141.078
177	0	0.628006		123.395	141.078
178	0	0.640266		123.805	141.078
179	0	0.652622		124.231	141.078
180	0	0.665079		124.673	141.078
181	0	0.680797		125.136	141.078
182	0	0.693493		125.617	141.078
183	0	0.706302		126.116	141.078
184	0	0.719228		126.633	141.078
185	0	0.732275		127.17	141.078
186	0	0.745449		127.725	141.078
187	0	0.758753		128.301	141.078
188	0	0.775574		128.903	141.078
189	0	0.789191		129.525	141.078
190	0	0.802956		130.17	141.078
191	0	0.816874		130.837	141.078
192	0	0.830953		131.528	141.078
193	0	0.845198		132.242	141.078
194	0	0.859618		132.981	141.078
195	0	0.877897		133.752	141.078
196	0	0.892733		134.549	141.078
197	0	0.907769		135.373	141.078
198	0	0.923014		136.225	141.078
199	0	0.938476		137.106	141.078
200	0	0.954165		138.016	141.078
201	0	0.974114		138.965	141.078
202	0	0.990356		139.946	141.078
203	0	1.00687	140.96	141.078	
204	0	1.02365	142.007	141.078	
205	0	1.04073	143.091	141.078	
206	0	1.05812	144.21	141.078	
207	0	1.07584	145.368	141.078	
208	0	1.09847	146.574	141.078	
209	0	1.11699	147.822	141.078	
210	0	1.1359	149.112	141.078	
211	0	1.15522	150.447	141.078	
212	0	1.17499	151.827	141.078	
213	0	1.19522	153.256	141.078	
214	0	1.21596	154.734	141.078	
215	0	1.24264	156.279	141.078	
216	0	1.26464	157.878	141.078	
217	0	1.28727	159.535	141.078	
218	0.0392207		1.31058	161.253	141.13
219	0.0392207		1.33462	163.034	141.182
220	0.113329		1.35946	164.882	141.336
221	0.277632		1.39175	166.819	141.722
222	0.29267	1.41865	168.831	142.138	
223	0.329304		1.44663	170.924	142.614
224	0.41871	1.47579	173.102	143.232	
225	0.431782		1.50626	175.371	143.882
226	0.431782		1.5382	177.737	144.546
227	0.48858	1.57179	180.208	145.314	
228	0.604316		1.61644	182.82	146.291
229	0.604316		1.65463	185.558	147.291
230	0.636577		1.6954	188.433	148.37
231	0.722706		1.7392	191.457	149.627
232	0.916291		1.78661	194.649	151.264
233	1.38629	1.83843	198.029	153.813	
234	2.99573	1.8957	201.623	159.492	
235	3.29584	1.97737	205.533	166.009	
236	3.95124	2.05375	209.751	174.124	
237	4.06044	2.14441	214.349	182.831	

238	4.21951	2.25713	219.444	192.355
239	4.49981	2.40892	225.247	203.195
240	5.07517	2.65209	232.28	216.655

Data Set Standard Deviation = 1.14441
Numerator = 46939.2
Denominator = 72706.1
W Statistic = 0.645602 = 46939.2 / 72706.1

5% Critical value of 0.976 exceeds 0.645602
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.645602
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Selenium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.80675
0.80675 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.25379	0.00414938	-2.65209	83.3577	344.01
2	-2.25379	0.00829876	-2.40892	83.3577	332.136
3	-2.25379	0.0124481	-2.25713	83.3577	324.723
4	-2.25379	0.0165975	-2.14441	83.3577	319.219
5	-2.25379	0.0207469	-2.05375	83.3577	314.791
6	-2.25379	0.0248963	-1.97737	83.3577	311.062
7	-2.25379	0.0290456	-1.8957	83.3577	307.073
8	-2.25379	0.033195	-1.83843	83.3577	304.276
9	-2.25379	0.0373444	-1.78661	83.3577	301.746
10	-2.25379	0.0414938	-1.7392	83.3577	299.431
11	-2.25379	0.0456432	-1.6954	83.3577	297.292
12	-2.25379	0.0497925	-1.65463	83.3577	295.301
13	-2.25379	0.0539419	-1.61644	83.3577	293.436
14	-2.25379	0.0580913	-1.57179	83.3577	291.256
15	-2.25379	0.0622407	-1.5382	83.3577	289.615
16	-2.25379	0.06639	-1.50626	83.3577	288.056
17	-2.25379	0.0705394	-1.47579	83.3577	286.568
18	-2.25379	0.0746888	-1.44663	83.3577	285.144
19	-2.25379	0.0788382	-1.41865	83.3577	283.778
20	-2.25379	0.0829876	-1.39175	83.3577	282.464
21	-2.25379	0.0871369	-1.35946	83.3577	280.887
22	-2.25379	0.0912863	-1.33462	83.3577	279.674
23	-2.25379	0.0954357	-1.31058	83.3577	278.5
24	-2.25379	0.0995851	-1.28727	83.3577	277.362
25	-2.25379	0.103734	-1.26464	83.3577	276.257
26	-2.25379	0.107884	-1.24264	83.3577	275.182
27	-2.25379	0.112033	-1.21596	83.3577	273.879
28	-2.25379	0.116183	-1.19522	83.3577	272.867
29	-2.25379	0.120332	-1.17499	83.3577	271.879
30	-2.25379	0.124481	-1.15522	83.3577	270.913
31	-2.25379	0.128631	-1.1359	83.3577	269.97
32	-2.25379	0.13278	-1.11699	83.3577	269.046
33	-2.25379	0.136929	-1.09847	83.3577	268.142
34	-2.25379	0.141079	-1.07584	83.3577	267.037
35	-2.25379	0.145228	-1.05812	83.3577	266.172
36	-2.25379	0.149378	-1.04073	83.3577	265.322
37	-2.25379	0.153527	-1.02365	83.3577	264.488
38	-1.56065	0.157676	-1.00687	124.561	263.669
39	-1.56065	0.161826	-0.990356	124.561	262.862
40	-1.56065	0.165975	-0.974114	124.561	262.069
41	-1.51413	0.170124	-0.954165	127.327	261.095
42	-1.38629	0.174274	-0.938476	134.926	260.329
43	-1.38629	0.178423	-0.923014	134.926	259.574
44	-1.34707	0.182573	-0.907769	137.257	258.829
45	-1.30933	0.186722	-0.892733	139.501	258.095
46	-1.27297	0.190871	-0.877897	141.663	257.371
47	-0.967584	0.195021	-0.859618	159.816	256.478
48	-0.616186	0.19917	-0.845198	180.704	255.774

49	-0.616186	0.20332	-0.830953	180.704	255.078	
50	-0.415515	0.207469	-0.816874	192.633	254.391	
51	-0.162519	0.211618	-0.802956	207.672	253.711	
52	0	0.215768	-0.789191	217.333	253.039	
53	0	0.219917	-0.775574	217.333	252.374	
54	0	0.224066	-0.758753	217.333	251.552	
55	0	0.228216	-0.745449	217.333	250.903	
56	0	0.232365	-0.732275	217.333	250.259	
57	0	0.236515	-0.719228	217.333	249.622	
58	0	0.240664	-0.706302	217.333	248.991	
59	0	0.244813	-0.693493	217.333	248.366	
60	0	0.248963	-0.680797	217.333	247.746	
61	0	0.253112	-0.665079	217.333	246.978	
62	0	0.257261	-0.652622	217.333	246.37	
63	0	0.261411	-0.640266	217.333	245.766	
64	0	0.26556	-0.628006	217.333	245.168	
65	0	0.26971	-0.615839	217.333	244.573	
66	0	0.273859	-0.603765	217.333	243.984	
67	0	0.278008	-0.588793	217.333	243.253	
68	0	0.282158	-0.576911	217.333	242.672	
69	0	0.286307	-0.565108	217.333	242.096	
70	0	0.290456	-0.553384	217.333	241.524	
71	0	0.294606	-0.541736	217.333	240.955	
72	0	0.298755	-0.530162	217.333	240.39	
73	0	0.302905	-0.518658	217.333	239.828	
74	0	0.307054	-0.504372	217.333	239.13	
75	0	0.311203	-0.493018	217.333	238.576	
76	0	0.315353	-0.481728	217.333	238.024	
77	0	0.319502	-0.470498	217.333	237.476	
78	0	0.323651	-0.459327	217.333	236.93	
79	0	0.327801	-0.448213	217.333	236.388	
80	0	0.33195	-0.437153	217.333	235.848	
81	0	0.3361	-0.423405	217.333	235.176	
82	0	0.340249	-0.412463	217.333	234.642	
83	0	0.344398	-0.401571	217.333	234.11	
84	0	0.348548	-0.390726	217.333	233.58	
85	0	0.352697	-0.379927	217.333	233.053	
86	0	0.356846	-0.369171	217.333	232.528	
87	0	0.360996	-0.358459	217.333	232.005	
88	0	0.365145	-0.345126	217.333	231.354	
89	0	0.369295	-0.334503	217.333	230.835	
90	0	0.373444	-0.323919	217.333	230.318	
91	0	0.377593	-0.31337	217.333	229.803	
92	0	0.381743	-0.302855	217.333	229.289	
93	0	0.385892	-0.292375	217.333	228.778	
94	0	0.390041	-0.279319	217.333	228.14	
95	0	0.394191	-0.268908	217.333	227.632	
96	0	0.39834	-0.258527	217.333	227.125	
97	0	0.40249	-0.248174	217.333	226.619	
98	0	0.406639	-0.237847	217.333	226.115	
99	0	0.410788	-0.227545	217.333	225.612	
100	0	0.414938	-0.217267	217.333	225.11	
101	0	0.419087	-0.204452	217.333	224.484	
102	0	0.423237	-0.194225	217.333	223.985	
103	0	0.427386	-0.184017	217.333	223.486	
104	0	0.431535	-0.173829	217.333	222.989	
105	0	0.435685	-0.163659	217.333	222.492	
106	0	0.439834	-0.153505	217.333	221.996	
107	0	0.443983	-0.143367	217.333	221.501	
108	0	0.448133	-0.130716	217.333	220.883	
109	0	0.452282	-0.12061	217.333	220.39	
110	0	0.456432	-0.110516	217.333	219.897	

111	0	0.460581	-0.100433	217.333	219.404
112	0	0.46473	-0.0903606	217.333	218.913
113	0	0.46888	-0.0802981	217.333	218.421
114	0	0.473029	-0.0677301	217.333	217.807
115	0	0.477178	-0.0576847	217.333	217.317
116	0	0.481328	-0.0476439	217.333	216.827
117	0	0.485477	-0.0376076	217.333	216.337
118	0	0.489627	-0.0275759	217.333	215.847
119	0	0.493776	-0.0175476	217.333	215.357
120	0	0.497925	-0.00751925	217.333	214.867
121	0	0.502075	0.00751925	217.333	214.133
122	0	0.506224	0.0175476	217.333	213.643
123	0	0.510373	0.0275759	217.333	213.153
124	0	0.514523	0.0376076	217.333	212.663
125	0	0.518672	0.0476439	217.333	212.173
126	0	0.522822	0.0576847	217.333	211.683
127	0	0.526971	0.0677301	217.333	211.193
128	0	0.53112	0.0802981	217.333	210.579
129	0	0.53527	0.0903606	217.333	210.087
130	0	0.539419	0.100433	217.333	209.596
131	0	0.543568	0.110516	217.333	209.103
132	0	0.547718	0.12061	217.333	208.61
133	0	0.551867	0.130716	217.333	208.117
134	0	0.556017	0.143367	217.333	207.499
135	0	0.560166	0.153505	217.333	207.004
136	0	0.564315	0.163659	217.333	206.508
137	0	0.568465	0.173829	217.333	206.011
138	0	0.572614	0.184017	217.333	205.514
139	0	0.576763	0.194225	217.333	205.015
140	0	0.580913	0.204452	217.333	204.516
141	0	0.585062	0.217267	217.333	203.89
142	0	0.589212	0.227545	217.333	203.388
143	0	0.593361	0.237847	217.333	202.885
144	0	0.59751	0.248174	217.333	202.381
145	0	0.60166	0.258527	217.333	201.875
146	0	0.605809	0.268908	217.333	201.368
147	0	0.609959	0.279319	217.333	200.86
148	0	0.614108	0.292375	217.333	200.222
149	0	0.618257	0.302855	217.333	199.711
150	0	0.622407	0.31337	217.333	199.197
151	0	0.626556	0.323919	217.333	198.682
152	0	0.630705	0.334503	217.333	198.165
153	0	0.634855	0.345126	217.333	197.646
154	0	0.639004	0.358459	217.333	196.995
155	0	0.643154	0.369171	217.333	196.472
156	0	0.647303	0.379927	217.333	195.947
157	0	0.651452	0.390726	217.333	195.42
158	0	0.655602	0.401571	217.333	194.89
159	0	0.659751	0.412463	217.333	194.358
160	0	0.6639	0.423405	217.333	193.824
161	0	0.66805	0.437153	217.333	193.152
162	0	0.672199	0.448213	217.333	192.612
163	0	0.676349	0.459327	217.333	192.07
164	0	0.680498	0.470498	217.333	191.524
165	0	0.684647	0.481728	217.333	190.976
166	0	0.688797	0.493018	217.333	190.424
167	0	0.692946	0.504372	217.333	189.87
168	0	0.697095	0.518658	217.333	189.172
169	0	0.701245	0.530162	217.333	188.61
170	0	0.705394	0.541736	217.333	188.045
171	0	0.709544	0.553384	217.333	187.476
172	0	0.713693	0.565108	217.333	186.904

173	0	0.717842	0.576911	217.333	186.328	
174	0	0.721992	0.588793	217.333	185.747	
175	0	0.726141	0.603765	217.333	185.016	
176	0	0.73029	0.615839	217.333	184.427	
177	0	0.73444	0.628006	217.333	183.832	
178	0	0.738589	0.640266	217.333	183.234	
179	0	0.742739	0.652622	217.333	182.63	
180	0	0.746888	0.665079	217.333	182.022	
181	0	0.751037	0.680797	217.333	181.254	
182	0	0.755187	0.693493	217.333	180.634	
183	0	0.759336	0.706302	217.333	180.009	
184	0	0.763485	0.719228	217.333	179.378	
185	0	0.767635	0.732275	217.333	178.741	
186	0	0.771784	0.745449	217.333	178.097	
187	0	0.775934	0.758753	217.333	177.448	
188	0	0.780083	0.775574	217.333	176.626	
189	0	0.784232	0.789191	217.333	175.961	
190	0	0.788382	0.802956	217.333	175.289	
191	0	0.792531	0.816874	217.333	174.609	
192	0	0.79668	0.830953	217.333	173.922	
193	0	0.80083	0.845198	217.333	173.226	
194	0	0.804979	0.859618	217.333	172.522	
195	0	0.809129	0.877897	217.333	171.629	
196	0	0.813278	0.892733	217.333	170.905	
197	0	0.817427	0.907769	217.333	170.171	
198	0	0.821577	0.923014	217.333	169.426	
199	0	0.825726	0.938476	217.333	168.671	
200	0	0.829876	0.954165	217.333	167.905	
201	0	0.834025	0.974114	217.333	166.931	
202	0	0.838174	0.990356	217.333	166.138	
203	0	0.842324	1.00687	217.333	165.331	
204	0	0.846473	1.02365	217.333	164.512	
205	0	0.850622	1.04073	217.333	163.678	
206	0	0.854772	1.05812	217.333	162.828	
207	0	0.858921	1.07584	217.333	161.963	
208	0	0.863071	1.09847	217.333	160.858	
209	0	0.86722	1.11699	217.333	159.954	
210	0	0.871369	1.1359	217.333	159.03	
211	0	0.875519	1.15522	217.333	158.087	
212	0	0.879668	1.17499	217.333	157.121	
213	0	0.883817	1.19522	217.333	156.133	
214	0	0.887967	1.21596	217.333	155.121	
215	0	0.892116	1.24264	217.333	153.818	
216	0	0.896266	1.26464	217.333	152.743	
217	0	0.900415	1.28727	217.333	151.638	
218	0.0392207	0.904564	1.31058	219.665	150.5	
219	0.0392207	0.908714	1.33462	219.665	149.326	
220	0.113329	0.912863	1.35946	224.07	148.113	
221	0.277632	0.917012	1.39175	233.837	146.536	
222	0.29267	0.921162	1.41865	234.731	145.222	
223	0.329304	0.925311	1.44663	236.909	143.856	
224	0.41871	0.929461	1.47579	242.223	142.432	
225	0.431782	0.93361	1.50626	243	140.944	
226	0.431782	0.937759	1.5382	243	139.385	
227	0.48858	0.941909	1.57179	246.377	137.744	
228	0.604316	0.946058	1.61644	253.257	135.564	
229	0.604316	0.950207	1.65463	253.257	133.699	
230	0.636577	0.954357	1.6954	255.174	131.708	
231	0.722706	0.958506	1.7392	260.294	129.569	
232	0.916291	0.962656	1.78661	271.802	127.254	
233	1.38629	0.966805	1.83843	299.741	124.724	
234	2.99573	0.970954	1.8957	395.413	121.927	

235	3.29584	0.975104	1.97737	413.253	117.938
236	3.95124	0.979253	2.05375	452.213	114.209
237	4.06044	0.983402	2.14441	458.704	109.781
238	4.21951	0.987552	2.25713	468.16	104.277
239	4.49981	0.991701	2.40892	484.822	96.8642
240	5.07517	0.995851	2.65209	519.024	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Selenium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	101.5
	9/23/1999	ND<0	101.5
	3/15/2000	ND<0	101.5
	9/24/2003	ND<0	101.5
	3/11/2004	ND<0	101.5
	10/12/2004	ND<0	101.5
	4/1/2005	ND<0	101.5
	10/25/2005	ND<0	101.5
	4/29/2006	ND<0	101.5
	11/18/2006	ND<0	101.5
	5/23/2007	ND<0	101.5
	11/28/2007	ND<0	101.5
	6/5/2008	ND<0	101.5
	11/20/2008	ND<0	101.5
	6/11/2009	ND<-2.25379	101.5
	11/16/2009	ND<-2.25379	101.5
	6/30/2010	ND<-2.25379	101.5
	11/12/2010	ND<-2.25379 U	101.5
	7/5/2011	ND<-2.25379 U Q	101.5

Rank Sum = 1928.5
Rank Mean = 101.5

Background Rank Sum = 1928.5
Background Rank Mean = 101.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	ND<0	101.5
	8/24/1995	ND<0	101.5
	9/28/1995	ND<0	101.5
	10/26/1995	ND<0	101.5
	11/19/1996	ND<0	101.5
	12/19/1996	ND<0	101.5
	3/24/1997	ND<0	101.5
	9/24/1997	ND<0	101.5
	4/7/1998	2.99573	234
	9/23/1998	ND<0	101.5
	3/16/1999	ND<0	101.5
	9/23/1999	ND<0	101.5
	3/15/2000	ND<0	101.5
	9/24/2003	ND<0	101.5
	3/11/2004	ND<0	101.5
	10/12/2004	ND<0	101.5
	4/1/2005	ND<0	101.5
	10/25/2005	ND<0	101.5
	4/29/2006	0.329304 J	223
	11/18/2006	0.113329 J	220
	5/23/2007	ND<0	101.5

	11/28/2007	ND<0		101.5
	6/5/2008	ND<0		101.5
	11/20/2008	ND<0		101.5
	6/11/2009	ND<-2.25379		101.5
	11/16/2009	ND<-2.25379		101.5
	6/30/2010	ND<-2.25379		101.5
	11/12/2010	ND<-2.25379	U	101.5
	7/5/2011	-1.34707	J	209
	11/22/2011	-1.56065	U J	203
	11/22/2011	-1.56065	U J	204

Rank Sum = 3830.5
Rank Mean = 123.565

MW-12A	R	3/16/1999	ND<0	101.5
	9/23/1999	ND<0		101.5
	3/15/2000	ND<0		101.5
	9/24/2003	ND<0		101.5
	3/11/2004	ND<0		101.5
	10/12/2004	ND<0		101.5
	4/1/2005	ND<0		101.5
	10/25/2005	0.431782	J	225
	4/29/2006	0.604316	J	228
	11/18/2006	ND<0		101.5
	5/23/2007	ND<0		101.5
	11/28/2007	ND<0		101.5
	6/5/2008	ND<0		101.5
	11/20/2008	ND<0		101.5
	6/11/2009	ND<-2.25379		101.5
	11/16/2009	ND<-2.25379		101.5
	6/30/2010	ND<-2.25379		101.5
	11/12/2010	ND<-2.25379	U	101.5
	7/5/2011	ND<-2.25379	U	101.5
	11/22/2011	-0.415515		215

Rank Sum = 2393.5
Rank Mean = 119.675

MW-6	7/20/1995	ND<0		101.5
	8/24/1995	ND<0		101.5
	9/28/1995	ND<0		101.5
	10/26/1995	ND<0		101.5
	11/19/1996	ND<0		101.5
	12/19/1996	ND<0		101.5
	3/24/1997	ND<0		101.5
	9/24/1997	ND<0		101.5
	4/7/1998	ND<0		101.5
	9/23/1998	ND<0		101.5
	3/16/1999	ND<0		101.5
	9/23/1999	ND<0		101.5
	3/15/2000	ND<0		101.5
	9/24/2003	ND<0		101.5
	3/11/2004	ND<0		101.5
	10/12/2004	ND<0		101.5
	4/1/2005	ND<0		101.5
	10/25/2005	ND<0		101.5
	4/29/2006	ND<0		101.5
	11/18/2006	ND<0		101.5
	5/23/2007	ND<0		101.5
	11/28/2007	ND<0		101.5
	6/5/2008	ND<0		101.5
	11/20/2008	ND<0		101.5
	6/11/2009	ND<-2.25379		101.5
	11/16/2009	ND<-2.25379		101.5

	6/30/2010	ND<-2.25379		101.5
	11/12/2010	ND<-2.25379	U	101.5
	7/5/2011	-1.56065	U Q J	205
	11/22/2011	ND<-2.25379	U	101.5

Rank Sum = 3148.5
Rank Mean = 104.95

MW-12BR	3/16/1999	ND<0		101.5
	9/23/1999	ND<0		101.5
	3/15/2000	ND<0		101.5
	9/24/2003	ND<0		101.5
	3/11/2004	ND<0		101.5
	10/12/2004	ND<0		101.5
	4/1/2005	0.636577	J	230
	10/25/2005	ND<0		101.5
	4/29/2006	ND<0		101.5
	11/18/2006	ND<0		101.5
	5/23/2007	ND<0		101.5
	11/28/2007	ND<0		101.5
	6/5/2008	ND<0		101.5
	11/20/2008	ND<0		101.5
	6/11/2009	ND<-2.25379		101.5
	11/16/2009	ND<-2.25379		101.5
	6/30/2010	ND<-2.25379		101.5
	11/12/2010	ND<-2.25379	U	101.5
	7/5/2011	ND<-2.25379	U Q	101.5
	11/22/2011	ND<-2.25379	U	101.5

Rank Sum = 2158.5
Rank Mean = 107.925

MW-8	7/20/1995	ND<0		101.5
	8/24/1995	ND<0		101.5
	9/28/1995	ND<0		101.5
	10/26/1995	ND<0		101.5
	11/19/1996	ND<0		101.5
	12/19/1996	ND<0		101.5
	3/24/1997	ND<0		101.5
	9/24/1997	ND<0		101.5
	4/7/1998	3.95124		236
	9/23/1998	ND<0		101.5
	3/16/1999	ND<0		101.5
	9/23/1999	ND<0		101.5
	3/15/2000	ND<0		101.5
	9/24/2003	ND<0		101.5
	3/11/2004	ND<0		101.5
	10/12/2004	ND<0		101.5
	4/1/2005	0.48858	J	227
	10/25/2005	0.41871	J	224
	4/29/2006	0.0392207	J	218
	11/18/2006	ND<0		101.5
	5/23/2007	ND<0		101.5
	11/28/2007	ND<0		101.5
	6/5/2008	ND<0		101.5
	11/20/2008	ND<0		101.5
	6/11/2009	ND<-2.25379		101.5
	6/30/2010	ND<-2.25379		101.5
	11/12/2010	-1.51413	J	206
	7/5/2011	0		217
	11/22/2011	-0.616186		213

Rank Sum = 3774
Rank Mean = 130.138

MW-9	7/20/1995	ND<0	101.5		
	8/24/1995	ND<0	101.5		
	9/28/1995	ND<0	101.5		
	10/26/1995	ND<0	101.5		
	11/19/1996	ND<0	101.5		
	12/19/1996	ND<0	101.5		
	3/24/1997	3.29584			235
	9/24/1997	ND<0	101.5		
	4/7/1998	4.21951		238	
	9/23/1998	ND<0	101.5		
	3/16/1999	ND<0	101.5		
	9/23/1999	ND<0	101.5		
	3/15/2000	ND<0	101.5		
	9/24/2003	ND<0	101.5		
	3/11/2004	ND<0	101.5		
	10/12/2004	ND<0	101.5		
	4/1/2005	0.431782	J	226	
	10/25/2005	0.604316	J		229
	4/29/2006	0.277632	J		221
	11/18/2006	ND<0	101.5		
	5/23/2007	ND<0	101.5		
	11/28/2007	ND<0	101.5		
	6/5/2008	ND<0	101.5		
	11/20/2008	ND<0	101.5		
	6/11/2009	ND<-2.25379			101.5
	11/16/2009	ND<-2.25379			101.5
	6/30/2010	ND<-2.25379			101.5
	11/12/2010	ND<-2.25379	U		101.5
	7/5/2011	-0.162519		216	
	11/22/2011	ND<-2.25379	U		101.5
	11/22/2011	ND<-2.25379	U		101.5

Rank Sum = 3902.5
Rank Mean = 125.887

MW-7	7/20/1995	ND<0	101.5		
	8/24/1995	ND<0	101.5		
	9/28/1995	ND<0	101.5		
	10/26/1995	ND<0	101.5		
	11/19/1996	ND<0	101.5		
	12/19/1996	ND<0	101.5		
	3/24/1997	ND<0	101.5		
	9/24/1997	ND<0	101.5		
	4/7/1998	4.06044		237	
	9/23/1998	ND<0	101.5		
	3/16/1999	4.49981			239
	9/23/1999	ND<0	101.5		
	3/15/2000	ND<0	101.5		
	9/24/2003	ND<0	101.5		
	3/11/2004	ND<0	101.5		
	10/12/2004	ND<0	101.5		
	4/1/2005	ND<0	101.5		
	10/25/2005	ND<0	101.5		
	4/29/2006	0.29267	J		222
	11/18/2006	ND<0	101.5		
	5/23/2007	ND<0	101.5		
	11/28/2007	ND<0	101.5		
	6/5/2008	ND<0	101.5		
	11/20/2008	ND<0	101.5		
	6/11/2009	-1.30933	J		210
	11/16/2009	ND<-2.25379			101.5
	6/30/2010	ND<-2.25379			101.5
	11/12/2010	ND<-2.25379	U		101.5

	7/5/2011	0.916291		232	
	11/22/2011	ND<-2.25379	U	101.5	

Rank Sum = 3677.5
Rank Mean = 122.583

MW-10	7/20/1995	ND<0		101.5	
	8/24/1995	ND<0		101.5	
	9/28/1995	ND<0		101.5	
	10/26/1995	ND<0		101.5	
	11/19/1996	ND<0		101.5	
	12/19/1996	ND<0		101.5	
	3/24/1997	ND<0		101.5	
	9/24/1997	ND<0		101.5	
	4/7/1998	5.07517		240	
	9/23/1998	ND<0		101.5	
	3/16/1999	ND<0		101.5	
	9/23/1999	ND<0		101.5	
	3/15/2000	ND<0		101.5	
	9/24/2003	ND<0		101.5	
	3/11/2004	ND<0		101.5	
	10/12/2004	ND<0		101.5	
	4/1/2005	ND<0		101.5	
	10/25/2005	ND<0		101.5	
	4/29/2006	ND<0		101.5	
	11/18/2006	0.039220	7 J		219
	5/23/2007	ND<0		101.5	
	11/28/2007	ND<0		101.5	
	6/5/2008	0.722706		231	
	11/20/2008	ND<0		101.5	
	6/11/2009	-1.38629	J		207
	11/16/2009	-1.38629	J		208
	6/30/2010	-1.27297	J H		211
	11/12/2010	-0.967584	J		212
	7/5/2011	1.38629	J	233	
	11/22/2011	-0.616186			214

Rank Sum = 4106.5
Rank Mean = 136.883

Calculation Results:

Kruskal-Wallis H Statistic = 6.09056
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 15.0844
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
6.09056 < 15.5073 indicating no significant group difference at 5% significance level
15.0844 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Tetrachloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 172
Percent Non-Detects: 69.9187%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.15	ND<0.15
			11/16/2009	ND<0.15	ND<0.15
			6/30/2010	ND<0.15	ND<0.15
			11/12/2010	ND<0.15 U	ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-7	31	27 (87.0968%)	7/20/1995	0.86 J	0.86 J
			8/24/1995	0.67 J	0.67 J
			9/28/1995	0.8 J	0.8 J
			10/26/1995	0.9 J	0.9 J
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<0.15	ND<0.15	
			11/16/2009	ND<0.15	ND<0.15	
			6/30/2010	ND<0.15	ND<0.15	
			11/12/2010	ND<0.15 U	ND<0.15 U	
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
MW-9	31	14 (45.1613%)	7/20/1995	0.43 J	0.43 J	
			8/24/1995	0.51 J	0.51 J	
			9/28/1995	0.8 J	0.8 J	
			10/26/1995	0.9 J	0.9 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.32 J	0.32 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	0.29 J	0.29 J	
			11/18/2006	0.21 J	0.21 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.28 J	0.28 J	
			6/5/2008	0.41 J	0.41 J	
			11/20/2008	0.41 J	0.41 J	
			6/11/2009	0.39 J	0.39 J	
			11/16/2009	0.58 J	0.58 J	
			6/30/2010	0.68 J	0.68 J	
			11/12/2010	0.53 J	0.53 J	
			7/5/2011	0.28 J	0.28 J	
			11/22/2011	0.33 J	0.33 J	
			11/22/2011	0.33 J	0.33 J	
MW-12BR	21	20 (95.2381%)	3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.42 J	0.42 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.15	ND<0.15	
			11/16/2009	ND<0.15	ND<0.15	
			6/30/2010	ND<0.15	ND<0.15	
			11/12/2010	ND<0.15 U	ND<0.15 U	
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	

MW-12A	R	21	16 (76.1905%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	ND<2	ND<2		
			10/25/2005	0.32 J	0.32 J		
			4/29/2006	0.35 J	0.35 J		
			11/18/2006	ND<2	ND<2		
			5/23/2007	ND<2	ND<2		
			11/28/2007	ND<2	ND<2		
			6/5/2008	0.3 J	0.3 J		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<0.15		ND<0.15	
			11/16/2009	ND<0.15		ND<0.15	
			6/30/2010	ND<0.15		ND<0.15	
			11/12/2010	0.16 J	0.16 J		
			7/5/2011	0.33 J	0.33 J		
			11/22/2011	ND<0.15 U		ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U	
MW-6	31	31 (100%)	7/20/1995		ND<2	ND<2	
			8/24/1995	ND<2	ND<2		
			9/28/1995	ND<2	ND<2		
			10/26/1995	ND<2	ND<2		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		
			4/7/1998	ND<2	ND<2		
			9/23/1998	ND<2	ND<2		
			3/16/1999	ND<2	ND<2		
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005	ND<2	ND<2		
			10/25/2005	ND<2	ND<2		
			4/29/2006	ND<2	ND<2		
			11/18/2006	ND<2	ND<2		
			5/23/2007	ND<2	ND<2		
			11/28/2007	ND<2	ND<2		
			6/5/2008	ND<2	ND<2		
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<0.15		ND<0.15	
			11/16/2009	ND<0.15		ND<0.15	
			6/30/2010	ND<0.15		ND<0.15	
			11/12/2010	ND<0.15 U		ND<0.15 U	
			7/5/2011	ND<0.15 U		ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U	
MW-10	31	21 (67.7419%)	7/20/1995		0.71 J	0.71 J	
			8/24/1995	1.6	1.6		
			9/28/1995	ND<2	ND<2		
			10/26/1995	2	2		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		

			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.75 J	0.75 J	
			10/25/2005	0.71 J	0.71 J	
			4/29/2006	0.96 J	0.96 J	
			11/18/2006	0.55 J	0.55 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.31 J	0.31 J	
			6/5/2008	0.36 J	0.36 J	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.15		ND<0.15
			11/16/2009	0.29 J	0.29 J	
			6/30/2010	ND<0.15		ND<0.15
			11/12/2010	ND<0.15 U		ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U
			11/22/2011	ND<0.15 U		ND<0.15 U
MW-11R	31	16 (51.6129%)	7/20/1995		2.1	2.1
			8/24/1995	4.4	4.4	
			9/28/1995	2	2	
			10/26/1995	4	4	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	2.7	2.7	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	2.64	2.64	
			10/25/2005	0.46 J	0.46 J	
			4/29/2006	ND<2	ND<2	
			11/18/2006	0.49 J	0.49 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.38 J	0.38 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.4 J	0.4 J	
			6/11/2009	2.3	2.3	
			11/16/2009	0.3 J	0.3 J	
			6/30/2010	1.2	1.2	
			11/12/2010	ND<0.15 U		ND<0.15 U
			7/5/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	0.21 J	0.21 J	
			11/22/2011	0.21 J	0.21 J	
MW-8	30	8 (26.6667%)	7/20/1995		3.2	3.2
			8/24/1995	99	99	
			9/28/1995	88	88	
			10/26/1995	8	8	
			11/19/1996	ND<2	ND<2	
			12/19/1996	59	59	

3/24/1997	49	49	
9/24/1997	34	34	
4/7/1998	ND<2	ND<2	
9/23/1998	31	31	
3/16/1999	30.4	30.4	
9/23/1999	32.2	32.2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	6	6	
10/12/2004	ND<2	ND<2	
4/1/2005	5.34	5.34	
10/25/2005	2.18	2.18	
4/29/2006	2.4	2.4	
11/18/2006	2.69	2.69	
5/23/2007	ND<2	ND<2	
11/28/2007	0.54 J	0.54 J	
6/5/2008	0.84 J	0.84 J	
11/20/2008	0.65 J	0.65 J	
6/11/2009	0.8 J	0.8 J	
6/30/2010	0.24 J	0.24 J	
11/12/2010	ND<0.15 U	ND<0.15 U	
7/5/2011	ND<0.15 U	ND<0.15 U	
11/22/2011	0.34 J	0.34 J	
11/22/2011	0.34 J	0.34 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Tetrachloroethene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.075	-2.65209	7.03356	-0.198906
2	0.075	-2.40892	12.8365	-0.379576
3	0.075	-2.25713	17.9311	-0.54886
4	0.075	-2.14441	22.5296	-0.709691
5	0.075	-2.05375	26.7475	-0.863722
6	0.075	-1.97737	30.6575	-1.01202
7	0.075	-1.91103	34.3095	-1.15535
8	0.075	-1.85218	37.7401	-1.29427
9	0.075	-1.79912	40.9769	-1.4292
10	0.075	-1.75069	44.0418	-1.5605
11	0.075	-1.70604	46.9524	-1.68845
12	0.075	-1.66456	49.7231	-1.8133
13	0.075	-1.62576	52.3662	-1.93523
14	0.075	-1.58927	54.892	-2.05442
15	0.075	-1.55477	57.3093	-2.17103
16	0.075	-1.52203	59.6259	-2.28518
17	0.075	-1.49085	61.8486	-2.397
18	0.075	-1.46106	63.9833	-2.50658
19	0.075	-1.4325	66.0353	-2.61401
20	0.075	-1.40507	68.0096	-2.7194
21	0.075	-1.3722	69.8925	-2.82231
22	0.075	-1.34694	71.7067	-2.92333
23	0.075	-1.32251	73.4558	-3.02252
24	0.075	-1.29884	75.1427	-3.11993
25	0.075	-1.27588	76.7706	-3.21562
26	0.075	-1.25357	78.342	-3.30964
27	0.075	-1.23187	79.8595	-3.40203
28	0.075	-1.21073	81.3254	-3.49283
29	0.075	-1.19012	82.7418	-3.58209
30	0.075	-1.17	84.1107	-3.66984
31	0.075	-1.15035	85.434	-3.75612
32	0.075	-1.13113	86.7134	-3.84095
33	0.075	-1.11232	87.9507	-3.92438
34	0.075	-1.0939	89.1473	-4.00642
35	0.075	-1.07584	90.3047	-4.08711
36	0.075	-1.05812	91.4243	-4.16647
37	0.075	-1.04073	92.5075	-4.24452
38	0.075	-1.02365	93.5553	-4.3213
39	0.075	-1.00687	94.5691	-4.39681
40	0.075	-0.990356	95.5499	-4.47109
41	0.075	-0.974114	96.4988	-4.54415
42	0.16	-0.954165	97.4092	-4.69681
43	0.21	-0.938476	98.29	-4.89389
44	0.21	-0.923014	99.1419	-5.08773
45	0.21	-0.907769	99.966	-5.27836
46	0.24	-0.892733	100.763	-5.49261
47	0.28	-0.877897	101.534	-5.73842
48	0.28	-0.863249	102.279	-5.98013
49	0.29	-0.848786	102.999	-6.22628
50	0.29	-0.834498	103.696	-6.46829
51	0.3	-0.820379	104.369	-6.7144

52	0.3	-0.806422	105.019	-6.95633
53	0.31	-0.792618	105.647	-7.20204
54	0.32	-0.778966	106.254	-7.45131
55	0.32	-0.765456	106.84	-7.69625
56	0.33	-0.752084	107.406	-7.94444
57	0.33	-0.738846	107.951	-8.18826
58	0.33	-0.725736	108.478	-8.42775
59	0.34	-0.712751	108.986	-8.67009
60	0.34	-0.699883	109.476	-8.90805
61	0.35	-0.687131	109.948	-9.14854
62	0.36	-0.671346	110.399	-9.39023
63	0.38	-0.658838	110.833	-9.64059
64	0.39	-0.646431	111.251	-9.8927
65	0.4	-0.634124	111.653	-10.1463
66	0.41	-0.621911	112.04	-10.4013
67	0.41	-0.609791	112.412	-10.6513
68	0.42	-0.597761	112.769	-10.9024
69	0.43	-0.585815	113.112	-11.1543
70	0.46	-0.573953	113.441	-11.4183
71	0.49	-0.56217	113.758	-11.6938
72	0.51	-0.550465	114.061	-11.9745
73	0.53	-0.538836	114.351	-12.2601
74	0.54	-0.52728	114.629	-12.5448
75	0.55	-0.515791	114.895	-12.8285
76	0.58	-0.504372	115.149	-13.1211
77	0.65	-0.493018	115.392	-13.4415
78	0.67	-0.481728	115.624	-13.7643
79	0.68	-0.470498	115.846	-14.0842
80	0.71	-0.459327	116.057	-14.4103
81	0.71	-0.448213	116.258	-14.7286
82	0.75	-0.437153	116.449	-15.0564
83	0.8	-0.423405	116.628	-15.3952
84	0.8	-0.412463	116.798	-15.7251
85	0.8	-0.401571	116.959	-16.0464
86	0.84	-0.390726	117.112	-16.3746
87	0.86	-0.379927	117.256	-16.7013
88	0.9	-0.369171	117.393	-17.0336
89	0.9	-0.358459	117.521	-17.3562
90	0.96	-0.347787	117.642	-17.6901
91	1	-0.337155	117.756	-18.0272
92	1	-0.326561	117.863	-18.3538
93	1	-0.316004	117.962	-18.6698
94	1	-0.305481	118.056	-18.9753
95	1	-0.294992	118.143	-19.2703
96	1	-0.284535	118.224	-19.5548
97	1	-0.27411	118.299	-19.8289
98	1	-0.263715	118.368	-20.0926
99	1	-0.253347	118.433	-20.346
100	1	-0.243007	118.492	-20.589
101	1	-0.232693	118.546	-20.8217
102	1	-0.222403	118.595	-21.0441
103	1	-0.209575	118.639	-21.2537
104	1	-0.199336	118.679	-21.453
105	1	-0.189118	118.715	-21.6421
106	1	-0.17892	118.747	-21.821
107	1	-0.168741	118.775	-21.9898
108	1	-0.158579	118.8	-22.1483
109	1	-0.148434	118.822	-22.2968
110	1	-0.138305	118.841	-22.4351
111	1	-0.128189	118.858	-22.5633
112	1	-0.118085	118.872	-22.6814
113	1	-0.107995	118.883	-22.7894

114	1	-0.0979139	118.893	-22.8873
115	1	-0.0878447	118.901	-22.9751
116	1	-0.0777834	118.907	-23.0529
117	1	-0.0677301	118.911	-23.1206
118	1	-0.0576847	118.915	-23.1783
119	1	-0.0476439	118.917	-23.226
120	1	-0.0376076	118.918	-23.2636
121	1	-0.0275759	118.919	-23.2911
122	1	-0.0175476	118.919	-23.3087
123	1	-0.00751925	118.92	-23.3162
124	1	0.00751925	118.92	-23.3087
125	1	0.0175476	118.92	-23.2911
126	1	0.0275759	118.921	-23.2636
127	1	0.0376076	118.922	-23.226
128	1	0.0476439	118.924	-23.1783
129	1	0.0576847	118.928	-23.1206
130	1	0.0677301	118.932	-23.0529
131	1	0.0777834	118.938	-22.9751
132	1	0.0878447	118.946	-22.8873
133	1	0.0979139	118.956	-22.7894
134	1	0.107995	118.967	-22.6814
135	1	0.118085	118.981	-22.5633
136	1	0.128189	118.998	-22.4351
137	1	0.138305	119.017	-22.2968
138	1	0.148434	119.039	-22.1483
139	1	0.158579	119.064	-21.9898
140	1	0.168741	119.092	-21.821
141	1	0.17892	119.124	-21.6421
142	1	0.189118	119.16	-21.453
143	1	0.199336	119.2	-21.2537
144	1	0.209575	119.244	-21.0441
145	1	0.222403	119.293	-20.8217
146	1	0.232693	119.347	-20.589
147	1	0.243007	119.407	-20.346
148	1	0.253347	119.471	-20.0926
149	1	0.263715	119.54	-19.8289
150	1	0.27411	119.615	-19.5548
151	1	0.284535	119.696	-19.2703
152	1	0.294992	119.783	-18.9753
153	1	0.305481	119.877	-18.6698
154	1	0.316004	119.977	-18.3538
155	1	0.326561	120.083	-18.0272
156	1	0.337155	120.197	-17.6901
157	1	0.347787	120.318	-17.3423
158	1	0.358459	120.446	-16.9838
159	1	0.369171	120.583	-16.6147
160	1	0.379927	120.727	-16.2347
161	1	0.390726	120.88	-15.844
162	1	0.401571	121.041	-15.4424
163	1	0.412463	121.211	-15.03
164	1	0.423405	121.39	-14.6066
165	1	0.437153	121.581	-14.1694
166	1	0.448213	121.782	-13.7212
167	1	0.459327	121.993	-13.2619
168	1	0.470498	122.215	-12.7914
169	1	0.481728	122.447	-12.3096
170	1	0.493018	122.69	-11.8166
171	1	0.504372	122.944	-11.3123
172	1	0.515791	123.21	-10.7965
173	1	0.52728	123.488	-10.2692
174	1	0.538836	123.779	-9.73035
175	1	0.550465	124.082	-9.17988

176	1	0.56217	124.398	-8.61771	
177	1	0.573953		124.727	-8.04376
178	1	0.585815		125.07	-7.45795
179	1	0.597761		125.428	-6.86019
180	1	0.609791		125.799	-6.2504
181	1	0.621911		126.186	-5.62848
182	1	0.634124		126.588	-4.99436
183	1	0.646431		127.006	-4.34793
184	1	0.658838		127.44	-3.68909
185	1	0.671346		127.891	-3.01775
186	1	0.687131		128.363	-2.33061
187	1	0.699883		128.853	-1.63073
188	1	0.712751		129.361	-0.91798
189	1	0.725736		129.888	-0.192244
190	1	0.738846		130.433	0.546602
191	1	0.752084		130.999	1.29869
192	1	0.765456		131.585	2.06414
193	1	0.778966		132.192	2.84311
194	1	0.792618		132.82	3.63573
195	1	0.806422		133.47	4.44215
196	1	0.820379		134.143	5.26253
197	1	0.834498		134.84	6.09702
198	1	0.848786		135.56	6.94581
199	1	0.863249		136.305	7.80906
200	1	0.877897		137.076	8.68696
201	1	0.892733		137.873	9.57969
202	1	0.907769		138.697	10.4875
203	1	0.923014		139.549	11.4105
204	1	0.938476		140.43	12.3489
205	1	0.954165		141.34	13.3031
206	1	0.974114		142.289	14.2772
207	1	0.990356		143.27	15.2676
208	1	1.00687	144.284	16.2744	
209	1	1.02365	145.332	17.2981	
210	1	1.04073	146.415	18.3388	
211	1	1.05812	147.534	19.397	
212	1	1.07584	148.692	20.4728	
213	1	1.0939	149.888	21.5667	
214	1	1.11232	151.126	22.679	
215	1	1.13113	152.405	23.8101	
216	1	1.15035	153.728	24.9605	
217	1	1.17	155.097	26.1305	
218	1	1.19012	156.514	27.3206	
219	1	1.21073	157.98	28.5313	
220	1	1.23187	159.497	29.7632	
221	1	1.25357	161.068	31.0168	
222	1.2	1.27588	162.696	32.5478	
223	1.6	1.29884	164.383	34.626	
224	2	1.32251	166.132	37.271	
225	2	1.34694	167.947	39.9648	
226	2.1	1.3722	169.83	42.8465	
227	2.18	1.40507	171.804	45.9095	
228	2.3	1.4325	173.856	49.2043	
229	2.4	1.46106	175.991	52.7108	
230	2.64	1.49085	178.213	56.6467	
231	2.69	1.52203	180.53	60.741	
232	2.7	1.55477	182.947	64.9388	
233	3.2	1.58927	185.473	70.0245	
234	4	1.62576	188.116	76.5276	
235	4.4	1.66456	190.887	83.8516	
236	5.34	1.70604	193.797	92.9619	
237	6	1.75069	196.862	103.466	

238	8	1.79912	200.099	117.859
239	30.4	1.85218	203.53	174.165
240	31	1.91103	207.182	233.407
241	32.2	1.97737	211.092	297.078
242	34	2.05375	215.309	366.906
243	49	2.14441	219.908	471.982
244	59	2.25713	225.003	605.152
245	88	2.40892	230.806	817.138
246	99	2.65209	237.839	1079.69

Data Set Standard Deviation = 10.3487
Numerator = 1.16574e+006
Denominator = 6.24051e+006
W Statistic = 0.186802 = 1.16574e+006 / 6.24051e+006

5% Critical value of 0.976 exceeds 0.186802
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.186802
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tetrachloroethene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.442467
0.442467 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.075	0.00404858	-2.65209	39.4012	344.01	
2	0.075	0.00809717	-2.40892	39.4012	332.136	
3	0.075	0.0121457	-2.25713	39.4012	324.723	
4	0.075	0.0161943	-2.14441	39.4012	319.219	
5	0.075	0.0202429	-2.05375	39.4012	314.791	
6	0.075	0.0242915	-1.97737	39.4012	311.062	
7	0.075	0.0283401	-1.91103	39.4012	307.822	
8	0.075	0.0323887	-1.85218	39.4012	304.948	
9	0.075	0.0364372	-1.79912	39.4012	302.357	
10	0.075	0.0404858	-1.75069	39.4012	299.992	
11	0.075	0.0445344	-1.70604	39.4012	297.812	
12	0.075	0.048583	-1.66456	39.4012	295.786	
13	0.075	0.0526316	-1.62576	39.4012	293.891	
14	0.075	0.0566802	-1.58927	39.4012	292.109	
15	0.075	0.0607287	-1.55477	39.4012	290.425	
16	0.075	0.0647773	-1.52203	39.4012	288.826	
17	0.075	0.0688259	-1.49085	39.4012	287.303	
18	0.075	0.0728745	-1.46106	39.4012	285.848	
19	0.075	0.0769231	-1.4325	39.4012	284.454	
20	0.075	0.0809717	-1.40507	39.4012	283.114	
21	0.075	0.0850202	-1.3722	39.4012	281.509	
22	0.075	0.0890688	-1.34694	39.4012	280.276	
23	0.075	0.0931174	-1.32251	39.4012	279.082	
24	0.075	0.097166	-1.29884	39.4012	277.926	
25	0.075	0.101215	-1.27588	39.4012	276.805	
26	0.075	0.105263	-1.25357	39.4012	275.716	
27	0.075	0.109312	-1.23187	39.4012	274.656	
28	0.075	0.11336	-1.21073	39.4012	273.624	
29	0.075	0.117409	-1.19012	39.4012	272.617	
30	0.075	0.121457	-1.17	39.4012	271.635	
31	0.075	0.125506	-1.15035	39.4012	270.675	
32	0.075	0.129555	-1.13113	39.4012	269.737	
33	0.075	0.133603	-1.11232	39.4012	268.818	
34	0.075	0.137652	-1.0939	39.4012	267.919	
35	0.075	0.1417	-1.07584	39.4012	267.037	
36	0.075	0.145749	-1.05812	39.4012	266.172	
37	0.075	0.149798	-1.04073	39.4012	265.322	
38	0.075	0.153846	-1.02365	39.4012	264.488	
39	0.075	0.157895	-1.00687	39.4012	263.669	
40	0.075	0.161943	-0.990356	39.4012	262.862	
41	0.075	0.165992	-0.974114	39.4012	262.069	
42	0.16	0.17004	-0.954165	39.856	261.095	
43	0.21	0.174089	-0.938476	40.1235	260.329	
44	0.21	0.178138	-0.923014	40.1235	259.574	
45	0.21	0.182186	-0.907769	40.1235	258.829	
46	0.24	0.186235	-0.892733	40.284	258.095	
47	0.28	0.190283	-0.877897	40.498	257.371	
48	0.28	0.194332	-0.863249	40.498	256.655	

49	0.29	0.198381	-0.848786	40.5515	255.949
50	0.29	0.202429	-0.834498	40.5515	255.251
51	0.3	0.206478	-0.820379	40.605	254.562
52	0.3	0.210526	-0.806422	40.605	253.88
53	0.31	0.214575	-0.792618	40.6585	253.206
54	0.32	0.218623	-0.778966	40.712	252.54
55	0.32	0.222672	-0.765456	40.712	251.88
56	0.33	0.226721	-0.752084	40.7655	251.227
57	0.33	0.230769	-0.738846	40.7655	250.58
58	0.33	0.234818	-0.725736	40.7655	249.94
59	0.34	0.238866	-0.712751	40.819	249.306
60	0.34	0.242915	-0.699883	40.819	248.678
61	0.35	0.246964	-0.687131	40.8725	248.055
62	0.36	0.251012	-0.671346	40.926	247.284
63	0.38	0.255061	-0.658838	41.033	246.673
64	0.39	0.259109	-0.646431	41.0865	246.067
65	0.4	0.263158	-0.634124	41.14	245.466
66	0.41	0.267206	-0.621911	41.1935	244.87
67	0.41	0.271255	-0.609791	41.1935	244.278
68	0.42	0.275304	-0.597761	41.247	243.691
69	0.43	0.279352	-0.585815	41.3005	243.107
70	0.46	0.283401	-0.573953	41.461	242.528
71	0.49	0.287449	-0.56217	41.6215	241.953
72	0.51	0.291498	-0.550465	41.7285	241.381
73	0.53	0.295547	-0.538836	41.8355	240.813
74	0.54	0.299595	-0.52728	41.889	240.249
75	0.55	0.303644	-0.515791	41.9425	239.688
76	0.58	0.307692	-0.504372	42.103	239.13
77	0.65	0.311741	-0.493018	42.4775	238.576
78	0.67	0.315789	-0.481728	42.5845	238.024
79	0.68	0.319838	-0.470498	42.638	237.476
80	0.71	0.323887	-0.459327	42.7985	236.93
81	0.71	0.327935	-0.448213	42.7985	236.388
82	0.75	0.331984	-0.437153	43.0125	235.848
83	0.8	0.336032	-0.423405	43.28	235.176
84	0.8	0.340081	-0.412463	43.28	234.642
85	0.8	0.34413	-0.401571	43.28	234.11
86	0.84	0.348178	-0.390726	43.494	233.58
87	0.86	0.352227	-0.379927	43.601	233.053
88	0.9	0.356275	-0.369171	43.815	232.528
89	0.9	0.360324	-0.358459	43.815	232.005
90	0.96	0.364372	-0.347787	44.136	231.484
91	1	0.368421	-0.337155	44.35	230.964
92	1	0.37247	-0.326561	44.35	230.447
93	1	0.376518	-0.316004	44.35	229.932
94	1	0.380567	-0.305481	44.35	229.418
95	1	0.384615	-0.294992	44.35	228.905
96	1	0.388664	-0.284535	44.35	228.395
97	1	0.392713	-0.27411	44.35	227.886
98	1	0.396761	-0.263715	44.35	227.378
99	1	0.40081	-0.253347	44.35	226.872
100	1	0.404858	-0.243007	44.35	226.367
101	1	0.408907	-0.232693	44.35	225.863
102	1	0.412955	-0.222403	44.35	225.361
103	1	0.417004	-0.209575	44.35	224.734
104	1	0.421053	-0.199336	44.35	224.234
105	1	0.425101	-0.189118	44.35	223.735
106	1	0.42915	-0.17892	44.35	223.237
107	1	0.433198	-0.168741	44.35	222.74
108	1	0.437247	-0.158579	44.35	222.244
109	1	0.441296	-0.148434	44.35	221.749
110	1	0.445344	-0.138305	44.35	221.254

111	1	0.449393	-0.128189	44.35	220.76
112	1	0.453441	-0.118085	44.35	220.267
113	1	0.45749	-0.107995	44.35	219.774
114	1	0.461538	-0.0979139	44.35	219.281
115	1	0.465587	-0.0878447	44.35	218.79
116	1	0.469636	-0.0777834	44.35	218.298
117	1	0.473684	-0.0677301	44.35	217.807
118	1	0.477733	-0.0576847	44.35	217.317
119	1	0.481781	-0.0476439	44.35	216.827
120	1	0.48583	-0.0376076	44.35	216.337
121	1	0.489879	-0.0275759	44.35	215.847
122	1	0.493927	-0.0175476	44.35	215.357
123	1	0.497976	-0.00751925	44.35	214.867
124	1	0.502024	0.00751925	44.35	214.133
125	1	0.506073	0.0175476	44.35	213.643
126	1	0.510121	0.0275759	44.35	213.153
127	1	0.51417	0.0376076	44.35	212.663
128	1	0.518219	0.0476439	44.35	212.173
129	1	0.522267	0.0576847	44.35	211.683
130	1	0.526316	0.0677301	44.35	211.193
131	1	0.530364	0.0777834	44.35	210.702
132	1	0.534413	0.0878447	44.35	210.21
133	1	0.538462	0.0979139	44.35	209.719
134	1	0.54251	0.107995	44.35	209.226
135	1	0.546559	0.118085	44.35	208.733
136	1	0.550607	0.128189	44.35	208.24
137	1	0.554656	0.138305	44.35	207.746
138	1	0.558704	0.148434	44.35	207.251
139	1	0.562753	0.158579	44.35	206.756
140	1	0.566802	0.168741	44.35	206.26
141	1	0.57085	0.17892	44.35	205.763
142	1	0.574899	0.189118	44.35	205.265
143	1	0.578947	0.199336	44.35	204.766
144	1	0.582996	0.209575	44.35	204.266
145	1	0.587045	0.222403	44.35	203.639
146	1	0.591093	0.232693	44.35	203.137
147	1	0.595142	0.243007	44.35	202.633
148	1	0.59919	0.253347	44.35	202.128
149	1	0.603239	0.263715	44.35	201.622
150	1	0.607287	0.27411	44.35	201.114
151	1	0.611336	0.284535	44.35	200.605
152	1	0.615385	0.294992	44.35	200.095
153	1	0.619433	0.305481	44.35	199.582
154	1	0.623482	0.316004	44.35	199.068
155	1	0.62753	0.326561	44.35	198.553
156	1	0.631579	0.337155	44.35	198.036
157	1	0.635628	0.347787	44.35	197.516
158	1	0.639676	0.358459	44.35	196.995
159	1	0.643725	0.369171	44.35	196.472
160	1	0.647773	0.379927	44.35	195.947
161	1	0.651822	0.390726	44.35	195.42
162	1	0.65587	0.401571	44.35	194.89
163	1	0.659919	0.412463	44.35	194.358
164	1	0.663968	0.423405	44.35	193.824
165	1	0.668016	0.437153	44.35	193.152
166	1	0.672065	0.448213	44.35	192.612
167	1	0.676113	0.459327	44.35	192.07
168	1	0.680162	0.470498	44.35	191.524
169	1	0.684211	0.481728	44.35	190.976
170	1	0.688259	0.493018	44.35	190.424
171	1	0.692308	0.504372	44.35	189.87
172	1	0.696356	0.515791	44.35	189.312

173	1	0.700405	0.52728	44.35	188.751	
174	1	0.704453	0.538836		44.35	188.187
175	1	0.708502	0.550465		44.35	187.619
176	1	0.712551	0.56217	44.35	187.047	
177	1	0.716599	0.573953		44.35	186.472
178	1	0.720648	0.585815		44.35	185.893
179	1	0.724696	0.597761		44.35	185.309
180	1	0.728745	0.609791		44.35	184.722
181	1	0.732794	0.621911		44.35	184.13
182	1	0.736842	0.634124		44.35	183.534
183	1	0.740891	0.646431		44.35	182.933
184	1	0.744939	0.658838		44.35	182.327
185	1	0.748988	0.671346		44.35	181.716
186	1	0.753036	0.687131		44.35	180.945
187	1	0.757085	0.699883		44.35	180.322
188	1	0.761134	0.712751		44.35	179.694
189	1	0.765182	0.725736		44.35	179.06
190	1	0.769231	0.738846		44.35	178.42
191	1	0.773279	0.752084		44.35	177.773
192	1	0.777328	0.765456		44.35	177.12
193	1	0.781377	0.778966		44.35	176.46
194	1	0.785425	0.792618		44.35	175.794
195	1	0.789474	0.806422		44.35	175.12
196	1	0.793522	0.820379		44.35	174.438
197	1	0.797571	0.834498		44.35	173.749
198	1	0.801619	0.848786		44.35	173.051
199	1	0.805668	0.863249		44.35	172.345
200	1	0.809717	0.877897		44.35	171.629
201	1	0.813765	0.892733		44.35	170.905
202	1	0.817814	0.907769		44.35	170.171
203	1	0.821862	0.923014		44.35	169.426
204	1	0.825911	0.938476		44.35	168.671
205	1	0.82996	0.954165	44.35	167.905	
206	1	0.834008	0.974114		44.35	166.931
207	1	0.838057	0.990356		44.35	166.138
208	1	0.842105	1.00687	44.35	165.331	
209	1	0.846154	1.02365	44.35	164.512	
210	1	0.850202	1.04073	44.35	163.678	
211	1	0.854251	1.05812	44.35	162.828	
212	1	0.8583	1.07584	44.35	161.963	
213	1	0.862348	1.0939	44.35	161.081	
214	1	0.866397	1.11232	44.35	160.182	
215	1	0.870445	1.13113	44.35	159.263	
216	1	0.874494	1.15035	44.35	158.325	
217	1	0.878543	1.17	44.35	157.365	
218	1	0.882591	1.19012	44.35	156.383	
219	1	0.88664	1.21073	44.35	155.376	
220	1	0.890688	1.23187	44.35	154.344	
221	1	0.894737	1.25357	44.35	153.284	
222	1.2	0.898785	1.27588	45.42	152.195	
223	1.6	0.902834	1.29884	47.56	151.074	
224	2	0.906883	1.32251	49.7	149.918	
225	2	0.910931	1.34694	49.7	148.724	
226	2.1	0.91498	1.3722	50.235	147.491	
227	2.18	0.919028	1.40507	50.663	145.886	
228	2.3	0.923077	1.4325	51.305	144.546	
229	2.4	0.927126	1.46106	51.84	143.152	
230	2.64	0.931174	1.49085	53.124	141.697	
231	2.69	0.935223	1.52203	53.3915	140.174	
232	2.7	0.939271	1.55477	53.445	138.575	
233	3.2	0.94332	1.58927	56.12	136.891	
234	4	0.947368	1.62576	60.4	135.109	

235	4.4	0.951417	1.66456	62.54	133.214
236	5.34	0.955466	1.70604	67.569	131.188
237	6	0.959514	1.75069	71.1	129.008
238	8	0.963563	1.79912	81.8	126.643
239	30.4	0.967611	1.85218	201.64	124.052
240	31	0.97166	1.91103	204.85	121.178
241	32.2	0.975709	1.97737	211.27	117.938
242	34	0.979757	2.05375	220.9	114.209
243	49	0.983806	2.14441	301.15	109.781
244	59	0.987854	2.25713	354.65	104.277
245	88	0.991903	2.40892	509.8	96.8642
246	99	0.995951	2.65209	568.65	84.9898

Shapiro-Francia Test of Normality

Parameter: Tetrachloroethene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.59027	-2.65209	7.03356	6.86961
2	-2.59027	-2.40892	12.8365	13.1094
3	-2.59027	-2.25713	17.9311	18.9559
4	-2.59027	-2.14441	22.5296	24.5105
5	-2.59027	-2.05375	26.7475	29.8303
6	-2.59027	-1.97737	30.6575	34.9522
7	-2.59027	-1.91103	34.3095	39.9023
8	-2.59027	-1.85218	37.7401	44.6999
9	-2.59027	-1.79912	40.9769	49.3601
10	-2.59027	-1.75069	44.0418	53.8948
11	-2.59027	-1.70604	46.9524	58.314
12	-2.59027	-1.66456	49.7231	62.6256
13	-2.59027	-1.62576	52.3662	66.8368
14	-2.59027	-1.58927	54.892	70.9534
15	-2.59027	-1.55477	57.3093	74.9807
16	-2.59027	-1.52203	59.6259	78.9232
17	-2.59027	-1.49085	61.8486	82.7849
18	-2.59027	-1.46106	63.9833	86.5694
19	-2.59027	-1.4325	66.0353	90.28
20	-2.59027	-1.40507	68.0096	93.9195
21	-2.59027	-1.3722	69.8925	97.4739
22	-2.59027	-1.34694	71.7067	100.963
23	-2.59027	-1.32251	73.4558	104.388
24	-2.59027	-1.29884	75.1427	107.753
25	-2.59027	-1.27588	76.7706	111.058
26	-2.59027	-1.25357	78.342	114.305
27	-2.59027	-1.23187	79.8595	117.496
28	-2.59027	-1.21073	81.3254	120.632
29	-2.59027	-1.19012	82.7418	123.714
30	-2.59027	-1.17	84.1107	126.745
31	-2.59027	-1.15035	85.434	129.725
32	-2.59027	-1.13113	86.7134	132.655
33	-2.59027	-1.11232	87.9507	135.536
34	-2.59027	-1.0939	89.1473	138.369
35	-2.59027	-1.07584	90.3047	141.156
36	-2.59027	-1.05812	91.4243	143.897
37	-2.59027	-1.04073	92.5075	146.593
38	-2.59027	-1.02365	93.5553	149.244
39	-2.59027	-1.00687	94.5691	151.852
40	-2.59027	-0.990356	95.5499	154.418
41	-2.59027	-0.974114	96.4988	156.941
42	-1.83258	-0.954165	97.4092	158.689
43	-1.56065	-0.938476	98.29	160.154
44	-1.56065	-0.923014	99.1419	161.594
45	-1.56065	-0.907769	99.966	163.011
46	-1.42712	-0.892733	100.763	164.285
47	-1.27297	-0.877897	101.534	165.403
48	-1.27297	-0.863249	102.279	166.502
49	-1.23787	-0.848786	102.999	167.552
50	-1.23787	-0.834498	103.696	168.585
51	-1.20397	-0.820379	104.369	169.573

52	-1.20397	-0.806422	105.019	170.544	
53	-1.17118	-0.792618	105.647	171.472	
54	-1.13943	-0.778966	106.254	172.36	
55	-1.13943	-0.765456	106.84	173.232	
56	-1.10866	-0.752084	107.406	174.066	
57	-1.10866	-0.738846	107.951	174.885	
58	-1.10866	-0.725736	108.478	175.69	
59	-1.07881	-0.712751	108.986	176.458	
60	-1.07881	-0.699883	109.476	177.213	
61	-1.04982	-0.687131	109.948	177.935	
62	-1.02165	-0.671346	110.399	178.621	
63	-0.967584	-0.658838	110.833	179.258	
64	-0.941609	-0.646431	111.251	179.867	
65	-0.916291	-0.634124	111.653	180.448	
66	-0.891598	-0.621911	112.04	181.002	
67	-0.891598	-0.609791	112.412	181.546	
68	-0.867501	-0.597761	112.769	182.065	
69	-0.84397	-0.585815	113.112	182.559	
70	-0.776529	-0.573953	113.441	183.005	
71	-0.71335	-0.56217	113.758	183.406	
72	-0.673345	-0.550465	114.061	183.776	
73	-0.634878	-0.538836	114.351	184.119	
74	-0.616186	-0.52728	114.629	184.443	
75	-0.597837	-0.515791	114.895	184.752	
76	-0.544727	-0.504372	115.149	185.027	
77	-0.430783	-0.493018	115.392	185.239	
78	-0.400478	-0.481728	115.624	185.432	
79	-0.385662	-0.470498	115.846	185.613	
80	-0.34249	-0.459327	116.057	185.771	
81	-0.34249	-0.448213	116.258	185.924	
82	-0.287682	-0.437153	116.449	186.05	
83	-0.223144	-0.423405	116.628	186.144	
84	-0.223144	-0.412463	116.798	186.236	
85	-0.223144	-0.401571	116.959	186.326	
86	-0.174353	-0.390726	117.112	186.394	
87	-0.150823	-0.379927	117.256	186.451	
88	-0.105361	-0.369171	117.393	186.49	
89	-0.105361	-0.358459	117.521	186.528	
90	-0.040822	-0.347787	117.642	186.542	
91	0	-0.337155	117.756	186.542	
92	0	-0.326561	117.863	186.542	
93	0	-0.316004	117.962	186.542	
94	0	-0.305481	118.056	186.542	
95	0	-0.294992	118.143	186.542	
96	0	-0.284535	118.224	186.542	
97	0	-0.27411	118.299	186.542	
98	0	-0.263715	118.368	186.542	
99	0	-0.253347	118.433	186.542	
100	0	-0.243007	118.492	186.542	
101	0	-0.232693	118.546	186.542	
102	0	-0.222403	118.595	186.542	
103	0	-0.209575	118.639	186.542	
104	0	-0.199336	118.679	186.542	
105	0	-0.189118	118.715	186.542	
106	0	-0.17892	118.747	186.542	
107	0	-0.168741	118.775	186.542	
108	0	-0.158579	118.8	186.542	
109	0	-0.148434	118.822	186.542	
110	0	-0.138305	118.841	186.542	
111	0	-0.128189	118.858	186.542	
112	0	-0.118085	118.872	186.542	
113	0	-0.107995	118.883	186.542	

114	0	-0.0979139	118.893	186.542
115	0	-0.0878447	118.901	186.542
116	0	-0.0777834	118.907	186.542
117	0	-0.0677301	118.911	186.542
118	0	-0.0576847	118.915	186.542
119	0	-0.0476439	118.917	186.542
120	0	-0.0376076	118.918	186.542
121	0	-0.0275759	118.919	186.542
122	0	-0.0175476	118.919	186.542
123	0	-0.00751925	118.92	186.542
124	0	0.00751925	118.92	186.542
125	0	0.0175476	118.92	186.542
126	0	0.0275759	118.921	186.542
127	0	0.0376076	118.922	186.542
128	0	0.0476439	118.924	186.542
129	0	0.0576847	118.928	186.542
130	0	0.0677301	118.932	186.542
131	0	0.0777834	118.938	186.542
132	0	0.0878447	118.946	186.542
133	0	0.0979139	118.956	186.542
134	0	0.107995	118.967	186.542
135	0	0.118085	118.981	186.542
136	0	0.128189	118.998	186.542
137	0	0.138305	119.017	186.542
138	0	0.148434	119.039	186.542
139	0	0.158579	119.064	186.542
140	0	0.168741	119.092	186.542
141	0	0.17892	119.124	186.542
142	0	0.189118	119.16	186.542
143	0	0.199336	119.2	186.542
144	0	0.209575	119.244	186.542
145	0	0.222403	119.293	186.542
146	0	0.232693	119.347	186.542
147	0	0.243007	119.407	186.542
148	0	0.253347	119.471	186.542
149	0	0.263715	119.54	186.542
150	0	0.27411	119.615	186.542
151	0	0.284535	119.696	186.542
152	0	0.294992	119.783	186.542
153	0	0.305481	119.877	186.542
154	0	0.316004	119.977	186.542
155	0	0.326561	120.083	186.542
156	0	0.337155	120.197	186.542
157	0	0.347787	120.318	186.542
158	0	0.358459	120.446	186.542
159	0	0.369171	120.583	186.542
160	0	0.379927	120.727	186.542
161	0	0.390726	120.88	186.542
162	0	0.401571	121.041	186.542
163	0	0.412463	121.211	186.542
164	0	0.423405	121.39	186.542
165	0	0.437153	121.581	186.542
166	0	0.448213	121.782	186.542
167	0	0.459327	121.993	186.542
168	0	0.470498	122.215	186.542
169	0	0.481728	122.447	186.542
170	0	0.493018	122.69	186.542
171	0	0.504372	122.944	186.542
172	0	0.515791	123.21	186.542
173	0	0.52728	123.488	186.542
174	0	0.538836	123.779	186.542
175	0	0.550465	124.082	186.542

176	0	0.56217	124.398	186.542	
177	0	0.573953		124.727	186.542
178	0	0.585815		125.07	186.542
179	0	0.597761		125.428	186.542
180	0	0.609791		125.799	186.542
181	0	0.621911		126.186	186.542
182	0	0.634124		126.588	186.542
183	0	0.646431		127.006	186.542
184	0	0.658838		127.44	186.542
185	0	0.671346		127.891	186.542
186	0	0.687131		128.363	186.542
187	0	0.699883		128.853	186.542
188	0	0.712751		129.361	186.542
189	0	0.725736		129.888	186.542
190	0	0.738846		130.433	186.542
191	0	0.752084		130.999	186.542
192	0	0.765456		131.585	186.542
193	0	0.778966		132.192	186.542
194	0	0.792618		132.82	186.542
195	0	0.806422		133.47	186.542
196	0	0.820379		134.143	186.542
197	0	0.834498		134.84	186.542
198	0	0.848786		135.56	186.542
199	0	0.863249		136.305	186.542
200	0	0.877897		137.076	186.542
201	0	0.892733		137.873	186.542
202	0	0.907769		138.697	186.542
203	0	0.923014		139.549	186.542
204	0	0.938476		140.43	186.542
205	0	0.954165		141.34	186.542
206	0	0.974114		142.289	186.542
207	0	0.990356		143.27	186.542
208	0	1.00687	144.284	186.542	
209	0	1.02365	145.332	186.542	
210	0	1.04073	146.415	186.542	
211	0	1.05812	147.534	186.542	
212	0	1.07584	148.692	186.542	
213	0	1.0939	149.888	186.542	
214	0	1.11232	151.126	186.542	
215	0	1.13113	152.405	186.542	
216	0	1.15035	153.728	186.542	
217	0	1.17	155.097	186.542	
218	0	1.19012	156.514	186.542	
219	0	1.21073	157.98	186.542	
220	0	1.23187	159.497	186.542	
221	0	1.25357	161.068	186.542	
222	0.182322		1.27588	162.696	186.775
223	0.470004		1.29884	164.383	187.385
224	0.693147		1.32251	166.132	188.302
225	0.693147		1.34694	167.947	189.236
226	0.741937		1.3722	169.83	190.254
227	0.779325		1.40507	171.804	191.349
228	0.832909		1.4325	173.856	192.542
229	0.875469		1.46106	175.991	193.821
230	0.970779		1.49085	178.213	195.268
231	0.989541		1.52203	180.53	196.774
232	0.993252		1.55477	182.947	198.319
233	1.16315	1.58927	185.473	200.167	
234	1.38629	1.62576	188.116	202.421	
235	1.4816	1.66456	190.887	204.887	
236	1.67523	1.70604	193.797	207.745	
237	1.79176	1.75069	196.862	210.882	

238	2.07944	1.79912	200.099	214.623
239	3.41444	1.85218	203.53	220.947
240	3.43399	1.91103	207.182	227.51
241	3.47197	1.97737	211.092	234.375
242	3.52636	2.05375	215.309	241.618
243	3.89182	2.14441	219.908	249.963
244	4.07754	2.25713	225.003	259.167
245	4.47734	2.40892	230.806	269.952
246	4.59512	2.65209	237.839	282.139

Data Set Standard Deviation = 1.31414
Numerator = 79602.4
Denominator = 100631
W Statistic = 0.791029 = 79602.4 / 100631

5% Critical value of 0.976 exceeds 0.791029
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.791029
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tetrachloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.89088
0.89088 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.00404858	-2.65209	66.4009	344.01
2	-2.59027	0.00809717	-2.40892	66.4009	332.136
3	-2.59027	0.0121457	-2.25713	66.4009	324.723
4	-2.59027	0.0161943	-2.14441	66.4009	319.219
5	-2.59027	0.0202429	-2.05375	66.4009	314.791
6	-2.59027	0.0242915	-1.97737	66.4009	311.062
7	-2.59027	0.0283401	-1.91103	66.4009	307.822
8	-2.59027	0.0323887	-1.85218	66.4009	304.948
9	-2.59027	0.0364372	-1.79912	66.4009	302.357
10	-2.59027	0.0404858	-1.75069	66.4009	299.992
11	-2.59027	0.0445344	-1.70604	66.4009	297.812
12	-2.59027	0.048583	-1.66456	66.4009	295.786
13	-2.59027	0.0526316	-1.62576	66.4009	293.891
14	-2.59027	0.0566802	-1.58927	66.4009	292.109
15	-2.59027	0.0607287	-1.55477	66.4009	290.425
16	-2.59027	0.0647773	-1.52203	66.4009	288.826
17	-2.59027	0.0688259	-1.49085	66.4009	287.303
18	-2.59027	0.0728745	-1.46106	66.4009	285.848
19	-2.59027	0.0769231	-1.4325	66.4009	284.454
20	-2.59027	0.0809717	-1.40507	66.4009	283.114
21	-2.59027	0.0850202	-1.3722	66.4009	281.509
22	-2.59027	0.0890688	-1.34694	66.4009	280.276
23	-2.59027	0.0931174	-1.32251	66.4009	279.082
24	-2.59027	0.097166	-1.29884	66.4009	277.926
25	-2.59027	0.101215	-1.27588	66.4009	276.805
26	-2.59027	0.105263	-1.25357	66.4009	275.716
27	-2.59027	0.109312	-1.23187	66.4009	274.656
28	-2.59027	0.11336	-1.21073	66.4009	273.624
29	-2.59027	0.117409	-1.19012	66.4009	272.617
30	-2.59027	0.121457	-1.17	66.4009	271.635
31	-2.59027	0.125506	-1.15035	66.4009	270.675
32	-2.59027	0.129555	-1.13113	66.4009	269.737
33	-2.59027	0.133603	-1.11232	66.4009	268.818
34	-2.59027	0.137652	-1.0939	66.4009	267.919
35	-2.59027	0.1417	-1.07584	66.4009	267.037
36	-2.59027	0.145749	-1.05812	66.4009	266.172
37	-2.59027	0.149798	-1.04073	66.4009	265.322
38	-2.59027	0.153846	-1.02365	66.4009	264.488
39	-2.59027	0.157895	-1.00687	66.4009	263.669
40	-2.59027	0.161943	-0.990356	66.4009	262.862
41	-2.59027	0.165992	-0.974114	66.4009	262.069
42	-1.83258	0.17004	-0.954165	117.071	261.095
43	-1.56065	0.174089	-0.938476	135.257	260.329
44	-1.56065	0.178138	-0.923014	135.257	259.574
45	-1.56065	0.182186	-0.907769	135.257	258.829
46	-1.42712	0.186235	-0.892733	144.187	258.095
47	-1.27297	0.190283	-0.877897	154.495	257.371
48	-1.27297	0.194332	-0.863249	154.495	256.655

49	-1.23787	0.198381	-0.848786	156.842	255.949	
50	-1.23787	0.202429	-0.834498	156.842	255.251	
51	-1.20397	0.206478	-0.820379	159.109	254.562	
52	-1.20397	0.210526	-0.806422	159.109	253.88	
53	-1.17118	0.214575	-0.792618	161.302	253.206	
54	-1.13943	0.218623	-0.778966	163.425	252.54	
55	-1.13943	0.222672	-0.765456	163.425	251.88	
56	-1.10866	0.226721	-0.752084	165.483	251.227	
57	-1.10866	0.230769	-0.738846	165.483	250.58	
58	-1.10866	0.234818	-0.725736	165.483	249.94	
59	-1.07881	0.238866	-0.712751	167.48	249.306	
60	-1.07881	0.242915	-0.699883	167.48	248.678	
61	-1.04982	0.246964	-0.687131	169.418	248.055	
62	-1.02165	0.251012	-0.671346	171.302	247.284	
63	-0.967584	0.255061	-0.658838	174.918	246.673	
64	-0.941609	0.259109	-0.646431	176.655	246.067	
65	-0.916291	0.263158	-0.634124	178.348	245.466	
66	-0.891598	0.267206	-0.621911	179.999	244.87	
67	-0.891598	0.271255	-0.609791	179.999	244.278	
68	-0.867501	0.275304	-0.597761	181.611	243.691	
69	-0.84397	0.279352	-0.585815	183.185	243.107	
70	-0.776529	0.283401	-0.573953	187.695	242.528	
71	-0.71335	0.287449	-0.56217	191.92	241.953	
72	-0.673345	0.291498	-0.550465	194.595	241.381	
73	-0.634878	0.295547	-0.538836	197.168	240.813	
74	-0.616186	0.299595	-0.52728	198.418	240.249	
75	-0.597837	0.303644	-0.515791	199.645	239.688	
76	-0.544727	0.307692	-0.504372	203.196	239.13	
77	-0.430783	0.311741	-0.493018	210.816	238.576	
78	-0.400478	0.315789	-0.481728	212.843	238.024	
79	-0.385662	0.319838	-0.470498	213.834	237.476	
80	-0.34249	0.323887	-0.459327	216.721	236.93	
81	-0.34249	0.327935	-0.448213	216.721	236.388	
82	-0.287682	0.331984	-0.437153	220.386	235.848	
83	-0.223144	0.336032	-0.423405	224.702	235.176	
84	-0.223144	0.340081	-0.412463	224.702	234.642	
85	-0.223144	0.34413	-0.401571	224.702	234.11	
86	-0.174353	0.348178	-0.390726	227.965	233.58	
87	-0.150823	0.352227	-0.379927	229.539	233.053	
88	-0.105361	0.356275	-0.369171	232.579	232.528	
89	-0.105361	0.360324	-0.358459	232.579	232.005	
90	-0.040822	0.364372	-0.347787	236.895	231.484	
91	0	0.368421	-0.337155	239.625	230.964	
92	0	0.37247	-0.326561	239.625	230.447	
93	0	0.376518	-0.316004	239.625	229.932	
94	0	0.380567	-0.305481	239.625	229.418	
95	0	0.384615	-0.294992	239.625	228.905	
96	0	0.388664	-0.284535	239.625	228.395	
97	0	0.392713	-0.27411	239.625	227.886	
98	0	0.396761	-0.263715	239.625	227.378	
99	0	0.40081	-0.253347	239.625	226.872	
100	0	0.404858	-0.243007	239.625	226.367	
101	0	0.408907	-0.232693	239.625	225.863	
102	0	0.412955	-0.222403	239.625	225.361	
103	0	0.417004	-0.209575	239.625	224.734	
104	0	0.421053	-0.199336	239.625	224.234	
105	0	0.425101	-0.189118	239.625	223.735	
106	0	0.42915	-0.17892	239.625	223.237	
107	0	0.433198	-0.168741	239.625	222.74	
108	0	0.437247	-0.158579	239.625	222.244	
109	0	0.441296	-0.148434	239.625	221.749	
110	0	0.445344	-0.138305	239.625	221.254	

111	0	0.449393	-0.128189	239.625	220.76
112	0	0.453441	-0.118085	239.625	220.267
113	0	0.45749	-0.107995	239.625	219.774
114	0	0.461538	-0.0979139	239.625	219.281
115	0	0.465587	-0.0878447	239.625	218.79
116	0	0.469636	-0.0777834	239.625	218.298
117	0	0.473684	-0.0677301	239.625	217.807
118	0	0.477733	-0.0576847	239.625	217.317
119	0	0.481781	-0.0476439	239.625	216.827
120	0	0.48583	-0.0376076	239.625	216.337
121	0	0.489879	-0.0275759	239.625	215.847
122	0	0.493927	-0.0175476	239.625	215.357
123	0	0.497976	-0.00751925	239.625	214.867
124	0	0.502024	0.00751925	239.625	214.133
125	0	0.506073	0.0175476	239.625	213.643
126	0	0.510121	0.0275759	239.625	213.153
127	0	0.51417	0.0376076	239.625	212.663
128	0	0.518219	0.0476439	239.625	212.173
129	0	0.522267	0.0576847	239.625	211.683
130	0	0.526316	0.0677301	239.625	211.193
131	0	0.530364	0.0777834	239.625	210.702
132	0	0.534413	0.0878447	239.625	210.21
133	0	0.538462	0.0979139	239.625	209.719
134	0	0.54251	0.107995	239.625	209.226
135	0	0.546559	0.118085	239.625	208.733
136	0	0.550607	0.128189	239.625	208.24
137	0	0.554656	0.138305	239.625	207.746
138	0	0.558704	0.148434	239.625	207.251
139	0	0.562753	0.158579	239.625	206.756
140	0	0.566802	0.168741	239.625	206.26
141	0	0.57085	0.17892	239.625	205.763
142	0	0.574899	0.189118	239.625	205.265
143	0	0.578947	0.199336	239.625	204.766
144	0	0.582996	0.209575	239.625	204.266
145	0	0.587045	0.222403	239.625	203.639
146	0	0.591093	0.232693	239.625	203.137
147	0	0.595142	0.243007	239.625	202.633
148	0	0.59919	0.253347	239.625	202.128
149	0	0.603239	0.263715	239.625	201.622
150	0	0.607287	0.27411	239.625	201.114
151	0	0.611336	0.284535	239.625	200.605
152	0	0.615385	0.294992	239.625	200.095
153	0	0.619433	0.305481	239.625	199.582
154	0	0.623482	0.316004	239.625	199.068
155	0	0.62753	0.326561	239.625	198.553
156	0	0.631579	0.337155	239.625	198.036
157	0	0.635628	0.347787	239.625	197.516
158	0	0.639676	0.358459	239.625	196.995
159	0	0.643725	0.369171	239.625	196.472
160	0	0.647773	0.379927	239.625	195.947
161	0	0.651822	0.390726	239.625	195.42
162	0	0.65587	0.401571	239.625	194.89
163	0	0.659919	0.412463	239.625	194.358
164	0	0.663968	0.423405	239.625	193.824
165	0	0.668016	0.437153	239.625	193.152
166	0	0.672065	0.448213	239.625	192.612
167	0	0.676113	0.459327	239.625	192.07
168	0	0.680162	0.470498	239.625	191.524
169	0	0.684211	0.481728	239.625	190.976
170	0	0.688259	0.493018	239.625	190.424
171	0	0.692308	0.504372	239.625	189.87
172	0	0.696356	0.515791	239.625	189.312

173	0	0.700405	0.52728	239.625	188.751	
174	0	0.704453	0.538836	239.625	188.187	
175	0	0.708502	0.550465	239.625	187.619	
176	0	0.712551	0.56217	239.625	187.047	
177	0	0.716599	0.573953	239.625	186.472	
178	0	0.720648	0.585815	239.625	185.893	
179	0	0.724696	0.597761	239.625	185.309	
180	0	0.728745	0.609791	239.625	184.722	
181	0	0.732794	0.621911	239.625	184.13	
182	0	0.736842	0.634124	239.625	183.534	
183	0	0.740891	0.646431	239.625	182.933	
184	0	0.744939	0.658838	239.625	182.327	
185	0	0.748988	0.671346	239.625	181.716	
186	0	0.753036	0.687131	239.625	180.945	
187	0	0.757085	0.699883	239.625	180.322	
188	0	0.761134	0.712751	239.625	179.694	
189	0	0.765182	0.725736	239.625	179.06	
190	0	0.769231	0.738846	239.625	178.42	
191	0	0.773279	0.752084	239.625	177.773	
192	0	0.777328	0.765456	239.625	177.12	
193	0	0.781377	0.778966	239.625	176.46	
194	0	0.785425	0.792618	239.625	175.794	
195	0	0.789474	0.806422	239.625	175.12	
196	0	0.793522	0.820379	239.625	174.438	
197	0	0.797571	0.834498	239.625	173.749	
198	0	0.801619	0.848786	239.625	173.051	
199	0	0.805668	0.863249	239.625	172.345	
200	0	0.809717	0.877897	239.625	171.629	
201	0	0.813765	0.892733	239.625	170.905	
202	0	0.817814	0.907769	239.625	170.171	
203	0	0.821862	0.923014	239.625	169.426	
204	0	0.825911	0.938476	239.625	168.671	
205	0	0.82996	0.954165	239.625	167.905	
206	0	0.834008	0.974114	239.625	166.931	
207	0	0.838057	0.990356	239.625	166.138	
208	0	0.842105	1.00687	239.625	165.331	
209	0	0.846154	1.02365	239.625	164.512	
210	0	0.850202	1.04073	239.625	163.678	
211	0	0.854251	1.05812	239.625	162.828	
212	0	0.8583	1.07584	239.625	161.963	
213	0	0.862348	1.0939	239.625	161.081	
214	0	0.866397	1.11232	239.625	160.182	
215	0	0.870445	1.13113	239.625	159.263	
216	0	0.874494	1.15035	239.625	158.325	
217	0	0.878543	1.17	239.625	157.365	
218	0	0.882591	1.19012	239.625	156.383	
219	0	0.88664	1.21073	239.625	155.376	
220	0	0.890688	1.23187	239.625	154.344	
221	0	0.894737	1.25357	239.625	153.284	
222	0.182322	0.898785	1.27588	251.818	152.195	
223	0.470004	0.902834	1.29884	271.056	151.074	
224	0.693147	0.906883	1.32251	285.979	149.918	
225	0.693147	0.910931	1.34694	285.979	148.724	
226	0.741937	0.91498	1.3722	289.242	147.491	
227	0.779325	0.919028	1.40507	291.742	145.886	
228	0.832909	0.923077	1.4325	295.326	144.546	
229	0.875469	0.927126	1.46106	298.172	143.152	
230	0.970779	0.931174	1.49085	304.546	141.697	
231	0.989541	0.935223	1.52203	305.801	140.174	
232	0.993252	0.939271	1.55477	306.049	138.575	
233	1.16315	0.94332	1.58927	317.411	136.891	
234	1.38629	0.947368	1.62576	332.333	135.109	

235	1.4816	0.951417		1.66456	338.707	133.214
236	1.67523	0.955466		1.70604	351.656	131.188
237	1.79176	0.959514		1.75069	359.449	129.008
238	2.07944	0.963563		1.79912	378.688	126.643
239	3.41444	0.967611		1.85218	467.966	124.052
240	3.43399	0.97166	1.91103	469.273	121.178	
241	3.47197	0.975709		1.97737	471.813	117.938
242	3.52636	0.979757		2.05375	475.45	114.209
243	3.89182	0.983806		2.14441	499.89	109.781
244	4.07754	0.987854		2.25713	512.31	104.277
245	4.47734	0.991903		2.40892	539.047	96.8642
246	4.59512	0.995951		2.65209	546.924	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Tetrachloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	86.5
	9/23/1999	ND<0	86.5
	3/15/2000	ND<0	86.5
	9/24/2003	ND<0	86.5
	3/11/2004	ND<0	86.5
	10/12/2004	ND<0	86.5
	4/1/2005	ND<0	86.5
	10/25/2005	ND<0	86.5
	4/29/2006	ND<0	86.5
	11/18/2006	ND<0	86.5
	5/23/2007	ND<0	86.5
	11/28/2007	ND<0	86.5
	6/5/2008	ND<0	86.5
	11/20/2008	ND<0	86.5
	6/11/2009	ND<-2.59027	86.5
	11/16/2009	ND<-2.59027	86.5
	6/30/2010	ND<-2.59027	86.5
	11/12/2010	ND<-2.59027 U	86.5
	7/5/2011	ND<-2.59027 U	86.5

Rank Sum = 1643.5
Rank Mean = 86.5

Background Rank Sum = 1643.5
Background Rank Mean = 86.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-7	7/20/1995	-0.150823 J	218
	8/24/1995	-0.400478 J	209
	9/28/1995	-0.223144 J	214
	10/26/1995	-0.105361 J	219
	11/19/1996	ND<0	86.5
	12/19/1996	ND<0	86.5
	3/24/1997	ND<0	86.5
	9/24/1997	ND<0	86.5
	4/7/1998	ND<0	86.5
	9/23/1998	ND<0	86.5
	3/16/1999	ND<0	86.5
	9/23/1999	ND<0	86.5
	3/15/2000	ND<0	86.5
	9/24/2003	ND<0	86.5
	3/11/2004	ND<0	86.5
	10/12/2004	ND<0	86.5
	4/1/2005	ND<0	86.5
	10/25/2005	ND<0	86.5
	4/29/2006	ND<0	86.5
	11/18/2006	ND<0	86.5
	5/23/2007	ND<0	86.5

	11/28/2007	ND<0	86.5	
	6/5/2008	ND<0	86.5	
	11/20/2008	ND<0	86.5	
	6/11/2009	ND<-2.59027		86.5
	11/16/2009	ND<-2.59027		86.5
	6/30/2010	ND<-2.59027		86.5
	11/12/2010	ND<-2.59027	U	86.5
	7/5/2011	ND<-2.59027	U	86.5
	11/22/2011	ND<-2.59027	U	86.5
	11/22/2011	ND<-2.59027	U	86.5

Rank Sum = 3195.5
Rank Mean = 103.081

MW-9	7/20/1995	-0.84397	J	200
	8/24/1995	-0.673345	J	203
	9/28/1995	-0.223144	J	215
	10/26/1995	-0.105361	J	220
	11/19/1996	ND<0	86.5	
	12/19/1996	ND<0	86.5	
	3/24/1997	ND<0	86.5	
	9/24/1997	ND<0	86.5	
	4/7/1998	ND<0	86.5	
	9/23/1998	ND<0	86.5	
	3/16/1999	ND<0	86.5	
	9/23/1999	ND<0	86.5	
	3/15/2000	ND<0	86.5	
	9/24/2003	ND<0	86.5	
	3/11/2004	ND<0	86.5	
	10/12/2004	ND<0	86.5	
	4/1/2005	-1.13943	J	185
	10/25/2005	ND<0	86.5	
	4/29/2006	-1.23787	J	180
	11/18/2006	-1.56065	J	174
	5/23/2007	ND<0	86.5	
	11/28/2007	-1.27297	J	178
	6/5/2008	-0.891598	J	197
	11/20/2008	-0.891598	J	198
	6/11/2009	-0.941609	J	195
	11/16/2009	-0.544727	J	207
	6/30/2010	-0.385662	J	210
	11/12/2010	-0.634878	J	204
	7/5/2011	-1.27297	J	179
	11/22/2011	-1.10866	J	187
	11/22/2011	-1.10866	J	188

Rank Sum = 4531
Rank Mean = 146.161

MW-12BR	3/16/1999	ND<0	86.5	
	9/23/1999	ND<0	86.5	
	3/15/2000	ND<0	86.5	
	9/24/2003	ND<0	86.5	
	3/11/2004	ND<0	86.5	
	10/12/2004	ND<0	86.5	
	4/1/2005	-0.867501	J	199
	10/25/2005	ND<0	86.5	
	4/29/2006	ND<0	86.5	
	11/18/2006	ND<0	86.5	
	5/23/2007	ND<0	86.5	
	11/28/2007	ND<0	86.5	
	6/5/2008	ND<0	86.5	
	11/20/2008	ND<0	86.5	
	6/11/2009	ND<-2.59027		86.5

	11/16/2009	ND<-2.59027			86.5
	6/30/2010	ND<-2.59027			86.5
	11/12/2010	ND<-2.59027	U		86.5
	7/5/2011	ND<-2.59027	U	86.5	
	11/22/2011	ND<-2.59027	U		86.5
	11/22/2011	ND<-2.59027	U		86.5

Rank Sum = 1929
Rank Mean = 91.8571

MW-12A	R	3/16/1999	ND<0		86.5
	9/23/1999	ND<0	86.5		
	3/15/2000	ND<0	86.5		
	9/24/2003	ND<0	86.5		
	3/11/2004	ND<0	86.5		
	10/12/2004	ND<0	86.5		
	4/1/2005	ND<0	86.5		
	10/25/2005	-1.13943	J		186
	4/29/2006	-1.04982	J		192
	11/18/2006	ND<0	86.5		
	5/23/2007	ND<0	86.5		
	11/28/2007	ND<0	86.5		
	6/5/2008	-1.20397	J	182	
	11/20/2008	ND<0	86.5		
	6/11/2009	ND<-2.59027			86.5
	11/16/2009	ND<-2.59027			86.5
	6/30/2010	ND<-2.59027			86.5
	11/12/2010	-1.83258	J		173
	7/5/2011	-1.10866	J	189	
	11/22/2011	ND<-2.59027	U		86.5
	11/22/2011	ND<-2.59027	U		86.5

Rank Sum = 2306
Rank Mean = 109.81

MW-6	7/20/1995	ND<0	86.5		
	8/24/1995	ND<0	86.5		
	9/28/1995	ND<0	86.5		
	10/26/1995	ND<0	86.5		
	11/19/1996	ND<0	86.5		
	12/19/1996	ND<0	86.5		
	3/24/1997	ND<0	86.5		
	9/24/1997	ND<0	86.5		
	4/7/1998	ND<0	86.5		
	9/23/1998	ND<0	86.5		
	3/16/1999	ND<0	86.5		
	9/23/1999	ND<0	86.5		
	3/15/2000	ND<0	86.5		
	9/24/2003	ND<0	86.5		
	3/11/2004	ND<0	86.5		
	10/12/2004	ND<0	86.5		
	4/1/2005	ND<0	86.5		
	10/25/2005	ND<0	86.5		
	4/29/2006	ND<0	86.5		
	11/18/2006	ND<0	86.5		
	5/23/2007	ND<0	86.5		
	11/28/2007	ND<0	86.5		
	6/5/2008	ND<0	86.5		
	11/20/2008	ND<0	86.5		
	6/11/2009	ND<-2.59027			86.5
	11/16/2009	ND<-2.59027			86.5
	6/30/2010	ND<-2.59027			86.5
	11/12/2010	ND<-2.59027	U		86.5
	7/5/2011	ND<-2.59027	U	86.5	

	11/22/2011	ND<-2.59027	U	86.5
	11/22/2011	ND<-2.59027	U	86.5

Rank Sum = 2681.5
Rank Mean = 86.5

MW-10	7/20/1995	-0.34249	J	211
	8/24/1995	0.470004		223
	9/28/1995	ND<0	86.5	
	10/26/1995	0.693147		224
	11/19/1996	ND<0	86.5	
	12/19/1996	ND<0	86.5	
	3/24/1997	ND<0	86.5	
	9/24/1997	ND<0	86.5	
	4/7/1998	ND<0	86.5	
	9/23/1998	ND<0	86.5	
	3/16/1999	ND<0	86.5	
	9/23/1999	ND<0	86.5	
	3/15/2000	ND<0	86.5	
	9/24/2003	ND<0	86.5	
	3/11/2004	ND<0	86.5	
	10/12/2004	ND<0	86.5	
	4/1/2005	-0.287682	J	213
	10/25/2005	-0.34249	J	212
	4/29/2006	-0.040822	J	221
	11/18/2006	-0.597837	J	206
	5/23/2007	ND<0	86.5	
	11/28/2007	-1.17118	J	184
	6/5/2008	-1.02165	J	193
	11/20/2008	ND<0	86.5	
	6/11/2009	ND<-2.59027		86.5
	11/16/2009	-1.23787	J	181
	6/30/2010	ND<-2.59027		86.5
	11/12/2010	ND<-2.59027	U	86.5
	7/5/2011	ND<-2.59027	U	86.5
	11/22/2011	ND<-2.59027	U	86.5
	11/22/2011	ND<-2.59027	U	86.5

Rank Sum = 3884.5
Rank Mean = 125.306

MW-11R	7/20/1995	0.741937		226
	8/24/1995	1.4816	235	
	9/28/1995	0.693147		225
	10/26/1995	1.38629		234
	11/19/1996	ND<0	86.5	
	12/19/1996	ND<0	86.5	
	3/24/1997	ND<0	86.5	
	9/24/1997	ND<0	86.5	
	4/7/1998	ND<0	86.5	
	9/23/1998	ND<0	86.5	
	3/16/1999	0.993252		232
	9/23/1999	ND<0	86.5	
	3/15/2000	ND<0	86.5	
	9/24/2003	ND<0	86.5	
	3/11/2004	ND<0	86.5	
	10/12/2004	ND<0	86.5	
	4/1/2005	0.970779		230
	10/25/2005	-0.776529	J	201
	4/29/2006	ND<0	86.5	
	11/18/2006	-0.71335	J	202
	5/23/2007	ND<0	86.5	
	11/28/2007	-0.967584	J	194
	6/5/2008	ND<0	86.5	

	11/20/2008	-0.916291	J	196
	6/11/2009	0.832909		228
	11/16/2009	-1.20397	J	183
	6/30/2010	0.182322		222
	11/12/2010	ND<-2.59027	U	86.5
	7/5/2011	ND<-2.59027	U	86.5
	11/22/2011	-1.56065	J	175
	11/22/2011	-1.56065	J	176

Rank Sum = 4543
Rank Mean = 146.548

MW-8	7/20/1995	1.16315		233
	8/24/1995	4.59512		246
	9/28/1995	4.47734		245
	10/26/1995	2.07944		238
	11/19/1996	ND<0	86.5	
	12/19/1996	4.07754		244
	3/24/1997	3.89182		243
	9/24/1997	3.52636		242
	4/7/1998	ND<0	86.5	
	9/23/1998	3.43399		240
	3/16/1999	3.41444		239
	9/23/1999	3.47197		241
	3/15/2000	ND<0	86.5	
	9/24/2003	ND<0	86.5	
	3/11/2004	1.79176		237
	10/12/2004	ND<0	86.5	
	4/1/2005	1.67523		236
	10/25/2005	0.779325		227
	4/29/2006	0.875469		229
	11/18/2006	0.989541		231
	5/23/2007	ND<0	86.5	
	11/28/2007	-0.616186	J	205
	6/5/2008	-0.174353	J	217
	11/20/2008	-0.430783	J	208
	6/11/2009	-0.223144	J	216
	6/30/2010	-1.42712	J	177
	11/12/2010	ND<-2.59027	U	86.5
	7/5/2011	ND<-2.59027	U	86.5
	11/22/2011	-1.07881	J	190
	11/22/2011	-1.07881	J	191

Rank Sum = 5667
Rank Mean = 188.9

Calculation Results:

Kruskal-Wallis H Statistic = 52.7583
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 80.1555
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
52.7583 > 15.5073 indicating a significant group difference at 5% significance level
80.1555 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 86.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	**103.081**	**16.5806**	**48.231**
MW-9	**146.161**	**59.6613**	**48.231**
MW-12BR	**91.8571**	**5.35714**	**52.4134**
MW-12AR	**109.81**	**23.3095**	**52.4134**

MW-6	86.5	0	48.231
MW-10	125.306	38.8065	48.231
MW-11R	146.548	60.0484	48.231
MW-8	188.9	102.4	48.5355

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 86.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	103.081	16.5806	52.0829
MW-9	146.161	59.6613	52.0829
MW-12BR	91.8571	5.35714	56.5994
MW-12AR	109.81	23.3095	56.5994
MW-6	86.5	0	52.0829
MW-10	125.306	38.8065	52.0829
MW-11R	146.548	60.0484	52.0829
MW-8	188.9	102.4	52.4118

Shewhart-CUSUM Control Chart

Parameter: Tetrachloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.7321
Baseline Std Dev = 1.93281
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std Mean
3/24/1997	3.89182	0		0.600018
3/24/1997	3.89182	0		0.600018
9/24/1997	3.52636	0		0.410936
9/24/1997	3.52636	0		0.410936
4/7/1998	0	0	-1.41353	
4/7/1998	0	0	-1.41353	
9/23/1998	3.43399	0		0.363144
9/23/1998	3.43399	0		0.363144
3/16/1999	3.41444	0		0.353032
3/16/1999	3.41444	0		0.353032
9/23/1999	3.47197	0		0.382794
9/23/1999	3.47197	0		0.382794
3/15/2000	0	0		-1.41353
3/15/2000	0	0		-1.41353
9/24/2003	0	0		-1.41353
9/24/2003	0	0		-1.41353
3/11/2004	1.79176	0		-0.486513
3/11/2004	1.79176	0		-0.486513
10/12/2004	0	0		-1.41353
10/12/2004	0	0		-1.41353
4/1/2005	1.67523	0	-0.546805	
4/1/2005	1.67523	0	-0.546805	
10/25/2005	0.779325	0		-1.01033
10/25/2005	0.779325	0		-1.01033
4/29/2006	0.875469	0		-0.960584
4/29/2006	0.875469	0		-0.960584
11/18/2006	0.989541	0		-0.901565
11/18/2006	0.989541	0		-0.901565
5/23/2007	0	0		-1.41353
5/23/2007	0	0		-1.41353
11/28/2007	-0.616186	0		-1.73234
11/28/2007	-0.616186	0		-1.73234
6/5/2008	-0.174353	0		-1.50374
6/5/2008	-0.174353	0		-1.50374
11/20/2008	-0.430783	0		-1.63641
11/20/2008	-0.430783	0		-1.63641
6/11/2009	-0.223144	0		-1.52898
6/11/2009	-0.223144	0		-1.52898
6/30/2010	-1.42712	0		-2.1519
6/30/2010	-1.42712	0		-2.1519
11/12/2010	-2.59027	0		-2.75369
11/12/2010	-2.59027	0		-2.75369
7/5/2011	-2.59027	0	-2.75369	
7/5/2011	-2.59027	0	-2.75369	
11/22/2011	-1.07881	0		-2.78839

11/22/2011	-1.07881 0	-2.78839

Shewhart-CUSUM Control Chart

Parameter: Tetrachloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.307636
Baseline Std Dev = 0.362969
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	0.847557
3/24/1997	0	0	0.847557
9/24/1997	0	0	0.847557
9/24/1997	0	0	0.847557
4/7/1998	0	0	0.847557
4/7/1998	0	0	0.847557
9/23/1998	0	0	0.847557
9/23/1998	0	0	0.847557
3/16/1999	0	0	0.847557
3/16/1999	0	0	0.847557
9/23/1999	0	0	0.847557
9/23/1999	0	0	0.847557
3/15/2000	0	0	0.847557
3/15/2000	0	0	0.847557
9/24/2003	0	0	0.847557
9/24/2003	0	0	0.847557
3/11/2004	0	0	0.847557
3/11/2004	0	0	0.847557
10/12/2004	0	0	0.847557
10/12/2004	0	0	0.847557
4/1/2005	-1.13943	0	-2.29165
4/1/2005	-1.13943	0	-2.29165
10/25/2005	0	0	0.847557
10/25/2005	0	0	0.847557
4/29/2006	-1.23787	0	-2.56286
4/29/2006	-1.23787	0	-2.56286
11/18/2006	-1.56065	0	-3.45212
11/18/2006	-1.56065	0	-3.45212
5/23/2007	0	0	0.847557
5/23/2007	0	0	0.847557
11/28/2007	-1.27297	0	-2.65954
11/28/2007	-1.27297	0	-2.65954
6/5/2008	-0.891598	0	-1.60885
6/5/2008	-0.891598	0	-1.60885
11/20/2008	-0.891598	0	-1.60885
11/20/2008	-0.891598	0	-1.60885
6/11/2009	-0.941609	0	-1.74663
6/11/2009	-0.941609	0	-1.74663
11/16/2009	-0.544727	0	-0.653199
11/16/2009	-0.544727	0	-0.653199
6/30/2010	-0.385662	0	-0.214966
6/30/2010	-0.385662	0	-0.214966
11/12/2010	-0.634878	0	-0.901571
11/12/2010	-0.634878	0	-0.901571
7/5/2011	-1.27297	0	-2.65954

7/5/2011	-1.27297	0	-2.65954
11/22/2011	-1.10866	0	-3.12099
11/22/2011	-1.10866	0	-3.12099

Shewhart-CUSUM Control Chart

Parameter: Tetrachloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.717164
Baseline Std Dev = 0.642175
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-1.11677
3/24/1997	0	0	-1.11677
9/24/1997	0	0	-1.11677
9/24/1997	0	0	-1.11677
4/7/1998	0	0	-1.11677
4/7/1998	0	0	-1.11677
9/23/1998	0	0	-1.11677
9/23/1998	0	0	-1.11677
3/16/1999	0.993252	0	0.429926
3/16/1999	0.993252	0	0.429926
9/23/1999	0	0	-1.11677
9/23/1999	0	0	-1.11677
3/15/2000	0	0	-1.11677
3/15/2000	0	0	-1.11677
9/24/2003	0	0	-1.11677
9/24/2003	0	0	-1.11677
3/11/2004	0	0	-1.11677
3/11/2004	0	0	-1.11677
10/12/2004	0	0	-1.11677
10/12/2004	0	0	-1.11677
4/1/2005	0.970779	0	0.394931
4/1/2005	0.970779	0	0.394931
10/25/2005	-0.776529	0	-2.32599
10/25/2005	-0.776529	0	-2.32599
4/29/2006	0	0	-1.11677
4/29/2006	0	0	-1.11677
11/18/2006	-0.713350	0	-2.22761
11/18/2006	-0.713350	0	-2.22761
5/23/2007	0	0	-1.11677
5/23/2007	0	0	-1.11677
11/28/2007	-0.967584	0	-2.6235
11/28/2007	-0.967584	0	-2.6235
6/5/2008	0	0	-1.11677
6/5/2008	0	0	-1.11677
11/20/2008	-0.916291	0	-2.54363
11/20/2008	-0.916291	0	-2.54363
6/11/2009	0.832909	0	0.180239
6/11/2009	0.832909	0	0.180239
11/16/2009	-1.203970	0	-2.99161
11/16/2009	-1.203970	0	-2.99161
6/30/2010	0.182322	0	-0.832861
6/30/2010	0.182322	0	-0.832861
11/12/2010	-2.590270	0	-5.15036
11/12/2010	-2.590270	0	-5.15036
7/5/2011	-2.590270	0	-5.15036

7/5/2011	-2.59027	0	-5.15036
11/22/2011	-1.56065	0	-5.01625
11/22/2011	-1.56065	0	-5.01625

Sen's Slope Analysis
Parameter: Tetrachloroethene
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-0.673345 J (8/24/1995)	-0.84397 J (7/20/1995)	(-0.673345 - -0.84397)/(2 - 1)	0.170626
-0.223144 J (9/28/1995)	-0.84397 J (7/20/1995)	(-0.223144 - -0.84397)/(3 - 1)	0.310413
-0.105361 J (10/26/1995)	-0.84397 J (7/20/1995)	(-0.105361 - -0.84397)/(4 - 1)	0.246203
ND<0 (11/19/1996)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(5 - 1)	0.210993
ND<0 (12/19/1996)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(6 - 1)	0.168794
ND<0 (3/24/1997)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(7 - 1)	0.140662
ND<0 (9/24/1997)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(8 - 1)	0.120567
ND<0 (4/7/1998)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(9 - 1)	0.105496
ND<0 (9/23/1998)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(10 - 1)	0.0937745
ND<0 (3/16/1999)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(11 - 1)	0.084397
ND<0 (9/23/1999)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(12 - 1)	0.0767246
ND<0 (3/15/2000)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(13 - 1)	0.0703308
ND<0 (9/24/2003)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(14 - 1)	0.0649208
ND<0 (3/11/2004)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(15 - 1)	0.0602836
ND<0 (10/12/2004)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(16 - 1)	0.0562647
-1.13943 J (4/1/2005)	-0.84397 J (7/20/1995)	(-1.13943 - -0.84397)/(17 - 1)	-0.0184665
ND<0 (10/25/2005)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(18 - 1)	0.0496453
-1.23787 J (4/29/2006)	-0.84397 J (7/20/1995)	(-1.23787 - -0.84397)/(19 - 1)	-0.0218836
-1.56065 J (11/18/2006)	-0.84397 J (7/20/1995)	(-1.56065 - -0.84397)/(20 - 1)	-0.0377199
ND<0 (5/23/2007)	-0.84397 J (7/20/1995)	(0 - -0.84397)/(21 - 1)	0.0421985
-1.27297 J (11/28/2007)	-0.84397 J (7/20/1995)	(-1.27297 - -0.84397)/(22 - 1)	-0.0204284
-0.891598 J (6/5/2008)	-0.84397 J (7/20/1995)	(-0.891598 - -0.84397)/(23 - 1)	-0.00216491
-0.891598 J (11/20/2008)	-0.84397 J (7/20/1995)	(-0.891598 - -0.84397)/(24 - 1)	-0.00207078
-0.941609 J (6/11/2009)	-0.84397 J (7/20/1995)	(-0.941609 - -0.84397)/(25 - 1)	-0.00406827
-0.544727 J (11/16/2009)	-0.84397 J (7/20/1995)	(-0.544727 - -0.84397)/(26 - 1)	0.0119697

-0.385662 J (6/30/2010)	-0.84397 J (7/20/1995)	(-0.385662 - -0.84397)/(27 - 1)
0.0176272		
-0.634878 J (11/12/2010)	-0.84397 J (7/20/1995)	(-0.634878 - -0.84397)/(28 - 1)
0.00774414		
-1.27297 J (7/5/2011)	-0.84397 J (7/20/1995)	(-1.27297 - -0.84397)/(29 - 1)
-0.0153213		
-1.10866 J (11/22/2011)	-0.84397 J (7/20/1995)	(-1.10866 - -0.84397)/(30 - 1)
-0.00912733		
-1.10866 J (11/22/2011)	-0.84397 J (7/20/1995)	(-1.10866 - -0.84397)/(30 - 1)
-0.00912733		
-0.223144 J (9/28/1995)	-0.673345 J (8/24/1995)	(-0.223144 - -0.673345)/(3 - 2)
0.450201		
-0.105361 J (10/26/1995)	-0.673345 J (8/24/1995)	(-0.105361 - -0.673345)/(4 - 2)
0.283992		
ND<0 (11/19/1996)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(5 - 2)
0.224448		
ND<0 (12/19/1996)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(6 - 2)
0.168336		
ND<0 (3/24/1997)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(7 - 2)
0.134669		
ND<0 (9/24/1997)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(8 - 2)
0.112224		
ND<0 (4/7/1998)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(9 - 2)
0.0961921		
ND<0 (9/23/1998)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(10 - 2)
0.0841681		
ND<0 (3/16/1999)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(11 - 2)
0.0748161		
ND<0 (9/23/1999)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(12 - 2)
0.0673345		
ND<0 (3/15/2000)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(13 - 2)
0.0612131		
ND<0 (9/24/2003)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(14 - 2)
0.056112		
ND<0 (3/11/2004)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(15 - 2)
0.0517957		
ND<0 (10/12/2004)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(16 - 2)
0.048096		
-1.13943 J (4/1/2005)	-0.673345 J (8/24/1995)	(-1.13943 - -0.673345)/(17 - 2)
-0.0310726		
ND<0 (10/25/2005)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(18 - 2)
0.042084		
-1.23787 J (4/29/2006)	-0.673345 J (8/24/1995)	(-1.23787 - -0.673345)/(19 - 2)
-0.0332076		
-1.56065 J (11/18/2006)	-0.673345 J (8/24/1995)	(-1.56065 - -0.673345)/(20 - 2)
-0.0492946		
ND<0 (5/23/2007)	-0.673345 J (8/24/1995)	(0 - -0.673345)/(21 - 2)
0.0354392		
-1.27297 J (11/28/2007)	-0.673345 J (8/24/1995)	(-1.27297 - -0.673345)/(22 - 2)
-0.0299811		
-0.891598 J (6/5/2008)	-0.673345 J (8/24/1995)	(-0.891598 - -0.673345)/(23 - 2)
-0.010393		
-0.891598 J (11/20/2008)	-0.673345 J (8/24/1995)	(-0.891598 - -0.673345)/(24 - 2)
-0.00992062		
-0.941609 J (6/11/2009)	-0.673345 J (8/24/1995)	(-0.941609 - -0.673345)/(25 - 2)
-0.0116637		
-0.544727 J (11/16/2009)	-0.673345 J (8/24/1995)	(-0.544727 - -0.673345)/(26 - 2)
0.00535906		
-0.385662 J (6/30/2010)	-0.673345 J (8/24/1995)	(-0.385662 - -0.673345)/(27 - 2)
0.0115073		

-0.634878 J (11/12/2010)	-0.673345 J (8/24/1995)	(-0.634878 - -0.673345)/(28 - 2)
0.00147947		
-1.27297 J (7/5/2011)	-0.673345 J (8/24/1995)	(-1.27297 - -0.673345)/(29 - 2)
-0.0222082		
-1.10866 J (11/22/2011)	-0.673345 J (8/24/1995)	(-1.10866 - -0.673345)/(30 - 2)
-0.0155471		
-1.10866 J (11/22/2011)	-0.673345 J (8/24/1995)	(-1.10866 - -0.673345)/(30 - 2)
-0.0155471		
-0.105361 J (10/26/1995)	-0.223144 J (9/28/1995)	(-0.105361 - -0.223144)/(4 - 3)
0.117783		
ND<0 (11/19/1996)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(5 - 3)
0.111572		
ND<0 (12/19/1996)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(6 - 3)
0.0743812		
ND<0 (3/24/1997)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(7 - 3)
0.0557859		
ND<0 (9/24/1997)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(8 - 3)
0.0446287		
ND<0 (4/7/1998)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(9 - 3)
0.0371906		
ND<0 (9/23/1998)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(10 - 3)
0.0318777		
ND<0 (3/16/1999)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(11 - 3)
0.0278929		
ND<0 (9/23/1999)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(12 - 3)
0.0247937		
ND<0 (3/15/2000)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(13 - 3)
0.0223144		
ND<0 (9/24/2003)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(14 - 3)
0.0202858		
ND<0 (3/11/2004)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(15 - 3)
0.0185953		
ND<0 (10/12/2004)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(16 - 3)
0.0171649		
-1.13943 J (4/1/2005)	-0.223144 J (9/28/1995)	(-1.13943 - -0.223144)/(17 - 3)
-0.0654493		
ND<0 (10/25/2005)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(18 - 3)
0.0148762		
-1.23787 J (4/29/2006)	-0.223144 J (9/28/1995)	(-1.23787 - -0.223144)/(19 - 3)
-0.0634207		
-1.56065 J (11/18/2006)	-0.223144 J (9/28/1995)	(-1.56065 - -0.223144)/(20 - 3)
-0.0786767		
ND<0 (5/23/2007)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(21 - 3)
0.0123969		
-1.27297 J (11/28/2007)	-0.223144 J (9/28/1995)	(-1.27297 - -0.223144)/(22 - 3)
-0.0552538		
-0.891598 J (6/5/2008)	-0.223144 J (9/28/1995)	(-0.891598 - -0.223144)/(23 - 3)
-0.0334227		
-0.891598 J (11/20/2008)	-0.223144 J (9/28/1995)	(-0.891598 - -0.223144)/(24 - 3)
-0.0318312		
-0.941609 J (6/11/2009)	-0.223144 J (9/28/1995)	(-0.941609 - -0.223144)/(25 - 3)
-0.0326575		
-0.544727 J (11/16/2009)	-0.223144 J (9/28/1995)	(-0.544727 - -0.223144)/(26 - 3)
-0.0139819		
-0.385662 J (6/30/2010)	-0.223144 J (9/28/1995)	(-0.385662 - -0.223144)/(27 - 3)
-0.00677162		
-0.634878 J (11/12/2010)	-0.223144 J (9/28/1995)	(-0.634878 - -0.223144)/(28 - 3)
-0.0164694		
-1.27297 J (7/5/2011)	-0.223144 J (9/28/1995)	(-1.27297 - -0.223144)/(29 - 3)
-0.0403778		

-1.10866 J (11/22/2011)	-0.223144 J (9/28/1995)	(-1.10866 - -0.223144)/(30 - 3)
-0.032797		
-1.10866 J (11/22/2011)	-0.223144 J (9/28/1995)	(-1.10866 - -0.223144)/(30 - 3)
-0.032797		
ND<0 (11/19/1996)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(5 - 4)
0.105361		
ND<0 (12/19/1996)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(6 - 4)
0.0526803		
ND<0 (3/24/1997)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(7 - 4)
0.0351202		
ND<0 (9/24/1997)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(8 - 4)
0.0263401		
ND<0 (4/7/1998)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(9 - 4)
0.0210721		
ND<0 (9/23/1998)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(10 - 4)
0.0175601		
ND<0 (3/16/1999)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(11 - 4)
0.0150515		
ND<0 (9/23/1999)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(12 - 4)
0.0131701		
ND<0 (3/15/2000)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(13 - 4)
0.0117067		
ND<0 (9/24/2003)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(14 - 4)
0.0105361		
ND<0 (3/11/2004)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(15 - 4)
0.00957823		
ND<0 (10/12/2004)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(16 - 4)
0.00878004		
-1.13943 J (4/1/2005)	-0.105361 J (10/26/1995)	(-1.13943 - -0.105361)/(17 - 4)
-0.0795441		
ND<0 (10/25/2005)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(18 - 4)
0.00752575		
-1.23787 J (4/29/2006)	-0.105361 J (10/26/1995)	(-1.23787 - -0.105361)/(19 - 4)
-0.0755009		
-1.56065 J (11/18/2006)	-0.105361 J (10/26/1995)	(-1.56065 - -0.105361)/(20 - 4)
-0.0909555		
ND<0 (5/23/2007)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(21 - 4)
0.00619768		
-1.27297 J (11/28/2007)	-0.105361 J (10/26/1995)	(-1.27297 - -0.105361)/(22 - 4)
-0.064867		
-0.891598 J (6/5/2008)	-0.105361 J (10/26/1995)	(-0.891598 - -0.105361)/(23 - 4)
-0.0413809		
-0.891598 J (11/20/2008)	-0.105361 J (10/26/1995)	(-0.891598 - -0.105361)/(24 - 4)
-0.0393119		
-0.941609 J (6/11/2009)	-0.105361 J (10/26/1995)	(-0.941609 - -0.105361)/(25 - 4)
-0.0398213		
-0.544727 J (11/16/2009)	-0.105361 J (10/26/1995)	(-0.544727 - -0.105361)/(26 - 4)
-0.0199712		
-0.385662 J (6/30/2010)	-0.105361 J (10/26/1995)	(-0.385662 - -0.105361)/(27 - 4)
-0.012187		
-0.634878 J (11/12/2010)	-0.105361 J (10/26/1995)	(-0.634878 - -0.105361)/(28 - 4)
-0.0220632		
-1.27297 J (7/5/2011)	-0.105361 J (10/26/1995)	(-1.27297 - -0.105361)/(29 - 4)
-0.0467042		
-1.10866 J (11/22/2011)	-0.105361 J (10/26/1995)	(-1.10866 - -0.105361)/(30 - 4)
-0.0385885		
-1.10866 J (11/22/2011)	-0.105361 J (10/26/1995)	(-1.10866 - -0.105361)/(30 - 4)
-0.0385885		
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5) 0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5) 0

ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
-1.13943 J (4/1/2005)	ND<0 (11/19/1996)	(-1.13943 - 0)/(17 - 5)	
-0.0949529			
ND<0 (10/25/2005)	ND<0 (11/19/1996)	(0 - 0)/(18 - 5)	0
-1.23787 J (4/29/2006)	ND<0 (11/19/1996)	(-1.23787 - 0)/(19 - 5)	
-0.0884196			
-1.56065 J (11/18/2006)	ND<0 (11/19/1996)	(-1.56065 - 0)/(20 - 5)	
-0.104043			
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
-1.27297 J (11/28/2007)	ND<0 (11/19/1996)	(-1.27297 - 0)/(22 - 5)	
-0.0748803			
-0.891598 J (6/5/2008)	ND<0 (11/19/1996)	(-0.891598 - 0)/(23 - 5)	
-0.0495332			
-0.891598 J (11/20/2008)	ND<0 (11/19/1996)	(-0.891598 - 0)/(24 - 5)	
-0.0469262			
-0.941609 J (6/11/2009)	ND<0 (11/19/1996)	(-0.941609 - 0)/(25 - 5)	
-0.0470804			
-0.544727 J (11/16/2009)	ND<0 (11/19/1996)	(-0.544727 - 0)/(26 - 5)	
-0.0259394			
-0.385662 J (6/30/2010)	ND<0 (11/19/1996)	(-0.385662 - 0)/(27 - 5)	
-0.0175301			
-0.634878 J (11/12/2010)	ND<0 (11/19/1996)	(-0.634878 - 0)/(28 - 5)	
-0.0276034			
-1.27297 J (7/5/2011)	ND<0 (11/19/1996)	(-1.27297 - 0)/(29 - 5)	
-0.0530402			
-1.10866 J (11/22/2011)	ND<0 (11/19/1996)	(-1.10866 - 0)/(30 - 5)	
-0.0443465			
-1.10866 J (11/22/2011)	ND<0 (11/19/1996)	(-1.10866 - 0)/(30 - 5)	
-0.0443465			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
-1.13943 J (4/1/2005)	ND<0 (12/19/1996)	(-1.13943 - 0)/(17 - 6)	
-0.103585			
ND<0 (10/25/2005)	ND<0 (12/19/1996)	(0 - 0)/(18 - 6)	0
-1.23787 J (4/29/2006)	ND<0 (12/19/1996)	(-1.23787 - 0)/(19 - 6)	
-0.0952211			
-1.56065 J (11/18/2006)	ND<0 (12/19/1996)	(-1.56065 - 0)/(20 - 6)	
-0.111475			
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0
-1.27297 J (11/28/2007)	ND<0 (12/19/1996)	(-1.27297 - 0)/(22 - 6)	
-0.0795604			
-0.891598 J (6/5/2008)	ND<0 (12/19/1996)	(-0.891598 - 0)/(23 - 6)	
-0.0524469			
-0.891598 J (11/20/2008)	ND<0 (12/19/1996)	(-0.891598 - 0)/(24 - 6)	
-0.0495332			

-0.941609 J (6/11/2009)	ND<0 (12/19/1996)	(-0.941609 - 0)/(25 - 6)		
-0.0495583				
-0.544727 J (11/16/2009)	ND<0 (12/19/1996)	(-0.544727 - 0)/(26 - 6)		
-0.0272364				
-0.385662 J (6/30/2010)	ND<0 (12/19/1996)	(-0.385662 - 0)/(27 - 6)		
-0.0183649				
-0.634878 J (11/12/2010)	ND<0 (12/19/1996)	(-0.634878 - 0)/(28 - 6)		
-0.0288581				
-1.27297 J (7/5/2011)	ND<0 (12/19/1996)	(-1.27297 - 0)/(29 - 6)		
-0.0553463				
-1.10866 J (11/22/2011)	ND<0 (12/19/1996)	(-1.10866 - 0)/(30 - 6)		
-0.0461943				
-1.10866 J (11/22/2011)	ND<0 (12/19/1996)	(-1.10866 - 0)/(30 - 6)		
-0.0461943				
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0	
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0	
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0	
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0	
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0	
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0	
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0	
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0	
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0	
-1.13943 J (4/1/2005)	ND<0 (3/24/1997)	(-1.13943 - 0)/(17 - 7)		
-0.113943				
ND<0 (10/25/2005)	ND<0 (3/24/1997)	(0 - 0)/(18 - 7)	0	
-1.23787 J (4/29/2006)	ND<0 (3/24/1997)	(-1.23787 - 0)/(19 - 7)		
-0.103156				
-1.56065 J (11/18/2006)	ND<0 (3/24/1997)	(-1.56065 - 0)/(20 - 7)		-0.12005
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0	
-1.27297 J (11/28/2007)	ND<0 (3/24/1997)	(-1.27297 - 0)/(22 - 7)		
-0.0848644				
-0.891598 J (6/5/2008)	ND<0 (3/24/1997)	(-0.891598 - 0)/(23 - 7)		
-0.0557249				
-0.891598 J (11/20/2008)	ND<0 (3/24/1997)	(-0.891598 - 0)/(24 - 7)		
-0.0524469				
-0.941609 J (6/11/2009)	ND<0 (3/24/1997)	(-0.941609 - 0)/(25 - 7)		
-0.0523116				
-0.544727 J (11/16/2009)	ND<0 (3/24/1997)	(-0.544727 - 0)/(26 - 7)		
-0.0286699				
-0.385662 J (6/30/2010)	ND<0 (3/24/1997)	(-0.385662 - 0)/(27 - 7)		
-0.0192831				
-0.634878 J (11/12/2010)	ND<0 (3/24/1997)	(-0.634878 - 0)/(28 - 7)		
-0.0302323				
-1.27297 J (7/5/2011)	ND<0 (3/24/1997)	(-1.27297 - 0)/(29 - 7)		
-0.0578621				
-1.10866 J (11/22/2011)	ND<0 (3/24/1997)	(-1.10866 - 0)/(30 - 7)		
-0.0482027				
-1.10866 J (11/22/2011)	ND<0 (3/24/1997)	(-1.10866 - 0)/(30 - 7)		
-0.0482027				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0	
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0	
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
-1.13943 J (4/1/2005)	ND<0 (9/24/1997)	(-1.13943 - 0)/(17 - 8)		
-0.126604				

ND<0 (10/25/2005)	ND<0 (9/24/1997)	(0 - 0)/(18 - 8)	0
-1.23787 J (4/29/2006)	ND<0 (9/24/1997)	(-1.23787 - 0)/(19 - 8)	
-0.112534			
-1.56065 J (11/18/2006)	ND<0 (9/24/1997)	(-1.56065 - 0)/(20 - 8)	
-0.130054			
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0
-1.27297 J (11/28/2007)	ND<0 (9/24/1997)	(-1.27297 - 0)/(22 - 8)	
-0.0909261			
-0.891598 J (6/5/2008)	ND<0 (9/24/1997)	(-0.891598 - 0)/(23 - 8)	
-0.0594399			
-0.891598 J (11/20/2008)	ND<0 (9/24/1997)	(-0.891598 - 0)/(24 - 8)	
-0.0557249			
-0.941609 J (6/11/2009)	ND<0 (9/24/1997)	(-0.941609 - 0)/(25 - 8)	
-0.0553887			
-0.544727 J (11/16/2009)	ND<0 (9/24/1997)	(-0.544727 - 0)/(26 - 8)	
-0.0302626			
-0.385662 J (6/30/2010)	ND<0 (9/24/1997)	(-0.385662 - 0)/(27 - 8)	
-0.020298			
-0.634878 J (11/12/2010)	ND<0 (9/24/1997)	(-0.634878 - 0)/(28 - 8)	
-0.0317439			
-1.27297 J (7/5/2011)	ND<0 (9/24/1997)	(-1.27297 - 0)/(29 - 8)	
-0.0606174			
-1.10866 J (11/22/2011)	ND<0 (9/24/1997)	(-1.10866 - 0)/(30 - 8)	
-0.0503938			
-1.10866 J (11/22/2011)	ND<0 (9/24/1997)	(-1.10866 - 0)/(30 - 8)	
-0.0503938			
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
-1.13943 J (4/1/2005)	ND<0 (4/7/1998)	(-1.13943 - 0)/(17 - 9)	
-0.142429			
ND<0 (10/25/2005)	ND<0 (4/7/1998)	(0 - 0)/(18 - 9)	0
-1.23787 J (4/29/2006)	ND<0 (4/7/1998)	(-1.23787 - 0)/(19 - 9)	
-0.123787			
-1.56065 J (11/18/2006)	ND<0 (4/7/1998)	(-1.56065 - 0)/(20 - 9)	
-0.141877			
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0
-1.27297 J (11/28/2007)	ND<0 (4/7/1998)	(-1.27297 - 0)/(22 - 9)	
-0.0979204			
-0.891598 J (6/5/2008)	ND<0 (4/7/1998)	(-0.891598 - 0)/(23 - 9)	
-0.0636856			
-0.891598 J (11/20/2008)	ND<0 (4/7/1998)	(-0.891598 - 0)/(24 - 9)	
-0.0594399			
-0.941609 J (6/11/2009)	ND<0 (4/7/1998)	(-0.941609 - 0)/(25 - 9)	
-0.0588505			
-0.544727 J (11/16/2009)	ND<0 (4/7/1998)	(-0.544727 - 0)/(26 - 9)	
-0.0320428			
-0.385662 J (6/30/2010)	ND<0 (4/7/1998)	(-0.385662 - 0)/(27 - 9)	
-0.0214257			
-0.634878 J (11/12/2010)	ND<0 (4/7/1998)	(-0.634878 - 0)/(28 - 9)	
-0.0334146			
-1.27297 J (7/5/2011)	ND<0 (4/7/1998)	(-1.27297 - 0)/(29 - 9)	
-0.0636483			
-1.10866 J (11/22/2011)	ND<0 (4/7/1998)	(-1.10866 - 0)/(30 - 9)	
-0.0527935			
-1.10866 J (11/22/2011)	ND<0 (4/7/1998)	(-1.10866 - 0)/(30 - 9)	
-0.0527935			

ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0	
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0	
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
-1.13943 J (4/1/2005)	ND<0 (9/23/1998)	(-1.13943 - 0)/(17 - 10)		
-0.162776				
ND<0 (10/25/2005)	ND<0 (9/23/1998)	(0 - 0)/(18 - 10)	0	
-1.23787 J (4/29/2006)	ND<0 (9/23/1998)	(-1.23787 - 0)/(19 - 10)		
-0.137542				
-1.56065 J (11/18/2006)	ND<0 (9/23/1998)	(-1.56065 - 0)/(20 - 10)		
-0.156065				
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0	
-1.27297 J (11/28/2007)	ND<0 (9/23/1998)	(-1.27297 - 0)/(22 - 10)		-0.10608
-0.891598 J (6/5/2008)	ND<0 (9/23/1998)	(-0.891598 - 0)/(23 - 10)		
-0.0685845				
-0.891598 J (11/20/2008)	ND<0 (9/23/1998)	(-0.891598 - 0)/(24 - 10)		
-0.0636856				
-0.941609 J (6/11/2009)	ND<0 (9/23/1998)	(-0.941609 - 0)/(25 - 10)		
-0.0627739				
-0.544727 J (11/16/2009)	ND<0 (9/23/1998)	(-0.544727 - 0)/(26 - 10)		
-0.0340454				
-0.385662 J (6/30/2010)	ND<0 (9/23/1998)	(-0.385662 - 0)/(27 - 10)		
-0.022686				
-0.634878 J (11/12/2010)	ND<0 (9/23/1998)	(-0.634878 - 0)/(28 - 10)		
-0.035271				
-1.27297 J (7/5/2011)	ND<0 (9/23/1998)	(-1.27297 - 0)/(29 - 10)		
-0.0669982				
-1.10866 J (11/22/2011)	ND<0 (9/23/1998)	(-1.10866 - 0)/(30 - 10)		
-0.0554331				
-1.10866 J (11/22/2011)	ND<0 (9/23/1998)	(-1.10866 - 0)/(30 - 10)		
-0.0554331				
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0	
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0	
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0	
ND<0 (3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(15 - 11)	0	
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0	
-1.13943 J (4/1/2005)	ND<0 (3/16/1999)	(-1.13943 - 0)/(17 - 11)		
-0.189906				
ND<0 (10/25/2005)	ND<0 (3/16/1999)	(0 - 0)/(18 - 11)	0	
-1.23787 J (4/29/2006)	ND<0 (3/16/1999)	(-1.23787 - 0)/(19 - 11)		
-0.154734				
-1.56065 J (11/18/2006)	ND<0 (3/16/1999)	(-1.56065 - 0)/(20 - 11)		
-0.173405				
ND<0 (5/23/2007)	ND<0 (3/16/1999)	(0 - 0)/(21 - 11)	0	
-1.27297 J (11/28/2007)	ND<0 (3/16/1999)	(-1.27297 - 0)/(22 - 11)		
-0.115724				
-0.891598 J (6/5/2008)	ND<0 (3/16/1999)	(-0.891598 - 0)/(23 - 11)		
-0.0742998				
-0.891598 J (11/20/2008)	ND<0 (3/16/1999)	(-0.891598 - 0)/(24 - 11)		
-0.0685845				
-0.941609 J (6/11/2009)	ND<0 (3/16/1999)	(-0.941609 - 0)/(25 - 11)		
-0.0672578				
-0.544727 J (11/16/2009)	ND<0 (3/16/1999)	(-0.544727 - 0)/(26 - 11)		
-0.0363151				
-0.385662 J (6/30/2010)	ND<0 (3/16/1999)	(-0.385662 - 0)/(27 - 11)		
-0.0241039				
-0.634878 J (11/12/2010)	ND<0 (3/16/1999)	(-0.634878 - 0)/(28 - 11)		
-0.0373458				

-1.27297 J (7/5/2011)	ND<0 (3/16/1999)	(-1.27297 - 0)/(29 - 11)		
-0.0707203				
-1.10866 J (11/22/2011)	ND<0 (3/16/1999)	(-1.10866 - 0)/(30 - 11)		
-0.0583507				
-1.10866 J (11/22/2011)	ND<0 (3/16/1999)	(-1.10866 - 0)/(30 - 11)		
-0.0583507				
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
-1.13943 J (4/1/2005)	ND<0 (9/23/1999)	(-1.13943 - 0)/(17 - 12)		
-0.227887				
ND<0 (10/25/2005)	ND<0 (9/23/1999)	(0 - 0)/(18 - 12)	0	
-1.23787 J (4/29/2006)	ND<0 (9/23/1999)	(-1.23787 - 0)/(19 - 12)		
-0.176839				
-1.56065 J (11/18/2006)	ND<0 (9/23/1999)	(-1.56065 - 0)/(20 - 12)		
-0.195081				
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0	
-1.27297 J (11/28/2007)	ND<0 (9/23/1999)	(-1.27297 - 0)/(22 - 12)		
-0.127297				
-0.891598 J (6/5/2008)	ND<0 (9/23/1999)	(-0.891598 - 0)/(23 - 12)		
-0.0810544				
-0.891598 J (11/20/2008)	ND<0 (9/23/1999)	(-0.891598 - 0)/(24 - 12)		
-0.0742998				
-0.941609 J (6/11/2009)	ND<0 (9/23/1999)	(-0.941609 - 0)/(25 - 12)		
-0.0724314				
-0.544727 J (11/16/2009)	ND<0 (9/23/1999)	(-0.544727 - 0)/(26 - 12)		
-0.0389091				
-0.385662 J (6/30/2010)	ND<0 (9/23/1999)	(-0.385662 - 0)/(27 - 12)		
-0.0257108				
-0.634878 J (11/12/2010)	ND<0 (9/23/1999)	(-0.634878 - 0)/(28 - 12)		
-0.0396799				
-1.27297 J (7/5/2011)	ND<0 (9/23/1999)	(-1.27297 - 0)/(29 - 12)		
-0.0748803				
-1.10866 J (11/22/2011)	ND<0 (9/23/1999)	(-1.10866 - 0)/(30 - 12)		
-0.0615924				
-1.10866 J (11/22/2011)	ND<0 (9/23/1999)	(-1.10866 - 0)/(30 - 12)		
-0.0615924				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
-1.13943 J (4/1/2005)	ND<0 (3/15/2000)	(-1.13943 - 0)/(17 - 13)		
-0.284859				
ND<0 (10/25/2005)	ND<0 (3/15/2000)	(0 - 0)/(18 - 13)	0	
-1.23787 J (4/29/2006)	ND<0 (3/15/2000)	(-1.23787 - 0)/(19 - 13)		
-0.206312				
-1.56065 J (11/18/2006)	ND<0 (3/15/2000)	(-1.56065 - 0)/(20 - 13)		-0.22295
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
-1.27297 J (11/28/2007)	ND<0 (3/15/2000)	(-1.27297 - 0)/(22 - 13)		
-0.141441				
-0.891598 J (6/5/2008)	ND<0 (3/15/2000)	(-0.891598 - 0)/(23 - 13)		
-0.0891598				
-0.891598 J (11/20/2008)	ND<0 (3/15/2000)	(-0.891598 - 0)/(24 - 13)		
-0.0810544				
-0.941609 J (6/11/2009)	ND<0 (3/15/2000)	(-0.941609 - 0)/(25 - 13)		
-0.0784674				
-0.544727 J (11/16/2009)	ND<0 (3/15/2000)	(-0.544727 - 0)/(26 - 13)		
-0.0419021				
-0.385662 J (6/30/2010)	ND<0 (3/15/2000)	(-0.385662 - 0)/(27 - 13)		
-0.0275473				

-0.634878 J (11/12/2010)	ND<0	(3/15/2000)	(-0.634878 - 0)/(28 - 13)		
-0.0423252					
-1.27297 J (7/5/2011)	ND<0	(3/15/2000)	(-1.27297 - 0)/(29 - 13)		
-0.0795604					
-1.10866 J (11/22/2011)	ND<0	(3/15/2000)	(-1.10866 - 0)/(30 - 13)		
-0.0652154					
-1.10866 J (11/22/2011)	ND<0	(3/15/2000)	(-1.10866 - 0)/(30 - 13)		
-0.0652154					
ND<0 (3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0 (10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0	
-1.13943 J (4/1/2005)	ND<0	(9/24/2003)	(-1.13943 - 0)/(17 - 14)		
-0.379811					
ND<0 (10/25/2005)	ND<0	(9/24/2003)	(0 - 0)/(18 - 14)	0	
-1.23787 J (4/29/2006)	ND<0	(9/24/2003)	(-1.23787 - 0)/(19 - 14)		
-0.247575					
-1.56065 J (11/18/2006)	ND<0	(9/24/2003)	(-1.56065 - 0)/(20 - 14)		
-0.260108					
ND<0 (5/23/2007)	ND<0	(9/24/2003)	(0 - 0)/(21 - 14)	0	
-1.27297 J (11/28/2007)	ND<0	(9/24/2003)	(-1.27297 - 0)/(22 - 14)		
-0.159121					
-0.891598 J (6/5/2008)	ND<0	(9/24/2003)	(-0.891598 - 0)/(23 - 14)		
-0.0990665					
-0.891598 J (11/20/2008)	ND<0	(9/24/2003)	(-0.891598 - 0)/(24 - 14)		
-0.0891598					
-0.941609 J (6/11/2009)	ND<0	(9/24/2003)	(-0.941609 - 0)/(25 - 14)		
-0.0856008					
-0.544727 J (11/16/2009)	ND<0	(9/24/2003)	(-0.544727 - 0)/(26 - 14)		
-0.0453939					
-0.385662 J (6/30/2010)	ND<0	(9/24/2003)	(-0.385662 - 0)/(27 - 14)		
-0.0296663					
-0.634878 J (11/12/2010)	ND<0	(9/24/2003)	(-0.634878 - 0)/(28 - 14)		
-0.0453484					
-1.27297 J (7/5/2011)	ND<0	(9/24/2003)	(-1.27297 - 0)/(29 - 14)		
-0.0848644					
-1.10866 J (11/22/2011)	ND<0	(9/24/2003)	(-1.10866 - 0)/(30 - 14)		
-0.0692914					
-1.10866 J (11/22/2011)	ND<0	(9/24/2003)	(-1.10866 - 0)/(30 - 14)		
-0.0692914					
ND<0 (10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(16 - 15)	0	
-1.13943 J (4/1/2005)	ND<0	(3/11/2004)	(-1.13943 - 0)/(17 - 15)		
-0.569717					
ND<0 (10/25/2005)	ND<0	(3/11/2004)	(0 - 0)/(18 - 15)	0	
-1.23787 J (4/29/2006)	ND<0	(3/11/2004)	(-1.23787 - 0)/(19 - 15)		
-0.309469					
-1.56065 J (11/18/2006)	ND<0	(3/11/2004)	(-1.56065 - 0)/(20 - 15)		-0.31213
ND<0 (5/23/2007)	ND<0	(3/11/2004)	(0 - 0)/(21 - 15)	0	
-1.27297 J (11/28/2007)	ND<0	(3/11/2004)	(-1.27297 - 0)/(22 - 15)		
-0.181852					
-0.891598 J (6/5/2008)	ND<0	(3/11/2004)	(-0.891598 - 0)/(23 - 15)		-0.11145
-0.891598 J (11/20/2008)	ND<0	(3/11/2004)	(-0.891598 - 0)/(24 - 15)		
-0.0990665					
-0.941609 J (6/11/2009)	ND<0	(3/11/2004)	(-0.941609 - 0)/(25 - 15)		
-0.0941609					
-0.544727 J (11/16/2009)	ND<0	(3/11/2004)	(-0.544727 - 0)/(26 - 15)		
-0.0495207					
-0.385662 J (6/30/2010)	ND<0	(3/11/2004)	(-0.385662 - 0)/(27 - 15)		
-0.0321385					
-0.634878 J (11/12/2010)	ND<0	(3/11/2004)	(-0.634878 - 0)/(28 - 15)		
-0.0488368					

-1.27297 J (7/5/2011)	ND<0 (3/11/2004)	(-1.27297 - 0)/(29 - 15)		
-0.0909261				
-1.10866 J (11/22/2011)	ND<0 (3/11/2004)	(-1.10866 - 0)/(30 - 15)		
-0.0739108				
-1.10866 J (11/22/2011)	ND<0 (3/11/2004)	(-1.10866 - 0)/(30 - 15)		
-0.0739108				
-1.13943 J (4/1/2005)	ND<0 (10/12/2004)	(-1.13943 - 0)/(17 - 16)		-1.13943
ND<0 (10/25/2005)	ND<0 (10/12/2004)	(0 - 0)/(18 - 16)	0	
-1.23787 J (4/29/2006)	ND<0 (10/12/2004)	(-1.23787 - 0)/(19 - 16)		
-0.412625				
-1.56065 J (11/18/2006)	ND<0 (10/12/2004)	(-1.56065 - 0)/(20 - 16)		
-0.390162				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
-1.27297 J (11/28/2007)	ND<0 (10/12/2004)	(-1.27297 - 0)/(22 - 16)		
-0.212161				
-0.891598 J (6/5/2008)	ND<0 (10/12/2004)	(-0.891598 - 0)/(23 - 16)		
-0.127371				
-0.891598 J (11/20/2008)	ND<0 (10/12/2004)	(-0.891598 - 0)/(24 - 16)		-0.11145
-0.941609 J (6/11/2009)	ND<0 (10/12/2004)	(-0.941609 - 0)/(25 - 16)		
-0.104623				
-0.544727 J (11/16/2009)	ND<0 (10/12/2004)	(-0.544727 - 0)/(26 - 16)		
-0.0544727				
-0.385662 J (6/30/2010)	ND<0 (10/12/2004)	(-0.385662 - 0)/(27 - 16)		
-0.0350602				
-0.634878 J (11/12/2010)	ND<0 (10/12/2004)	(-0.634878 - 0)/(28 - 16)		
-0.0529065				
-1.27297 J (7/5/2011)	ND<0 (10/12/2004)	(-1.27297 - 0)/(29 - 16)		
-0.0979204				
-1.10866 J (11/22/2011)	ND<0 (10/12/2004)	(-1.10866 - 0)/(30 - 16)		
-0.0791902				
-1.10866 J (11/22/2011)	ND<0 (10/12/2004)	(-1.10866 - 0)/(30 - 16)		
-0.0791902				
ND<0 (10/25/2005)	-1.13943 J (4/1/2005)	(0 - -1.13943)/(18 - 17)		1.13943
-1.23787 J (4/29/2006)	-1.13943 J (4/1/2005)	(-1.23787 - -1.13943)/(19 - 17)		
-0.04922				
-1.56065 J (11/18/2006)	-1.13943 J (4/1/2005)	(-1.56065 - -1.13943)/(20 - 17)		
-0.140404				
ND<0 (5/23/2007)	-1.13943 J (4/1/2005)	(0 - -1.13943)/(21 - 17)		
0.284859				
-1.27297 J (11/28/2007)	-1.13943 J (4/1/2005)	(-1.27297 - -1.13943)/(22 - 17)		
-0.0267063				
-0.891598 J (6/5/2008)	-1.13943 J (4/1/2005)	(-0.891598 - -1.13943)/(23 - 17)		
0.041306				
-0.891598 J (11/20/2008)	-1.13943 J (4/1/2005)	(-0.891598 - -1.13943)/(24 - 17)		
0.0354052				
-0.941609 J (6/11/2009)	-1.13943 J (4/1/2005)	(-0.941609 - -1.13943)/(25 - 17)		
0.0247282				
-0.544727 J (11/16/2009)	-1.13943 J (4/1/2005)	(-0.544727 - -1.13943)/(26 - 17)		
0.0660786				
-0.385662 J (6/30/2010)	-1.13943 J (4/1/2005)	(-0.385662 - -1.13943)/(27 - 17)		
0.0753772				
-0.634878 J (11/12/2010)	-1.13943 J (4/1/2005)	(-0.634878 - -1.13943)/(28 - 17)		
0.0458687				
-1.27297 J (7/5/2011)	-1.13943 J (4/1/2005)	(-1.27297 - -1.13943)/(29 - 17)		
-0.0111276				
-1.10866 J (11/22/2011)	-1.13943 J (4/1/2005)	(-1.10866 - -1.13943)/(30 - 17)		
0.00236705				
-1.10866 J (11/22/2011)	-1.13943 J (4/1/2005)	(-1.10866 - -1.13943)/(30 - 17)		
0.00236705				

-1.23787 J (4/29/2006)	ND<0 (10/25/2005)	(-1.23787 - 0)/(19 - 18)		-1.23787
-1.56065 J (11/18/2006)	ND<0 (10/25/2005)	(-1.56065 - 0)/(20 - 18)		
-0.780324				
ND<0 (5/23/2007)	ND<0 (10/25/2005)	(0 - 0)/(21 - 18)	0	
-1.27297 J (11/28/2007)	ND<0 (10/25/2005)	(-1.27297 - 0)/(22 - 18)		
-0.318241				
-0.891598 J (6/5/2008)	ND<0 (10/25/2005)	(-0.891598 - 0)/(23 - 18)		-0.17832
-0.891598 J (11/20/2008)	ND<0 (10/25/2005)	(-0.891598 - 0)/(24 - 18)		-0.1486
-0.941609 J (6/11/2009)	ND<0 (10/25/2005)	(-0.941609 - 0)/(25 - 18)		
-0.134516				
-0.544727 J (11/16/2009)	ND<0 (10/25/2005)	(-0.544727 - 0)/(26 - 18)		
-0.0680909				
-0.385662 J (6/30/2010)	ND<0 (10/25/2005)	(-0.385662 - 0)/(27 - 18)		
-0.0428514				
-0.634878 J (11/12/2010)	ND<0 (10/25/2005)	(-0.634878 - 0)/(28 - 18)		
-0.0634878				
-1.27297 J (7/5/2011)	ND<0 (10/25/2005)	(-1.27297 - 0)/(29 - 18)		
-0.115724				
-1.10866 J (11/22/2011)	ND<0 (10/25/2005)	(-1.10866 - 0)/(30 - 18)		
-0.0923886				
-1.10866 J (11/22/2011)	ND<0 (10/25/2005)	(-1.10866 - 0)/(30 - 18)		
-0.0923886				
-1.56065 J (11/18/2006)	-1.23787 J (4/29/2006)	(-1.56065 - -1.23787)/(20 - 19)		
-0.322773				
ND<0 (5/23/2007)	-1.23787 J (4/29/2006)	(0 - -1.23787)/(21 - 19)		
0.618937				
-1.27297 J (11/28/2007)	-1.23787 J (4/29/2006)	(-1.27297 - -1.23787)/(22 - 19)		
-0.0116971				
-0.891598 J (6/5/2008)	-1.23787 J (4/29/2006)	(-0.891598 - -1.23787)/(23 - 19)		
0.0865691				
-0.891598 J (11/20/2008)	-1.23787 J (4/29/2006)	(-0.891598 - -1.23787)/(24 - 19)		
0.0692552				
-0.941609 J (6/11/2009)	-1.23787 J (4/29/2006)	(-0.941609 - -1.23787)/(25 - 19)		
0.0493776				
-0.544727 J (11/16/2009)	-1.23787 J (4/29/2006)	(-0.544727 - -1.23787)/(26 - 19)		
0.099021				
-0.385662 J (6/30/2010)	-1.23787 J (4/29/2006)	(-0.385662 - -1.23787)/(27 - 19)		
0.106526				
-0.634878 J (11/12/2010)	-1.23787 J (4/29/2006)	(-0.634878 - -1.23787)/(28 - 19)		
0.0669996				
-1.27297 J (7/5/2011)	-1.23787 J (4/29/2006)	(-1.27297 - -1.23787)/(29 - 19)		
-0.00350913				
-1.10866 J (11/22/2011)	-1.23787 J (4/29/2006)	(-1.10866 - -1.23787)/(30 - 19)		
0.0117465				
-1.10866 J (11/22/2011)	-1.23787 J (4/29/2006)	(-1.10866 - -1.23787)/(30 - 19)		
0.0117465				
ND<0 (5/23/2007)	-1.56065 J (11/18/2006)	(0 - -1.56065)/(21 - 20)		1.56065
-1.27297 J (11/28/2007)	-1.56065 J (11/18/2006)	(-1.27297 - -1.56065)/(22 - 20)		
0.143841				
-0.891598 J (6/5/2008)	-1.56065 J (11/18/2006)	(-0.891598 - -1.56065)/(23 - 20)		
0.223017				
-0.891598 J (11/20/2008)	-1.56065 J (11/18/2006)	(-0.891598 - -1.56065)/(24 - 20)		
0.167262				
-0.941609 J (6/11/2009)	-1.56065 J (11/18/2006)	(-0.941609 - -1.56065)/(25 - 20)		
0.123808				
-0.544727 J (11/16/2009)	-1.56065 J (11/18/2006)	(-0.544727 - -1.56065)/(26 - 20)		
0.16932				
-0.385662 J (6/30/2010)	-1.56065 J (11/18/2006)	(-0.385662 - -1.56065)/(27 - 20)		
0.167855				

-0.634878 J (11/12/2010)	-1.56065 J (11/18/2006)	(-0.634878 - -1.56065)/(28 - 20)	
0.115721			
-1.27297 J (7/5/2011)	-1.56065 J (11/18/2006)	(-1.27297 - -1.56065)/(29 - 20)	
0.0319647			
-1.10866 J (11/22/2011)	-1.56065 J (11/18/2006)	(-1.10866 - -1.56065)/(30 - 20)	
0.0451985			
-1.10866 J (11/22/2011)	-1.56065 J (11/18/2006)	(-1.10866 - -1.56065)/(30 - 20)	
0.0451985			
-1.27297 J (11/28/2007)	ND<0 (5/23/2007)	(-1.27297 - 0)/(22 - 21)	-1.27297
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-0.445799			
-0.891598 J (11/20/2008)	ND<0 (5/23/2007)	(-0.891598 - 0)/(24 - 21)	
-0.297199			
-0.941609 J (6/11/2009)	ND<0 (5/23/2007)	(-0.941609 - 0)/(25 - 21)	
-0.235402			
-0.544727 J (11/16/2009)	ND<0 (5/23/2007)	(-0.544727 - 0)/(26 - 21)	
-0.108945			
-0.385662 J (6/30/2010)	ND<0 (5/23/2007)	(-0.385662 - 0)/(27 - 21)	
-0.0642771			
-0.634878 J (11/12/2010)	ND<0 (5/23/2007)	(-0.634878 - 0)/(28 - 21)	
-0.0906969			
-1.27297 J (7/5/2011)	ND<0 (5/23/2007)	(-1.27297 - 0)/(29 - 21)	
-0.159121			
-1.10866 J (11/22/2011)	ND<0 (5/23/2007)	(-1.10866 - 0)/(30 - 21)	
-0.123185			
-1.10866 J (11/22/2011)	ND<0 (5/23/2007)	(-1.10866 - 0)/(30 - 21)	
-0.123185			
-0.891598 J (6/5/2008)	-1.27297 J (11/28/2007)	(-0.891598 - -1.27297)/(23 - 22)	
0.381368			
-0.891598 J (11/20/2008)	-1.27297 J (11/28/2007)	(-0.891598 - -1.27297)/(24 - 22)	
0.190684			
-0.941609 J (6/11/2009)	-1.27297 J (11/28/2007)	(-0.941609 - -1.27297)/(25 - 22)	
0.110452			
-0.544727 J (11/16/2009)	-1.27297 J (11/28/2007)	(-0.544727 - -1.27297)/(26 - 22)	
0.18206			
-0.385662 J (6/30/2010)	-1.27297 J (11/28/2007)	(-0.385662 - -1.27297)/(27 - 22)	
0.177461			
-0.634878 J (11/12/2010)	-1.27297 J (11/28/2007)	(-0.634878 - -1.27297)/(28 - 22)	
0.106348			
-1.27297 J (7/5/2011)	-1.27297 J (11/28/2007)	(-1.27297 - -1.27297)/(29 - 22)	
0			
-1.10866 J (11/22/2011)	-1.27297 J (11/28/2007)	(-1.10866 - -1.27297)/(30 - 22)	
0.0205379			
-1.10866 J (11/22/2011)	-1.27297 J (11/28/2007)	(-1.10866 - -1.27297)/(30 - 22)	
0.0205379			
-0.891598 J (11/20/2008)	-0.891598 J (6/5/2008)	(-0.891598 - -0.891598)/(24 - 23)	
0			
-0.941609 J (6/11/2009)	-0.891598 J (6/5/2008)	(-0.941609 - -0.891598)/(25 - 23)	
-0.0250052			
-0.544727 J (11/16/2009)	-0.891598 J (6/5/2008)	(-0.544727 - -0.891598)/(26 - 23)	
0.115624			
-0.385662 J (6/30/2010)	-0.891598 J (6/5/2008)	(-0.385662 - -0.891598)/(27 - 23)	
0.126484			
-0.634878 J (11/12/2010)	-0.891598 J (6/5/2008)	(-0.634878 - -0.891598)/(28 - 23)	
0.051344			
-1.27297 J (7/5/2011)	-0.891598 J (6/5/2008)	(-1.27297 - -0.891598)/(29 - 23)	
-0.0635613			
-1.10866 J (11/22/2011)	-0.891598 J (6/5/2008)	(-1.10866 - -0.891598)/(30 - 23)	
-0.0310092			

-1.10866 J (11/22/2011)	-0.891598 J (6/5/2008)	(-1.10866 - -0.891598)/(30 - 23)
-0.0310092		
-0.941609 J (6/11/2009)	-0.891598 J (11/20/2008)	(-0.941609 - -0.891598)/(25 - 24)
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-0.544727 J (11/16/2009)	-0.891598 J (11/20/2008)	(-0.544727 - -0.891598)/(26 - 24)
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-0.385662 J (6/30/2010)	-0.891598 J (11/20/2008)	(-0.385662 - -0.891598)/(27 - 24)
0.168645		
-0.634878 J (11/12/2010)	-0.891598 J (11/20/2008)	(-0.634878 - -0.891598)/(28 - 24)
0.06418		
-1.27297 J (7/5/2011)	-0.891598 J (11/20/2008)	(-1.27297 - -0.891598)/(29 - 24)
-0.0762735		
-1.10866 J (11/22/2011)	-0.891598 J (11/20/2008)	(-1.10866 - -0.891598)/(30 - 24)
-0.0361774		
-1.10866 J (11/22/2011)	-0.891598 J (11/20/2008)	(-1.10866 - -0.891598)/(30 - 24)
-0.0361774		
-0.544727 J (11/16/2009)	-0.941609 J (6/11/2009)	(-0.544727 - -0.941609)/(26 - 25)
0.396881		
-0.385662 J (6/30/2010)	-0.941609 J (6/11/2009)	(-0.385662 - -0.941609)/(27 - 25)
0.277973		
-0.634878 J (11/12/2010)	-0.941609 J (6/11/2009)	(-0.634878 - -0.941609)/(28 - 25)
0.102243		
-1.27297 J (7/5/2011)	-0.941609 J (6/11/2009)	(-1.27297 - -0.941609)/(29 - 25)
-0.0828393		
-1.10866 J (11/22/2011)	-0.941609 J (6/11/2009)	(-1.10866 - -0.941609)/(30 - 25)
-0.0334108		
-1.10866 J (11/22/2011)	-0.941609 J (6/11/2009)	(-1.10866 - -0.941609)/(30 - 25)
-0.0334108		
-0.385662 J (6/30/2010)	-0.544727 J (11/16/2009)	(-0.385662 - -0.544727)/(27 - 26)
0.159065		
-0.634878 J (11/12/2010)	-0.544727 J (11/16/2009)	(-0.634878 - -0.544727)/(28 - 26)
-0.0450755		
-1.27297 J (7/5/2011)	-0.544727 J (11/16/2009)	(-1.27297 - -0.544727)/(29 - 26)
-0.242746		
-1.10866 J (11/22/2011)	-0.544727 J (11/16/2009)	(-1.10866 - -0.544727)/(30 - 26)
-0.140984		
-1.10866 J (11/22/2011)	-0.544727 J (11/16/2009)	(-1.10866 - -0.544727)/(30 - 26)
-0.140984		
-0.634878 J (11/12/2010)	-0.385662 J (6/30/2010)	(-0.634878 - -0.385662)/(28 - 27)
-0.249216		
-1.27297 J (7/5/2011)	-0.385662 J (6/30/2010)	(-1.27297 - -0.385662)/(29 - 27)
-0.443652		
-1.10866 J (11/22/2011)	-0.385662 J (6/30/2010)	(-1.10866 - -0.385662)/(30 - 27)
-0.241		
-1.10866 J (11/22/2011)	-0.385662 J (6/30/2010)	(-1.10866 - -0.385662)/(30 - 27)
-0.241		
-1.27297 J (7/5/2011)	-0.634878 J (11/12/2010)	(-1.27297 - -0.634878)/(29 - 28)
-0.638087		
-1.10866 J (11/22/2011)	-0.634878 J (11/12/2010)	(-1.10866 - -0.634878)/(30 - 28)
-0.236892		
-1.10866 J (11/22/2011)	-0.634878 J (11/12/2010)	(-1.10866 - -0.634878)/(30 - 28)
-0.236892		
-1.10866 J (11/22/2011)	-1.27297 J (7/5/2011)	(-1.10866 - -1.27297)/(30 - 29)
0.164303		

-1.10866 J (11/22/2011)	-1.27297 J (7/5/2011)	(-1.10866 - -1.27297)/(30 - 29)	0.164303
-1.10866 J (11/22/2011)	-1.10866 J (11/22/2011)	(-1.10866 - -1.10866)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.27297
2	-1.23787
3	-1.13943
4	-0.780324
5	-0.638087
6	-0.569717
7	-0.445799
8	-0.443652
9	-0.412625
10	-0.390162
11	-0.379811
12	-0.322773
13	-0.318241
14	-0.31213
15	-0.309469
16	-0.297199
17	-0.284859
18	-0.260108
19	-0.249216
20	-0.247575
21	-0.242746
22	-0.241
23	-0.241
24	-0.236892
25	-0.236892
26	-0.235402
27	-0.227887
28	-0.22295
29	-0.212161
30	-0.206312
31	-0.195081
32	-0.189906
33	-0.181852
34	-0.17832
35	-0.176839
36	-0.173405
37	-0.162776
38	-0.159121
39	-0.159121
40	-0.156065
41	-0.154734
42	-0.1486
43	-0.142429
44	-0.141877
45	-0.141441
46	-0.140984
47	-0.140984
48	-0.140404
49	-0.137542
50	-0.134516

51	-0.130054
52	-0.127371
53	-0.127297
54	-0.126604
55	-0.123787
56	-0.123185
57	-0.123185
58	-0.12005
59	-0.115724
60	-0.115724
61	-0.113943
62	-0.112534
63	-0.111475
64	-0.11145
65	-0.11145
66	-0.108945
67	-0.10608
68	-0.104623
69	-0.104043
70	-0.103585
71	-0.103156
72	-0.0990665
73	-0.0990665
74	-0.0979204
75	-0.0979204
76	-0.0952211
77	-0.0949529
78	-0.0941609
79	-0.0923886
80	-0.0923886
81	-0.0909555
82	-0.0909261
83	-0.0909261
84	-0.0906969
85	-0.0891598
86	-0.0891598
87	-0.0884196
88	-0.0856008
89	-0.0848644
90	-0.0848644
91	-0.0828393
92	-0.0810544
93	-0.0810544
94	-0.0795604
95	-0.0795604
96	-0.0795441
97	-0.0791902
98	-0.0791902
99	-0.0786767
100	-0.0784674
101	-0.0762735
102	-0.0755009
103	-0.0748803
104	-0.0748803
105	-0.0742998
106	-0.0742998
107	-0.0739108
108	-0.0739108
109	-0.0724314
110	-0.0707203
111	-0.0692914
112	-0.0692914

113	-0.0685845
114	-0.0685845
115	-0.0680909
116	-0.0672578
117	-0.0669982
118	-0.0654493
119	-0.0652154
120	-0.0652154
121	-0.064867
122	-0.0642771
123	-0.0636856
124	-0.0636856
125	-0.0636483
126	-0.0635613
127	-0.0634878
128	-0.0634207
129	-0.0627739
130	-0.0615924
131	-0.0615924
132	-0.0606174
133	-0.0594399
134	-0.0594399
135	-0.0588505
136	-0.0583507
137	-0.0583507
138	-0.0578621
139	-0.0557249
140	-0.0557249
141	-0.0554331
142	-0.0554331
143	-0.0553887
144	-0.0553463
145	-0.0552538
146	-0.0544727
147	-0.0530402
148	-0.0529065
149	-0.0527935
150	-0.0527935
151	-0.0524469
152	-0.0524469
153	-0.0523116
154	-0.0503938
155	-0.0503938
156	-0.0500104
157	-0.0495583
158	-0.0495332
159	-0.0495332
160	-0.0495207
161	-0.0492946
162	-0.04922
163	-0.0488368
164	-0.0482027
165	-0.0482027
166	-0.0470804
167	-0.0469262
168	-0.0467042
169	-0.0461943
170	-0.0461943
171	-0.0453939
172	-0.0453484
173	-0.0450755
174	-0.0443465

175	-0.0443465
176	-0.0428514
177	-0.0423252
178	-0.0419021
179	-0.0413809
180	-0.0403778
181	-0.0398213
182	-0.0396799
183	-0.0393119
184	-0.0389091
185	-0.0385885
186	-0.0385885
187	-0.0377199
188	-0.0373458
189	-0.0363151
190	-0.0361774
191	-0.0361774
192	-0.035271
193	-0.0350602
194	-0.0340454
195	-0.0334227
196	-0.0334146
197	-0.0334108
198	-0.0334108
199	-0.0332076
200	-0.032797
201	-0.032797
202	-0.0326575
203	-0.0321385
204	-0.0320428
205	-0.0318312
206	-0.0317439
207	-0.0310726
208	-0.0310092
209	-0.0310092
210	-0.0302626
211	-0.0302323
212	-0.0299811
213	-0.0296663
214	-0.0288581
215	-0.0286699
216	-0.0276034
217	-0.0275473
218	-0.0272364
219	-0.0267063
220	-0.0259394
221	-0.0257108
222	-0.0250052
223	-0.0241039
224	-0.022686
225	-0.0222082
226	-0.0220632
227	-0.0218836
228	-0.0214257
229	-0.0204284
230	-0.020298
231	-0.0199712
232	-0.0192831
233	-0.0184665
234	-0.0183649
235	-0.0175301
236	-0.0164694

237	-0.0155471
238	-0.0155471
239	-0.0153213
240	-0.0139819
241	-0.012187
242	-0.0116971
243	-0.0116637
244	-0.0111276
245	-0.010393
246	-0.00992062
247	-0.00912733
248	-0.00912733
249	-0.00677162
250	-0.00406827
251	-0.00350913
252	-0.00216491
253	-0.00207078
254	0
255	0
256	0
257	0
258	0
259	0
260	0
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262	0
263	0
264	0
265	0
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299	0
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303	0
304	0
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307	0
308	0
309	0
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322	0
323	0
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325	0
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328	0
329	0
330	0
331	0
332	0
333	0
334	0
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0.00147947
348	0.00236705
349	0.00236705
350	0.00535906
351	0.00619768
352	0.00752575
353	0.00774414
354	0.00878004
355	0.00957823
356	0.0105361
357	0.0115073
358	0.0117067
359	0.0117465
360	0.0117465

361	0.0119697
362	0.0123969
363	0.0131701
364	0.0148762
365	0.0150515
366	0.0171649
367	0.0175601
368	0.0176272
369	0.0185953
370	0.0202858
371	0.0205379
372	0.0205379
373	0.0210721
374	0.0223144
375	0.0247282
376	0.0247937
377	0.0263401
378	0.0278929
379	0.0318777
380	0.0319647
381	0.0351202
382	0.0354052
383	0.0354392
384	0.0371906
385	0.041306
386	0.042084
387	0.0421985
388	0.0446287
389	0.0451985
390	0.0451985
391	0.0458687
392	0.048096
393	0.0493776
394	0.0496453
395	0.051344
396	0.0517957
397	0.0526803
398	0.0557859
399	0.056112
400	0.0562647
401	0.0602836
402	0.0612131
403	0.06418
404	0.0649208
405	0.0660786
406	0.0669996
407	0.0673345
408	0.0692552
409	0.0703308
410	0.0743812
411	0.0748161
412	0.0753772
413	0.0767246
414	0.0841681
415	0.084397
416	0.0865691
417	0.0937745
418	0.0961921
419	0.099021
420	0.102243
421	0.105361
422	0.105496

423	0.106348
424	0.106526
425	0.110452
426	0.111572
427	0.112224
428	0.115624
429	0.115721
430	0.117783
431	0.120567
432	0.123808
433	0.126484
434	0.134669
435	0.140662
436	0.143841
437	0.159065
438	0.164303
439	0.164303
440	0.167262
441	0.167855
442	0.168336
443	0.168645
444	0.168794
445	0.16932
446	0.170626
447	0.173435
448	0.177461
449	0.18206
450	0.190684
451	0.210993
452	0.223017
453	0.224448
454	0.246203
455	0.277973
456	0.283992
457	0.284859
458	0.310413
459	0.381368
460	0.396881
461	0.450201
462	0.618937
463	1.13943
464	1.56065

Sen's Estimator (Median Q) is -0.0188748

Tied Group	Value	Members
1	0	14
2	-1.27297	2
3	-0.89159	8 2
4	-1.10866	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1

3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 6060
B = 18
C = 2184
D = 0
E = 188
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3124.2
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9383
M1 = (464 - 91.9383)/2.0 = 186.031
M2 = (464 + 91.9383)/2.0 + 1 = 278.969
Lower limit is -0.0385885 = Q(186)
Upper limit is 0 = Q(279)
-0.0385885 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Tetrachloroethene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
4.59512	(8/24/1995)	1.16315 (7/20/1995)	(4.59512 - 1.16315)/(2 - 1) 3.43197
4.47734	(9/28/1995)	1.16315 (7/20/1995)	(4.47734 - 1.16315)/(3 - 1) 1.65709
2.07944	(10/26/1995)	1.16315 (7/20/1995)	(2.07944 - 1.16315)/(4 - 1) 0.30543
ND<0	(11/19/1996)	1.16315 (7/20/1995)	(0 - 1.16315)/(5 - 1) -0.290788
4.07754	(12/19/1996)	1.16315 (7/20/1995)	(4.07754 - 1.16315)/(6 - 1) 0.582877
3.89182	(3/24/1997)	1.16315 (7/20/1995)	(3.89182 - 1.16315)/(7 - 1) 0.454778
3.52636	(9/24/1997)	1.16315 (7/20/1995)	(3.52636 - 1.16315)/(8 - 1) 0.337601
ND<0	(4/7/1998)	1.16315 (7/20/1995)	(0 - 1.16315)/(9 - 1) -0.145394
3.43399	(9/23/1998)	1.16315 (7/20/1995)	(3.43399 - 1.16315)/(10 - 1) 0.252315
3.41444	(3/16/1999)	1.16315 (7/20/1995)	(3.41444 - 1.16315)/(11 - 1) 0.225129
3.47197	(9/23/1999)	1.16315 (7/20/1995)	(3.47197 - 1.16315)/(12 - 1) 0.209892
ND<0	(3/15/2000)	1.16315 (7/20/1995)	(0 - 1.16315)/(13 - 1) -0.0969292
ND<0	(9/24/2003)	1.16315 (7/20/1995)	(0 - 1.16315)/(14 - 1) -0.0894731
1.79176	(3/11/2004)	1.16315 (7/20/1995)	(1.79176 - 1.16315)/(15 - 1) 0.0449006
ND<0	(10/12/2004)	1.16315 (7/20/1995)	(0 - 1.16315)/(16 - 1) -0.0775434
1.67523	(4/1/2005)	1.16315 (7/20/1995)	(1.67523 - 1.16315)/(17 - 1) 0.0320047
0.779325	(10/25/2005)	1.16315 (7/20/1995)	(0.779325 - 1.16315)/(18 - 1) -0.022578
0.875469	(4/29/2006)	1.16315 (7/20/1995)	(0.875469 - 1.16315)/(19 - 1) -0.0159823
0.989541	(11/18/2006)	1.16315 (7/20/1995)	(0.989541 - 1.16315)/(20 - 1) -0.00913735
ND<0	(5/23/2007)	1.16315 (7/20/1995)	(0 - 1.16315)/(21 - 1) -0.0581575
-0.616186 J	(11/28/2007)	1.16315 (7/20/1995)	(-0.616186 - 1.16315)/(22 - 1) -0.0847303
-0.174353 J	(6/5/2008)	1.16315 (7/20/1995)	(-0.174353 - 1.16315)/(23 - 1) -0.0607956
-0.430783 J	(11/20/2008)	1.16315 (7/20/1995)	(-0.430783 - 1.16315)/(24 - 1) -0.0693015
-0.223144 J	(6/11/2009)	1.16315 (7/20/1995)	(-0.223144 - 1.16315)/(25 - 1) -0.0577623
-1.42712 J	(6/30/2010)	1.16315 (7/20/1995)	(-1.42712 - 1.16315)/(26 - 1) -0.103611
ND<-2.59027 U	(11/12/2010)	1.16315 (7/20/1995)	(-2.59027 - 1.16315)/(27 - 1) -0.144362
ND<-2.59027 U	(7/5/2011)	1.16315 (7/20/1995)	(-2.59027 - 1.16315)/(28 - 1) -0.139015

-1.07881 J (11/22/2011)	1.16315 (7/20/1995)	(-1.07881 - 1.16315)/(29 - 1)		
-0.08007				
-1.07881 J (11/22/2011)	1.16315 (7/20/1995)	(-1.07881 - 1.16315)/(29 - 1)		
-0.08007				
4.47734 (9/28/1995)	4.59512 (8/24/1995)	(4.47734 - 4.59512)/(3 - 2)		
-0.117783				
2.07944 (10/26/1995)	4.59512 (8/24/1995)	(2.07944 - 4.59512)/(4 - 2)	-1.25784	
ND<0 (11/19/1996)	4.59512 (8/24/1995)	(0 - 4.59512)/(5 - 2)	-1.53171	
4.07754 (12/19/1996)	4.59512 (8/24/1995)	(4.07754 - 4.59512)/(6 - 2)		
-0.129396				
3.89182 (3/24/1997)	4.59512 (8/24/1995)	(3.89182 - 4.59512)/(7 - 2)	-0.14066	
3.52636 (9/24/1997)	4.59512 (8/24/1995)	(3.52636 - 4.59512)/(8 - 2)		
-0.178127				
ND<0 (4/7/1998)	4.59512 (8/24/1995)	(0 - 4.59512)/(9 - 2)		
-0.656446				
3.43399 (9/23/1998)	4.59512 (8/24/1995)	(3.43399 - 4.59512)/(10 - 2)		
-0.145142				
3.41444 (3/16/1999)	4.59512 (8/24/1995)	(3.41444 - 4.59512)/(11 - 2)		
-0.131186				
3.47197 (9/23/1999)	4.59512 (8/24/1995)	(3.47197 - 4.59512)/(12 - 2)		
-0.112315				
ND<0 (3/15/2000)	4.59512 (8/24/1995)	(0 - 4.59512)/(13 - 2)		
-0.417738				
ND<0 (9/24/2003)	4.59512 (8/24/1995)	(0 - 4.59512)/(14 - 2)		
-0.382927				
1.79176 (3/11/2004)	4.59512 (8/24/1995)	(1.79176 - 4.59512)/(15 - 2)		
-0.215643				
ND<0 (10/12/2004)	4.59512 (8/24/1995)	(0 - 4.59512)/(16 - 2)		
-0.328223				
1.67523 (4/1/2005)	4.59512 (8/24/1995)	(1.67523 - 4.59512)/(17 - 2)		
-0.19466				
0.779325 (10/25/2005)	4.59512 (8/24/1995)	(0.779325 - 4.59512)/(18 - 2)		
-0.238487				
0.875469 (4/29/2006)	4.59512 (8/24/1995)	(0.875469 - 4.59512)/(19 - 2)		
-0.218803				
0.989541 (11/18/2006)	4.59512 (8/24/1995)	(0.989541 - 4.59512)/(20 - 2)		
-0.20031				
ND<0 (5/23/2007)	4.59512 (8/24/1995)	(0 - 4.59512)/(21 - 2)		
-0.241848				
-0.616186 J (11/28/2007)	4.59512 (8/24/1995)	(-0.616186 - 4.59512)/(22 - 2)		
-0.260565				
-0.174353 J (6/5/2008)	4.59512 (8/24/1995)	(-0.174353 - 4.59512)/(23 - 2)		
-0.227118				
-0.430783 J (11/20/2008)	4.59512 (8/24/1995)	(-0.430783 - 4.59512)/(24 - 2)		
-0.22845				
-0.223144 J (6/11/2009)	4.59512 (8/24/1995)	(-0.223144 - 4.59512)/(25 - 2)		
-0.20949				
-1.42712 J (6/30/2010)	4.59512 (8/24/1995)	(-1.42712 - 4.59512)/(26 - 2)		
-0.250927				
ND<-2.59027 U (11/12/2010)	4.59512 (8/24/1995)	(-2.59027 - 4.59512)/(27 - 2)		
-0.287415				
ND<-2.59027 U (7/5/2011)	4.59512 (8/24/1995)	(-2.59027 - 4.59512)/(28 - 2)		
-0.276361				
-1.07881 J (11/22/2011)	4.59512 (8/24/1995)	(-1.07881 - 4.59512)/(29 - 2)		
-0.210146				
-1.07881 J (11/22/2011)	4.59512 (8/24/1995)	(-1.07881 - 4.59512)/(29 - 2)		
-0.210146				
2.07944 (10/26/1995)	4.47734 (9/28/1995)	(2.07944 - 4.47734)/(4 - 3)	-2.3979	
ND<0 (11/19/1996)	4.47734 (9/28/1995)	(0 - 4.47734)/(5 - 3)	-2.23867	

4.07754 (12/19/1996)	4.47734 (9/28/1995)	(4.07754 - 4.47734)/(6 - 3)		
-0.133266				
3.89182 (3/24/1997)	4.47734 (9/28/1995)	(3.89182 - 4.47734)/(7 - 3)		
-0.146379				
3.52636 (9/24/1997)	4.47734 (9/28/1995)	(3.52636 - 4.47734)/(8 - 3)		
-0.190195				
ND<0 (4/7/1998)	4.47734 (9/28/1995)	(0 - 4.47734)/(9 - 3)		
-0.746223				
3.43399 (9/23/1998)	4.47734 (9/28/1995)	(3.43399 - 4.47734)/(10 - 3)		
-0.14905				
3.41444 (3/16/1999)	4.47734 (9/28/1995)	(3.41444 - 4.47734)/(11 - 3)		
-0.132862				
3.47197 (9/23/1999)	4.47734 (9/28/1995)	(3.47197 - 4.47734)/(12 - 3)		
-0.111708				
ND<0 (3/15/2000)	4.47734 (9/28/1995)	(0 - 4.47734)/(13 - 3)		
-0.447734				
ND<0 (9/24/2003)	4.47734 (9/28/1995)	(0 - 4.47734)/(14 - 3)		
-0.407031				
1.79176 (3/11/2004)	4.47734 (9/28/1995)	(1.79176 - 4.47734)/(15 - 3)		
-0.223798				
ND<0 (10/12/2004)	4.47734 (9/28/1995)	(0 - 4.47734)/(16 - 3)		
-0.344411				
1.67523 (4/1/2005)	4.47734 (9/28/1995)	(1.67523 - 4.47734)/(17 - 3)		
-0.200151				
0.779325 (10/25/2005)	4.47734 (9/28/1995)	(0.779325 - 4.47734)/(18 - 3)		
-0.246534				
0.875469 (4/29/2006)	4.47734 (9/28/1995)	(0.875469 - 4.47734)/(19 - 3)		
-0.225117				
0.989541 (11/18/2006)	4.47734 (9/28/1995)	(0.989541 - 4.47734)/(20 - 3)		
-0.205164				
ND<0 (5/23/2007)	4.47734 (9/28/1995)	(0 - 4.47734)/(21 - 3)		
-0.248741				
-0.616186 J (11/28/2007)	4.47734 (9/28/1995)	(-0.616186 - 4.47734)/(22 - 3)		
-0.26808				
-0.174353 J (6/5/2008)	4.47734 (9/28/1995)	(-0.174353 - 4.47734)/(23 - 3)		
-0.232585				
-0.430783 J (11/20/2008)	4.47734 (9/28/1995)	(-0.430783 - 4.47734)/(24 - 3)		
-0.23372				
-0.223144 J (6/11/2009)	4.47734 (9/28/1995)	(-0.223144 - 4.47734)/(25 - 3)		
-0.213658				
-1.42712 J (6/30/2010)	4.47734 (9/28/1995)	(-1.42712 - 4.47734)/(26 - 3)		
-0.256715				
ND<-2.59027 U (11/12/2010)	4.47734 (9/28/1995)	(-2.59027 - 4.47734)/(27 - 3)		
-0.294483				
ND<-2.59027 U (7/5/2011)	4.47734 (9/28/1995)	(-2.59027 - 4.47734)/(28 - 3)		
-0.282704				
-1.07881 J (11/22/2011)	4.47734 (9/28/1995)	(-1.07881 - 4.47734)/(29 - 3)		
-0.213698				
-1.07881 J (11/22/2011)	4.47734 (9/28/1995)	(-1.07881 - 4.47734)/(29 - 3)		
-0.213698				
ND<0 (11/19/1996)	2.07944 (10/26/1995)	(0 - 2.07944)/(5 - 4)	-2.07944	
4.07754 (12/19/1996)	2.07944 (10/26/1995)	(4.07754 - 2.07944)/(6 - 4)		
0.999048				
3.89182 (3/24/1997)	2.07944 (10/26/1995)	(3.89182 - 2.07944)/(7 - 4)		
0.604126				
3.52636 (9/24/1997)	2.07944 (10/26/1995)	(3.52636 - 2.07944)/(8 - 4)	0.36173	
ND<0 (4/7/1998)	2.07944 (10/26/1995)	(0 - 2.07944)/(9 - 4)		
-0.415888				
3.43399 (9/23/1998)	2.07944 (10/26/1995)	(3.43399 - 2.07944)/(10 - 4)		
0.225758				

3.41444 (3/16/1999)	2.07944 (10/26/1995)	(3.41444 - 2.07944)/(11 - 4)		
0.190714				
3.47197 (9/23/1999)	2.07944 (10/26/1995)	(3.47197 - 2.07944)/(12 - 4)		
0.174066				
ND<0 (3/15/2000)	2.07944 (10/26/1995)	(0 - 2.07944)/(13 - 4)		
-0.231049				
ND<0 (9/24/2003)	2.07944 (10/26/1995)	(0 - 2.07944)/(14 - 4)		
-0.207944				
1.79176 (3/11/2004)	2.07944 (10/26/1995)	(1.79176 - 2.07944)/(15 - 4)		
-0.0261529				
ND<0 (10/12/2004)	2.07944 (10/26/1995)	(0 - 2.07944)/(16 - 4)		
-0.173287				
1.67523 (4/1/2005)	2.07944 (10/26/1995)	(1.67523 - 2.07944)/(17 - 4)		
-0.0310935				
0.779325 (10/25/2005)	2.07944 (10/26/1995)	(0.779325 - 2.07944)/(18 - 4)		
-0.0928655				
0.875469 (4/29/2006)	2.07944 (10/26/1995)	(0.875469 - 2.07944)/(19 - 4)		
-0.0802649				
0.989541 (11/18/2006)	2.07944 (10/26/1995)	(0.989541 - 2.07944)/(20 - 4)		
-0.0681188				
ND<0 (5/23/2007)	2.07944 (10/26/1995)	(0 - 2.07944)/(21 - 4)		-0.12232
-0.616186 J (11/28/2007)	2.07944 (10/26/1995)	(-0.616186 - 2.07944)/(22 - 4)		
-0.149757				
-0.174353 J (6/5/2008)	2.07944 (10/26/1995)	(-0.174353 - 2.07944)/(23 - 4)		
-0.118621				
-0.430783 J (11/20/2008)	2.07944 (10/26/1995)	(-0.430783 - 2.07944)/(24 - 4)		
-0.125511				
-0.223144 J (6/11/2009)	2.07944 (10/26/1995)	(-0.223144 - 2.07944)/(25 - 4)		
-0.109647				
-1.42712 J (6/30/2010)	2.07944 (10/26/1995)	(-1.42712 - 2.07944)/(26 - 4)		
-0.159389				
ND<-2.59027 U (11/12/2010)	2.07944 (10/26/1995)	(-2.59027 - 2.07944)/(27 - 4)		
-0.203031				
ND<-2.59027 U (7/5/2011)	2.07944 (10/26/1995)	(-2.59027 - 2.07944)/(28 - 4)		
-0.194571				
-1.07881 J (11/22/2011)	2.07944 (10/26/1995)	(-1.07881 - 2.07944)/(29 - 4)		
-0.12633				
-1.07881 J (11/22/2011)	2.07944 (10/26/1995)	(-1.07881 - 2.07944)/(29 - 4)		
-0.12633				
4.07754 (12/19/1996)	ND<0 (11/19/1996)	(4.07754 - 0)/(6 - 5)		4.07754
3.89182 (3/24/1997)	ND<0 (11/19/1996)	(3.89182 - 0)/(7 - 5)		1.94591
3.52636 (9/24/1997)	ND<0 (11/19/1996)	(3.52636 - 0)/(8 - 5)		1.17545
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
3.43399 (9/23/1998)	ND<0 (11/19/1996)	(3.43399 - 0)/(10 - 5)		
0.686797				
3.41444 (3/16/1999)	ND<0 (11/19/1996)	(3.41444 - 0)/(11 - 5)		
0.569074				
3.47197 (9/23/1999)	ND<0 (11/19/1996)	(3.47197 - 0)/(12 - 5)		
0.495995				
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
1.79176 (3/11/2004)	ND<0 (11/19/1996)	(1.79176 - 0)/(15 - 5)		
0.179176				
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
1.67523 (4/1/2005)	ND<0 (11/19/1996)	(1.67523 - 0)/(17 - 5)		
0.139602				
0.779325 (10/25/2005)	ND<0 (11/19/1996)	(0.779325 - 0)/(18 - 5)		
0.0599481				
0.875469 (4/29/2006)	ND<0 (11/19/1996)	(0.875469 - 0)/(19 - 5)		
0.0625335				

0.989541 (11/18/2006)	ND<0 (11/19/1996)	(0.989541 - 0)/(20 - 5)	0.0659694	
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
-0.616186 J (11/28/2007)	ND<0 (11/19/1996)	(-0.616186 - 0)/(22 - 5)	-0.0362462	
-0.174353 J (6/5/2008)	ND<0 (11/19/1996)	(-0.174353 - 0)/(23 - 5)	-0.0096863	
-0.430783 J (11/20/2008)	ND<0 (11/19/1996)	(-0.430783 - 0)/(24 - 5)	-0.0226728	
-0.223144 J (6/11/2009)	ND<0 (11/19/1996)	(-0.223144 - 0)/(25 - 5)	-0.0111572	
-1.42712 J (6/30/2010)	ND<0 (11/19/1996)	(-1.42712 - 0)/(26 - 5)	-0.0679579	
ND<-2.59027 U (11/12/2010)	ND<0 (11/19/1996)	(-2.59027 - 0)/(27 - 5)	-0.117739	
ND<-2.59027 U (7/5/2011)	ND<0 (11/19/1996)	(-2.59027 - 0)/(28 - 5)	-0.11262	
-1.07881 J (11/22/2011)	ND<0 (11/19/1996)	(-1.07881 - 0)/(29 - 5)	-0.0449504	
-1.07881 J (11/22/2011)	ND<0 (11/19/1996)	(-1.07881 - 0)/(29 - 5)	-0.0449504	

3.89182 (3/24/1997)	4.07754 (12/19/1996)	(3.89182 - 4.07754)/(7 - 6)	-0.185717
3.52636 (9/24/1997)	4.07754 (12/19/1996)	(3.52636 - 4.07754)/(8 - 6)	-0.275588
ND<0 (4/7/1998)	4.07754 (12/19/1996)	(0 - 4.07754)/(9 - 6)	-1.35918
3.43399 (9/23/1998)	4.07754 (12/19/1996)	(3.43399 - 4.07754)/(10 - 6)	-0.160888
3.41444 (3/16/1999)	4.07754 (12/19/1996)	(3.41444 - 4.07754)/(11 - 6)	-0.132619
3.47197 (9/23/1999)	4.07754 (12/19/1996)	(3.47197 - 4.07754)/(12 - 6)	-0.100928
ND<0 (3/15/2000)	4.07754 (12/19/1996)	(0 - 4.07754)/(13 - 6)	-0.582505
ND<0 (9/24/2003)	4.07754 (12/19/1996)	(0 - 4.07754)/(14 - 6)	-0.509692
1.79176 (3/11/2004)	4.07754 (12/19/1996)	(1.79176 - 4.07754)/(15 - 6)	-0.253975
ND<0 (10/12/2004)	4.07754 (12/19/1996)	(0 - 4.07754)/(16 - 6)	-0.407754
1.67523 (4/1/2005)	4.07754 (12/19/1996)	(1.67523 - 4.07754)/(17 - 6)	-0.218392
0.779325 (10/25/2005)	4.07754 (12/19/1996)	(0.779325 - 4.07754)/(18 - 6)	-0.274851
0.875469 (4/29/2006)	4.07754 (12/19/1996)	(0.875469 - 4.07754)/(19 - 6)	-0.246313
0.989541 (11/18/2006)	4.07754 (12/19/1996)	(0.989541 - 4.07754)/(20 - 6)	-0.220571
ND<0 (5/23/2007)	4.07754 (12/19/1996)	(0 - 4.07754)/(21 - 6)	-0.271836
-0.616186 J (11/28/2007)	4.07754 (12/19/1996)	(-0.616186 - 4.07754)/(22 - 6)	-0.293358
-0.174353 J (6/5/2008)	4.07754 (12/19/1996)	(-0.174353 - 4.07754)/(23 - 6)	-0.250111
-0.430783 J (11/20/2008)	4.07754 (12/19/1996)	(-0.430783 - 4.07754)/(24 - 6)	-0.250462
-0.223144 J (6/11/2009)	4.07754 (12/19/1996)	(-0.223144 - 4.07754)/(25 - 6)	-0.226352
-1.42712 J (6/30/2010)	4.07754 (12/19/1996)	(-1.42712 - 4.07754)/(26 - 6)	-0.275233
ND<-2.59027 U (11/12/2010)	4.07754 (12/19/1996)	(-2.59027 - 4.07754)/(27 - 6)	-0.317515

ND<-2.59027 U (7/5/2011)	4.07754	(12/19/1996)	(-2.59027 - 4.07754)/(28 - 6)	
-0.303082				
-1.07881 J (11/22/2011)	4.07754	(12/19/1996)	(-1.07881 - 4.07754)/(29 - 6)	
-0.224189				
-1.07881 J (11/22/2011)	4.07754	(12/19/1996)	(-1.07881 - 4.07754)/(29 - 6)	
-0.224189				
3.52636 (9/24/1997)	3.89182	(3/24/1997)	(3.52636 - 3.89182)/(8 - 7)	-0.36546
ND<0 (4/7/1998)	3.89182	(3/24/1997)	(0 - 3.89182)/(9 - 7)	-1.94591
3.43399 (9/23/1998)	3.89182	(3/24/1997)	(3.43399 - 3.89182)/(10 - 7)	
-0.152611				
3.41444 (3/16/1999)	3.89182	(3/24/1997)	(3.41444 - 3.89182)/(11 - 7)	
-0.119344				
3.47197 (9/23/1999)	3.89182	(3/24/1997)	(3.47197 - 3.89182)/(12 - 7)	
-0.0839708				
ND<0 (3/15/2000)	3.89182	(3/24/1997)	(0 - 3.89182)/(13 - 7)	
-0.648637				
ND<0 (9/24/2003)	3.89182	(3/24/1997)	(0 - 3.89182)/(14 - 7)	
-0.555974				
1.79176 (3/11/2004)	3.89182	(3/24/1997)	(1.79176 - 3.89182)/(15 - 7)	
-0.262508				
ND<0 (10/12/2004)	3.89182	(3/24/1997)	(0 - 3.89182)/(16 - 7)	
-0.432424				
1.67523 (4/1/2005)	3.89182	(3/24/1997)	(1.67523 - 3.89182)/(17 - 7)	
-0.221659				
0.779325 (10/25/2005)	3.89182	(3/24/1997)	(0.779325 - 3.89182)/(18 - 7)	
-0.282954				
0.875469 (4/29/2006)	3.89182	(3/24/1997)	(0.875469 - 3.89182)/(19 - 7)	
-0.251363				
0.989541 (11/18/2006)	3.89182	(3/24/1997)	(0.989541 - 3.89182)/(20 - 7)	
-0.223252				
ND<0 (5/23/2007)	3.89182	(3/24/1997)	(0 - 3.89182)/(21 - 7)	
-0.277987				
-0.616186 J (11/28/2007)	3.89182	(3/24/1997)	(-0.616186 - 3.89182)/(22 - 7)	
-0.300534				
-0.174353 J (6/5/2008)	3.89182	(3/24/1997)	(-0.174353 - 3.89182)/(23 - 7)	
-0.254136				
-0.430783 J (11/20/2008)	3.89182	(3/24/1997)	(-0.430783 - 3.89182)/(24 - 7)	
-0.254271				
-0.223144 J (6/11/2009)	3.89182	(3/24/1997)	(-0.223144 - 3.89182)/(25 - 7)	
-0.228609				
-1.42712 J (6/30/2010)	3.89182	(3/24/1997)	(-1.42712 - 3.89182)/(26 - 7)	
-0.279944				
ND<-2.59027 U (11/12/2010)	3.89182	(3/24/1997)	(-2.59027 - 3.89182)/(27 - 7)	
-0.324104				
ND<-2.59027 U (7/5/2011)	3.89182	(3/24/1997)	(-2.59027 - 3.89182)/(28 - 7)	
-0.308671				
-1.07881 J (11/22/2011)	3.89182	(3/24/1997)	(-1.07881 - 3.89182)/(29 - 7)	
-0.225938				
-1.07881 J (11/22/2011)	3.89182	(3/24/1997)	(-1.07881 - 3.89182)/(29 - 7)	
-0.225938				
ND<0 (4/7/1998)	3.52636	(9/24/1997)	(0 - 3.52636)/(9 - 8)	-3.52636
3.43399 (9/23/1998)	3.52636	(9/24/1997)	(3.43399 - 3.52636)/(10 - 8)	
-0.0461867				
3.41444 (3/16/1999)	3.52636	(9/24/1997)	(3.41444 - 3.52636)/(11 - 8)	
-0.037306				
3.47197 (9/23/1999)	3.52636	(9/24/1997)	(3.47197 - 3.52636)/(12 - 8)	
-0.0135985				
ND<0 (3/15/2000)	3.52636	(9/24/1997)	(0 - 3.52636)/(13 - 8)	
-0.705272				

ND<0 (9/24/2003)	3.52636 (9/24/1997)	(0 - 3.52636)/(14 - 8)	-0.587727
1.79176 (3/11/2004)	3.52636 (9/24/1997)	(1.79176 - 3.52636)/(15 - 8)	-0.2478
ND<0 (10/12/2004)	3.52636 (9/24/1997)	(0 - 3.52636)/(16 - 8)	-0.440795
1.67523 (4/1/2005)	3.52636 (9/24/1997)	(1.67523 - 3.52636)/(17 - 8)	-0.205682
0.779325 (10/25/2005)	3.52636 (9/24/1997)	(0.779325 - 3.52636)/(18 - 8)	-0.274704
0.875469 (4/29/2006)	3.52636 (9/24/1997)	(0.875469 - 3.52636)/(19 - 8)	-0.24099
0.989541 (11/18/2006)	3.52636 (9/24/1997)	(0.989541 - 3.52636)/(20 - 8)	-0.211402
ND<0 (5/23/2007)	3.52636 (9/24/1997)	(0 - 3.52636)/(21 - 8)	-0.271259
-0.616186 J (11/28/2007)	3.52636 (9/24/1997)	(-0.616186 - 3.52636)/(22 - 8)	-0.295896
-0.174353 J (6/5/2008)	3.52636 (9/24/1997)	(-0.174353 - 3.52636)/(23 - 8)	-0.246714
-0.430783 J (11/20/2008)	3.52636 (9/24/1997)	(-0.430783 - 3.52636)/(24 - 8)	-0.247321
-0.223144 J (6/11/2009)	3.52636 (9/24/1997)	(-0.223144 - 3.52636)/(25 - 8)	-0.220559
-1.42712 J (6/30/2010)	3.52636 (9/24/1997)	(-1.42712 - 3.52636)/(26 - 8)	-0.275193
ND<-2.59027 U (11/12/2010)	3.52636 (9/24/1997)	(-2.59027 - 3.52636)/(27 - 8)	-0.321928
ND<-2.59027 U (7/5/2011)	3.52636 (9/24/1997)	(-2.59027 - 3.52636)/(28 - 8)	-0.305831
-1.07881 J (11/22/2011)	3.52636 (9/24/1997)	(-1.07881 - 3.52636)/(29 - 8)	-0.219294
-1.07881 J (11/22/2011)	3.52636 (9/24/1997)	(-1.07881 - 3.52636)/(29 - 8)	-0.219294

3.43399 (9/23/1998)	ND<0 (4/7/1998)	(3.43399 - 0)/(10 - 9)		3.43399
3.41444 (3/16/1999)	ND<0 (4/7/1998)	(3.41444 - 0)/(11 - 9)		1.70722
3.47197 (9/23/1999)	ND<0 (4/7/1998)	(3.47197 - 0)/(12 - 9)		1.15732
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
1.79176 (3/11/2004)	ND<0 (4/7/1998)	(1.79176 - 0)/(15 - 9)		0.298627
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
1.67523 (4/1/2005)	ND<0 (4/7/1998)	(1.67523 - 0)/(17 - 9)		0.209403
0.779325 (10/25/2005)	ND<0 (4/7/1998)	(0.779325 - 0)/(18 - 9)		0.0865917
0.875469 (4/29/2006)	ND<0 (4/7/1998)	(0.875469 - 0)/(19 - 9)		0.0875469
0.989541 (11/18/2006)	ND<0 (4/7/1998)	(0.989541 - 0)/(20 - 9)		0.0899583
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0	
-0.616186 J (11/28/2007)	ND<0 (4/7/1998)	(-0.616186 - 0)/(22 - 9)		-0.0473989
-0.174353 J (6/5/2008)	ND<0 (4/7/1998)	(-0.174353 - 0)/(23 - 9)		-0.0124538
-0.430783 J (11/20/2008)	ND<0 (4/7/1998)	(-0.430783 - 0)/(24 - 9)		-0.0287189
-0.223144 J (6/11/2009)	ND<0 (4/7/1998)	(-0.223144 - 0)/(25 - 9)		-0.0139465
-1.42712 J (6/30/2010)	ND<0 (4/7/1998)	(-1.42712 - 0)/(26 - 9)		-0.083948

ND<-2.59027 U (11/12/2010)	ND<0 (4/7/1998)	(-2.59027 - 0)/(27 - 9)	-0.143904
ND<-2.59027 U (7/5/2011)	ND<0 (4/7/1998)	(-2.59027 - 0)/(28 - 9)	-0.13633
-1.07881 J (11/22/2011)	ND<0 (4/7/1998)	(-1.07881 - 0)/(29 - 9)	-0.0539405
-1.07881 J (11/22/2011)	ND<0 (4/7/1998)	(-1.07881 - 0)/(29 - 9)	-0.0539405
3.41444 (3/16/1999)	3.43399 (9/23/1998)	(3.41444 - 3.43399)/(11 - 10)	-0.0195446
3.47197 (9/23/1999)	3.43399 (9/23/1998)	(3.47197 - 3.43399)/(12 - 10)	0.0189896
ND<0 (3/15/2000)	3.43399 (9/23/1998)	(0 - 3.43399)/(13 - 10)	-1.14466
ND<0 (9/24/2003)	3.43399 (9/23/1998)	(0 - 3.43399)/(14 - 10)	-0.858497
1.79176 (3/11/2004)	3.43399 (9/23/1998)	(1.79176 - 3.43399)/(15 - 10)	-0.328446
ND<0 (10/12/2004)	3.43399 (9/23/1998)	(0 - 3.43399)/(16 - 10)	-0.572331
1.67523 (4/1/2005)	3.43399 (9/23/1998)	(1.67523 - 3.43399)/(17 - 10)	-0.251252
0.779325 (10/25/2005)	3.43399 (9/23/1998)	(0.779325 - 3.43399)/(18 - 10)	-0.331833
0.875469 (4/29/2006)	3.43399 (9/23/1998)	(0.875469 - 3.43399)/(19 - 10)	-0.28428
0.989541 (11/18/2006)	3.43399 (9/23/1998)	(0.989541 - 3.43399)/(20 - 10)	-0.244445
ND<0 (5/23/2007)	3.43399 (9/23/1998)	(0 - 3.43399)/(21 - 10)	-0.312181
-0.616186 J (11/28/2007)	3.43399 (9/23/1998)	(-0.616186 - 3.43399)/(22 - 10)	-0.337514
-0.174353 J (6/5/2008)	3.43399 (9/23/1998)	(-0.174353 - 3.43399)/(23 - 10)	-0.277565
-0.430783 J (11/20/2008)	3.43399 (9/23/1998)	(-0.430783 - 3.43399)/(24 - 10)	-0.276055
-0.223144 J (6/11/2009)	3.43399 (9/23/1998)	(-0.223144 - 3.43399)/(25 - 10)	-0.243809
-1.42712 J (6/30/2010)	3.43399 (9/23/1998)	(-1.42712 - 3.43399)/(26 - 10)	-0.303819
ND<-2.59027 U (11/12/2010)	3.43399 (9/23/1998)	(-2.59027 - 3.43399)/(27 - 10)	-0.354368
ND<-2.59027 U (7/5/2011)	3.43399 (9/23/1998)	(-2.59027 - 3.43399)/(28 - 10)	-0.334681
-1.07881 J (11/22/2011)	3.43399 (9/23/1998)	(-1.07881 - 3.43399)/(29 - 10)	-0.237516
-1.07881 J (11/22/2011)	3.43399 (9/23/1998)	(-1.07881 - 3.43399)/(29 - 10)	-0.237516
3.47197 (9/23/1999)	3.41444 (3/16/1999)	(3.47197 - 3.41444)/(12 - 11)	0.0575238
ND<0 (3/15/2000)	3.41444 (3/16/1999)	(0 - 3.41444)/(13 - 11)	-1.70722
ND<0 (9/24/2003)	3.41444 (3/16/1999)	(0 - 3.41444)/(14 - 11)	-1.13815
1.79176 (3/11/2004)	3.41444 (3/16/1999)	(1.79176 - 3.41444)/(15 - 11)	-0.405671
ND<0 (10/12/2004)	3.41444 (3/16/1999)	(0 - 3.41444)/(16 - 11)	-0.682889
1.67523 (4/1/2005)	3.41444 (3/16/1999)	(1.67523 - 3.41444)/(17 - 11)	-0.289869
0.779325 (10/25/2005)	3.41444 (3/16/1999)	(0.779325 - 3.41444)/(18 - 11)	-0.376445
0.875469 (4/29/2006)	3.41444 (3/16/1999)	(0.875469 - 3.41444)/(19 - 11)	-0.317372

0.989541 (11/18/2006)	3.41444 (3/16/1999)	(0.989541 - 3.41444)/(20 - 11)	
-0.269433			
ND<0 (5/23/2007)	3.41444 (3/16/1999)	(0 - 3.41444)/(21 - 11)	
-0.341444			
-0.616186 J (11/28/2007)	3.41444 (3/16/1999)	(-0.616186 - 3.41444)/(22 - 11)	
-0.366421			
-0.174353 J (6/5/2008)	3.41444 (3/16/1999)	(-0.174353 - 3.41444)/(23 - 11)	
-0.299066			
-0.430783 J (11/20/2008)	3.41444 (3/16/1999)	(-0.430783 - 3.41444)/(24 - 11)	
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-0.223144 J (6/11/2009)	3.41444 (3/16/1999)	(-0.223144 - 3.41444)/(25 - 11)	
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-1.42712 J (6/30/2010)	3.41444 (3/16/1999)	(-1.42712 - 3.41444)/(26 - 11)	
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ND<-2.59027 U (11/12/2010)	3.41444 (3/16/1999)	(-2.59027 - 3.41444)/(27 - 11)	
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ND<-2.59027 U (7/5/2011)	3.41444 (3/16/1999)	(-2.59027 - 3.41444)/(28 - 11)	
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-1.07881 J (11/22/2011)	3.41444 (3/16/1999)	(-1.07881 - 3.41444)/(29 - 11)	
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ND<0 (3/15/2000)	3.47197 (9/23/1999)	(0 - 3.47197)/(13 - 12)	-3.47197
ND<0 (9/24/2003)	3.47197 (9/23/1999)	(0 - 3.47197)/(14 - 12)	-1.73598
1.79176 (3/11/2004)	3.47197 (9/23/1999)	(1.79176 - 3.47197)/(15 - 12)	
-0.560069			
ND<0 (10/12/2004)	3.47197 (9/23/1999)	(0 - 3.47197)/(16 - 12)	
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1.67523 (4/1/2005)	3.47197 (9/23/1999)	(1.67523 - 3.47197)/(17 - 12)	
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0.779325 (10/25/2005)	3.47197 (9/23/1999)	(0.779325 - 3.47197)/(18 - 12)	
-0.448774			
0.875469 (4/29/2006)	3.47197 (9/23/1999)	(0.875469 - 3.47197)/(19 - 12)	
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0.989541 (11/18/2006)	3.47197 (9/23/1999)	(0.989541 - 3.47197)/(20 - 12)	
-0.310303			
ND<0 (5/23/2007)	3.47197 (9/23/1999)	(0 - 3.47197)/(21 - 12)	
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ND<-2.59027 U (11/12/2010)	3.47197 (9/23/1999)	(-2.59027 - 3.47197)/(27 - 12)	
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ND<-2.59027 U (7/5/2011)	3.47197 (9/23/1999)	(-2.59027 - 3.47197)/(28 - 12)	
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ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0
1.79176 (3/11/2004)	ND<0 (3/15/2000)	(1.79176 - 0)/(15 - 13)	0.89588
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0

1.67523 (4/1/2005) ND<0 (3/15/2000) (1.67523 - 0)/(17 - 13)
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ND<-2.59027 U (7/5/2011) ND<0 (3/15/2000) (-2.59027 - 0)/(28 - 13)
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ND<0 (5/23/2007) 1.79176 (3/11/2004) (0 - 1.79176)/(21 - 15)
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-0.174353 J (6/5/2008) 1.79176 (3/11/2004) (-0.174353 - 1.79176)/(23 - 15)
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1.67523 (4/1/2005) ND<0 (10/12/2004) (1.67523 - 0)/(17 - 16) 1.67523
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ND<0 (5/23/2007) 0.989541 (11/18/2006) (0 - 0.989541)/(21 - 20)
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ND<-2.59027 U (7/5/2011) 0.989541 (11/18/2006) (-2.59027 - 0.989541)/(28 - 20)
-0.447476
-1.07881 J (11/22/2011) 0.989541 (11/18/2006) (-1.07881 - 0.989541)/(29 - 20)
-0.229817
-1.07881 J (11/22/2011) 0.989541 (11/18/2006) (-1.07881 - 0.989541)/(29 - 20)
-0.229817

-0.616186 J (11/28/2007) ND<0 (5/23/2007) (-0.616186 - 0)/(22 - 21)
-0.616186
-0.174353 J (6/5/2008) ND<0 (5/23/2007) (-0.174353 - 0)/(23 - 21)
-0.0871767
-0.430783 J (11/20/2008) ND<0 (5/23/2007) (-0.430783 - 0)/(24 - 21)
-0.143594
-0.223144 J (6/11/2009) ND<0 (5/23/2007) (-0.223144 - 0)/(25 - 21)
-0.0557859
-1.42712 J (6/30/2010) ND<0 (5/23/2007) (-1.42712 - 0)/(26 - 21)
-0.285423
ND<-2.59027 U (11/12/2010) ND<0 (5/23/2007) (-2.59027 - 0)/(27 - 21)
-0.431711
ND<-2.59027 U (7/5/2011) ND<0 (5/23/2007) (-2.59027 - 0)/(28 - 21)
-0.370038
-1.07881 J (11/22/2011) ND<0 (5/23/2007) (-1.07881 - 0)/(29 - 21)
-0.134851
-1.07881 J (11/22/2011) ND<0 (5/23/2007) (-1.07881 - 0)/(29 - 21)
-0.134851

-0.174353 J (6/5/2008) -0.616186 J (11/28/2007) (-0.174353 - -0.616186)/(23 - 22)
0.441833
-0.430783 J (11/20/2008) -0.616186 J (11/28/2007) (-0.430783 - -0.616186)/(24 - 22)
0.0927016
-0.223144 J (6/11/2009) -0.616186 J (11/28/2007) (-0.223144 - -0.616186)/(25 - 22)
0.131014
-1.42712 J (6/30/2010) -0.616186 J (11/28/2007) (-1.42712 - -0.616186)/(26 - 22)
-0.202733
ND<-2.59027 U (11/12/2010) -0.616186 J (11/28/2007) (-2.59027 - -0.616186)/(27 - 22)
-0.394816
ND<-2.59027 U (7/5/2011) -0.616186 J (11/28/2007) (-2.59027 - -0.616186)/(28 - 22)
-0.329014
-1.07881 J (11/22/2011) -0.616186 J (11/28/2007) (-1.07881 - -0.616186)/(29 - 22)
-0.0660891
-1.07881 J (11/22/2011) -0.616186 J (11/28/2007) (-1.07881 - -0.616186)/(29 - 22)
-0.0660891

-0.430783 J (11/20/2008) -0.174353 J (6/5/2008) (-0.430783 - -0.174353)/(24 - 23)
-0.25643
-0.223144 J (6/11/2009) -0.174353 J (6/5/2008) (-0.223144 - -0.174353)/(25 - 23)
-0.0243951
-1.42712 J (6/30/2010) -0.174353 J (6/5/2008) (-1.42712 - -0.174353)/(26 - 23)
-0.417588
ND<-2.59027 U (11/12/2010) -0.174353 J (6/5/2008) (-2.59027 - -0.174353)/(27 - 23)
-0.603978
ND<-2.59027 U (7/5/2011) -0.174353 J (6/5/2008) (-2.59027 - -0.174353)/(28 - 23)
-0.483183
-1.07881 J (11/22/2011) -0.174353 J (6/5/2008) (-1.07881 - -0.174353)/(29 - 23)
-0.150743
-1.07881 J (11/22/2011) -0.174353 J (6/5/2008) (-1.07881 - -0.174353)/(29 - 23)
-0.150743

-0.223144 J (6/11/2009) -0.430783 J (11/20/2008) (-0.223144 - -0.430783)/(25 - 24)
0.207639
-1.42712 J (6/30/2010) -0.430783 J (11/20/2008) (-1.42712 - -0.430783)/(26 - 24)
-0.498167
ND<-2.59027 U (11/12/2010) -0.430783 J (11/20/2008) (-2.59027 - -0.430783)/(27 - 24)
-0.719828
ND<-2.59027 U (7/5/2011) -0.430783 J (11/20/2008) (-2.59027 - -0.430783)/(28 - 24)
-0.539871
-1.07881 J (11/22/2011) -0.430783 J (11/20/2008) (-1.07881 - -0.430783)/(29 - 24)
-0.129605
-1.07881 J (11/22/2011) -0.430783 J (11/20/2008) (-1.07881 - -0.430783)/(29 - 24)
-0.129605

-1.42712 J (6/30/2010) -0.223144 J (6/11/2009) (-1.42712 - -0.223144)/(26 - 25)
-1.20397
ND<-2.59027 U (11/12/2010) -0.223144 J (6/11/2009) (-2.59027 - -0.223144)/(27 - 25)
-1.18356
ND<-2.59027 U (7/5/2011) -0.223144 J (6/11/2009) (-2.59027 - -0.223144)/(28 - 25)
-0.789041
-1.07881 J (11/22/2011) -0.223144 J (6/11/2009) (-1.07881 - -0.223144)/(29 - 25)
-0.213917
-1.07881 J (11/22/2011) -0.223144 J (6/11/2009) (-1.07881 - -0.223144)/(29 - 25)
-0.213917

ND<-2.59027 U (11/12/2010) -1.42712 J (6/30/2010) (-2.59027 - -1.42712)/(27 - 26)
-1.16315
ND<-2.59027 U (7/5/2011) -1.42712 J (6/30/2010) (-2.59027 - -1.42712)/(28 - 26)
-0.581575
-1.07881 J (11/22/2011) -1.42712 J (6/30/2010) (-1.07881 - -1.42712)/(29 - 26)
0.116102
-1.07881 J (11/22/2011) -1.42712 J (6/30/2010) (-1.07881 - -1.42712)/(29 - 26)
0.116102

ND<-2.59027 U (7/5/2011) ND<-2.59027 U (11/12/2010) (-2.59027 - -2.59027)/(28 - 27)
0
-1.07881 J (11/22/2011) ND<-2.59027 U (11/12/2010) (-1.07881 - -2.59027)/(29 - 27)
0.755729
-1.07881 J (11/22/2011) ND<-2.59027 U (11/12/2010) (-1.07881 - -2.59027)/(29 - 27)
0.755729

-1.07881 J (11/22/2011) ND<-2.59027 U (7/5/2011) (-1.07881 - -2.59027)/(29 - 28)
1.51146
-1.07881 J (11/22/2011) ND<-2.59027 U (7/5/2011) (-1.07881 - -2.59027)/(29 - 28)
1.51146

-1.07881 J (11/22/2011) Same Date	-1.07881 J (11/22/2011)	(-1.07881 - -1.07881)/(29 - 29)

Number of Q values = 434

Ordered Q Values

n	Q
1	-3.52636
2	-3.47197
3	-2.3979
4	-2.23867
5	-2.07944
6	-1.94591
7	-1.79176
8	-1.73598
9	-1.70722
10	-1.53171
11	-1.35918
12	-1.25784
13	-1.20397
14	-1.18356
15	-1.16315
16	-1.14466
17	-1.13815
18	-0.989541
19	-0.895901
20	-0.867992
21	-0.858497
22	-0.802864
23	-0.789041
24	-0.746223
25	-0.719828
26	-0.705272
27	-0.682889
28	-0.656446
29	-0.648637
30	-0.616186
31	-0.603978
32	-0.587727
33	-0.582505
34	-0.581575
35	-0.572331
36	-0.560069
37	-0.555974
38	-0.539871
39	-0.511401
40	-0.509692
41	-0.498167
42	-0.497218
43	-0.483183
44	-0.458282
45	-0.448774
46	-0.447734
47	-0.447476
48	-0.440795
49	-0.437734
50	-0.433217
51	-0.432424
52	-0.431711
53	-0.426549

54	-0.418806
55	-0.417738
56	-0.417588
57	-0.415888
58	-0.408815
59	-0.407754
60	-0.407031
61	-0.405671
62	-0.404149
63	-0.402776
64	-0.399878
65	-0.394816
66	-0.387965
67	-0.387772
68	-0.385774
69	-0.385082
70	-0.382927
71	-0.37889
72	-0.376445
73	-0.375294
74	-0.374399
75	-0.370928
76	-0.370038
77	-0.366421
78	-0.36546
79	-0.365169
80	-0.359348
81	-0.355081
82	-0.354368
83	-0.353218
84	-0.349934
85	-0.348878
86	-0.344705
87	-0.344411
88	-0.343992
89	-0.341444
90	-0.337514
91	-0.337478
92	-0.337079
93	-0.336959
94	-0.334681
95	-0.331833
96	-0.331484
97	-0.329014
98	-0.328941
99	-0.328446
100	-0.328223
101	-0.325229
102	-0.324104
103	-0.322771
104	-0.321928
105	-0.317515
106	-0.317372
107	-0.312181
108	-0.310303
109	-0.308671
110	-0.308263
111	-0.305831
112	-0.303819
113	-0.303082
114	-0.300858
115	-0.300534

116	-0.299066
117	-0.298627
118	-0.295896
119	-0.295787
120	-0.294483
121	-0.293358
122	-0.292625
123	-0.290788
124	-0.289869
125	-0.287415
126	-0.285423
127	-0.28428
128	-0.284239
129	-0.282954
130	-0.282704
131	-0.279944
132	-0.277987
133	-0.277565
134	-0.276361
135	-0.276055
136	-0.275805
137	-0.275588
138	-0.275233
139	-0.275193
140	-0.274851
141	-0.274704
142	-0.271836
143	-0.271259
144	-0.269433
145	-0.26808
146	-0.267693
147	-0.267693
148	-0.262508
149	-0.262456
150	-0.26125
151	-0.260565
152	-0.259828
153	-0.259775
154	-0.256715
155	-0.25643
156	-0.254271
157	-0.254136
158	-0.253975
159	-0.251363
160	-0.251252
161	-0.250927
162	-0.250462
163	-0.250111
164	-0.249625
165	-0.249625
166	-0.248741
167	-0.2478
168	-0.247321
169	-0.246949
170	-0.246714
171	-0.246534
172	-0.246313
173	-0.245764
174	-0.244445
175	-0.243809
176	-0.242537
177	-0.241848

178	-0.24099
179	-0.238487
180	-0.237516
181	-0.237516
182	-0.237296
183	-0.235479
184	-0.23372
185	-0.232585
186	-0.231049
187	-0.229817
188	-0.229817
189	-0.229503
190	-0.229503
191	-0.229073
192	-0.228609
193	-0.228561
194	-0.22845
195	-0.227118
196	-0.226352
197	-0.225938
198	-0.225938
199	-0.225117
200	-0.224189
201	-0.224189
202	-0.223798
203	-0.223252
204	-0.221659
205	-0.220571
206	-0.220559
207	-0.219294
208	-0.219294
209	-0.218803
210	-0.218392
211	-0.215856
212	-0.215643
213	-0.213917
214	-0.213917
215	-0.213698
216	-0.213698
217	-0.213658
218	-0.211402
219	-0.210146
220	-0.210146
221	-0.20949
222	-0.207944
223	-0.205682
224	-0.205164
225	-0.205041
226	-0.205041
227	-0.203031
228	-0.202733
229	-0.201685
230	-0.20149
231	-0.20031
232	-0.200151
233	-0.199251
234	-0.195428
235	-0.195428
236	-0.19466
237	-0.194571
238	-0.190736
239	-0.190195

240	-0.185717
241	-0.185019
242	-0.185019
243	-0.183102
244	-0.178127
245	-0.173287
246	-0.172684
247	-0.168921
248	-0.168921
249	-0.160888
250	-0.160444
251	-0.159389
252	-0.152611
253	-0.150743
254	-0.150743
255	-0.149757
256	-0.14905
257	-0.146379
258	-0.145394
259	-0.145142
260	-0.144362
261	-0.143904
262	-0.143594
263	-0.14321
264	-0.142712
265	-0.14066
266	-0.139015
267	-0.13633
268	-0.134851
269	-0.134851
270	-0.133266
271	-0.132862
272	-0.132619
273	-0.131186
274	-0.129605
275	-0.129605
276	-0.129396
277	-0.12633
278	-0.12633
279	-0.125511
280	-0.12232
281	-0.119344
282	-0.118926
283	-0.118621
284	-0.117783
285	-0.117739
286	-0.11262
287	-0.112315
288	-0.111708
289	-0.109778
290	-0.109647
291	-0.103611
292	-0.102698
293	-0.100928
294	-0.0969292
295	-0.0928655
296	-0.0894731
297	-0.0871767
298	-0.0847303
299	-0.0839708
300	-0.083948
301	-0.0829854

302	-0.0829854
303	-0.0802649
304	-0.08007
305	-0.08007
306	-0.0775434
307	-0.0770233
308	-0.0719206
309	-0.0719206
310	-0.0693015
311	-0.0684651
312	-0.0681188
313	-0.0679579
314	-0.0674256
315	-0.0674256
316	-0.0660891
317	-0.0660891
318	-0.0607956
319	-0.0582669
320	-0.0581575
321	-0.0577623
322	-0.0557859
323	-0.0539405
324	-0.0539405
325	-0.0538479
326	-0.0473989
327	-0.0461867
328	-0.0449504
329	-0.0449504
330	-0.0430783
331	-0.0391621
332	-0.037306
333	-0.0362462
334	-0.0310935
335	-0.0287189
336	-0.0261529
337	-0.0249076
338	-0.0247937
339	-0.0243951
340	-0.0226728
341	-0.022578
342	-0.0202858
343	-0.0195446
344	-0.0193726
345	-0.0185953
346	-0.0174353
347	-0.0159823
348	-0.0139465
349	-0.0135985
350	-0.0124538
351	-0.0111572
352	-0.0096863
353	-0.00913735
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0

364	0
365	0
366	0
367	0
368	0
369	0
370	0.0189896
371	0.0320047
372	0.0449006
373	0.0575238
374	0.0599481
375	0.0625335
376	0.0659694
377	0.0865917
378	0.0875469
379	0.0899583
380	0.0927016
381	0.0961439
382	0.105108
383	0.114072
384	0.116102
385	0.116102
386	0.131014
387	0.139602
388	0.141363
389	0.145911
390	0.155865
391	0.164924
392	0.174066
393	0.175094
394	0.179176
395	0.190714
396	0.194831
397	0.207639
398	0.209403
399	0.209892
400	0.225129
401	0.225758
402	0.247385
403	0.252315
404	0.291823
405	0.298627
406	0.30543
407	0.337601
408	0.36173
409	0.389662
410	0.418806
411	0.441833
412	0.454778
413	0.495995
414	0.558409
415	0.569074
416	0.582877
417	0.604126
418	0.686797
419	0.755729
420	0.755729
421	0.89588
422	0.999048
423	1.15732
424	1.17545
425	1.51146

426	1.51146
427	1.65709
428	1.67523
429	1.70722
430	1.79176
431	1.94591
432	3.43197
433	3.43399
434	4.07754

Sen's Estimator (Median Q) is -0.21253

Tied Group Value Members

1	0	6
2	-2.59027	2
3	-1.07881	2

Time Period Observations

7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 546
B = 18
C = 120
D = 0
E = 34
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3110.37
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.7346
M1 = (434 - 91.7346)/2.0 = 171.133

M2 = (434 + 91.7346)/2.0 + 1 = 263.867
Lower limit is -0.246534 = Q(171)
Upper limit is -0.142712 = Q(264)
-0.142712 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: Tetrachloroethene
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
1.4816	(8/24/1995)	0.741937	(7/20/1995)	(1.4816 - 0.741937)/(2 - 1)
0.739667				
0.693147	(9/28/1995)	0.741937	(7/20/1995)	(0.693147 - 0.741937)/(3 - 1)
-0.0243951				
1.38629	(10/26/1995)	0.741937	(7/20/1995)	(1.38629 - 0.741937)/(4 - 1)
0.214786				
ND<0	(11/19/1996)	0.741937	(7/20/1995)	(0 - 0.741937)/(5 - 1)
-0.185484				
ND<0	(12/19/1996)	0.741937	(7/20/1995)	(0 - 0.741937)/(6 - 1)
-0.148387				
ND<0	(3/24/1997)	0.741937	(7/20/1995)	(0 - 0.741937)/(7 - 1)
-0.123656				
ND<0	(9/24/1997)	0.741937	(7/20/1995)	(0 - 0.741937)/(8 - 1)
-0.105991				
ND<0	(4/7/1998)	0.741937	(7/20/1995)	(0 - 0.741937)/(9 - 1)
-0.0927422				
ND<0	(9/23/1998)	0.741937	(7/20/1995)	(0 - 0.741937)/(10 - 1)
-0.0824375				
0.993252	(3/16/1999)	0.741937	(7/20/1995)	(0.993252 - 0.741937)/(11 - 1)
0.0251314				
ND<0	(9/23/1999)	0.741937	(7/20/1995)	(0 - 0.741937)/(12 - 1)
-0.0674488				
ND<0	(3/15/2000)	0.741937	(7/20/1995)	(0 - 0.741937)/(13 - 1)
-0.0618281				
ND<0	(9/24/2003)	0.741937	(7/20/1995)	(0 - 0.741937)/(14 - 1)
-0.0570721				
ND<0	(3/11/2004)	0.741937	(7/20/1995)	(0 - 0.741937)/(15 - 1)
-0.0529955				
ND<0	(10/12/2004)	0.741937	(7/20/1995)	(0 - 0.741937)/(16 - 1)
-0.0494625				
0.970779	(4/1/2005)	0.741937	(7/20/1995)	(0.970779 - 0.741937)/(17 - 1)
0.0143026				
-0.776529 J	(10/25/2005)	0.741937	(7/20/1995)	(-0.776529 - 0.741937)/(18 - 1)
-0.0893215				
ND<0	(4/29/2006)	0.741937	(7/20/1995)	(0 - 0.741937)/(19 - 1)
-0.0412187				
-0.71335 J	(11/18/2006)	0.741937	(7/20/1995)	(-0.71335 - 0.741937)/(20 - 1)
-0.0765941				
ND<0	(5/23/2007)	0.741937	(7/20/1995)	(0 - 0.741937)/(21 - 1)
-0.0370969				
-0.967584 J	(11/28/2007)	0.741937	(7/20/1995)	(-0.967584 - 0.741937)/(22 - 1)
-0.0814058				
ND<0	(6/5/2008)	0.741937	(7/20/1995)	(0 - 0.741937)/(23 - 1)
-0.0337244				
-0.916291 J	(11/20/2008)	0.741937	(7/20/1995)	(-0.916291 - 0.741937)/(24 - 1)
-0.0720969				
0.832909	(6/11/2009)	0.741937	(7/20/1995)	(0.832909 - 0.741937)/(25 - 1)
0.00379049				
-1.20397 J	(11/16/2009)	0.741937	(7/20/1995)	(-1.20397 - 0.741937)/(26 - 1)
-0.0778364				

0.182322 (6/30/2010) 0.741937 (7/20/1995) (0.182322 - 0.741937)/(27 - 1)
-0.0215237
ND<-2.59027 U (11/12/2010) 0.741937 (7/20/1995) (-2.59027 - 0.741937)/(28 - 1)
-0.123415
ND<-2.59027 U (7/5/2011) 0.741937 (7/20/1995) (-2.59027 - 0.741937)/(29 - 1)
-0.119007
-1.56065 J (11/22/2011) 0.741937 (7/20/1995) (-1.56065 - 0.741937)/(30 - 1)
-0.0793995
-1.56065 J (11/22/2011) 0.741937 (7/20/1995) (-1.56065 - 0.741937)/(30 - 1)
-0.0793995

0.693147 (9/28/1995) 1.4816 (8/24/1995) (0.693147 - 1.4816)/(3 - 2)
-0.788457
1.38629 (10/26/1995) 1.4816 (8/24/1995) (1.38629 - 1.4816)/(4 - 2)
-0.0476551
ND<0 (11/19/1996) 1.4816 (8/24/1995) (0 - 1.4816)/(5 - 2)
-0.493868
ND<0 (12/19/1996) 1.4816 (8/24/1995) (0 - 1.4816)/(6 - 2)
-0.370401
ND<0 (3/24/1997) 1.4816 (8/24/1995) (0 - 1.4816)/(7 - 2)
-0.296321
ND<0 (9/24/1997) 1.4816 (8/24/1995) (0 - 1.4816)/(8 - 2)
-0.246934
ND<0 (4/7/1998) 1.4816 (8/24/1995) (0 - 1.4816)/(9 - 2)
-0.211658
ND<0 (9/23/1998) 1.4816 (8/24/1995) (0 - 1.4816)/(10 - 2)
-0.185201
0.993252 (3/16/1999) 1.4816 (8/24/1995) (0.993252 - 1.4816)/(11 - 2)
-0.0542614
ND<0 (9/23/1999) 1.4816 (8/24/1995) (0 - 1.4816)/(12 - 2) -0.14816
ND<0 (3/15/2000) 1.4816 (8/24/1995) (0 - 1.4816)/(13 - 2)
-0.134691
ND<0 (9/24/2003) 1.4816 (8/24/1995) (0 - 1.4816)/(14 - 2)
-0.123467
ND<0 (3/11/2004) 1.4816 (8/24/1995) (0 - 1.4816)/(15 - 2) -0.11397
ND<0 (10/12/2004) 1.4816 (8/24/1995) (0 - 1.4816)/(16 - 2)
-0.105829
0.970779 (4/1/2005) 1.4816 (8/24/1995) (0.970779 - 1.4816)/(17 - 2)
-0.034055
-0.776529 J (10/25/2005) 1.4816 (8/24/1995) (-0.776529 - 1.4816)/(18 - 2)
-0.141133
ND<0 (4/29/2006) 1.4816 (8/24/1995) (0 - 1.4816)/(19 - 2)
-0.0871532
-0.71335 J (11/18/2006) 1.4816 (8/24/1995) (-0.71335 - 1.4816)/(20 - 2)
-0.121942
ND<0 (5/23/2007) 1.4816 (8/24/1995) (0 - 1.4816)/(21 - 2)
-0.0779792
-0.967584 J (11/28/2007) 1.4816 (8/24/1995) (-0.967584 - 1.4816)/(22 - 2)
-0.122459
ND<0 (6/5/2008) 1.4816 (8/24/1995) (0 - 1.4816)/(23 - 2)
-0.0705526
-0.916291 J (11/20/2008) 1.4816 (8/24/1995) (-0.916291 - 1.4816)/(24 - 2)
-0.108995
0.832909 (6/11/2009) 1.4816 (8/24/1995) (0.832909 - 1.4816)/(25 - 2)
-0.0282041
-1.20397 J (11/16/2009) 1.4816 (8/24/1995) (-1.20397 - 1.4816)/(26 - 2)
-0.111899
0.182322 (6/30/2010) 1.4816 (8/24/1995) (0.182322 - 1.4816)/(27 - 2)
-0.0519713
ND<-2.59027 U (11/12/2010) 1.4816 (8/24/1995) (-2.59027 - 1.4816)/(28 - 2)
-0.15661

ND<-2.59027 U (7/5/2011) 1.4816 (8/24/1995) (-2.59027 - 1.4816)/(29 - 2)
-0.15081
-1.56065 J (11/22/2011) 1.4816 (8/24/1995) (-1.56065 - 1.4816)/(30 - 2)
-0.108652
-1.56065 J (11/22/2011) 1.4816 (8/24/1995) (-1.56065 - 1.4816)/(30 - 2)
-0.108652

1.38629 (10/26/1995) 0.693147 (9/28/1995) (1.38629 - 0.693147)/(4 - 3)
0.693147
ND<0 (11/19/1996) 0.693147 (9/28/1995) (0 - 0.693147)/(5 - 3)
-0.346574
ND<0 (12/19/1996) 0.693147 (9/28/1995) (0 - 0.693147)/(6 - 3)
-0.231049
ND<0 (3/24/1997) 0.693147 (9/28/1995) (0 - 0.693147)/(7 - 3)
-0.173287
ND<0 (9/24/1997) 0.693147 (9/28/1995) (0 - 0.693147)/(8 - 3)
-0.138629
ND<0 (4/7/1998) 0.693147 (9/28/1995) (0 - 0.693147)/(9 - 3)
-0.115525
ND<0 (9/23/1998) 0.693147 (9/28/1995) (0 - 0.693147)/(10 - 3)
-0.099021
0.993252 (3/16/1999) 0.693147 (9/28/1995) (0.993252 - 0.693147)/(11 - 3)
0.0375131
ND<0 (9/23/1999) 0.693147 (9/28/1995) (0 - 0.693147)/(12 - 3)
-0.0770164
ND<0 (3/15/2000) 0.693147 (9/28/1995) (0 - 0.693147)/(13 - 3)
-0.0693147
ND<0 (9/24/2003) 0.693147 (9/28/1995) (0 - 0.693147)/(14 - 3)
-0.0630134
ND<0 (3/11/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(15 - 3)
-0.0577623
ND<0 (10/12/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(16 - 3)
-0.053319
0.970779 (4/1/2005) 0.693147 (9/28/1995) (0.970779 - 0.693147)/(17 - 3)
0.0198308
-0.776529 J (10/25/2005) 0.693147 (9/28/1995) (-0.776529 - 0.693147)/(18 - 3)
-0.0979784
ND<0 (4/29/2006) 0.693147 (9/28/1995) (0 - 0.693147)/(19 - 3)
-0.0433217
-0.71335 J (11/18/2006) 0.693147 (9/28/1995) (-0.71335 - 0.693147)/(20 - 3)
-0.0827351
ND<0 (5/23/2007) 0.693147 (9/28/1995) (0 - 0.693147)/(21 - 3)
-0.0385082
-0.967584 J (11/28/2007) 0.693147 (9/28/1995) (-0.967584 - 0.693147)/(22 - 3)
-0.0874069
ND<0 (6/5/2008) 0.693147 (9/28/1995) (0 - 0.693147)/(23 - 3)
-0.0346574
-0.916291 J (11/20/2008) 0.693147 (9/28/1995) (-0.916291 - 0.693147)/(24 - 3)
-0.0766399
0.832909 (6/11/2009) 0.693147 (9/28/1995) (0.832909 - 0.693147)/(25 - 3)
0.00635282
-1.20397 J (11/16/2009) 0.693147 (9/28/1995) (-1.20397 - 0.693147)/(26 - 3)
-0.0824835
0.182322 (6/30/2010) 0.693147 (9/28/1995) (0.182322 - 0.693147)/(27 - 3)
-0.0212844
ND<-2.59027 U (11/12/2010) 0.693147 (9/28/1995) (-2.59027 - 0.693147)/(28 - 3)
-0.131337
ND<-2.59027 U (7/5/2011) 0.693147 (9/28/1995) (-2.59027 - 0.693147)/(29 - 3)
-0.126285
-1.56065 J (11/22/2011) 0.693147 (9/28/1995) (-1.56065 - 0.693147)/(30 - 3)
-0.0834739

-1.56065 J (11/22/2011)	0.693147 (9/28/1995)	(-1.56065 - 0.693147)/(30 - 3)	
-0.0834739			
ND<0 (11/19/1996)	1.38629 (10/26/1995)	(0 - 1.38629)/(5 - 4)	-1.38629
ND<0 (12/19/1996)	1.38629 (10/26/1995)	(0 - 1.38629)/(6 - 4)	
-0.693147			
ND<0 (3/24/1997)	1.38629 (10/26/1995)	(0 - 1.38629)/(7 - 4)	
-0.462098			
ND<0 (9/24/1997)	1.38629 (10/26/1995)	(0 - 1.38629)/(8 - 4)	
-0.346574			
ND<0 (4/7/1998)	1.38629 (10/26/1995)	(0 - 1.38629)/(9 - 4)	
-0.277259			
ND<0 (9/23/1998)	1.38629 (10/26/1995)	(0 - 1.38629)/(10 - 4)	
-0.231049			
0.993252 (3/16/1999)	1.38629 (10/26/1995)	(0.993252 - 1.38629)/(11 - 4)	
-0.0561489			
ND<0 (9/23/1999)	1.38629 (10/26/1995)	(0 - 1.38629)/(12 - 4)	
-0.173287			
ND<0 (3/15/2000)	1.38629 (10/26/1995)	(0 - 1.38629)/(13 - 4)	
-0.154033			
ND<0 (9/24/2003)	1.38629 (10/26/1995)	(0 - 1.38629)/(14 - 4)	
-0.138629			
ND<0 (3/11/2004)	1.38629 (10/26/1995)	(0 - 1.38629)/(15 - 4)	
-0.126027			
ND<0 (10/12/2004)	1.38629 (10/26/1995)	(0 - 1.38629)/(16 - 4)	
-0.115525			
0.970779 (4/1/2005)	1.38629 (10/26/1995)	(0.970779 - 1.38629)/(17 - 4)	
-0.0319627			
-0.776529 J (10/25/2005)	1.38629 (10/26/1995)	(-0.776529 - 1.38629)/(18 - 4)	
-0.154487			
ND<0 (4/29/2006)	1.38629 (10/26/1995)	(0 - 1.38629)/(19 - 4)	
-0.0924196			
-0.71335 J (11/18/2006)	1.38629 (10/26/1995)	(-0.71335 - 1.38629)/(20 - 4)	
-0.131228			
ND<0 (5/23/2007)	1.38629 (10/26/1995)	(0 - 1.38629)/(21 - 4)	
-0.0815467			
-0.967584 J (11/28/2007)	1.38629 (10/26/1995)	(-0.967584 - 1.38629)/(22 - 4)	
-0.130771			
ND<0 (6/5/2008)	1.38629 (10/26/1995)	(0 - 1.38629)/(23 - 4)	
-0.0729629			
-0.916291 J (11/20/2008)	1.38629 (10/26/1995)	(-0.916291 - 1.38629)/(24 - 4)	
-0.115129			
0.832909 (6/11/2009)	1.38629 (10/26/1995)	(0.832909 - 1.38629)/(25 - 4)	
-0.0263517			
-1.20397 J (11/16/2009)	1.38629 (10/26/1995)	(-1.20397 - 1.38629)/(26 - 4)	
-0.117739			
0.182322 (6/30/2010)	1.38629 (10/26/1995)	(0.182322 - 1.38629)/(27 - 4)	
-0.0523466			
ND<-2.59027 U (11/12/2010)	1.38629 (10/26/1995)	(-2.59027 - 1.38629)/(28 - 4)	
-0.16569			
ND<-2.59027 U (7/5/2011)	1.38629 (10/26/1995)	(-2.59027 - 1.38629)/(29 - 4)	
-0.159062			
-1.56065 J (11/22/2011)	1.38629 (10/26/1995)	(-1.56065 - 1.38629)/(30 - 4)	
-0.113344			
-1.56065 J (11/22/2011)	1.38629 (10/26/1995)	(-1.56065 - 1.38629)/(30 - 4)	
-0.113344			
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0

0.993252 (3/16/1999)	ND<0 (11/19/1996)	(0.993252 - 0)/(11 - 5)	0.165542	
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
0.970779 (4/1/2005)	ND<0 (11/19/1996)	(0.970779 - 0)/(17 - 5)	0.0808982	
-0.776529 J (10/25/2005)	ND<0 (11/19/1996)	(-0.776529 - 0)/(18 - 5)	-0.059733	
ND<0 (4/29/2006)	ND<0 (11/19/1996)	(0 - 0)/(19 - 5)	0	
-0.71335 J (11/18/2006)	ND<0 (11/19/1996)	(-0.71335 - 0)/(20 - 5)	-0.0475567	
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
-0.967584 J (11/28/2007)	ND<0 (11/19/1996)	(-0.967584 - 0)/(22 - 5)	-0.0569167	
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0	
-0.916291 J (11/20/2008)	ND<0 (11/19/1996)	(-0.916291 - 0)/(24 - 5)	-0.0482258	
0.832909 (6/11/2009)	ND<0 (11/19/1996)	(0.832909 - 0)/(25 - 5)	0.0416455	
-1.20397 J (11/16/2009)	ND<0 (11/19/1996)	(-1.20397 - 0)/(26 - 5)	-0.057332	
0.182322 (6/30/2010)	ND<0 (11/19/1996)	(0.182322 - 0)/(27 - 5)	0.00828734	
ND<-2.59027 U (11/12/2010)	ND<0 (11/19/1996)	(-2.59027 - 0)/(28 - 5)	-0.11262	
ND<-2.59027 U (7/5/2011)	ND<0 (11/19/1996)	(-2.59027 - 0)/(29 - 5)	-0.107928	
-1.56065 J (11/22/2011)	ND<0 (11/19/1996)	(-1.56065 - 0)/(30 - 5)	-0.0624259	
-1.56065 J (11/22/2011)	ND<0 (11/19/1996)	(-1.56065 - 0)/(30 - 5)	-0.0624259	

ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0	
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
0.993252 (3/16/1999)	ND<0 (12/19/1996)	(0.993252 - 0)/(11 - 6)	0.19865	
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
0.970779 (4/1/2005)	ND<0 (12/19/1996)	(0.970779 - 0)/(17 - 6)	0.0882526	
-0.776529 J (10/25/2005)	ND<0 (12/19/1996)	(-0.776529 - 0)/(18 - 6)	-0.0647107	
ND<0 (4/29/2006)	ND<0 (12/19/1996)	(0 - 0)/(19 - 6)	0	
-0.71335 J (11/18/2006)	ND<0 (12/19/1996)	(-0.71335 - 0)/(20 - 6)	-0.0509536	
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0	
-0.967584 J (11/28/2007)	ND<0 (12/19/1996)	(-0.967584 - 0)/(22 - 6)	-0.060474	
ND<0 (6/5/2008)	ND<0 (12/19/1996)	(0 - 0)/(23 - 6)	0	
-0.916291 J (11/20/2008)	ND<0 (12/19/1996)	(-0.916291 - 0)/(24 - 6)	-0.050905	
0.832909 (6/11/2009)	ND<0 (12/19/1996)	(0.832909 - 0)/(25 - 6)	0.0438373	
-1.20397 J (11/16/2009)	ND<0 (12/19/1996)	(-1.20397 - 0)/(26 - 6)	-0.0601986	

0.182322 (6/30/2010)	ND<0 (12/19/1996)	(0.182322 - 0)/(27 - 6)		
0.00868198				
ND<-2.59027 U (11/12/2010)	ND<0 (12/19/1996)	(-2.59027 - 0)/(28 - 6)		
-0.117739				
ND<-2.59027 U (7/5/2011)	ND<0 (12/19/1996)	(-2.59027 - 0)/(29 - 6)		-0.11262
-1.56065 J (11/22/2011)	ND<0 (12/19/1996)	(-1.56065 - 0)/(30 - 6)		
-0.065027				
-1.56065 J (11/22/2011)	ND<0 (12/19/1996)	(-1.56065 - 0)/(30 - 6)		
-0.065027				
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0	
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0	
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0	
0.993252 (3/16/1999)	ND<0 (3/24/1997)	(0.993252 - 0)/(11 - 7)		
0.248313				
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0	
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0	
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0	
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0	
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0	
0.970779 (4/1/2005)	ND<0 (3/24/1997)	(0.970779 - 0)/(17 - 7)		
0.0970779				
-0.776529 J (10/25/2005)	ND<0 (3/24/1997)	(-0.776529 - 0)/(18 - 7)		
-0.0705935				
ND<0 (4/29/2006)	ND<0 (3/24/1997)	(0 - 0)/(19 - 7)	0	
-0.71335 J (11/18/2006)	ND<0 (3/24/1997)	(-0.71335 - 0)/(20 - 7)		
-0.0548731				
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0	
-0.967584 J (11/28/2007)	ND<0 (3/24/1997)	(-0.967584 - 0)/(22 - 7)		
-0.0645056				
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0	
-0.916291 J (11/20/2008)	ND<0 (3/24/1997)	(-0.916291 - 0)/(24 - 7)		
-0.0538995				
0.832909 (6/11/2009)	ND<0 (3/24/1997)	(0.832909 - 0)/(25 - 7)		
0.0462727				
-1.20397 J (11/16/2009)	ND<0 (3/24/1997)	(-1.20397 - 0)/(26 - 7)		
-0.063367				
0.182322 (6/30/2010)	ND<0 (3/24/1997)	(0.182322 - 0)/(27 - 7)		
0.00911608				
ND<-2.59027 U (11/12/2010)	ND<0 (3/24/1997)	(-2.59027 - 0)/(28 - 7)		
-0.123346				
ND<-2.59027 U (7/5/2011)	ND<0 (3/24/1997)	(-2.59027 - 0)/(29 - 7)		
-0.117739				
-1.56065 J (11/22/2011)	ND<0 (3/24/1997)	(-1.56065 - 0)/(30 - 7)		
-0.0678542				
-1.56065 J (11/22/2011)	ND<0 (3/24/1997)	(-1.56065 - 0)/(30 - 7)		
-0.0678542				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0	
0.993252 (3/16/1999)	ND<0 (9/24/1997)	(0.993252 - 0)/(11 - 8)		
0.331084				
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
0.970779 (4/1/2005)	ND<0 (9/24/1997)	(0.970779 - 0)/(17 - 8)		
0.107864				
-0.776529 J (10/25/2005)	ND<0 (9/24/1997)	(-0.776529 - 0)/(18 - 8)		
-0.0776529				
ND<0 (4/29/2006)	ND<0 (9/24/1997)	(0 - 0)/(19 - 8)	0	

-0.71335 J (11/18/2006) ND<0 (9/24/1997) (-0.71335 - 0)/(20 - 8)
-0.0594458
ND<0 (5/23/2007) ND<0 (9/24/1997) (0 - 0)/(21 - 8) 0
-0.967584 J (11/28/2007) ND<0 (9/24/1997) (-0.967584 - 0)/(22 - 8)
-0.0691131
ND<0 (6/5/2008) ND<0 (9/24/1997) (0 - 0)/(23 - 8) 0
-0.916291 J (11/20/2008) ND<0 (9/24/1997) (-0.916291 - 0)/(24 - 8)
-0.0572682
0.832909 (6/11/2009) ND<0 (9/24/1997) (0.832909 - 0)/(25 - 8)
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-1.20397 J (11/16/2009) ND<0 (9/24/1997) (-1.20397 - 0)/(26 - 8)
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0.182322 (6/30/2010) ND<0 (9/24/1997) (0.182322 - 0)/(27 - 8)
0.00959587
ND<-2.59027 U (11/12/2010) ND<0 (9/24/1997) (-2.59027 - 0)/(28 - 8)
-0.129513
ND<-2.59027 U (7/5/2011) ND<0 (9/24/1997) (-2.59027 - 0)/(29 - 8)
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-0.0709385
-1.56065 J (11/22/2011) ND<0 (9/24/1997) (-1.56065 - 0)/(30 - 8)
-0.0709385

ND<0 (9/23/1998) ND<0 (4/7/1998) (0 - 0)/(10 - 9) 0
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ND<0 (9/23/1999) ND<0 (4/7/1998) (0 - 0)/(12 - 9) 0
ND<0 (3/15/2000) ND<0 (4/7/1998) (0 - 0)/(13 - 9) 0
ND<0 (9/24/2003) ND<0 (4/7/1998) (0 - 0)/(14 - 9) 0
ND<0 (3/11/2004) ND<0 (4/7/1998) (0 - 0)/(15 - 9) 0
ND<0 (10/12/2004) ND<0 (4/7/1998) (0 - 0)/(16 - 9) 0
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ND<0 (4/29/2006) ND<0 (4/7/1998) (0 - 0)/(19 - 9) 0
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ND<-2.59027 U (11/12/2010) ND<0 (4/7/1998) (-2.59027 - 0)/(28 - 9)
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ND<-2.59027 U (7/5/2011) ND<0 (4/7/1998) (-2.59027 - 0)/(29 - 9)
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-1.56065 J (11/22/2011) ND<0 (4/7/1998) (-1.56065 - 0)/(30 - 9)
-0.0743166
-1.56065 J (11/22/2011) ND<0 (4/7/1998) (-1.56065 - 0)/(30 - 9)
-0.0743166

0.993252 (3/16/1999) ND<0 (9/23/1998) (0.993252 - 0)/(11 - 10)
0.993252
ND<0 (9/23/1999) ND<0 (9/23/1998) (0 - 0)/(12 - 10) 0
ND<0 (3/15/2000) ND<0 (9/23/1998) (0 - 0)/(13 - 10) 0

ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
0.970779 (4/1/2005)	ND<0 (9/23/1998)	(0.970779 - 0)/(17 - 10)		
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-0.0970661				
ND<0 (4/29/2006)	ND<0 (9/23/1998)	(0 - 0)/(19 - 10)	0	
-0.71335 J (11/18/2006)	ND<0 (9/23/1998)	(-0.71335 - 0)/(20 - 10)		
-0.071335				
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0	
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ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0	
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-0.0654493				
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ND<-2.59027 U (11/12/2010)	ND<0 (9/23/1998)	(-2.59027 - 0)/(28 - 10)		
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ND<-2.59027 U (7/5/2011)	ND<0 (9/23/1998)	(-2.59027 - 0)/(29 - 10)		-0.13633
-1.56065 J (11/22/2011)	ND<0 (9/23/1998)	(-1.56065 - 0)/(30 - 10)		
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-1.56065 J (11/22/2011)	ND<0 (9/23/1998)	(-1.56065 - 0)/(30 - 10)		
-0.0780324				

ND<0 (9/23/1999)	0.993252 (3/16/1999)	(0 - 0.993252)/(12 - 11)
-0.993252		
ND<0 (3/15/2000)	0.993252 (3/16/1999)	(0 - 0.993252)/(13 - 11)
-0.496626		
ND<0 (9/24/2003)	0.993252 (3/16/1999)	(0 - 0.993252)/(14 - 11)
-0.331084		
ND<0 (3/11/2004)	0.993252 (3/16/1999)	(0 - 0.993252)/(15 - 11)
-0.248313		
ND<0 (10/12/2004)	0.993252 (3/16/1999)	(0 - 0.993252)/(16 - 11) -0.19865
0.970779 (4/1/2005)	0.993252 (3/16/1999)	(0.970779 - 0.993252)/(17 - 11)
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-0.776529 J (10/25/2005)	0.993252 (3/16/1999)	(-0.776529 - 0.993252)/(18 - 11)
-0.252826		
ND<0 (4/29/2006)	0.993252 (3/16/1999)	(0 - 0.993252)/(19 - 11)
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-0.189622		
ND<0 (5/23/2007)	0.993252 (3/16/1999)	(0 - 0.993252)/(21 - 11)
-0.0993252		
-0.967584 J (11/28/2007)	0.993252 (3/16/1999)	(-0.967584 - 0.993252)/(22 - 11)
-0.178258		
ND<0 (6/5/2008)	0.993252 (3/16/1999)	(0 - 0.993252)/(23 - 11)
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-0.916291 J (11/20/2008)	0.993252 (3/16/1999)	(-0.916291 - 0.993252)/(24 - 11)
-0.146888		
0.832909 (6/11/2009)	0.993252 (3/16/1999)	(0.832909 - 0.993252)/(25 - 11)
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-1.20397 J (11/16/2009)	0.993252 (3/16/1999)	(-1.20397 - 0.993252)/(26 - 11)
-0.146482		
0.182322 (6/30/2010)	0.993252 (3/16/1999)	(0.182322 - 0.993252)/(27 - 11)
-0.0506831		

ND<-2.59027 U (11/12/2010) 0.993252 (3/16/1999) (-2.59027 - 0.993252)/(28 - 11)
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ND<-2.59027 U (7/5/2011) 0.993252 (3/16/1999) (-2.59027 - 0.993252)/(29 - 11)
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-0.134416
-1.56065 J (11/22/2011) 0.993252 (3/16/1999) (-1.56065 - 0.993252)/(30 - 11)
-0.134416

ND<0 (3/15/2000) ND<0 (9/23/1999) (0 - 0)/(13 - 12) 0
ND<0 (9/24/2003) ND<0 (9/23/1999) (0 - 0)/(14 - 12) 0
ND<0 (3/11/2004) ND<0 (9/23/1999) (0 - 0)/(15 - 12) 0
ND<0 (10/12/2004) ND<0 (9/23/1999) (0 - 0)/(16 - 12) 0
0.970779 (4/1/2005) ND<0 (9/23/1999) (0.970779 - 0)/(17 - 12)
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ND<0 (4/29/2006) ND<0 (9/23/1999) (0 - 0)/(19 - 12) 0
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ND<0 (5/23/2007) ND<0 (9/23/1999) (0 - 0)/(21 - 12) 0
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ND<0 (6/5/2008) ND<0 (9/23/1999) (0 - 0)/(23 - 12) 0
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ND<-2.59027 U (11/12/2010) ND<0 (9/23/1999) (-2.59027 - 0)/(28 - 12)
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ND<-2.59027 U (7/5/2011) ND<0 (9/23/1999) (-2.59027 - 0)/(29 - 12)
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-1.56065 J (11/22/2011) ND<0 (9/23/1999) (-1.56065 - 0)/(30 - 12)
-0.0867027

ND<0 (9/24/2003) ND<0 (3/15/2000) (0 - 0)/(14 - 13) 0
ND<0 (3/11/2004) ND<0 (3/15/2000) (0 - 0)/(15 - 13) 0
ND<0 (10/12/2004) ND<0 (3/15/2000) (0 - 0)/(16 - 13) 0
0.970779 (4/1/2005) ND<0 (3/15/2000) (0.970779 - 0)/(17 - 13)
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ND<0 (4/29/2006) ND<0 (3/15/2000) (0 - 0)/(19 - 13) 0
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ND<0 (5/23/2007) ND<0 (3/15/2000) (0 - 0)/(21 - 13) 0
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ND<0 (6/5/2008) ND<0 (3/15/2000) (0 - 0)/(23 - 13) 0
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0.832909 (6/11/2009) ND<0 (3/15/2000) (0.832909 - 0)/(25 - 13)
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-1.20397 J (11/16/2009) ND<0 (3/15/2000) (-1.20397 - 0)/(26 - 13)
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ND<-2.59027 U (11/12/2010) ND<0 (3/15/2000) (-2.59027 - 0)/(28 - 13)
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ND<-2.59027 U (7/5/2011) ND<0 (3/15/2000) (-2.59027 - 0)/(29 - 13)
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-1.56065 J (11/22/2011) ND<0 (3/15/2000) (-1.56065 - 0)/(30 - 13)
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-1.56065 J (11/22/2011) ND<0 (3/15/2000) (-1.56065 - 0)/(30 - 13)
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ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
ND<0 (10/12/2004) ND<0 (9/24/2003) (0 - 0)/(16 - 14) 0
0.970779 (4/1/2005) ND<0 (9/24/2003) (0.970779 - 0)/(17 - 14)
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-0.776529 J (10/25/2005) ND<0 (9/24/2003) (-0.776529 - 0)/(18 - 14)
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ND<0 (4/29/2006) ND<0 (9/24/2003) (0 - 0)/(19 - 14) 0
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ND<0 (5/23/2007) ND<0 (9/24/2003) (0 - 0)/(21 - 14) 0
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ND<-2.59027 U (11/12/2010) ND<0 (9/24/2003) (-2.59027 - 0)/(28 - 14)
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ND<-2.59027 U (7/5/2011) ND<0 (9/24/2003) (-2.59027 - 0)/(29 - 14)
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-1.56065 J (11/22/2011) ND<0 (9/24/2003) (-1.56065 - 0)/(30 - 14)
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-0.0975405

ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0
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-0.776529 J (10/25/2005) ND<0 (3/11/2004) (-0.776529 - 0)/(18 - 15)
-0.258843
ND<0 (4/29/2006) ND<0 (3/11/2004) (0 - 0)/(19 - 15) 0
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ND<0 (5/23/2007) ND<0 (3/11/2004) (0 - 0)/(21 - 15) 0
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ND<0 (6/5/2008) ND<0 (3/11/2004) (0 - 0)/(23 - 15) 0
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ND<-2.59027 U (11/12/2010) ND<0 (3/11/2004) (-2.59027 - 0)/(28 - 15)
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ND<-2.59027 U (7/5/2011) ND<0 (3/11/2004) (-2.59027 - 0)/(29 - 15)
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-1.56065 J (11/22/2011) ND<0 (3/11/2004) (-1.56065 - 0)/(30 - 15)
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-1.56065 J (11/22/2011) ND<0 (3/11/2004) (-1.56065 - 0)/(30 - 15)
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0.970779 (4/1/2005) ND<0 (10/12/2004) (0.970779 - 0)/(17 - 16)
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ND<0 (4/29/2006) ND<0 (10/12/2004) (0 - 0)/(19 - 16) 0
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ND<0 (5/23/2007) ND<0 (10/12/2004) (0 - 0)/(21 - 16) 0
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ND<0 (6/5/2008) ND<0 (10/12/2004) (0 - 0)/(23 - 16) 0
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-1.20397 J (11/16/2009) ND<0 (10/12/2004) (-1.20397 - 0)/(26 - 16)
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0.182322 (6/30/2010) ND<0 (10/12/2004) (0.182322 - 0)/(27 - 16)
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ND<-2.59027 U (11/12/2010) ND<0 (10/12/2004) (-2.59027 - 0)/(28 - 16)
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ND<-2.59027 U (7/5/2011) ND<0 (10/12/2004) (-2.59027 - 0)/(29 - 16)
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-1.56065 J (11/22/2011) ND<0 (10/12/2004) (-1.56065 - 0)/(30 - 16)
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-1.56065 J (11/22/2011) ND<0 (10/12/2004) (-1.56065 - 0)/(30 - 16)
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ND<0 (5/23/2007) 0.970779 (4/1/2005) (0 - 0.970779)/(21 - 17)
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-1.20397 J (11/16/2009) 0.970779 (4/1/2005) (-1.20397 - 0.970779)/(26 - 17)
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ND<-2.59027 U (11/12/2010) 0.970779 (4/1/2005) (-2.59027 - 0.970779)/(28 - 17)
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ND<-2.59027 U (7/5/2011) 0.970779 (4/1/2005) (-2.59027 - 0.970779)/(29 - 17)
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-1.56065 J (11/22/2011) 0.970779 (4/1/2005) (-1.56065 - 0.970779)/(30 - 17)
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ND<0 (4/29/2006) -0.776529 J (10/25/2005) (0 - -0.776529)/(19 - 18)
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ND<0 (5/23/2007) -0.776529 J (10/25/2005) (0 - -0.776529)/(21 - 18)
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ND<0 (6/5/2008) -0.776529 J (10/25/2005) (0 - -0.776529)/(23 - 18)
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ND<-2.59027 U (11/12/2010) -0.776529 J (10/25/2005) (-2.59027 - -0.776529)/(28 - 18)
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ND<0 (5/23/2007) ND<0 (4/29/2006) (0 - 0)/(21 - 19) 0
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0.832909 (6/11/2009) ND<0 (4/29/2006) (0.832909 - 0)/(25 - 19)
0.138818
-1.20397 J (11/16/2009) ND<0 (4/29/2006) (-1.20397 - 0)/(26 - 19)
-0.171996
0.182322 (6/30/2010) ND<0 (4/29/2006) (0.182322 - 0)/(27 - 19)
0.0227902
ND<-2.59027 U (11/12/2010) ND<0 (4/29/2006) (-2.59027 - 0)/(28 - 19)
-0.287807
ND<-2.59027 U (7/5/2011) ND<0 (4/29/2006) (-2.59027 - 0)/(29 - 19)
-0.259027
-1.56065 J (11/22/2011) ND<0 (4/29/2006) (-1.56065 - 0)/(30 - 19)
-0.141877
-1.56065 J (11/22/2011) ND<0 (4/29/2006) (-1.56065 - 0)/(30 - 19)
-0.141877

ND<0 (5/23/2007) -0.71335 J (11/18/2006) (0 - -0.71335)/(21 - 20) 0.71335
-0.967584 J (11/28/2007) -0.71335 J (11/18/2006) (-0.967584 - -0.71335)/(22 - 20)
-0.127117
ND<0 (6/5/2008) -0.71335 J (11/18/2006) (0 - -0.71335)/(23 - 20)
0.237783
-0.916291 J (11/20/2008) -0.71335 J (11/18/2006) (-0.916291 - -0.71335)/(24 - 20)
-0.0507352
0.832909 (6/11/2009) -0.71335 J (11/18/2006) (0.832909 - -0.71335)/(25 - 20)
0.309252

-1.20397 J (11/16/2009) -0.71335 J (11/18/2006) (-1.20397 - -0.71335)/(26 - 20)
-0.0817705
0.182322 (6/30/2010) -0.71335 J (11/18/2006) (0.182322 - -0.71335)/(27 - 20)
0.127953
ND<-2.59027 U (11/12/2010) -0.71335 J (11/18/2006) (-2.59027 - -0.71335)/(28 - 20)
-0.234615
ND<-2.59027 U (7/5/2011) -0.71335 J (11/18/2006) (-2.59027 - -0.71335)/(29 - 20)
-0.208546
-1.56065 J (11/22/2011) -0.71335 J (11/18/2006) (-1.56065 - -0.71335)/(30 - 20)
-0.0847298
-1.56065 J (11/22/2011) -0.71335 J (11/18/2006) (-1.56065 - -0.71335)/(30 - 20)
-0.0847298

-0.967584 J (11/28/2007) ND<0 (5/23/2007) (-0.967584 - 0)/(22 - 21)
-0.967584
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
-0.916291 J (11/20/2008) ND<0 (5/23/2007) (-0.916291 - 0)/(24 - 21) -0.30543
0.832909 (6/11/2009) ND<0 (5/23/2007) (0.832909 - 0)/(25 - 21)
0.208227
-1.20397 J (11/16/2009) ND<0 (5/23/2007) (-1.20397 - 0)/(26 - 21)
-0.240795
0.182322 (6/30/2010) ND<0 (5/23/2007) (0.182322 - 0)/(27 - 21)
0.0303869
ND<-2.59027 U (11/12/2010) ND<0 (5/23/2007) (-2.59027 - 0)/(28 - 21)
-0.370038
ND<-2.59027 U (7/5/2011) ND<0 (5/23/2007) (-2.59027 - 0)/(29 - 21)
-0.323783
-1.56065 J (11/22/2011) ND<0 (5/23/2007) (-1.56065 - 0)/(30 - 21)
-0.173405
-1.56065 J (11/22/2011) ND<0 (5/23/2007) (-1.56065 - 0)/(30 - 21)
-0.173405

ND<0 (6/5/2008) -0.967584 J (11/28/2007) (0 - -0.967584)/(23 - 22)
0.967584
-0.916291 J (11/20/2008) -0.967584 J (11/28/2007) (-0.916291 - -0.967584)/(24 - 22)
0.0256466
0.832909 (6/11/2009) -0.967584 J (11/28/2007) (0.832909 - -0.967584)/(25 - 22)
0.600164
-1.20397 J (11/16/2009) -0.967584 J (11/28/2007) (-1.20397 - -0.967584)/(26 - 22)
-0.0590972
0.182322 (6/30/2010) -0.967584 J (11/28/2007) (0.182322 - -0.967584)/(27 - 22)
0.229981
ND<-2.59027 U (11/12/2010) -0.967584 J (11/28/2007) (-2.59027 - -0.967584)/(28 - 22)
-0.270447
ND<-2.59027 U (7/5/2011) -0.967584 J (11/28/2007) (-2.59027 - -0.967584)/(29 - 22)
-0.231812
-1.56065 J (11/22/2011) -0.967584 J (11/28/2007) (-1.56065 - -0.967584)/(30 - 22)
-0.074133
-1.56065 J (11/22/2011) -0.967584 J (11/28/2007) (-1.56065 - -0.967584)/(30 - 22)
-0.074133

-0.916291 J (11/20/2008) ND<0 (6/5/2008) (-0.916291 - 0)/(24 - 23)
-0.916291
0.832909 (6/11/2009) ND<0 (6/5/2008) (0.832909 - 0)/(25 - 23)
0.416455
-1.20397 J (11/16/2009) ND<0 (6/5/2008) (-1.20397 - 0)/(26 - 23)
-0.401324
0.182322 (6/30/2010) ND<0 (6/5/2008) (0.182322 - 0)/(27 - 23)
0.0455804
ND<-2.59027 U (11/12/2010) ND<0 (6/5/2008) (-2.59027 - 0)/(28 - 23)
-0.518053

ND<-2.59027 U (7/5/2011)	ND<0 (6/5/2008)	(-2.59027 - 0)/(29 - 23)	-0.431711
-1.56065 J (11/22/2011)	ND<0 (6/5/2008)	(-1.56065 - 0)/(30 - 23)	-0.22295
-1.56065 J (11/22/2011)	ND<0 (6/5/2008)	(-1.56065 - 0)/(30 - 23)	-0.22295
0.832909 (6/11/2009)	-0.916291 J (11/20/2008)	(0.832909 - -0.916291)/(25 - 24)	1.7492
-1.20397 J (11/16/2009)	-0.916291 J (11/20/2008)	(-1.20397 - -0.916291)/(26 - 24)	-0.143841
0.182322 (6/30/2010)	-0.916291 J (11/20/2008)	(0.182322 - -0.916291)/(27 - 24)	0.366204
ND<-2.59027 U (11/12/2010)	-0.916291 J (11/20/2008)	(-2.59027 - -0.916291)/(28 - 24)	-0.418494
ND<-2.59027 U (7/5/2011)	-0.916291 J (11/20/2008)	(-2.59027 - -0.916291)/(29 - 24)	-0.334795
-1.56065 J (11/22/2011)	-0.916291 J (11/20/2008)	(-1.56065 - -0.916291)/(30 - 24)	-0.107393
-1.56065 J (11/22/2011)	-0.916291 J (11/20/2008)	(-1.56065 - -0.916291)/(30 - 24)	-0.107393
-1.20397 J (11/16/2009)	0.832909 (6/11/2009)	(-1.20397 - 0.832909)/(26 - 25)	-2.03688
0.182322 (6/30/2010)	0.832909 (6/11/2009)	(0.182322 - 0.832909)/(27 - 25)	-0.325294
ND<-2.59027 U (11/12/2010)	0.832909 (6/11/2009)	(-2.59027 - 0.832909)/(28 - 25)	-1.14106
ND<-2.59027 U (7/5/2011)	0.832909 (6/11/2009)	(-2.59027 - 0.832909)/(29 - 25)	-0.855794
-1.56065 J (11/22/2011)	0.832909 (6/11/2009)	(-1.56065 - 0.832909)/(30 - 25)	-0.478711
-1.56065 J (11/22/2011)	0.832909 (6/11/2009)	(-1.56065 - 0.832909)/(30 - 25)	-0.478711
0.182322 (6/30/2010)	-1.20397 J (11/16/2009)	(0.182322 - -1.20397)/(27 - 26)	1.38629
ND<-2.59027 U (11/12/2010)	-1.20397 J (11/16/2009)	(-2.59027 - -1.20397)/(28 - 26)	-0.693147
ND<-2.59027 U (7/5/2011)	-1.20397 J (11/16/2009)	(-2.59027 - -1.20397)/(29 - 26)	-0.462098
-1.56065 J (11/22/2011)	-1.20397 J (11/16/2009)	(-1.56065 - -1.20397)/(30 - 26)	-0.0891687
-1.56065 J (11/22/2011)	-1.20397 J (11/16/2009)	(-1.56065 - -1.20397)/(30 - 26)	-0.0891687
ND<-2.59027 U (11/12/2010)	0.182322 (6/30/2010)	(-2.59027 - 0.182322)/(28 - 27)	-2.77259
ND<-2.59027 U (7/5/2011)	0.182322 (6/30/2010)	(-2.59027 - 0.182322)/(29 - 27)	-1.38629
-1.56065 J (11/22/2011)	0.182322 (6/30/2010)	(-1.56065 - 0.182322)/(30 - 27)	-0.58099
-1.56065 J (11/22/2011)	0.182322 (6/30/2010)	(-1.56065 - 0.182322)/(30 - 27)	-0.58099
ND<-2.59027 U (7/5/2011)	ND<-2.59027 U (11/12/2010)	(-2.59027 - -2.59027)/(29 - 28)	0
-1.56065 J (11/22/2011)	ND<-2.59027 U (11/12/2010)	(-1.56065 - -2.59027)/(30 - 28)	0.51481
-1.56065 J (11/22/2011)	ND<-2.59027 U (11/12/2010)	(-1.56065 - -2.59027)/(30 - 28)	0.51481

-1.56065 J (11/22/2011)	ND<-2.59027 U (7/5/2011)	(-1.56065 - -2.59027)/(30 - 29)
1.02962		
-1.56065 J (11/22/2011)	ND<-2.59027 U (7/5/2011)	(-1.56065 - -2.59027)/(30 - 29)
1.02962		
-1.56065 J (11/22/2011)	-1.56065 J (11/22/2011)	(-1.56065 - -1.56065)/(30 - 30)
Same Date		

Number of Q values = 464

Ordered Q Values

n	Q
1	-2.77259
2	-2.03688
3	-1.74731
4	-1.38629
5	-1.38629
6	-1.14106
7	-0.993252
8	-0.967584
9	-0.916291
10	-0.855794
11	-0.788457
12	-0.71335
13	-0.693147
14	-0.693147
15	-0.58099
16	-0.58099
17	-0.561376
18	-0.518053
19	-0.496626
20	-0.493868
21	-0.485389
22	-0.478711
23	-0.478711
24	-0.462098
25	-0.462098
26	-0.431711
27	-0.418494
28	-0.401324
29	-0.388264
30	-0.387673
31	-0.370401
32	-0.370038
33	-0.346574
34	-0.346574
35	-0.334795
36	-0.331084
37	-0.325294
38	-0.323783
39	-0.323731
40	-0.322528
41	-0.30543
42	-0.296754
43	-0.296321
44	-0.287807
45	-0.277259
46	-0.270447
47	-0.269581
48	-0.259027

49	-0.258843
50	-0.252826
51	-0.248313
52	-0.246934
53	-0.242695
54	-0.241639
55	-0.240795
56	-0.234615
57	-0.231812
58	-0.231049
59	-0.231049
60	-0.22295
61	-0.22295
62	-0.215856
63	-0.211658
64	-0.210795
65	-0.208546
66	-0.199251
67	-0.199251
68	-0.199084
69	-0.19865
70	-0.194725
71	-0.194725
72	-0.194132
73	-0.189622
74	-0.185484
75	-0.185201
76	-0.185019
77	-0.185019
78	-0.183258
79	-0.181374
80	-0.178337
81	-0.178258
82	-0.173405
83	-0.173405
84	-0.173287
85	-0.173287
86	-0.172684
87	-0.172684
88	-0.171996
89	-0.16569
90	-0.164885
91	-0.161892
92	-0.161892
93	-0.161796
94	-0.161264
95	-0.159062
96	-0.15661
97	-0.155306
98	-0.154487
99	-0.154033
100	-0.152369
101	-0.15081
102	-0.148387
103	-0.14816
104	-0.146888
105	-0.146482
106	-0.143904
107	-0.143841
108	-0.14267
109	-0.141877
110	-0.141877

111	-0.141133
112	-0.138629
113	-0.138629
114	-0.138226
115	-0.13633
116	-0.13633
117	-0.134691
118	-0.134416
119	-0.134416
120	-0.131337
121	-0.131228
122	-0.130771
123	-0.129513
124	-0.129513
125	-0.129421
126	-0.127117
127	-0.126285
128	-0.126027
129	-0.124156
130	-0.123656
131	-0.123467
132	-0.123415
133	-0.123346
134	-0.123346
135	-0.122459
136	-0.121942
137	-0.120948
138	-0.120397
139	-0.119007
140	-0.118892
141	-0.117739
142	-0.117739
143	-0.117739
144	-0.115525
145	-0.115525
146	-0.115129
147	-0.114536
148	-0.11397
149	-0.113344
150	-0.113344
151	-0.11262
152	-0.11262
153	-0.111899
154	-0.111475
155	-0.111475
156	-0.109452
157	-0.108995
158	-0.108652
159	-0.108652
160	-0.107928
161	-0.107509
162	-0.107393
163	-0.107393
164	-0.105991
165	-0.105829
166	-0.104043
167	-0.104043
168	-0.101907
169	-0.10181
170	-0.100331
171	-0.0993252
172	-0.099021

173	-0.0979784
174	-0.0975405
175	-0.0975405
176	-0.0970661
177	-0.0967584
178	-0.0927422
179	-0.0926133
180	-0.0924196
181	-0.0918028
182	-0.0918028
183	-0.0916291
184	-0.0893215
185	-0.0891687
186	-0.0891687
187	-0.0891687
188	-0.0874069
189	-0.0871532
190	-0.0867027
191	-0.0867027
192	-0.086281
193	-0.0859981
194	-0.0847298
195	-0.0847298
196	-0.0834739
197	-0.0834739
198	-0.0832992
199	-0.082771
200	-0.0827351
201	-0.0824835
202	-0.0824375
203	-0.0817705
204	-0.0815467
205	-0.0814058
206	-0.080632
207	-0.0793995
208	-0.0793995
209	-0.0788457
210	-0.0780324
211	-0.0780324
212	-0.0779792
213	-0.0778364
214	-0.0776529
215	-0.0770164
216	-0.0766399
217	-0.0765941
218	-0.0763576
219	-0.0752483
220	-0.0744295
221	-0.0743166
222	-0.0743166
223	-0.074133
224	-0.074133
225	-0.0729629
226	-0.0720969
227	-0.071335
228	-0.0709385
229	-0.0709385
230	-0.0708219
231	-0.0705935
232	-0.0705526
233	-0.0693147
234	-0.0691131

235	-0.0678542
236	-0.0678542
237	-0.0674488
238	-0.0668874
239	-0.0654493
240	-0.0653432
241	-0.0653432
242	-0.065027
243	-0.065027
244	-0.06485
245	-0.0647107
246	-0.0645056
247	-0.063367
248	-0.0630134
249	-0.0624259
250	-0.0624259
251	-0.0618281
252	-0.061086
253	-0.060474
254	-0.0601986
255	-0.059733
256	-0.0594458
257	-0.0590972
258	-0.0577623
259	-0.057332
260	-0.0572682
261	-0.0570721
262	-0.0569167
263	-0.0561489
264	-0.0548731
265	-0.0542614
266	-0.0538995
267	-0.0534305
268	-0.053319
269	-0.0529955
270	-0.0523466
271	-0.0519713
272	-0.0509536
273	-0.050905
274	-0.0507352
275	-0.0506831
276	-0.0494625
277	-0.0482258
278	-0.0477638
279	-0.0476551
280	-0.0475567
281	-0.0433217
282	-0.0412187
283	-0.0385082
284	-0.0370969
285	-0.0346574
286	-0.034055
287	-0.0337244
288	-0.0319627
289	-0.0282041
290	-0.0263517
291	-0.0243951
292	-0.0232937
293	-0.0215237
294	-0.0212844
295	-0.0172337
296	-0.011453

297	-0.00374548
298	0
299	0
300	0
301	0
302	0
303	0
304	0
305	0
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386	0
387	0
388	0
389	0
390	0.00379049
391	0.00635282
392	0.00828734
393	0.00868198
394	0.00911608
395	0.00959587
396	0.010129
397	0.0107248
398	0.0121548
399	0.013023
400	0.0140247
401	0.0143026
402	0.0151935
403	0.0165747
404	0.0198308
405	0.0227902
406	0.0251314
407	0.0256466
408	0.0303869
409	0.0315895
410	0.0375131
411	0.0416455
412	0.0438373
413	0.0455804
414	0.0462727
415	0.0489947
416	0.0520568
417	0.0555273
418	0.0640699
419	0.0694091
420	0.075719

421	0.0808982
422	0.0832909
423	0.0882526
424	0.0925455
425	0.0970779
426	0.106539
427	0.107864
428	0.121347
429	0.127953
430	0.138683
431	0.138818
432	0.155306
433	0.165542
434	0.194156
435	0.19865
436	0.208227
437	0.214786
438	0.22992
439	0.229981
440	0.237783
441	0.242695
442	0.248313
443	0.258843
444	0.309252
445	0.323593
446	0.331084
447	0.366204
448	0.416455
449	0.485389
450	0.496626
451	0.51481
452	0.51481
453	0.600164
454	0.693147
455	0.71335
456	0.739667
457	0.776529
458	0.967584
459	0.970779
460	0.993252
461	1.02962
462	1.02962
463	1.38629
464	1.7492

Sen's Estimator (Median Q) is -0.0699337

Tied Group	Value	Members
1	0	14
2	-2.59027	2
3	-1.56065	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1

9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 6042
B = 18
C = 2184
D = 0
E = 186
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3125.2
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.953
M1 = (464 - 91.953)/2.0 = 186.023
M2 = (464 + 91.953)/2.0 + 1 = 278.977
Lower limit is -0.0891687 = Q(186)
Upper limit is -0.0476551 = Q(279)
-0.0476551 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Tin

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 227
Percent Non-Detects: 94.5833%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	18 (94.7368%)	3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	5.1 J	5.1 J
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.4	ND<0.4
			11/16/2009	ND<0.4	ND<0.4
			6/30/2010	ND<0.4	ND<0.4
			11/12/2010	ND<0.4 U	ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	31	27 (87.0968%)	7/20/1995	ND<20	ND<20
			8/24/1995	ND<20	ND<20
			9/28/1995	ND<20	ND<20
			10/26/1995	ND<20	ND<20
			11/19/1996	ND<20	ND<20
			12/19/1996	ND<20	ND<20
			3/24/1997	ND<20	ND<20
			9/24/1997	ND<20	ND<20
			4/7/1998	ND<20	ND<20
			9/23/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	ND<20	ND<20
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	14 J	14 J

			6/11/2009	0.45 J	0.45 J	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	0.57 J H	0.57 J H	
			11/12/2010	0.58 J	0.58 J	
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U H		ND<0.4 U H
			11/22/2011	ND<0.4 U H		ND<0.4 U H
MW-11R	31	28 (90.3226%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	0.6 J	0.6 J	
			11/22/2011	0.4 U H J		0.4 U H J
			11/22/2011	0.4 U H J		0.4 U H J
MW-6	30	30 (100%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	

			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U		ND<0.4 U
MW-12A R		20	20 (100%)	3/16/1999		ND<20 ND<20
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U		ND<0.4 U
MW-10	30	27 (90%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	0.73 J	0.73 J	
			7/5/2011	3	3	
			11/22/2011	0.73 J	0.73 J	
MW-12B R		20	20 (100%)	3/16/1999		ND<20 ND<20

			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U		ND<0.4 U
MW-7	30	28 (93.3333%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	35	35	
			6/11/2009	ND<0.4	ND<0.4	
			11/16/2009	ND<0.4	ND<0.4	
			6/30/2010	ND<0.4	ND<0.4	
			11/12/2010	ND<0.4 U		ND<0.4 U
			7/5/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	0.4 U J	0.4 U J	
MW-8	29	29 (100%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			9/24/1997	ND<20	ND<20	
			4/7/1998	ND<20	ND<20	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	

9/23/1999	ND<20	ND<20	
3/15/2000	ND<20	ND<20	
9/24/2003	ND<20	ND<20	
3/11/2004	ND<20	ND<20	
10/12/2004	ND<20	ND<20	
4/1/2005 ND<20	ND<20		
10/25/2005	ND<20	ND<20	
4/29/2006	ND<20	ND<20	
11/18/2006	ND<20	ND<20	
5/23/2007	ND<20	ND<20	
11/28/2007	ND<20	ND<20	
6/5/2008 ND<20	ND<20		
11/20/2008	ND<20	ND<20	
6/11/2009	ND<0.4	ND<0.4	
6/30/2010	ND<0.4	ND<0.4	
11/12/2010	ND<0.4 U		ND<0.4 U
7/5/2011 ND<0.4 U		ND<0.4 U	
11/22/2011	ND<0.4 U		ND<0.4 U

There are 0 unused locations

Loc.	Meas. ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Tin

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.65209	7.03356	-0.530417
2	0.2	-2.40892	12.8365	-1.0122
3	0.2	-2.25713	17.9311	-1.46363
4	0.2	-2.14441	22.5296	-1.89251
5	0.2	-2.05375	26.7475	-2.30326
6	0.2	-1.97737	30.6575	-2.69873
7	0.2	-1.8957	34.2511	-3.07787
8	0.2	-1.83843	37.6309	-3.44556
9	0.2	-1.78661	40.8229	-3.80288
10	0.2	-1.7392	43.8477	-4.15072
11	0.2	-1.6954	46.7221	-4.4898
12	0.2	-1.65463	49.4599	-4.82072
13	0.2	-1.61644	52.0728	-5.14401
14	0.2	-1.57179	54.5433	-5.45837
15	0.2	-1.5382	56.9093	-5.76601
16	0.2	-1.50626	59.1782	-6.06726
17	0.2	-1.47579	61.3561	-6.36242
18	0.2	-1.44663	63.4489	-6.65175
19	0.2	-1.41865	65.4614	-6.93548
20	0.2	-1.39175	67.3984	-7.21383
21	0.2	-1.35946	69.2465	-7.48572
22	0.2	-1.33462	71.0278	-7.75264
23	0.2	-1.31058	72.7454	-8.01476
24	0.2	-1.28727	74.4024	-8.27221
25	0.2	-1.26464	76.0018	-8.52514
26	0.2	-1.24264	77.5459	-8.77367
27	0.2	-1.21596	79.0245	-9.01686
28	0.2	-1.19522	80.453	-9.25591
29	0.2	-1.17499	81.8336	-9.4909
30	0.2	-1.15522	83.1682	-9.72195
31	0.2	-1.1359	84.4584	-9.94913
32	0.2	-1.11699	85.7061	-10.1725
33	0.2	-1.09847	86.9127	-10.3922
34	0.2	-1.07584	88.0701	-10.6074
35	0.2	-1.05812	89.1898	-10.819
36	0.2	-1.04073	90.2729	-11.0272
37	0.2	-1.02365	91.3208	-11.2319
38	0.2	-1.00687	92.3345	-11.4333
39	0.2	-0.990356	93.3153	-11.6313
40	0.2	-0.974114	94.2642	-11.8262
41	0.2	-0.954165	95.1747	-12.017
42	0.2	-0.938476	96.0554	-12.2047
43	0.2	-0.923014	96.9074	-12.3893
44	0.2	-0.907769	97.7314	-12.5708
45	0.4	-0.892733	98.5284	-12.9279
46	0.4	-0.877897	99.2991	-13.2791
47	0.4	-0.859618	100.038	-13.6229
48	0.45	-0.845198	100.752	-14.0033
49	0.57	-0.830953	101.443	-14.4769
50	0.58	-0.816874	102.11	-14.9507
51	0.6	-0.802956	102.755	-15.4325

52	0.73	-0.789191	103.378	-16.0086
53	0.73	-0.775574	103.979	-16.5748
54	3	-0.758753	104.555	-18.851
55	5.1	-0.745449	105.111	-22.6528
56	10	-0.732275	105.647	-29.9756
57	10	-0.719228	106.164	-37.1678
58	10	-0.706302	106.663	-44.2309
59	10	-0.693493	107.144	-51.1658
60	10	-0.680797	107.607	-57.9738
61	10	-0.665079	108.05	-64.6246
62	10	-0.652622	108.476	-71.1508
63	10	-0.640266	108.886	-77.5534
64	10	-0.628006	109.28	-83.8335
65	10	-0.615839	109.659	-89.9919
66	10	-0.603765	110.024	-96.0295
67	10	-0.588793	110.37	-101.917
68	10	-0.576911	110.703	-107.687
69	10	-0.565108	111.023	-113.338
70	10	-0.553384	111.329	-118.871
71	10	-0.541736	111.622	-124.289
72	10	-0.530162	111.903	-129.59
73	10	-0.518658	112.172	-134.777
74	10	-0.504372	112.427	-139.821
75	10	-0.493018	112.67	-144.751
76	10	-0.481728	112.902	-149.568
77	10	-0.470498	113.123	-154.273
78	10	-0.459327	113.334	-158.866
79	10	-0.448213	113.535	-163.349
80	10	-0.437153	113.726	-167.72
81	10	-0.423405	113.906	-171.954
82	10	-0.412463	114.076	-176.079
83	10	-0.401571	114.237	-180.095
84	10	-0.390726	114.39	-184.002
85	10	-0.379927	114.534	-187.801
86	10	-0.369171	114.67	-191.493
87	10	-0.358459	114.799	-195.077
88	10	-0.345126	114.918	-198.529
89	10	-0.334503	115.03	-201.874
90	10	-0.323919	115.135	-205.113
91	10	-0.31337	115.233	-208.247
92	10	-0.302855	115.325	-211.275
93	10	-0.292375	115.41	-214.199
94	10	-0.279319	115.488	-216.992
95	10	-0.268908	115.56	-219.681
96	10	-0.258527	115.627	-222.266
97	10	-0.248174	115.689	-224.748
98	10	-0.237847	115.745	-227.127
99	10	-0.227545	115.797	-229.402
100	10	-0.217267	115.844	-231.575
101	10	-0.204452	115.886	-233.619
102	10	-0.194225	115.924	-235.561
103	10	-0.184017	115.958	-237.402
104	10	-0.173829	115.988	-239.14
105	10	-0.163659	116.015	-240.777
106	10	-0.153505	116.038	-242.312
107	10	-0.143367	116.059	-243.745
108	10	-0.130716	116.076	-245.052
109	10	-0.12061	116.091	-246.258
110	10	-0.110516	116.103	-247.364
111	10	-0.100433	116.113	-248.368
112	10	-0.0903606	116.121	-249.272
113	10	-0.0802981	116.127	-250.075

114	10	-0.0677301	116.132	-250.752
115	10	-0.0576847	116.135	-251.329
116	10	-0.0476439	116.138	-251.805
117	10	-0.0376076	116.139	-252.181
118	10	-0.0275759	116.14	-252.457
119	10	-0.0175476	116.14	-252.632
120	10	-0.00751925	116.14	-252.708
121	10	0.00751925	116.14	-252.632
122	10	0.0175476	116.141	-252.457
123	10	0.0275759	116.141	-252.181
124	10	0.0376076	116.143	-251.805
125	10	0.0476439	116.145	-251.329
126	10	0.0576847	116.148	-250.752
127	10	0.0677301	116.153	-250.075
128	10	0.0802981	116.159	-249.272
129	10	0.0903606	116.167	-248.368
130	10	0.100433	116.178	-247.364
131	10	0.110516	116.19	-246.258
132	10	0.12061	116.204	-245.052
133	10	0.130716	116.221	-243.745
134	10	0.143367	116.242	-242.312
135	10	0.153505	116.266	-240.777
136	10	0.163659	116.292	-239.14
137	10	0.173829	116.323	-237.402
138	10	0.184017	116.356	-235.561
139	10	0.194225	116.394	-233.619
140	10	0.204452	116.436	-231.575
141	10	0.217267	116.483	-229.402
142	10	0.227545	116.535	-227.127
143	10	0.237847	116.591	-224.748
144	10	0.248174	116.653	-222.266
145	10	0.258527	116.72	-219.681
146	10	0.268908	116.792	-216.992
147	10	0.279319	116.87	-214.199
148	10	0.292375	116.956	-211.275
149	10	0.302855	117.047	-208.247
150	10	0.31337	117.146	-205.113
151	10	0.323919	117.251	-201.874
152	10	0.334503	117.362	-198.529
153	10	0.345126	117.482	-195.077
154	10	0.358459	117.61	-191.493
155	10	0.369171	117.746	-187.801
156	10	0.379927	117.891	-184.002
157	10	0.390726	118.043	-180.095
158	10	0.401571	118.205	-176.079
159	10	0.412463	118.375	-171.954
160	10	0.423405	118.554	-167.72
161	10	0.437153	118.745	-163.349
162	10	0.448213	118.946	-158.866
163	10	0.459327	119.157	-154.273
164	10	0.470498	119.378	-149.568
165	10	0.481728	119.61	-144.751
166	10	0.493018	119.853	-139.821
167	10	0.504372	120.108	-134.777
168	10	0.518658	120.377	-129.59
169	10	0.530162	120.658	-124.289
170	10	0.541736	120.951	-118.871
171	10	0.553384	121.258	-113.338
172	10	0.565108	121.577	-107.687
173	10	0.576911	121.91	-101.917
174	10	0.588793	122.257	-96.0295
175	10	0.603765	122.621	-89.9919

176	10	0.615839		123	-83.8335
177	10	0.628006		123.395	-77.5534
178	10	0.640266		123.805	-71.1508
179	10	0.652622		124.231	-64.6246
180	10	0.665079		124.673	-57.9738
181	10	0.680797		125.136	-51.1658
182	10	0.693493		125.617	-44.2309
183	10	0.706302		126.116	-37.1678
184	10	0.719228		126.633	-29.9756
185	10	0.732275		127.17	-22.6528
186	10	0.745449		127.725	-15.1983
187	10	0.758753		128.301	-7.61079
188	10	0.775574		128.903	0.14495
189	10	0.789191		129.525	8.03686
190	10	0.802956		130.17	16.0664
191	10	0.816874		130.837	24.2352
192	10	0.830953		131.528	32.5447
193	10	0.845198		132.242	40.9967
194	10	0.859618		132.981	49.5929
195	10	0.877897		133.752	58.3718
196	10	0.892733		134.549	67.2992
197	10	0.907769		135.373	76.3768
198	10	0.923014		136.225	85.607
199	10	0.938476		137.106	94.9917
200	10	0.954165		138.016	104.533
201	10	0.974114		138.965	114.275
202	10	0.990356		139.946	124.178
203	10	1.00687	140.96	134.247	
204	10	1.02365	142.007	144.483	
205	10	1.04073	143.091	154.891	
206	10	1.05812	144.21	165.472	
207	10	1.07584	145.368	176.23	
208	10	1.09847	146.574	187.215	
209	10	1.11699	147.822	198.385	
210	10	1.1359	149.112	209.744	
211	10	1.15522	150.447	221.296	
212	10	1.17499	151.827	233.046	
213	10	1.19522	153.256	244.998	
214	10	1.21596	154.734	257.158	
215	10	1.24264	156.279	269.584	
216	10	1.26464	157.878	282.23	
217	10	1.28727	159.535	295.103	
218	10	1.31058	161.253	308.209	
219	10	1.33462	163.034	321.555	
220	10	1.35946	164.882	335.15	
221	10	1.39175	166.819	349.067	
222	10	1.41865	168.831	363.254	
223	10	1.44663	170.924	377.72	
224	10	1.47579	173.102	392.478	
225	10	1.50626	175.371	407.541	
226	10	1.5382	177.737	422.923	
227	10	1.57179	180.208	438.641	
228	10	1.61644	182.82	454.805	
229	10	1.65463	185.558	471.351	
230	10	1.6954	188.433	488.305	
231	10	1.7392	191.457	505.697	
232	10	1.78661	194.649	523.563	
233	10	1.83843	198.029	541.947	
234	10	1.8957	201.623	560.904	
235	10	1.97737	205.533	580.678	
236	10	2.05375	209.751	601.216	
237	10	2.14441	214.349	622.66	

238	10	2.25713	219.444	645.231
239	14	2.40892	225.247	678.956
240	35	2.65209	232.28	771.779

Data Set Standard Deviation = 4.43778
Numerator = 595643
Denominator = 1.09331e+006
W Statistic = 0.544809 = 595643 / 1.09331e+006

5% Critical value of 0.976 exceeds 0.544809
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.544809
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tin

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.740882
0.740882 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00414938	-2.65209	41.675	344.01	
2	0.2	0.00829876	-2.40892	41.675	332.136	
3	0.2	0.0124481	-2.25713	41.675	324.723	
4	0.2	0.0165975	-2.14441	41.675	319.219	
5	0.2	0.0207469	-2.05375	41.675	314.791	
6	0.2	0.0248963	-1.97737	41.675	311.062	
7	0.2	0.0290456	-1.8957	41.675	307.073	
8	0.2	0.033195	-1.83843	41.675	304.276	
9	0.2	0.0373444	-1.78661	41.675	301.746	
10	0.2	0.0414938	-1.7392	41.675	299.431	
11	0.2	0.0456432	-1.6954	41.675	297.292	
12	0.2	0.0497925	-1.65463	41.675	295.301	
13	0.2	0.0539419	-1.61644	41.675	293.436	
14	0.2	0.0580913	-1.57179	41.675	291.256	
15	0.2	0.0622407	-1.5382	41.675	289.615	
16	0.2	0.06639	-1.50626	41.675	288.056	
17	0.2	0.0705394	-1.47579	41.675	286.568	
18	0.2	0.0746888	-1.44663	41.675	285.144	
19	0.2	0.0788382	-1.41865	41.675	283.778	
20	0.2	0.0829876	-1.39175	41.675	282.464	
21	0.2	0.0871369	-1.35946	41.675	280.887	
22	0.2	0.0912863	-1.33462	41.675	279.674	
23	0.2	0.0954357	-1.31058	41.675	278.5	
24	0.2	0.0995851	-1.28727	41.675	277.362	
25	0.2	0.103734	-1.26464	41.675	276.257	
26	0.2	0.107884	-1.24264	41.675	275.182	
27	0.2	0.112033	-1.21596	41.675	273.879	
28	0.2	0.116183	-1.19522	41.675	272.867	
29	0.2	0.120332	-1.17499	41.675	271.879	
30	0.2	0.124481	-1.15522	41.675	270.913	
31	0.2	0.128631	-1.1359	41.675	269.97	
32	0.2	0.13278	-1.11699	41.675	269.046	
33	0.2	0.136929	-1.09847	41.675	268.142	
34	0.2	0.141079	-1.07584	41.675	267.037	
35	0.2	0.145228	-1.05812	41.675	266.172	
36	0.2	0.149378	-1.04073	41.675	265.322	
37	0.2	0.153527	-1.02365	41.675	264.488	
38	0.2	0.157676	-1.00687	41.675	263.669	
39	0.2	0.161826	-0.990356	41.675	262.862	
40	0.2	0.165975	-0.974114	41.675	262.069	
41	0.2	0.170124	-0.954165	41.675	261.095	
42	0.2	0.174274	-0.938476	41.675	260.329	
43	0.2	0.178423	-0.923014	41.675	259.574	
44	0.2	0.182573	-0.907769	41.675	258.829	
45	0.4	0.186722	-0.892733	44.35	258.095	
46	0.4	0.190871	-0.877897	44.35	257.371	
47	0.4	0.195021	-0.859618	44.35	256.478	
48	0.45	0.19917	-0.845198	45.0187	255.774	

49	0.57	0.20332	-0.830953	46.6238	255.078	
50	0.58	0.207469	-0.816874		46.7575	254.391
51	0.6	0.211618	-0.802956		47.025	253.711
52	0.73	0.215768	-0.789191		48.7638	253.039
53	0.73	0.219917	-0.775574		48.7638	252.374
54	3	0.224066	-0.758753		79.125	251.552
55	5.1	0.228216	-0.745449		107.213	250.903
56	10	0.232365	-0.732275		172.75	250.259
57	10	0.236515	-0.719228		172.75	249.622
58	10	0.240664	-0.706302		172.75	248.991
59	10	0.244813	-0.693493		172.75	248.366
60	10	0.248963	-0.680797		172.75	247.746
61	10	0.253112	-0.665079		172.75	246.978
62	10	0.257261	-0.652622		172.75	246.37
63	10	0.261411	-0.640266		172.75	245.766
64	10	0.26556	-0.628006	172.75	245.168	
65	10	0.26971	-0.615839	172.75	244.573	
66	10	0.273859	-0.603765		172.75	243.984
67	10	0.278008	-0.588793		172.75	243.253
68	10	0.282158	-0.576911		172.75	242.672
69	10	0.286307	-0.565108		172.75	242.096
70	10	0.290456	-0.553384		172.75	241.524
71	10	0.294606	-0.541736		172.75	240.955
72	10	0.298755	-0.530162		172.75	240.39
73	10	0.302905	-0.518658		172.75	239.828
74	10	0.307054	-0.504372		172.75	239.13
75	10	0.311203	-0.493018		172.75	238.576
76	10	0.315353	-0.481728		172.75	238.024
77	10	0.319502	-0.470498		172.75	237.476
78	10	0.323651	-0.459327		172.75	236.93
79	10	0.327801	-0.448213		172.75	236.388
80	10	0.33195	-0.437153	172.75	235.848	
81	10	0.3361	-0.423405	172.75	235.176	
82	10	0.340249	-0.412463		172.75	234.642
83	10	0.344398	-0.401571		172.75	234.11
84	10	0.348548	-0.390726		172.75	233.58
85	10	0.352697	-0.379927		172.75	233.053
86	10	0.356846	-0.369171		172.75	232.528
87	10	0.360996	-0.358459		172.75	232.005
88	10	0.365145	-0.345126		172.75	231.354
89	10	0.369295	-0.334503		172.75	230.835
90	10	0.373444	-0.323919		172.75	230.318
91	10	0.377593	-0.31337	172.75	229.803	
92	10	0.381743	-0.302855		172.75	229.289
93	10	0.385892	-0.292375		172.75	228.778
94	10	0.390041	-0.279319		172.75	228.14
95	10	0.394191	-0.268908		172.75	227.632
96	10	0.39834	-0.258527	172.75	227.125	
97	10	0.40249	-0.248174	172.75	226.619	
98	10	0.406639	-0.237847		172.75	226.115
99	10	0.410788	-0.227545		172.75	225.612
100	10	0.414938	-0.217267		172.75	225.11
101	10	0.419087	-0.204452		172.75	224.484
102	10	0.423237	-0.194225		172.75	223.985
103	10	0.427386	-0.184017		172.75	223.486
104	10	0.431535	-0.173829		172.75	222.989
105	10	0.435685	-0.163659		172.75	222.492
106	10	0.439834	-0.153505		172.75	221.996
107	10	0.443983	-0.143367		172.75	221.501
108	10	0.448133	-0.130716		172.75	220.883
109	10	0.452282	-0.12061	172.75	220.39	
110	10	0.456432	-0.110516		172.75	219.897

111	10	0.460581	-0.100433	172.75	219.404
112	10	0.46473	-0.0903606	172.75	218.913
113	10	0.46888	-0.0802981	172.75	218.421
114	10	0.473029	-0.0677301	172.75	217.807
115	10	0.477178	-0.0576847	172.75	217.317
116	10	0.481328	-0.0476439	172.75	216.827
117	10	0.485477	-0.0376076	172.75	216.337
118	10	0.489627	-0.0275759	172.75	215.847
119	10	0.493776	-0.0175476	172.75	215.357
120	10	0.497925	-0.00751925	172.75	214.867
121	10	0.502075	0.00751925	172.75	214.133
122	10	0.506224	0.0175476	172.75	213.643
123	10	0.510373	0.0275759	172.75	213.153
124	10	0.514523	0.0376076	172.75	212.663
125	10	0.518672	0.0476439	172.75	212.173
126	10	0.522822	0.0576847	172.75	211.683
127	10	0.526971	0.0677301	172.75	211.193
128	10	0.53112	0.0802981	172.75	210.579
129	10	0.53527	0.0903606	172.75	210.087
130	10	0.539419	0.100433	172.75	209.596
131	10	0.543568	0.110516	172.75	209.103
132	10	0.547718	0.12061	172.75	208.61
133	10	0.551867	0.130716	172.75	208.117
134	10	0.556017	0.143367	172.75	207.499
135	10	0.560166	0.153505	172.75	207.004
136	10	0.564315	0.163659	172.75	206.508
137	10	0.568465	0.173829	172.75	206.011
138	10	0.572614	0.184017	172.75	205.514
139	10	0.576763	0.194225	172.75	205.015
140	10	0.580913	0.204452	172.75	204.516
141	10	0.585062	0.217267	172.75	203.89
142	10	0.589212	0.227545	172.75	203.388
143	10	0.593361	0.237847	172.75	202.885
144	10	0.59751	0.248174	172.75	202.381
145	10	0.60166	0.258527	172.75	201.875
146	10	0.605809	0.268908	172.75	201.368
147	10	0.609959	0.279319	172.75	200.86
148	10	0.614108	0.292375	172.75	200.222
149	10	0.618257	0.302855	172.75	199.711
150	10	0.622407	0.31337	172.75	199.197
151	10	0.626556	0.323919	172.75	198.682
152	10	0.630705	0.334503	172.75	198.165
153	10	0.634855	0.345126	172.75	197.646
154	10	0.639004	0.358459	172.75	196.995
155	10	0.643154	0.369171	172.75	196.472
156	10	0.647303	0.379927	172.75	195.947
157	10	0.651452	0.390726	172.75	195.42
158	10	0.655602	0.401571	172.75	194.89
159	10	0.659751	0.412463	172.75	194.358
160	10	0.6639	0.423405	172.75	193.824
161	10	0.66805	0.437153	172.75	193.152
162	10	0.672199	0.448213	172.75	192.612
163	10	0.676349	0.459327	172.75	192.07
164	10	0.680498	0.470498	172.75	191.524
165	10	0.684647	0.481728	172.75	190.976
166	10	0.688797	0.493018	172.75	190.424
167	10	0.692946	0.504372	172.75	189.87
168	10	0.697095	0.518658	172.75	189.172
169	10	0.701245	0.530162	172.75	188.61
170	10	0.705394	0.541736	172.75	188.045
171	10	0.709544	0.553384	172.75	187.476
172	10	0.713693	0.565108	172.75	186.904

173	10	0.717842	0.576911	172.75	186.328
174	10	0.721992	0.588793	172.75	185.747
175	10	0.726141	0.603765	172.75	185.016
176	10	0.73029	0.615839	172.75	184.427
177	10	0.73444	0.628006	172.75	183.832
178	10	0.738589	0.640266	172.75	183.234
179	10	0.742739	0.652622	172.75	182.63
180	10	0.746888	0.665079	172.75	182.022
181	10	0.751037	0.680797	172.75	181.254
182	10	0.755187	0.693493	172.75	180.634
183	10	0.759336	0.706302	172.75	180.009
184	10	0.763485	0.719228	172.75	179.378
185	10	0.767635	0.732275	172.75	178.741
186	10	0.771784	0.745449	172.75	178.097
187	10	0.775934	0.758753	172.75	177.448
188	10	0.780083	0.775574	172.75	176.626
189	10	0.784232	0.789191	172.75	175.961
190	10	0.788382	0.802956	172.75	175.289
191	10	0.792531	0.816874	172.75	174.609
192	10	0.79668	0.830953	172.75	173.922
193	10	0.80083	0.845198	172.75	173.226
194	10	0.804979	0.859618	172.75	172.522
195	10	0.809129	0.877897	172.75	171.629
196	10	0.813278	0.892733	172.75	170.905
197	10	0.817427	0.907769	172.75	170.171
198	10	0.821577	0.923014	172.75	169.426
199	10	0.825726	0.938476	172.75	168.671
200	10	0.829876	0.954165	172.75	167.905
201	10	0.834025	0.974114	172.75	166.931
202	10	0.838174	0.990356	172.75	166.138
203	10	0.842324	1.00687	172.75	165.331
204	10	0.846473	1.02365	172.75	164.512
205	10	0.850622	1.04073	172.75	163.678
206	10	0.854772	1.05812	172.75	162.828
207	10	0.858921	1.07584	172.75	161.963
208	10	0.863071	1.09847	172.75	160.858
209	10	0.86722	1.11699	172.75	159.954
210	10	0.871369	1.1359	172.75	159.03
211	10	0.875519	1.15522	172.75	158.087
212	10	0.879668	1.17499	172.75	157.121
213	10	0.883817	1.19522	172.75	156.133
214	10	0.887967	1.21596	172.75	155.121
215	10	0.892116	1.24264	172.75	153.818
216	10	0.896266	1.26464	172.75	152.743
217	10	0.900415	1.28727	172.75	151.638
218	10	0.904564	1.31058	172.75	150.5
219	10	0.908714	1.33462	172.75	149.326
220	10	0.912863	1.35946	172.75	148.113
221	10	0.917012	1.39175	172.75	146.536
222	10	0.921162	1.41865	172.75	145.222
223	10	0.925311	1.44663	172.75	143.856
224	10	0.929461	1.47579	172.75	142.432
225	10	0.93361	1.50626	172.75	140.944
226	10	0.937759	1.5382	172.75	139.385
227	10	0.941909	1.57179	172.75	137.744
228	10	0.946058	1.61644	172.75	135.564
229	10	0.950207	1.65463	172.75	133.699
230	10	0.954357	1.6954	172.75	131.708
231	10	0.958506	1.7392	172.75	129.569
232	10	0.962656	1.78661	172.75	127.254
233	10	0.966805	1.83843	172.75	124.724
234	10	0.970954	1.8957	172.75	121.927

235	10	0.975104	1.97737	172.75	117.938
236	10	0.979253	2.05375	172.75	114.209
237	10	0.983402	2.14441	172.75	109.781
238	10	0.987552	2.25713	172.75	104.277
239	14	0.991701	2.40892	226.25	96.8642
240	35	0.995851	2.65209	507.125	84.9898

Shapiro-Francia Test of Normality

Parameter: Tin

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-1.60944	-2.65209	7.03356	4.26837	
2	-1.60944	-2.40892	12.8365	8.14538	
3	-1.60944	-2.25713	17.9311	11.7781	
4	-1.60944	-2.14441	22.5296	15.2294	
5	-1.60944	-2.05375	26.7475	18.5348	
6	-1.60944	-1.97737	30.6575	21.7172	
7	-1.60944	-1.8957	34.2511	24.7682	
8	-1.60944	-1.83843	37.6309	27.7271	
9	-1.60944	-1.78661	40.8229	30.6025	
10	-1.60944	-1.7392	43.8477	33.4016	
11	-1.60944	-1.6954	46.7221	36.1303	
12	-1.60944	-1.65463	49.4599	38.7933	
13	-1.60944	-1.61644	52.0728	41.3948	
14	-1.60944	-1.57179	54.5433	43.9245	
15	-1.60944	-1.5382	56.9093	46.4002	
16	-1.60944	-1.50626	59.1782	48.8244	
17	-1.60944	-1.47579	61.3561	51.1996	
18	-1.60944	-1.44663	63.4489	53.5279	
19	-1.60944	-1.41865	65.4614	55.8111	
20	-1.60944	-1.39175	67.3984	58.051	
21	-1.60944	-1.35946	69.2465	60.239	
22	-1.60944	-1.33462	71.0278	62.387	
23	-1.60944	-1.31058	72.7454	64.4963	
24	-1.60944	-1.28727	74.4024	66.5681	
25	-1.60944	-1.26464	76.0018	68.6034	
26	-1.60944	-1.24264	77.5459	70.6034	
27	-1.60944	-1.21596	79.0245	72.5604	
28	-1.60944	-1.19522	80.453	74.484	
29	-1.60944	-1.17499	81.8336	76.3751	
30	-1.60944	-1.15522	83.1682	78.2344	
31	-1.60944	-1.1359	84.4584	80.0625	
32	-1.60944	-1.11699	85.7061	81.8602	
33	-1.60944	-1.09847	86.9127	83.6282	
34	-1.60944	-1.07584	88.0701	85.3596	
35	-1.60944	-1.05812	89.1898	87.0626	
36	-1.60944	-1.04073	90.2729	88.7376	
37	-1.60944	-1.02365	91.3208	90.3851	
38	-1.60944	-1.00687	92.3345	92.0056	
39	-1.60944	-0.990356	93.3153	93.5995	
40	-1.60944	-0.974114	94.2642	95.1673	
41	-1.60944	-0.954165	95.1747	96.703	
42	-1.60944	-0.938476	96.0554	98.2134	
43	-1.60944	-0.923014	96.9074	99.6989	
44	-1.60944	-0.907769	97.7314	101.16	
45	-0.916291	-0.892733	98.5284	101.978	
46	-0.916291	-0.877897	99.2991	102.782	
47	-0.916291	-0.859618	100.038	103.57	
48	-0.798508	-0.845198	100.752	104.245	
49	-0.562119	-0.830953	101.443	104.712	
50	-0.544727	-0.816874	102.11	105.157	
51	-0.510826	-0.802956	102.755	105.567	

52	-0.314711	-0.789191	103.378	105.815
53	-0.314711	-0.775574	103.979	106.06
54	1.09861	-0.758753	104.555	105.226
55	1.62924	-0.745449	105.111	104.011
56	2.30259	-0.732275	105.647	102.325
57	2.30259	-0.719228	106.164	100.669
58	2.30259	-0.706302	106.663	99.043
59	2.30259	-0.693493	107.144	97.4461
60	2.30259	-0.680797	107.607	95.8785
61	2.30259	-0.665079	108.05	94.3471
62	2.30259	-0.652622	108.476	92.8444
63	2.30259	-0.640266	108.886	91.3702
64	2.30259	-0.628006	109.28	89.9241
65	2.30259	-0.615839	109.659	88.5061
66	2.30259	-0.603765	110.024	87.1159
67	2.30259	-0.588793	110.37	85.7601
68	2.30259	-0.576911	110.703	84.4317
69	2.30259	-0.565108	111.023	83.1305
70	2.30259	-0.553384	111.329	81.8563
71	2.30259	-0.541736	111.622	80.6089
72	2.30259	-0.530162	111.903	79.3882
73	2.30259	-0.518658	112.172	78.1939
74	2.30259	-0.504372	112.427	77.0326
75	2.30259	-0.493018	112.67	75.8974
76	2.30259	-0.481728	112.902	74.7881
77	2.30259	-0.470498	113.123	73.7048
78	2.30259	-0.459327	113.334	72.6471
79	2.30259	-0.448213	113.535	71.6151
80	2.30259	-0.437153	113.726	70.6085
81	2.30259	-0.423405	113.906	69.6336
82	2.30259	-0.412463	114.076	68.6838
83	2.30259	-0.401571	114.237	67.7592
84	2.30259	-0.390726	114.39	66.8595
85	2.30259	-0.379927	114.534	65.9847
86	2.30259	-0.369171	114.67	65.1347
87	2.30259	-0.358459	114.799	64.3093
88	2.30259	-0.345126	114.918	63.5146
89	2.30259	-0.334503	115.03	62.7444
90	2.30259	-0.323919	115.135	61.9985
91	2.30259	-0.31337	115.233	61.277
92	2.30259	-0.302855	115.325	60.5796
93	2.30259	-0.292375	115.41	59.9064
94	2.30259	-0.279319	115.488	59.2632
95	2.30259	-0.268908	115.56	58.6441
96	2.30259	-0.258527	115.627	58.0488
97	2.30259	-0.248174	115.689	57.4773
98	2.30259	-0.237847	115.745	56.9297
99	2.30259	-0.227545	115.797	56.4057
100	2.30259	-0.217267	115.844	55.9054
101	2.30259	-0.204452	115.886	55.4347
102	2.30259	-0.194225	115.924	54.9875
103	2.30259	-0.184017	115.958	54.5637
104	2.30259	-0.173829	115.988	54.1635
105	2.30259	-0.163659	116.015	53.7867
106	2.30259	-0.153505	116.038	53.4332
107	2.30259	-0.143367	116.059	53.1031
108	2.30259	-0.130716	116.076	52.8021
109	2.30259	-0.12061	116.091	52.5244
110	2.30259	-0.110516	116.103	52.2699
111	2.30259	-0.100433	116.113	52.0386
112	2.30259	-0.0903606	116.121	51.8306
113	2.30259	-0.0802981	116.127	51.6457

114	2.30259	-0.0677301	116.132	51.4897
115	2.30259	-0.0576847	116.135	51.3569
116	2.30259	-0.0476439	116.138	51.2472
117	2.30259	-0.0376076	116.139	51.1606
118	2.30259	-0.0275759	116.14	51.0971
119	2.30259	-0.0175476	116.14	51.0567
120	2.30259	-0.00751925	116.14	51.0394
121	2.30259	0.00751925	116.14	51.0567
122	2.30259	0.0175476	116.141	51.0971
123	2.30259	0.0275759	116.141	51.1606
124	2.30259	0.0376076	116.143	51.2472
125	2.30259	0.0476439	116.145	51.3569
126	2.30259	0.0576847	116.148	51.4897
127	2.30259	0.0677301	116.153	51.6457
128	2.30259	0.0802981	116.159	51.8306
129	2.30259	0.0903606	116.167	52.0386
130	2.30259	0.100433	116.178	52.2699
131	2.30259	0.110516	116.19	52.5244
132	2.30259	0.12061	116.204	52.8021
133	2.30259	0.130716	116.221	53.1031
134	2.30259	0.143367	116.242	53.4332
135	2.30259	0.153505	116.266	53.7867
136	2.30259	0.163659	116.292	54.1635
137	2.30259	0.173829	116.323	54.5637
138	2.30259	0.184017	116.356	54.9875
139	2.30259	0.194225	116.394	55.4347
140	2.30259	0.204452	116.436	55.9054
141	2.30259	0.217267	116.483	56.4057
142	2.30259	0.227545	116.535	56.9297
143	2.30259	0.237847	116.591	57.4773
144	2.30259	0.248174	116.653	58.0488
145	2.30259	0.258527	116.72	58.6441
146	2.30259	0.268908	116.792	59.2632
147	2.30259	0.279319	116.87	59.9064
148	2.30259	0.292375	116.956	60.5796
149	2.30259	0.302855	117.047	61.277
150	2.30259	0.31337	117.146	61.9985
151	2.30259	0.323919	117.251	62.7444
152	2.30259	0.334503	117.362	63.5146
153	2.30259	0.345126	117.482	64.3093
154	2.30259	0.358459	117.61	65.1347
155	2.30259	0.369171	117.746	65.9847
156	2.30259	0.379927	117.891	66.8595
157	2.30259	0.390726	118.043	67.7592
158	2.30259	0.401571	118.205	68.6838
159	2.30259	0.412463	118.375	69.6336
160	2.30259	0.423405	118.554	70.6085
161	2.30259	0.437153	118.745	71.6151
162	2.30259	0.448213	118.946	72.6471
163	2.30259	0.459327	119.157	73.7048
164	2.30259	0.470498	119.378	74.7881
165	2.30259	0.481728	119.61	75.8974
166	2.30259	0.493018	119.853	77.0326
167	2.30259	0.504372	120.108	78.1939
168	2.30259	0.518658	120.377	79.3882
169	2.30259	0.530162	120.658	80.6089
170	2.30259	0.541736	120.951	81.8563
171	2.30259	0.553384	121.258	83.1305
172	2.30259	0.565108	121.577	84.4317
173	2.30259	0.576911	121.91	85.7601
174	2.30259	0.588793	122.257	87.1159
175	2.30259	0.603765	122.621	88.5061

176	2.30259	0.615839		123	89.9241
177	2.30259	0.628006		123.395	91.3702
178	2.30259	0.640266		123.805	92.8444
179	2.30259	0.652622		124.231	94.3471
180	2.30259	0.665079		124.673	95.8785
181	2.30259	0.680797		125.136	97.4461
182	2.30259	0.693493		125.617	99.043
183	2.30259	0.706302		126.116	100.669
184	2.30259	0.719228		126.633	102.325
185	2.30259	0.732275		127.17	104.011
186	2.30259	0.745449		127.725	105.728
187	2.30259	0.758753		128.301	107.475
188	2.30259	0.775574		128.903	109.261
189	2.30259	0.789191		129.525	111.078
190	2.30259	0.802956		130.17	112.927
191	2.30259	0.816874		130.837	114.808
192	2.30259	0.830953		131.528	116.721
193	2.30259	0.845198		132.242	118.667
194	2.30259	0.859618		132.981	120.647
195	2.30259	0.877897		133.752	122.668
196	2.30259	0.892733		134.549	124.724
197	2.30259	0.907769		135.373	126.814
198	2.30259	0.923014		136.225	128.939
199	2.30259	0.938476		137.106	131.1
200	2.30259	0.954165		138.016	133.297
201	2.30259	0.974114		138.965	135.54
202	2.30259	0.990356		139.946	137.821
203	2.30259	1.00687	140.96	140.139	
204	2.30259	1.02365	142.007	142.496	
205	2.30259	1.04073	143.091	144.892	
206	2.30259	1.05812	144.21	147.329	
207	2.30259	1.07584	145.368	149.806	
208	2.30259	1.09847	146.574	152.335	
209	2.30259	1.11699	147.822	154.907	
210	2.30259	1.1359	149.112	157.523	
211	2.30259	1.15522	150.447	160.183	
212	2.30259	1.17499	151.827	162.888	
213	2.30259	1.19522	153.256	165.64	
214	2.30259	1.21596	154.734	168.44	
215	2.30259	1.24264	156.279	171.302	
216	2.30259	1.26464	157.878	174.213	
217	2.30259	1.28727	159.535	177.178	
218	2.30259	1.31058	161.253	180.195	
219	2.30259	1.33462	163.034	183.268	
220	2.30259	1.35946	164.882	186.399	
221	2.30259	1.39175	166.819	189.603	
222	2.30259	1.41865	168.831	192.87	
223	2.30259	1.44663	170.924	196.201	
224	2.30259	1.47579	173.102	199.599	
225	2.30259	1.50626	175.371	203.067	
226	2.30259	1.5382	177.737	206.609	
227	2.30259	1.57179	180.208	210.228	
228	2.30259	1.61644	182.82	213.95	
229	2.30259	1.65463	185.558	217.76	
230	2.30259	1.6954	188.433	221.664	
231	2.30259	1.7392	191.457	225.669	
232	2.30259	1.78661	194.649	229.782	
233	2.30259	1.83843	198.029	234.016	
234	2.30259	1.8957	201.623	238.381	
235	2.30259	1.97737	205.533	242.934	
236	2.30259	2.05375	209.751	247.663	
237	2.30259	2.14441	214.349	252.6	

238	2.30259	2.25713	219.444	257.797
239	2.63906	2.40892	225.247	264.155
240	3.55535	2.65209	232.28	273.584

Data Set Standard Deviation = 1.5721
Numerator = 74848.1
Denominator = 137206
W Statistic = 0.545516 = 74848.1 / 137206

5% Critical value of 0.976 exceeds 0.545516
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.545516
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tin

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.737273
0.737273 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00414938	-2.65209	73.8251	344.01
2	-1.60944	0.00829876	-2.40892	73.8251	332.136
3	-1.60944	0.0124481	-2.25713	73.8251	324.723
4	-1.60944	0.0165975	-2.14441	73.8251	319.219
5	-1.60944	0.0207469	-2.05375	73.8251	314.791
6	-1.60944	0.0248963	-1.97737	73.8251	311.062
7	-1.60944	0.0290456	-1.8957	73.8251	307.073
8	-1.60944	0.033195	-1.83843	73.8251	304.276
9	-1.60944	0.0373444	-1.78661	73.8251	301.746
10	-1.60944	0.0414938	-1.7392	73.8251	299.431
11	-1.60944	0.0456432	-1.6954	73.8251	297.292
12	-1.60944	0.0497925	-1.65463	73.8251	295.301
13	-1.60944	0.0539419	-1.61644	73.8251	293.436
14	-1.60944	0.0580913	-1.57179	73.8251	291.256
15	-1.60944	0.0622407	-1.5382	73.8251	289.615
16	-1.60944	0.06639	-1.50626	73.8251	288.056
17	-1.60944	0.0705394	-1.47579	73.8251	286.568
18	-1.60944	0.0746888	-1.44663	73.8251	285.144
19	-1.60944	0.0788382	-1.41865	73.8251	283.778
20	-1.60944	0.0829876	-1.39175	73.8251	282.464
21	-1.60944	0.0871369	-1.35946	73.8251	280.887
22	-1.60944	0.0912863	-1.33462	73.8251	279.674
23	-1.60944	0.0954357	-1.31058	73.8251	278.5
24	-1.60944	0.0995851	-1.28727	73.8251	277.362
25	-1.60944	0.103734	-1.26464	73.8251	276.257
26	-1.60944	0.107884	-1.24264	73.8251	275.182
27	-1.60944	0.112033	-1.21596	73.8251	273.879
28	-1.60944	0.116183	-1.19522	73.8251	272.867
29	-1.60944	0.120332	-1.17499	73.8251	271.879
30	-1.60944	0.124481	-1.15522	73.8251	270.913
31	-1.60944	0.128631	-1.1359	73.8251	269.97
32	-1.60944	0.13278	-1.11699	73.8251	269.046
33	-1.60944	0.136929	-1.09847	73.8251	268.142
34	-1.60944	0.141079	-1.07584	73.8251	267.037
35	-1.60944	0.145228	-1.05812	73.8251	266.172
36	-1.60944	0.149378	-1.04073	73.8251	265.322
37	-1.60944	0.153527	-1.02365	73.8251	264.488
38	-1.60944	0.157676	-1.00687	73.8251	263.669
39	-1.60944	0.161826	-0.990356	73.8251	262.862
40	-1.60944	0.165975	-0.974114	73.8251	262.069
41	-1.60944	0.170124	-0.954165	73.8251	261.095
42	-1.60944	0.174274	-0.938476	73.8251	260.329
43	-1.60944	0.178423	-0.923014	73.8251	259.574
44	-1.60944	0.182573	-0.907769	73.8251	258.829
45	-0.916291	0.186722	-0.892733	135.631	258.095
46	-0.916291	0.190871	-0.877897	135.631	257.371
47	-0.916291	0.195021	-0.859618	135.631	256.478
48	-0.798508	0.19917	-0.845198	146.133	255.774

49	-0.562119	0.20332	-0.830953	167.211	255.078	
50	-0.544727	0.207469	-0.816874	168.762	254.391	
51	-0.510826	0.211618	-0.802956	171.785	253.711	
52	-0.314711	0.215768	-0.789191	189.272	253.039	
53	-0.314711	0.219917	-0.775574	189.272	252.374	
54	1.09861	0.224066	-0.758753	315.293	251.552	
55	1.62924	0.228216	-0.745449	362.607	250.903	
56	2.30259	0.232365	-0.732275	422.647	250.259	
57	2.30259	0.236515	-0.719228	422.647	249.622	
58	2.30259	0.240664	-0.706302	422.647	248.991	
59	2.30259	0.244813	-0.693493	422.647	248.366	
60	2.30259	0.248963	-0.680797	422.647	247.746	
61	2.30259	0.253112	-0.665079	422.647	246.978	
62	2.30259	0.257261	-0.652622	422.647	246.37	
63	2.30259	0.261411	-0.640266	422.647	245.766	
64	2.30259	0.26556	-0.628006	422.647	245.168	
65	2.30259	0.26971	-0.615839	422.647	244.573	
66	2.30259	0.273859	-0.603765	422.647	243.984	
67	2.30259	0.278008	-0.588793	422.647	243.253	
68	2.30259	0.282158	-0.576911	422.647	242.672	
69	2.30259	0.286307	-0.565108	422.647	242.096	
70	2.30259	0.290456	-0.553384	422.647	241.524	
71	2.30259	0.294606	-0.541736	422.647	240.955	
72	2.30259	0.298755	-0.530162	422.647	240.39	
73	2.30259	0.302905	-0.518658	422.647	239.828	
74	2.30259	0.307054	-0.504372	422.647	239.13	
75	2.30259	0.311203	-0.493018	422.647	238.576	
76	2.30259	0.315353	-0.481728	422.647	238.024	
77	2.30259	0.319502	-0.470498	422.647	237.476	
78	2.30259	0.323651	-0.459327	422.647	236.93	
79	2.30259	0.327801	-0.448213	422.647	236.388	
80	2.30259	0.33195	-0.437153	422.647	235.848	
81	2.30259	0.3361	-0.423405	422.647	235.176	
82	2.30259	0.340249	-0.412463	422.647	234.642	
83	2.30259	0.344398	-0.401571	422.647	234.11	
84	2.30259	0.348548	-0.390726	422.647	233.58	
85	2.30259	0.352697	-0.379927	422.647	233.053	
86	2.30259	0.356846	-0.369171	422.647	232.528	
87	2.30259	0.360996	-0.358459	422.647	232.005	
88	2.30259	0.365145	-0.345126	422.647	231.354	
89	2.30259	0.369295	-0.334503	422.647	230.835	
90	2.30259	0.373444	-0.323919	422.647	230.318	
91	2.30259	0.377593	-0.31337	422.647	229.803	
92	2.30259	0.381743	-0.302855	422.647	229.289	
93	2.30259	0.385892	-0.292375	422.647	228.778	
94	2.30259	0.390041	-0.279319	422.647	228.14	
95	2.30259	0.394191	-0.268908	422.647	227.632	
96	2.30259	0.39834	-0.258527	422.647	227.125	
97	2.30259	0.40249	-0.248174	422.647	226.619	
98	2.30259	0.406639	-0.237847	422.647	226.115	
99	2.30259	0.410788	-0.227545	422.647	225.612	
100	2.30259	0.414938	-0.217267	422.647	225.11	
101	2.30259	0.419087	-0.204452	422.647	224.484	
102	2.30259	0.423237	-0.194225	422.647	223.985	
103	2.30259	0.427386	-0.184017	422.647	223.486	
104	2.30259	0.431535	-0.173829	422.647	222.989	
105	2.30259	0.435685	-0.163659	422.647	222.492	
106	2.30259	0.439834	-0.153505	422.647	221.996	
107	2.30259	0.443983	-0.143367	422.647	221.501	
108	2.30259	0.448133	-0.130716	422.647	220.883	
109	2.30259	0.452282	-0.12061	422.647	220.39	
110	2.30259	0.456432	-0.110516	422.647	219.897	

111	2.30259	0.460581	-0.100433	422.647	219.404
112	2.30259	0.46473	-0.0903606	422.647	218.913
113	2.30259	0.46888	-0.0802981	422.647	218.421
114	2.30259	0.473029	-0.0677301	422.647	217.807
115	2.30259	0.477178	-0.0576847	422.647	217.317
116	2.30259	0.481328	-0.0476439	422.647	216.827
117	2.30259	0.485477	-0.0376076	422.647	216.337
118	2.30259	0.489627	-0.0275759	422.647	215.847
119	2.30259	0.493776	-0.0175476	422.647	215.357
120	2.30259	0.497925	-0.00751925	422.647	214.867
121	2.30259	0.502075	0.00751925	422.647	214.133
122	2.30259	0.506224	0.0175476	422.647	213.643
123	2.30259	0.510373	0.0275759	422.647	213.153
124	2.30259	0.514523	0.0376076	422.647	212.663
125	2.30259	0.518672	0.0476439	422.647	212.173
126	2.30259	0.522822	0.0576847	422.647	211.683
127	2.30259	0.526971	0.0677301	422.647	211.193
128	2.30259	0.53112	0.0802981	422.647	210.579
129	2.30259	0.53527	0.0903606	422.647	210.087
130	2.30259	0.539419	0.100433	422.647	209.596
131	2.30259	0.543568	0.110516	422.647	209.103
132	2.30259	0.547718	0.12061	422.647	208.61
133	2.30259	0.551867	0.130716	422.647	208.117
134	2.30259	0.556017	0.143367	422.647	207.499
135	2.30259	0.560166	0.153505	422.647	207.004
136	2.30259	0.564315	0.163659	422.647	206.508
137	2.30259	0.568465	0.173829	422.647	206.011
138	2.30259	0.572614	0.184017	422.647	205.514
139	2.30259	0.576763	0.194225	422.647	205.015
140	2.30259	0.580913	0.204452	422.647	204.516
141	2.30259	0.585062	0.217267	422.647	203.89
142	2.30259	0.589212	0.227545	422.647	203.388
143	2.30259	0.593361	0.237847	422.647	202.885
144	2.30259	0.59751	0.248174	422.647	202.381
145	2.30259	0.60166	0.258527	422.647	201.875
146	2.30259	0.605809	0.268908	422.647	201.368
147	2.30259	0.609959	0.279319	422.647	200.86
148	2.30259	0.614108	0.292375	422.647	200.222
149	2.30259	0.618257	0.302855	422.647	199.711
150	2.30259	0.622407	0.31337	422.647	199.197
151	2.30259	0.626556	0.323919	422.647	198.682
152	2.30259	0.630705	0.334503	422.647	198.165
153	2.30259	0.634855	0.345126	422.647	197.646
154	2.30259	0.639004	0.358459	422.647	196.995
155	2.30259	0.643154	0.369171	422.647	196.472
156	2.30259	0.647303	0.379927	422.647	195.947
157	2.30259	0.651452	0.390726	422.647	195.42
158	2.30259	0.655602	0.401571	422.647	194.89
159	2.30259	0.659751	0.412463	422.647	194.358
160	2.30259	0.6639	0.423405	422.647	193.824
161	2.30259	0.66805	0.437153	422.647	193.152
162	2.30259	0.672199	0.448213	422.647	192.612
163	2.30259	0.676349	0.459327	422.647	192.07
164	2.30259	0.680498	0.470498	422.647	191.524
165	2.30259	0.684647	0.481728	422.647	190.976
166	2.30259	0.688797	0.493018	422.647	190.424
167	2.30259	0.692946	0.504372	422.647	189.87
168	2.30259	0.697095	0.518658	422.647	189.172
169	2.30259	0.701245	0.530162	422.647	188.61
170	2.30259	0.705394	0.541736	422.647	188.045
171	2.30259	0.709544	0.553384	422.647	187.476
172	2.30259	0.713693	0.565108	422.647	186.904

173	2.30259	0.717842	0.576911	422.647	186.328
174	2.30259	0.721992	0.588793	422.647	185.747
175	2.30259	0.726141	0.603765	422.647	185.016
176	2.30259	0.73029	0.615839	422.647	184.427
177	2.30259	0.73444	0.628006	422.647	183.832
178	2.30259	0.738589	0.640266	422.647	183.234
179	2.30259	0.742739	0.652622	422.647	182.63
180	2.30259	0.746888	0.665079	422.647	182.022
181	2.30259	0.751037	0.680797	422.647	181.254
182	2.30259	0.755187	0.693493	422.647	180.634
183	2.30259	0.759336	0.706302	422.647	180.009
184	2.30259	0.763485	0.719228	422.647	179.378
185	2.30259	0.767635	0.732275	422.647	178.741
186	2.30259	0.771784	0.745449	422.647	178.097
187	2.30259	0.775934	0.758753	422.647	177.448
188	2.30259	0.780083	0.775574	422.647	176.626
189	2.30259	0.784232	0.789191	422.647	175.961
190	2.30259	0.788382	0.802956	422.647	175.289
191	2.30259	0.792531	0.816874	422.647	174.609
192	2.30259	0.79668	0.830953	422.647	173.922
193	2.30259	0.80083	0.845198	422.647	173.226
194	2.30259	0.804979	0.859618	422.647	172.522
195	2.30259	0.809129	0.877897	422.647	171.629
196	2.30259	0.813278	0.892733	422.647	170.905
197	2.30259	0.817427	0.907769	422.647	170.171
198	2.30259	0.821577	0.923014	422.647	169.426
199	2.30259	0.825726	0.938476	422.647	168.671
200	2.30259	0.829876	0.954165	422.647	167.905
201	2.30259	0.834025	0.974114	422.647	166.931
202	2.30259	0.838174	0.990356	422.647	166.138
203	2.30259	0.842324	1.00687	422.647	165.331
204	2.30259	0.846473	1.02365	422.647	164.512
205	2.30259	0.850622	1.04073	422.647	163.678
206	2.30259	0.854772	1.05812	422.647	162.828
207	2.30259	0.858921	1.07584	422.647	161.963
208	2.30259	0.863071	1.09847	422.647	160.858
209	2.30259	0.86722	1.11699	422.647	159.954
210	2.30259	0.871369	1.1359	422.647	159.03
211	2.30259	0.875519	1.15522	422.647	158.087
212	2.30259	0.879668	1.17499	422.647	157.121
213	2.30259	0.883817	1.19522	422.647	156.133
214	2.30259	0.887967	1.21596	422.647	155.121
215	2.30259	0.892116	1.24264	422.647	153.818
216	2.30259	0.896266	1.26464	422.647	152.743
217	2.30259	0.900415	1.28727	422.647	151.638
218	2.30259	0.904564	1.31058	422.647	150.5
219	2.30259	0.908714	1.33462	422.647	149.326
220	2.30259	0.912863	1.35946	422.647	148.113
221	2.30259	0.917012	1.39175	422.647	146.536
222	2.30259	0.921162	1.41865	422.647	145.222
223	2.30259	0.925311	1.44663	422.647	143.856
224	2.30259	0.929461	1.47579	422.647	142.432
225	2.30259	0.93361	1.50626	422.647	140.944
226	2.30259	0.937759	1.5382	422.647	139.385
227	2.30259	0.941909	1.57179	422.647	137.744
228	2.30259	0.946058	1.61644	422.647	135.564
229	2.30259	0.950207	1.65463	422.647	133.699
230	2.30259	0.954357	1.6954	422.647	131.708
231	2.30259	0.958506	1.7392	422.647	129.569
232	2.30259	0.962656	1.78661	422.647	127.254
233	2.30259	0.966805	1.83843	422.647	124.724
234	2.30259	0.970954	1.8957	422.647	121.927

235	2.30259	0.975104	1.97737	422.647	117.938
236	2.30259	0.979253	2.05375	422.647	114.209
237	2.30259	0.983402	2.14441	422.647	109.781
238	2.30259	0.987552	2.25713	422.647	104.277
239	2.63906	0.991701	2.40892	452.649	96.8642
240	3.55535	0.995851	2.65209	534.352	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Tin

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 94.5833%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 2.30259
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-9	11/22/2011	2	-1.60944	FALSE
MW-11R	11/22/2011	2	-0.916291	FALSE
MW-6	11/22/2011	1	-1.60944	FALSE
MW-12AR	11/22/2011	1	-1.60944	FALSE
MW-10	11/22/2011	1	-0.314711	FALSE
MW-12BR	11/22/2011	1	-1.60944	FALSE
MW-7	11/22/2011	1	-0.916291	FALSE
MW-8	11/22/2011	1	-1.60944	FALSE

Concentrations (ppb)

Parameter: trans-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 246
Total Non-Detect: 216
Percent Non-Detects: 87.8049%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.2	ND<0.2
			11/16/2009	ND<0.2	ND<0.2
			6/30/2010	ND<0.2	ND<0.2
			11/12/2010	ND<0.2 U	ND<0.2 U
			7/5/2011	ND<0.2 U	ND<0.2 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2

			6/11/2009	ND<0.2	ND<0.2	
			11/16/2009	ND<0.2	ND<0.2	
			6/30/2010	ND<0.2	ND<0.2	
			11/12/2010	ND<0.2 U	ND<0.2 U	
			7/5/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
MW-12A	R	21	21 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.2	ND<0.2	
			11/16/2009	ND<0.2	ND<0.2	
			6/30/2010	ND<0.2	ND<0.2	
			11/12/2010	ND<0.2 U	ND<0.2 U	
			7/5/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
MW-9	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.2	ND<0.2	
			11/16/2009	ND<0.2	ND<0.2	
			6/30/2010	ND<0.2	ND<0.2	
			11/12/2010	ND<0.2 U	ND<0.2 U	
			7/5/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U Q	ND<0.2 U Q	
			11/22/2011	ND<0.2 U Q	ND<0.2 U Q	

MW-11R	31	30 (96.7742%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	0.4 J	0.4 J
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.2	ND<0.2
			11/16/2009	ND<0.2	ND<0.2
			6/30/2010	ND<0.2	ND<0.2
			11/12/2010	ND<0.2 U	ND<0.2 U
			7/5/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U Q	ND<0.2 U Q
			11/22/2011	ND<0.2 U Q	ND<0.2 U Q
MW-7	31	31 (100%)	7/20/1995	ND<2	ND<2
			8/24/1995	ND<2	ND<2
			9/28/1995	ND<2	ND<2
			10/26/1995	ND<2	ND<2
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.2	ND<0.2
			11/16/2009	ND<0.2	ND<0.2
			6/30/2010	ND<0.2	ND<0.2
			11/12/2010	ND<0.2 U	ND<0.2 U
			7/5/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U

			11/22/2011	ND<0.2 U	ND<0.2 U	
MW-8	30	15 (50%)	7/20/1995	ND<2	ND<2	
			8/24/1995	4.8	4.8	
			9/28/1995	4	4	
			10/26/1995	0.4 J	0.4 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	5	5	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.28 J	0.28 J	
			10/25/2005	0.52 J	0.52 J	
			4/29/2006	0.28 J	0.28 J	
			11/18/2006	3.65	3.65	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.55 J	0.55 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.25 J	0.25 J	
			6/11/2009	ND<0.2	ND<0.2	
			6/30/2010	0.24 J	0.24 J	
			11/12/2010	0.23 J	0.23 J	
			7/5/2011	0.35 J	0.35 J	
			11/22/2011	0.39 J	0.39 J	
			11/22/2011	0.39 J	0.39 J	
MW-12BR		21	20 (95.2381%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.22 J	0.22 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.2	ND<0.2	
			11/16/2009	ND<0.2	ND<0.2	
			6/30/2010	ND<0.2	ND<0.2	
			11/12/2010	ND<0.2 U	ND<0.2 U	
			7/5/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U	ND<0.2 U	
MW-10	31	18 (58.0645%)	7/20/1995	ND<2	ND<2	
			8/24/1995	0.34 J	0.34 J	
			9/28/1995	0.7 J	0.7 J	
			10/26/1995	0.6 J	0.6 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	

9/24/1997	ND<2	ND<2	
4/7/1998	ND<2	ND<2	
9/23/1998	ND<2	ND<2	
3/16/1999	ND<2	ND<2	
9/23/1999	ND<2	ND<2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	ND<2	ND<2	
10/12/2004	ND<2	ND<2	
4/1/2005	0.24 J	0.24 J	
10/25/2005	0.24 J	0.24 J	
4/29/2006	0.29 J	0.29 J	
11/18/2006	0.59 J	0.59 J	
5/23/2007	ND<2	ND<2	
11/28/2007	0.28 J	0.28 J	
6/5/2008	ND<2	ND<2	
11/20/2008	0.21 J	0.21 J	
6/11/2009	ND<0.2	ND<0.2	
11/16/2009	0.27 J	0.27 J	
6/30/2010	ND<0.2	ND<0.2	
11/12/2010	ND<0.2 U		ND<0.2 U
7/5/2011	0.27 J	0.27 J	
11/22/2011	0.31 J	0.31 J	
11/22/2011	0.31 J	0.31 J	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: trans-1,2-Dichloroethene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.1	-2.65209	7.03356	-0.265209
2	0.1	-2.40892	12.8365	-0.506101
3	0.1	-2.25713	17.9311	-0.731814
4	0.1	-2.14441	22.5296	-0.946255
5	0.1	-2.05375	26.7475	-1.15163
6	0.1	-1.97737	30.6575	-1.34937
7	0.1	-1.91103	34.3095	-1.54047
8	0.1	-1.85218	37.7401	-1.72569
9	0.1	-1.79912	40.9769	-1.9056
10	0.1	-1.75069	44.0418	-2.08067
11	0.1	-1.70604	46.9524	-2.25127
12	0.1	-1.66456	49.7231	-2.41773
13	0.1	-1.62576	52.3662	-2.5803
14	0.1	-1.58927	54.892	-2.73923
15	0.1	-1.55477	57.3093	-2.89471
16	0.1	-1.52203	59.6259	-3.04691
17	0.1	-1.49085	61.8486	-3.196
18	0.1	-1.46106	63.9833	-3.3421
19	0.1	-1.4325	66.0353	-3.48535
20	0.1	-1.40507	68.0096	-3.62586
21	0.1	-1.3722	69.8925	-3.76308
22	0.1	-1.34694	71.7067	-3.89778
23	0.1	-1.32251	73.4558	-4.03003
24	0.1	-1.29884	75.1427	-4.15991
25	0.1	-1.27588	76.7706	-4.2875
26	0.1	-1.25357	78.342	-4.41285
27	0.1	-1.23187	79.8595	-4.53604
28	0.1	-1.21073	81.3254	-4.65711
29	0.1	-1.19012	82.7418	-4.77612
30	0.1	-1.17	84.1107	-4.89312
31	0.1	-1.15035	85.434	-5.00816
32	0.1	-1.13113	86.7134	-5.12127
33	0.1	-1.11232	87.9507	-5.2325
34	0.1	-1.0939	89.1473	-5.34189
35	0.1	-1.07584	90.3047	-5.44948
36	0.1	-1.05812	91.4243	-5.55529
37	0.1	-1.04073	92.5075	-5.65936
38	0.1	-1.02365	93.5553	-5.76173
39	0.1	-1.00687	94.5691	-5.86242
40	0.1	-0.990356	95.5499	-5.96145
41	0.1	-0.974114	96.4988	-6.05886
42	0.1	-0.954165	97.4092	-6.15428
43	0.1	-0.938476	98.29	-6.24813
44	0.1	-0.923014	99.1419	-6.34043
45	0.1	-0.907769	99.966	-6.4312
46	0.1	-0.892733	100.763	-6.52048
47	0.1	-0.877897	101.534	-6.60827
48	0.1	-0.863249	102.279	-6.69459
49	0.1	-0.848786	102.999	-6.77947
50	0.1	-0.834498	103.696	-6.86292
51	0.1	-0.820379	104.369	-6.94496

52	0.21	-0.806422	105.019	-7.11431
53	0.22	-0.792618	105.647	-7.28868
54	0.23	-0.778966	106.254	-7.46785
55	0.24	-0.765456	106.84	-7.65156
56	0.24	-0.752084	107.406	-7.83206
57	0.24	-0.738846	107.951	-8.00938
58	0.25	-0.725736	108.478	-8.19081
59	0.27	-0.712751	108.986	-8.38325
60	0.27	-0.699883	109.476	-8.57222
61	0.28	-0.687131	109.948	-8.76462
62	0.28	-0.671346	110.399	-8.9526
63	0.28	-0.658838	110.833	-9.13707
64	0.29	-0.646431	111.251	-9.32454
65	0.31	-0.634124	111.653	-9.52111
66	0.31	-0.621911	112.04	-9.71391
67	0.34	-0.609791	112.412	-9.92124
68	0.35	-0.597761	112.769	-10.1305
69	0.39	-0.585815	113.112	-10.3589
70	0.39	-0.573953	113.441	-10.5828
71	0.4	-0.56217	113.758	-10.8076
72	0.4	-0.550465	114.061	-11.0278
73	0.52	-0.538836	114.351	-11.308
74	0.55	-0.52728	114.629	-11.598
75	0.59	-0.515791	114.895	-11.9023
76	0.6	-0.504372	115.149	-12.205
77	0.7	-0.493018	115.392	-12.5501
78	1	-0.481728	115.624	-13.0318
79	1	-0.470498	115.846	-13.5023
80	1	-0.459327	116.057	-13.9616
81	1	-0.448213	116.258	-14.4098
82	1	-0.437153	116.449	-14.847
83	1	-0.423405	116.628	-15.2704
84	1	-0.412463	116.798	-15.6829
85	1	-0.401571	116.959	-16.0844
86	1	-0.390726	117.112	-16.4751
87	1	-0.379927	117.256	-16.8551
88	1	-0.369171	117.393	-17.2242
89	1	-0.358459	117.521	-17.5827
90	1	-0.347787	117.642	-17.9305
91	1	-0.337155	117.756	-18.2676
92	1	-0.326561	117.863	-18.5942
93	1	-0.316004	117.962	-18.9102
94	1	-0.305481	118.056	-19.2157
95	1	-0.294992	118.143	-19.5107
96	1	-0.284535	118.224	-19.7952
97	1	-0.27411	118.299	-20.0693
98	1	-0.263715	118.368	-20.333
99	1	-0.253347	118.433	-20.5864
100	1	-0.243007	118.492	-20.8294
101	1	-0.232693	118.546	-21.0621
102	1	-0.222403	118.595	-21.2845
103	1	-0.209575	118.639	-21.4941
104	1	-0.199336	118.679	-21.6934
105	1	-0.189118	118.715	-21.8825
106	1	-0.17892	118.747	-22.0614
107	1	-0.168741	118.775	-22.2302
108	1	-0.158579	118.8	-22.3888
109	1	-0.148434	118.822	-22.5372
110	1	-0.138305	118.841	-22.6755
111	1	-0.128189	118.858	-22.8037
112	1	-0.118085	118.872	-22.9218
113	1	-0.107995	118.883	-23.0298

114	1	-0.0979139	118.893	-23.1277
115	1	-0.0878447	118.901	-23.2155
116	1	-0.0777834	118.907	-23.2933
117	1	-0.0677301	118.911	-23.361
118	1	-0.0576847	118.915	-23.4187
119	1	-0.0476439	118.917	-23.4664
120	1	-0.0376076	118.918	-23.504
121	1	-0.0275759	118.919	-23.5316
122	1	-0.0175476	118.919	-23.5491
123	1	-0.00751925	118.92	-23.5566
124	1	0.00751925	118.92	-23.5491
125	1	0.0175476	118.92	-23.5316
126	1	0.0275759	118.921	-23.504
127	1	0.0376076	118.922	-23.4664
128	1	0.0476439	118.924	-23.4187
129	1	0.0576847	118.928	-23.361
130	1	0.0677301	118.932	-23.2933
131	1	0.0777834	118.938	-23.2155
132	1	0.0878447	118.946	-23.1277
133	1	0.0979139	118.956	-23.0298
134	1	0.107995	118.967	-22.9218
135	1	0.118085	118.981	-22.8037
136	1	0.128189	118.998	-22.6755
137	1	0.138305	119.017	-22.5372
138	1	0.148434	119.039	-22.3888
139	1	0.158579	119.064	-22.2302
140	1	0.168741	119.092	-22.0614
141	1	0.17892	119.124	-21.8825
142	1	0.189118	119.16	-21.6934
143	1	0.199336	119.2	-21.4941
144	1	0.209575	119.244	-21.2845
145	1	0.222403	119.293	-21.0621
146	1	0.232693	119.347	-20.8294
147	1	0.243007	119.407	-20.5864
148	1	0.253347	119.471	-20.333
149	1	0.263715	119.54	-20.0693
150	1	0.27411	119.615	-19.7952
151	1	0.284535	119.696	-19.5107
152	1	0.294992	119.783	-19.2157
153	1	0.305481	119.877	-18.9102
154	1	0.316004	119.977	-18.5942
155	1	0.326561	120.083	-18.2676
156	1	0.337155	120.197	-17.9305
157	1	0.347787	120.318	-17.5827
158	1	0.358459	120.446	-17.2242
159	1	0.369171	120.583	-16.8551
160	1	0.379927	120.727	-16.4751
161	1	0.390726	120.88	-16.0844
162	1	0.401571	121.041	-15.6829
163	1	0.412463	121.211	-15.2704
164	1	0.423405	121.39	-14.847
165	1	0.437153	121.581	-14.4098
166	1	0.448213	121.782	-13.9616
167	1	0.459327	121.993	-13.5023
168	1	0.470498	122.215	-13.0318
169	1	0.481728	122.447	-12.5501
170	1	0.493018	122.69	-12.057
171	1	0.504372	122.944	-11.5527
172	1	0.515791	123.21	-11.0369
173	1	0.52728	123.488	-10.5096
174	1	0.538836	123.779	-9.97077
175	1	0.550465	124.082	-9.42031

176	1	0.56217	124.398	-8.85814	
177	1	0.573953		124.727	-8.28418
178	1	0.585815		125.07	-7.69837
179	1	0.597761		125.428	-7.10061
180	1	0.609791		125.799	-6.49082
181	1	0.621911		126.186	-5.86891
182	1	0.634124		126.588	-5.23478
183	1	0.646431		127.006	-4.58835
184	1	0.658838		127.44	-3.92951
185	1	0.671346		127.891	-3.25817
186	1	0.687131		128.363	-2.57104
187	1	0.699883		128.853	-1.87115
188	1	0.712751		129.361	-1.1584
189	1	0.725736		129.888	-0.432665
190	1	0.738846		130.433	0.306181
191	1	0.752084		130.999	1.05826
192	1	0.765456		131.585	1.82372
193	1	0.778966		132.192	2.60269
194	1	0.792618		132.82	3.3953
195	1	0.806422		133.47	4.20173
196	1	0.820379		134.143	5.02211
197	1	0.834498		134.84	5.8566
198	1	0.848786		135.56	6.70539
199	1	0.863249		136.305	7.56864
200	1	0.877897		137.076	8.44653
201	1	0.892733		137.873	9.33927
202	1	0.907769		138.697	10.247
203	1	0.923014		139.549	11.1701
204	1	0.938476		140.43	12.1085
205	1	0.954165		141.34	13.0627
206	1	0.974114		142.289	14.0368
207	1	0.990356		143.27	15.0272
208	1	1.00687	144.284	16.034	
209	1	1.02365	145.332	17.0577	
210	1	1.04073	146.415	18.0984	
211	1	1.05812	147.534	19.1565	
212	1	1.07584	148.692	20.2324	
213	1	1.0939	149.888	21.3263	
214	1	1.11232	151.126	22.4386	
215	1	1.13113	152.405	23.5697	
216	1	1.15035	153.728	24.7201	
217	1	1.17	155.097	25.8901	
218	1	1.19012	156.514	27.0802	
219	1	1.21073	157.98	28.2909	
220	1	1.23187	159.497	29.5228	
221	1	1.25357	161.068	30.7763	
222	1	1.27588	162.696	32.0522	
223	1	1.29884	164.383	33.3511	
224	1	1.32251	166.132	34.6736	
225	1	1.34694	167.947	36.0205	
226	1	1.3722	169.83	37.3927	
227	1	1.40507	171.804	38.7978	
228	1	1.4325	173.856	40.2303	
229	1	1.46106	175.991	41.6913	
230	1	1.49085	178.213	43.1822	
231	1	1.52203	180.53	44.7042	
232	1	1.55477	182.947	46.259	
233	1	1.58927	185.473	47.8483	
234	1	1.62576	188.116	49.474	
235	1	1.66456	190.887	51.1386	
236	1	1.70604	193.797	52.8446	
237	1	1.75069	196.862	54.5953	

238	1	1.79912	200.099	56.3944
239	1	1.85218	203.53	58.2466
240	1	1.91103	207.182	60.1577
241	1	1.97737	211.092	62.135
242	1	2.05375	215.309	64.1888
243	3.65	2.14441	219.908	72.0159
244	4	2.25713	225.003	81.0444
245	4.8	2.40892	230.806	92.6072
246	5	2.65209	237.839	105.868

Data Set Standard Deviation = 0.603607
Numerator = 11208
Denominator = 21230.4
W Statistic = 0.52792 = 11208 / 21230.4

5% Critical value of 0.976 exceeds 0.52792
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.52792
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: trans-1,2-Dichloroethene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.732672
0.732672 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.1	0.00404858	-2.65209	49.7	344.01	
2	0.1	0.00809717	-2.40892	49.7	332.136	
3	0.1	0.0121457	-2.25713	49.7	324.723	
4	0.1	0.0161943	-2.14441	49.7	319.219	
5	0.1	0.0202429	-2.05375	49.7	314.791	
6	0.1	0.0242915	-1.97737	49.7	311.062	
7	0.1	0.0283401	-1.91103	49.7	307.822	
8	0.1	0.0323887	-1.85218	49.7	304.948	
9	0.1	0.0364372	-1.79912	49.7	302.357	
10	0.1	0.0404858	-1.75069	49.7	299.992	
11	0.1	0.0445344	-1.70604	49.7	297.812	
12	0.1	0.048583	-1.66456	49.7	295.786	
13	0.1	0.0526316	-1.62576	49.7	293.891	
14	0.1	0.0566802	-1.58927	49.7	292.109	
15	0.1	0.0607287	-1.55477	49.7	290.425	
16	0.1	0.0647773	-1.52203	49.7	288.826	
17	0.1	0.0688259	-1.49085	49.7	287.303	
18	0.1	0.0728745	-1.46106	49.7	285.848	
19	0.1	0.0769231	-1.4325	49.7	284.454	
20	0.1	0.0809717	-1.40507	49.7	283.114	
21	0.1	0.0850202	-1.3722	49.7	281.509	
22	0.1	0.0890688	-1.34694	49.7	280.276	
23	0.1	0.0931174	-1.32251	49.7	279.082	
24	0.1	0.097166	-1.29884	49.7	277.926	
25	0.1	0.101215	-1.27588	49.7	276.805	
26	0.1	0.105263	-1.25357	49.7	275.716	
27	0.1	0.109312	-1.23187	49.7	274.656	
28	0.1	0.11336	-1.21073	49.7	273.624	
29	0.1	0.117409	-1.19012	49.7	272.617	
30	0.1	0.121457	-1.17	49.7	271.635	
31	0.1	0.125506	-1.15035	49.7	270.675	
32	0.1	0.129555	-1.13113	49.7	269.737	
33	0.1	0.133603	-1.11232	49.7	268.818	
34	0.1	0.137652	-1.0939	49.7	267.919	
35	0.1	0.1417	-1.07584	49.7	267.037	
36	0.1	0.145749	-1.05812	49.7	266.172	
37	0.1	0.149798	-1.04073	49.7	265.322	
38	0.1	0.153846	-1.02365	49.7	264.488	
39	0.1	0.157895	-1.00687	49.7	263.669	
40	0.1	0.161943	-0.990356	49.7	262.862	
41	0.1	0.165992	-0.974114	49.7	262.069	
42	0.1	0.17004	-0.954165	49.7	261.095	
43	0.1	0.174089	-0.938476	49.7	260.329	
44	0.1	0.178138	-0.923014	49.7	259.574	
45	0.1	0.182186	-0.907769	49.7	258.829	
46	0.1	0.186235	-0.892733	49.7	258.095	
47	0.1	0.190283	-0.877897	49.7	257.371	
48	0.1	0.194332	-0.863249	49.7	256.655	

49	0.1	0.198381	-0.848786	49.7	255.949
50	0.1	0.202429	-0.834498	49.7	255.251
51	0.1	0.206478	-0.820379	49.7	254.562
52	0.21	0.210526	-0.806422	61.47	253.88
53	0.22	0.214575	-0.792618	62.54	253.206
54	0.23	0.218623	-0.778966	63.61	252.54
55	0.24	0.222672	-0.765456	64.68	251.88
56	0.24	0.226721	-0.752084	64.68	251.227
57	0.24	0.230769	-0.738846	64.68	250.58
58	0.25	0.234818	-0.725736	65.75	249.94
59	0.27	0.238866	-0.712751	67.89	249.306
60	0.27	0.242915	-0.699883	67.89	248.678
61	0.28	0.246964	-0.687131	68.96	248.055
62	0.28	0.251012	-0.671346	68.96	247.284
63	0.28	0.255061	-0.658838	68.96	246.673
64	0.29	0.259109	-0.646431	70.03	246.067
65	0.31	0.263158	-0.634124	72.17	245.466
66	0.31	0.267206	-0.621911	72.17	244.87
67	0.34	0.271255	-0.609791	75.38	244.278
68	0.35	0.275304	-0.597761	76.45	243.691
69	0.39	0.279352	-0.585815	80.73	243.107
70	0.39	0.283401	-0.573953	80.73	242.528
71	0.4	0.287449	-0.56217	81.8	241.953
72	0.4	0.291498	-0.550465	81.8	241.381
73	0.52	0.295547	-0.538836	94.64	240.813
74	0.55	0.299595	-0.52728	97.85	240.249
75	0.59	0.303644	-0.515791	102.13	239.688
76	0.6	0.307692	-0.504372	103.2	239.13
77	0.7	0.311741	-0.493018	113.9	238.576
78	1	0.315789	-0.481728	146	238.024
79	1	0.319838	-0.470498	146	237.476
80	1	0.323887	-0.459327	146	236.93
81	1	0.327935	-0.448213	146	236.388
82	1	0.331984	-0.437153	146	235.848
83	1	0.336032	-0.423405	146	235.176
84	1	0.340081	-0.412463	146	234.642
85	1	0.34413	-0.401571	146	234.11
86	1	0.348178	-0.390726	146	233.58
87	1	0.352227	-0.379927	146	233.053
88	1	0.356275	-0.369171	146	232.528
89	1	0.360324	-0.358459	146	232.005
90	1	0.364372	-0.347787	146	231.484
91	1	0.368421	-0.337155	146	230.964
92	1	0.37247	-0.326561	146	230.447
93	1	0.376518	-0.316004	146	229.932
94	1	0.380567	-0.305481	146	229.418
95	1	0.384615	-0.294992	146	228.905
96	1	0.388664	-0.284535	146	228.395
97	1	0.392713	-0.27411	146	227.886
98	1	0.396761	-0.263715	146	227.378
99	1	0.40081	-0.253347	146	226.872
100	1	0.404858	-0.243007	146	226.367
101	1	0.408907	-0.232693	146	225.863
102	1	0.412955	-0.222403	146	225.361
103	1	0.417004	-0.209575	146	224.734
104	1	0.421053	-0.199336	146	224.234
105	1	0.425101	-0.189118	146	223.735
106	1	0.42915	-0.17892	146	223.237
107	1	0.433198	-0.168741	146	222.74
108	1	0.437247	-0.158579	146	222.244
109	1	0.441296	-0.148434	146	221.749
110	1	0.445344	-0.138305	146	221.254

111	1	0.449393	-0.128189	146	220.76
112	1	0.453441	-0.118085	146	220.267
113	1	0.45749	-0.107995	146	219.774
114	1	0.461538	-0.0979139	146	219.281
115	1	0.465587	-0.0878447	146	218.79
116	1	0.469636	-0.0777834	146	218.298
117	1	0.473684	-0.0677301	146	217.807
118	1	0.477733	-0.0576847	146	217.317
119	1	0.481781	-0.0476439	146	216.827
120	1	0.48583	-0.0376076	146	216.337
121	1	0.489879	-0.0275759	146	215.847
122	1	0.493927	-0.0175476	146	215.357
123	1	0.497976	-0.00751925	146	214.867
124	1	0.502024	0.00751925	146	214.133
125	1	0.506073	0.0175476	146	213.643
126	1	0.510121	0.0275759	146	213.153
127	1	0.51417	0.0376076	146	212.663
128	1	0.518219	0.0476439	146	212.173
129	1	0.522267	0.0576847	146	211.683
130	1	0.526316	0.0677301	146	211.193
131	1	0.530364	0.0777834	146	210.702
132	1	0.534413	0.0878447	146	210.21
133	1	0.538462	0.0979139	146	209.719
134	1	0.54251	0.107995	146	209.226
135	1	0.546559	0.118085	146	208.733
136	1	0.550607	0.128189	146	208.24
137	1	0.554656	0.138305	146	207.746
138	1	0.558704	0.148434	146	207.251
139	1	0.562753	0.158579	146	206.756
140	1	0.566802	0.168741	146	206.26
141	1	0.57085	0.17892	146	205.763
142	1	0.574899	0.189118	146	205.265
143	1	0.578947	0.199336	146	204.766
144	1	0.582996	0.209575	146	204.266
145	1	0.587045	0.222403	146	203.639
146	1	0.591093	0.232693	146	203.137
147	1	0.595142	0.243007	146	202.633
148	1	0.59919	0.253347	146	202.128
149	1	0.603239	0.263715	146	201.622
150	1	0.607287	0.27411	146	201.114
151	1	0.611336	0.284535	146	200.605
152	1	0.615385	0.294992	146	200.095
153	1	0.619433	0.305481	146	199.582
154	1	0.623482	0.316004	146	199.068
155	1	0.62753	0.326561	146	198.553
156	1	0.631579	0.337155	146	198.036
157	1	0.635628	0.347787	146	197.516
158	1	0.639676	0.358459	146	196.995
159	1	0.643725	0.369171	146	196.472
160	1	0.647773	0.379927	146	195.947
161	1	0.651822	0.390726	146	195.42
162	1	0.65587	0.401571	146	194.89
163	1	0.659919	0.412463	146	194.358
164	1	0.663968	0.423405	146	193.824
165	1	0.668016	0.437153	146	193.152
166	1	0.672065	0.448213	146	192.612
167	1	0.676113	0.459327	146	192.07
168	1	0.680162	0.470498	146	191.524
169	1	0.684211	0.481728	146	190.976
170	1	0.688259	0.493018	146	190.424
171	1	0.692308	0.504372	146	189.87
172	1	0.696356	0.515791	146	189.312

173	1	0.700405	0.52728	146	188.751	
174	1	0.704453	0.538836		146	188.187
175	1	0.708502	0.550465		146	187.619
176	1	0.712551	0.56217	146	187.047	
177	1	0.716599	0.573953		146	186.472
178	1	0.720648	0.585815		146	185.893
179	1	0.724696	0.597761		146	185.309
180	1	0.728745	0.609791		146	184.722
181	1	0.732794	0.621911		146	184.13
182	1	0.736842	0.634124		146	183.534
183	1	0.740891	0.646431		146	182.933
184	1	0.744939	0.658838		146	182.327
185	1	0.748988	0.671346		146	181.716
186	1	0.753036	0.687131		146	180.945
187	1	0.757085	0.699883		146	180.322
188	1	0.761134	0.712751		146	179.694
189	1	0.765182	0.725736		146	179.06
190	1	0.769231	0.738846		146	178.42
191	1	0.773279	0.752084		146	177.773
192	1	0.777328	0.765456		146	177.12
193	1	0.781377	0.778966		146	176.46
194	1	0.785425	0.792618		146	175.794
195	1	0.789474	0.806422		146	175.12
196	1	0.793522	0.820379		146	174.438
197	1	0.797571	0.834498		146	173.749
198	1	0.801619	0.848786		146	173.051
199	1	0.805668	0.863249		146	172.345
200	1	0.809717	0.877897		146	171.629
201	1	0.813765	0.892733		146	170.905
202	1	0.817814	0.907769		146	170.171
203	1	0.821862	0.923014		146	169.426
204	1	0.825911	0.938476		146	168.671
205	1	0.82996	0.954165	146	167.905	
206	1	0.834008	0.974114		146	166.931
207	1	0.838057	0.990356		146	166.138
208	1	0.842105	1.00687	146	165.331	
209	1	0.846154	1.02365	146	164.512	
210	1	0.850202	1.04073	146	163.678	
211	1	0.854251	1.05812	146	162.828	
212	1	0.8583	1.07584	146	161.963	
213	1	0.862348	1.0939	146	161.081	
214	1	0.866397	1.11232	146	160.182	
215	1	0.870445	1.13113	146	159.263	
216	1	0.874494	1.15035	146	158.325	
217	1	0.878543	1.17	146	157.365	
218	1	0.882591	1.19012	146	156.383	
219	1	0.88664	1.21073	146	155.376	
220	1	0.890688	1.23187	146	154.344	
221	1	0.894737	1.25357	146	153.284	
222	1	0.898785	1.27588	146	152.195	
223	1	0.902834	1.29884	146	151.074	
224	1	0.906883	1.32251	146	149.918	
225	1	0.910931	1.34694	146	148.724	
226	1	0.91498	1.3722	146	147.491	
227	1	0.919028	1.40507	146	145.886	
228	1	0.923077	1.4325	146	144.546	
229	1	0.927126	1.46106	146	143.152	
230	1	0.931174	1.49085	146	141.697	
231	1	0.935223	1.52203	146	140.174	
232	1	0.939271	1.55477	146	138.575	
233	1	0.94332	1.58927	146	136.891	
234	1	0.947368	1.62576	146	135.109	

235	1	0.951417	1.66456	146	133.214
236	1	0.955466	1.70604	146	131.188
237	1	0.959514	1.75069	146	129.008
238	1	0.963563	1.79912	146	126.643
239	1	0.967611	1.85218	146	124.052
240	1	0.97166	1.91103	146	121.178
241	1	0.975709	1.97737	146	117.938
242	1	0.979757	2.05375	146	114.209
243	3.65	0.983806	2.14441	429.55	109.781
244	4	0.987854	2.25713	467	104.277
245	4.8	0.991903	2.40892	552.6	96.8642
246	5	0.995951	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: trans-1,2-Dichloroethene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.30259	-2.65209	7.03356	6.10665
2	-2.30259	-2.40892	12.8365	11.6534
3	-2.30259	-2.25713	17.9311	16.8506
4	-2.30259	-2.14441	22.5296	21.7883
5	-2.30259	-2.05375	26.7475	26.5172
6	-2.30259	-1.97737	30.6575	31.0703
7	-2.30259	-1.91103	34.3095	35.4706
8	-2.30259	-1.85218	37.7401	39.7354
9	-2.30259	-1.79912	40.9769	43.878
10	-2.30259	-1.75069	44.0418	47.9091
11	-2.30259	-1.70604	46.9524	51.8374
12	-2.30259	-1.66456	49.7231	55.6702
13	-2.30259	-1.62576	52.3662	59.4137
14	-2.30259	-1.58927	54.892	63.0731
15	-2.30259	-1.55477	57.3093	66.6531
16	-2.30259	-1.52203	59.6259	70.1577
17	-2.30259	-1.49085	61.8486	73.5906
18	-2.30259	-1.46106	63.9833	76.9548
19	-2.30259	-1.4325	66.0353	80.2532
20	-2.30259	-1.40507	68.0096	83.4885
21	-2.30259	-1.3722	69.8925	86.6481
22	-2.30259	-1.34694	71.7067	89.7496
23	-2.30259	-1.32251	73.4558	92.7948
24	-2.30259	-1.29884	75.1427	95.7854
25	-2.30259	-1.27588	76.7706	98.7233
26	-2.30259	-1.25357	78.342	101.61
27	-2.30259	-1.23187	79.8595	104.446
28	-2.30259	-1.21073	81.3254	107.234
29	-2.30259	-1.19012	82.7418	109.974
30	-2.30259	-1.17	84.1107	112.668
31	-2.30259	-1.15035	85.434	115.317
32	-2.30259	-1.13113	86.7134	117.922
33	-2.30259	-1.11232	87.9507	120.483
34	-2.30259	-1.0939	89.1473	123.002
35	-2.30259	-1.07584	90.3047	125.479
36	-2.30259	-1.05812	91.4243	127.915
37	-2.30259	-1.04073	92.5075	130.312
38	-2.30259	-1.02365	93.5553	132.669
39	-2.30259	-1.00687	94.5691	134.987
40	-2.30259	-0.990356	95.5499	137.267
41	-2.30259	-0.974114	96.4988	139.51
42	-2.30259	-0.954165	97.4092	141.708
43	-2.30259	-0.938476	98.29	143.868
44	-2.30259	-0.923014	99.1419	145.994
45	-2.30259	-0.907769	99.966	148.084
46	-2.30259	-0.892733	100.763	150.14
47	-2.30259	-0.877897	101.534	152.161
48	-2.30259	-0.863249	102.279	154.149
49	-2.30259	-0.848786	102.999	156.103
50	-2.30259	-0.834498	103.696	158.025
51	-2.30259	-0.820379	104.369	159.914

52	-1.56065	-0.806422	105.019	161.172	
53	-1.51413	-0.792618	105.647	162.372	
54	-1.46968	-0.778966	106.254	163.517	
55	-1.42712	-0.765456	106.84	164.609	
56	-1.42712	-0.752084	107.406	165.683	
57	-1.42712	-0.738846	107.951	166.737	
58	-1.38629	-0.725736	108.478	167.743	
59	-1.30933	-0.712751	108.986	168.677	
60	-1.30933	-0.699883	109.476	169.593	
61	-1.27297	-0.687131	109.948	170.468	
62	-1.27297	-0.671346	110.399	171.322	
63	-1.27297	-0.658838	110.833	172.161	
64	-1.23787	-0.646431	111.251	172.961	
65	-1.17118	-0.634124	111.653	173.704	
66	-1.17118	-0.621911	112.04	174.432	
67	-1.07881	-0.609791	112.412	175.09	
68	-1.04982	-0.597761	112.769	175.718	
69	-0.941609	-0.585815	113.112	176.269	
70	-0.941609	-0.573953	113.441	176.81	
71	-0.916291	-0.56217	113.758	177.325	
72	-0.916291	-0.550465	114.061	177.829	
73	-0.653926	-0.538836	114.351	178.181	
74	-0.597837	-0.52728	114.629	178.497	
75	-0.527633	-0.515791	114.895	178.769	
76	-0.510826	-0.504372	115.149	179.026	
77	-0.356675	-0.493018	115.392	179.202	
78	0	-0.481728	115.624	179.202	
79	0	-0.470498	115.846	179.202	
80	0	-0.459327	116.057	179.202	
81	0	-0.448213	116.258	179.202	
82	0	-0.437153	116.449	179.202	
83	0	-0.423405	116.628	179.202	
84	0	-0.412463	116.798	179.202	
85	0	-0.401571	116.959	179.202	
86	0	-0.390726	117.112	179.202	
87	0	-0.379927	117.256	179.202	
88	0	-0.369171	117.393	179.202	
89	0	-0.358459	117.521	179.202	
90	0	-0.347787	117.642	179.202	
91	0	-0.337155	117.756	179.202	
92	0	-0.326561	117.863	179.202	
93	0	-0.316004	117.962	179.202	
94	0	-0.305481	118.056	179.202	
95	0	-0.294992	118.143	179.202	
96	0	-0.284535	118.224	179.202	
97	0	-0.27411	118.299	179.202	
98	0	-0.263715	118.368	179.202	
99	0	-0.253347	118.433	179.202	
100	0	-0.243007	118.492	179.202	
101	0	-0.232693	118.546	179.202	
102	0	-0.222403	118.595	179.202	
103	0	-0.209575	118.639	179.202	
104	0	-0.199336	118.679	179.202	
105	0	-0.189118	118.715	179.202	
106	0	-0.17892	118.747	179.202	
107	0	-0.168741	118.775	179.202	
108	0	-0.158579	118.8	179.202	
109	0	-0.148434	118.822	179.202	
110	0	-0.138305	118.841	179.202	
111	0	-0.128189	118.858	179.202	
112	0	-0.118085	118.872	179.202	
113	0	-0.107995	118.883	179.202	

114	0	-0.0979139	118.893	179.202
115	0	-0.0878447	118.901	179.202
116	0	-0.0777834	118.907	179.202
117	0	-0.0677301	118.911	179.202
118	0	-0.0576847	118.915	179.202
119	0	-0.0476439	118.917	179.202
120	0	-0.0376076	118.918	179.202
121	0	-0.0275759	118.919	179.202
122	0	-0.0175476	118.919	179.202
123	0	-0.00751925	118.92	179.202
124	0	0.00751925	118.92	179.202
125	0	0.0175476	118.92	179.202
126	0	0.0275759	118.921	179.202
127	0	0.0376076	118.922	179.202
128	0	0.0476439	118.924	179.202
129	0	0.0576847	118.928	179.202
130	0	0.0677301	118.932	179.202
131	0	0.0777834	118.938	179.202
132	0	0.0878447	118.946	179.202
133	0	0.0979139	118.956	179.202
134	0	0.107995	118.967	179.202
135	0	0.118085	118.981	179.202
136	0	0.128189	118.998	179.202
137	0	0.138305	119.017	179.202
138	0	0.148434	119.039	179.202
139	0	0.158579	119.064	179.202
140	0	0.168741	119.092	179.202
141	0	0.17892	119.124	179.202
142	0	0.189118	119.16	179.202
143	0	0.199336	119.2	179.202
144	0	0.209575	119.244	179.202
145	0	0.222403	119.293	179.202
146	0	0.232693	119.347	179.202
147	0	0.243007	119.407	179.202
148	0	0.253347	119.471	179.202
149	0	0.263715	119.54	179.202
150	0	0.27411	119.615	179.202
151	0	0.284535	119.696	179.202
152	0	0.294992	119.783	179.202
153	0	0.305481	119.877	179.202
154	0	0.316004	119.977	179.202
155	0	0.326561	120.083	179.202
156	0	0.337155	120.197	179.202
157	0	0.347787	120.318	179.202
158	0	0.358459	120.446	179.202
159	0	0.369171	120.583	179.202
160	0	0.379927	120.727	179.202
161	0	0.390726	120.88	179.202
162	0	0.401571	121.041	179.202
163	0	0.412463	121.211	179.202
164	0	0.423405	121.39	179.202
165	0	0.437153	121.581	179.202
166	0	0.448213	121.782	179.202
167	0	0.459327	121.993	179.202
168	0	0.470498	122.215	179.202
169	0	0.481728	122.447	179.202
170	0	0.493018	122.69	179.202
171	0	0.504372	122.944	179.202
172	0	0.515791	123.21	179.202
173	0	0.52728	123.488	179.202
174	0	0.538836	123.779	179.202
175	0	0.550465	124.082	179.202

176	0	0.56217	124.398	179.202	
177	0	0.573953		124.727	179.202
178	0	0.585815		125.07	179.202
179	0	0.597761		125.428	179.202
180	0	0.609791		125.799	179.202
181	0	0.621911		126.186	179.202
182	0	0.634124		126.588	179.202
183	0	0.646431		127.006	179.202
184	0	0.658838		127.44	179.202
185	0	0.671346		127.891	179.202
186	0	0.687131		128.363	179.202
187	0	0.699883		128.853	179.202
188	0	0.712751		129.361	179.202
189	0	0.725736		129.888	179.202
190	0	0.738846		130.433	179.202
191	0	0.752084		130.999	179.202
192	0	0.765456		131.585	179.202
193	0	0.778966		132.192	179.202
194	0	0.792618		132.82	179.202
195	0	0.806422		133.47	179.202
196	0	0.820379		134.143	179.202
197	0	0.834498		134.84	179.202
198	0	0.848786		135.56	179.202
199	0	0.863249		136.305	179.202
200	0	0.877897		137.076	179.202
201	0	0.892733		137.873	179.202
202	0	0.907769		138.697	179.202
203	0	0.923014		139.549	179.202
204	0	0.938476		140.43	179.202
205	0	0.954165		141.34	179.202
206	0	0.974114		142.289	179.202
207	0	0.990356		143.27	179.202
208	0	1.00687	144.284	179.202	
209	0	1.02365	145.332	179.202	
210	0	1.04073	146.415	179.202	
211	0	1.05812	147.534	179.202	
212	0	1.07584	148.692	179.202	
213	0	1.0939	149.888	179.202	
214	0	1.11232	151.126	179.202	
215	0	1.13113	152.405	179.202	
216	0	1.15035	153.728	179.202	
217	0	1.17	155.097	179.202	
218	0	1.19012	156.514	179.202	
219	0	1.21073	157.98	179.202	
220	0	1.23187	159.497	179.202	
221	0	1.25357	161.068	179.202	
222	0	1.27588	162.696	179.202	
223	0	1.29884	164.383	179.202	
224	0	1.32251	166.132	179.202	
225	0	1.34694	167.947	179.202	
226	0	1.3722	169.83	179.202	
227	0	1.40507	171.804	179.202	
228	0	1.4325	173.856	179.202	
229	0	1.46106	175.991	179.202	
230	0	1.49085	178.213	179.202	
231	0	1.52203	180.53	179.202	
232	0	1.55477	182.947	179.202	
233	0	1.58927	185.473	179.202	
234	0	1.62576	188.116	179.202	
235	0	1.66456	190.887	179.202	
236	0	1.70604	193.797	179.202	
237	0	1.75069	196.862	179.202	

238	0	1.79912	200.099	179.202
239	0	1.85218	203.53	179.202
240	0	1.91103	207.182	179.202
241	0	1.97737	211.092	179.202
242	0	2.05375	215.309	179.202
243	1.29473	2.14441	219.908	181.979
244	1.38629	2.25713	225.003	185.108
245	1.56862	2.40892	230.806	188.886
246	1.60944	2.65209	237.839	193.155

Data Set Standard Deviation = 0.976649
Numerator = 37308.8
Denominator = 55581
W Statistic = 0.67125 = 37308.8 / 55581

5% Critical value of 0.976 exceeds 0.67125
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.67125
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: trans-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.818609
0.818609 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.30259	0.00404858	-2.65209	113.623	344.01
2	-2.30259	0.00809717	-2.40892	113.623	332.136
3	-2.30259	0.0121457	-2.25713	113.623	324.723
4	-2.30259	0.0161943	-2.14441	113.623	319.219
5	-2.30259	0.0202429	-2.05375	113.623	314.791
6	-2.30259	0.0242915	-1.97737	113.623	311.062
7	-2.30259	0.0283401	-1.91103	113.623	307.822
8	-2.30259	0.0323887	-1.85218	113.623	304.948
9	-2.30259	0.0364372	-1.79912	113.623	302.357
10	-2.30259	0.0404858	-1.75069	113.623	299.992
11	-2.30259	0.0445344	-1.70604	113.623	297.812
12	-2.30259	0.048583	-1.66456	113.623	295.786
13	-2.30259	0.0526316	-1.62576	113.623	293.891
14	-2.30259	0.0566802	-1.58927	113.623	292.109
15	-2.30259	0.0607287	-1.55477	113.623	290.425
16	-2.30259	0.0647773	-1.52203	113.623	288.826
17	-2.30259	0.0688259	-1.49085	113.623	287.303
18	-2.30259	0.0728745	-1.46106	113.623	285.848
19	-2.30259	0.0769231	-1.4325	113.623	284.454
20	-2.30259	0.0809717	-1.40507	113.623	283.114
21	-2.30259	0.0850202	-1.3722	113.623	281.509
22	-2.30259	0.0890688	-1.34694	113.623	280.276
23	-2.30259	0.0931174	-1.32251	113.623	279.082
24	-2.30259	0.097166	-1.29884	113.623	277.926
25	-2.30259	0.101215	-1.27588	113.623	276.805
26	-2.30259	0.105263	-1.25357	113.623	275.716
27	-2.30259	0.109312	-1.23187	113.623	274.656
28	-2.30259	0.11336	-1.21073	113.623	273.624
29	-2.30259	0.117409	-1.19012	113.623	272.617
30	-2.30259	0.121457	-1.17	113.623	271.635
31	-2.30259	0.125506	-1.15035	113.623	270.675
32	-2.30259	0.129555	-1.13113	113.623	269.737
33	-2.30259	0.133603	-1.11232	113.623	268.818
34	-2.30259	0.137652	-1.0939	113.623	267.919
35	-2.30259	0.1417	-1.07584	113.623	267.037
36	-2.30259	0.145749	-1.05812	113.623	266.172
37	-2.30259	0.149798	-1.04073	113.623	265.322
38	-2.30259	0.153846	-1.02365	113.623	264.488
39	-2.30259	0.157895	-1.00687	113.623	263.669
40	-2.30259	0.161943	-0.990356	113.623	262.862
41	-2.30259	0.165992	-0.974114	113.623	262.069
42	-2.30259	0.17004	-0.954165	113.623	261.095
43	-2.30259	0.174089	-0.938476	113.623	260.329
44	-2.30259	0.178138	-0.923014	113.623	259.574
45	-2.30259	0.182186	-0.907769	113.623	258.829
46	-2.30259	0.186235	-0.892733	113.623	258.095
47	-2.30259	0.190283	-0.877897	113.623	257.371
48	-2.30259	0.194332	-0.863249	113.623	256.655

49	-2.30259	0.198381	-0.848786	113.623	255.949	
50	-2.30259	0.202429	-0.834498	113.623	255.251	
51	-2.30259	0.206478	-0.820379	113.623	254.562	
52	-1.56065	0.210526	-0.806422	193.011	253.88	
53	-1.51413	0.214575	-0.792618	197.988	253.206	
54	-1.46968	0.218623	-0.778966	202.745	252.54	
55	-1.42712	0.222672	-0.765456	207.299	251.88	
56	-1.42712	0.226721	-0.752084	207.299	251.227	
57	-1.42712	0.230769	-0.738846	207.299	250.58	
58	-1.38629	0.234818	-0.725736	211.667	249.94	
59	-1.30933	0.238866	-0.712751	219.901	249.306	
60	-1.30933	0.242915	-0.699883	219.901	248.678	
61	-1.27297	0.246964	-0.687131	223.793	248.055	
62	-1.27297	0.251012	-0.671346	223.793	247.284	
63	-1.27297	0.255061	-0.658838	223.793	246.673	
64	-1.23787	0.259109	-0.646431	227.547	246.067	
65	-1.17118	0.263158	-0.634124	234.683	245.466	
66	-1.17118	0.267206	-0.621911	234.683	244.87	
67	-1.07881	0.271255	-0.609791	244.567	244.278	
68	-1.04982	0.275304	-0.597761	247.669	243.691	
69	-0.941609	0.279352	-0.585815	259.248	243.107	
70	-0.941609	0.283401	-0.573953	259.248	242.528	
71	-0.916291	0.287449	-0.56217	261.957	241.953	
72	-0.916291	0.291498	-0.550465	261.957	241.381	
73	-0.653926	0.295547	-0.538836	290.03	240.813	
74	-0.597837	0.299595	-0.52728	296.031	240.249	
75	-0.527633	0.303644	-0.515791	303.543	239.688	
76	-0.510826	0.307692	-0.504372	305.342	239.13	
77	-0.356675	0.311741	-0.493018	321.836	238.576	
78	0	0.315789	-0.481728	360	238.024	
79	0	0.319838	-0.470498	360	237.476	
80	0	0.323887	-0.459327	360	236.93	
81	0	0.327935	-0.448213	360	236.388	
82	0	0.331984	-0.437153	360	235.848	
83	0	0.336032	-0.423405	360	235.176	
84	0	0.340081	-0.412463	360	234.642	
85	0	0.34413	-0.401571	360	234.11	
86	0	0.348178	-0.390726	360	233.58	
87	0	0.352227	-0.379927	360	233.053	
88	0	0.356275	-0.369171	360	232.528	
89	0	0.360324	-0.358459	360	232.005	
90	0	0.364372	-0.347787	360	231.484	
91	0	0.368421	-0.337155	360	230.964	
92	0	0.37247	-0.326561	360	230.447	
93	0	0.376518	-0.316004	360	229.932	
94	0	0.380567	-0.305481	360	229.418	
95	0	0.384615	-0.294992	360	228.905	
96	0	0.388664	-0.284535	360	228.395	
97	0	0.392713	-0.27411	360	227.886	
98	0	0.396761	-0.263715	360	227.378	
99	0	0.40081	-0.253347	360	226.872	
100	0	0.404858	-0.243007	360	226.367	
101	0	0.408907	-0.232693	360	225.863	
102	0	0.412955	-0.222403	360	225.361	
103	0	0.417004	-0.209575	360	224.734	
104	0	0.421053	-0.199336	360	224.234	
105	0	0.425101	-0.189118	360	223.735	
106	0	0.42915	-0.17892	360	223.237	
107	0	0.433198	-0.168741	360	222.74	
108	0	0.437247	-0.158579	360	222.244	
109	0	0.441296	-0.148434	360	221.749	
110	0	0.445344	-0.138305	360	221.254	

111	0	0.449393	-0.128189	360	220.76
112	0	0.453441	-0.118085	360	220.267
113	0	0.45749	-0.107995	360	219.774
114	0	0.461538	-0.0979139	360	219.281
115	0	0.465587	-0.0878447	360	218.79
116	0	0.469636	-0.0777834	360	218.298
117	0	0.473684	-0.0677301	360	217.807
118	0	0.477733	-0.0576847	360	217.317
119	0	0.481781	-0.0476439	360	216.827
120	0	0.48583	-0.0376076	360	216.337
121	0	0.489879	-0.0275759	360	215.847
122	0	0.493927	-0.0175476	360	215.357
123	0	0.497976	-0.00751925	360	214.867
124	0	0.502024	0.00751925	360	214.133
125	0	0.506073	0.0175476	360	213.643
126	0	0.510121	0.0275759	360	213.153
127	0	0.51417	0.0376076	360	212.663
128	0	0.518219	0.0476439	360	212.173
129	0	0.522267	0.0576847	360	211.683
130	0	0.526316	0.0677301	360	211.193
131	0	0.530364	0.0777834	360	210.702
132	0	0.534413	0.0878447	360	210.21
133	0	0.538462	0.0979139	360	209.719
134	0	0.54251	0.107995	360	209.226
135	0	0.546559	0.118085	360	208.733
136	0	0.550607	0.128189	360	208.24
137	0	0.554656	0.138305	360	207.746
138	0	0.558704	0.148434	360	207.251
139	0	0.562753	0.158579	360	206.756
140	0	0.566802	0.168741	360	206.26
141	0	0.57085	0.17892	360	205.763
142	0	0.574899	0.189118	360	205.265
143	0	0.578947	0.199336	360	204.766
144	0	0.582996	0.209575	360	204.266
145	0	0.587045	0.222403	360	203.639
146	0	0.591093	0.232693	360	203.137
147	0	0.595142	0.243007	360	202.633
148	0	0.59919	0.253347	360	202.128
149	0	0.603239	0.263715	360	201.622
150	0	0.607287	0.27411	360	201.114
151	0	0.611336	0.284535	360	200.605
152	0	0.615385	0.294992	360	200.095
153	0	0.619433	0.305481	360	199.582
154	0	0.623482	0.316004	360	199.068
155	0	0.62753	0.326561	360	198.553
156	0	0.631579	0.337155	360	198.036
157	0	0.635628	0.347787	360	197.516
158	0	0.639676	0.358459	360	196.995
159	0	0.643725	0.369171	360	196.472
160	0	0.647773	0.379927	360	195.947
161	0	0.651822	0.390726	360	195.42
162	0	0.65587	0.401571	360	194.89
163	0	0.659919	0.412463	360	194.358
164	0	0.663968	0.423405	360	193.824
165	0	0.668016	0.437153	360	193.152
166	0	0.672065	0.448213	360	192.612
167	0	0.676113	0.459327	360	192.07
168	0	0.680162	0.470498	360	191.524
169	0	0.684211	0.481728	360	190.976
170	0	0.688259	0.493018	360	190.424
171	0	0.692308	0.504372	360	189.87
172	0	0.696356	0.515791	360	189.312

173	0	0.700405	0.52728	360	188.751	
174	0	0.704453	0.538836	360	188.187	
175	0	0.708502	0.550465	360	187.619	
176	0	0.712551	0.56217	360	187.047	
177	0	0.716599	0.573953	360	186.472	
178	0	0.720648	0.585815	360	185.893	
179	0	0.724696	0.597761	360	185.309	
180	0	0.728745	0.609791	360	184.722	
181	0	0.732794	0.621911	360	184.13	
182	0	0.736842	0.634124	360	183.534	
183	0	0.740891	0.646431	360	182.933	
184	0	0.744939	0.658838	360	182.327	
185	0	0.748988	0.671346	360	181.716	
186	0	0.753036	0.687131	360	180.945	
187	0	0.757085	0.699883	360	180.322	
188	0	0.761134	0.712751	360	179.694	
189	0	0.765182	0.725736	360	179.06	
190	0	0.769231	0.738846	360	178.42	
191	0	0.773279	0.752084	360	177.773	
192	0	0.777328	0.765456	360	177.12	
193	0	0.781377	0.778966	360	176.46	
194	0	0.785425	0.792618	360	175.794	
195	0	0.789474	0.806422	360	175.12	
196	0	0.793522	0.820379	360	174.438	
197	0	0.797571	0.834498	360	173.749	
198	0	0.801619	0.848786	360	173.051	
199	0	0.805668	0.863249	360	172.345	
200	0	0.809717	0.877897	360	171.629	
201	0	0.813765	0.892733	360	170.905	
202	0	0.817814	0.907769	360	170.171	
203	0	0.821862	0.923014	360	169.426	
204	0	0.825911	0.938476	360	168.671	
205	0	0.82996	0.954165	360	167.905	
206	0	0.834008	0.974114	360	166.931	
207	0	0.838057	0.990356	360	166.138	
208	0	0.842105	1.00687	360	165.331	
209	0	0.846154	1.02365	360	164.512	
210	0	0.850202	1.04073	360	163.678	
211	0	0.854251	1.05812	360	162.828	
212	0	0.8583	1.07584	360	161.963	
213	0	0.862348	1.0939	360	161.081	
214	0	0.866397	1.11232	360	160.182	
215	0	0.870445	1.13113	360	159.263	
216	0	0.874494	1.15035	360	158.325	
217	0	0.878543	1.17	360	157.365	
218	0	0.882591	1.19012	360	156.383	
219	0	0.88664	1.21073	360	155.376	
220	0	0.890688	1.23187	360	154.344	
221	0	0.894737	1.25357	360	153.284	
222	0	0.898785	1.27588	360	152.195	
223	0	0.902834	1.29884	360	151.074	
224	0	0.906883	1.32251	360	149.918	
225	0	0.910931	1.34694	360	148.724	
226	0	0.91498	1.3722	360	147.491	
227	0	0.919028	1.40507	360	145.886	
228	0	0.923077	1.4325	360	144.546	
229	0	0.927126	1.46106	360	143.152	
230	0	0.931174	1.49085	360	141.697	
231	0	0.935223	1.52203	360	140.174	
232	0	0.939271	1.55477	360	138.575	
233	0	0.94332	1.58927	360	136.891	
234	0	0.947368	1.62576	360	135.109	

235	0	0.951417	1.66456	360	133.214
236	0	0.955466	1.70604	360	131.188
237	0	0.959514	1.75069	360	129.008
238	0	0.963563	1.79912	360	126.643
239	0	0.967611	1.85218	360	124.052
240	0	0.97166	1.91103	360	121.178
241	0	0.975709	1.97737	360	117.938
242	0	0.979757	2.05375	360	114.209
243	1.29473	0.983806	2.14441	498.536	109.781
244	1.38629	0.987854	2.25713	508.333	104.277
245	1.56862	0.991903	2.40892	527.842	96.8642
246	1.60944	0.995951	2.65209	532.21	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: trans-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	108.5
	9/23/1999	ND<0	108.5
	3/15/2000	ND<0	108.5
	9/24/2003	ND<0	108.5
	3/11/2004	ND<0	108.5
	10/12/2004	ND<0	108.5
	4/1/2005	ND<0	108.5
	10/25/2005	ND<0	108.5
	4/29/2006	ND<0	108.5
	11/18/2006	ND<0	108.5
	5/23/2007	ND<0	108.5
	11/28/2007	ND<0	108.5
	6/5/2008	ND<0	108.5
	11/20/2008	ND<0	108.5
	6/11/2009	ND<-2.30259	108.5
	11/16/2009	ND<-2.30259	108.5
	6/30/2010	ND<-2.30259	108.5
	11/12/2010	ND<-2.30259 U	108.5
	7/5/2011	ND<-2.30259 U	108.5

Rank Sum = 2061.5
Rank Mean = 108.5

Background Rank Sum = 2061.5
Background Rank Mean = 108.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	108.5
	8/24/1995	ND<0	108.5
	9/28/1995	ND<0	108.5
	10/26/1995	ND<0	108.5
	11/19/1996	ND<0	108.5
	12/19/1996	ND<0	108.5
	3/24/1997	ND<0	108.5
	9/24/1997	ND<0	108.5
	4/7/1998	ND<0	108.5
	9/23/1998	ND<0	108.5
	3/16/1999	ND<0	108.5
	9/23/1999	ND<0	108.5
	3/15/2000	ND<0	108.5
	9/24/2003	ND<0	108.5
	3/11/2004	ND<0	108.5
	10/12/2004	ND<0	108.5
	4/1/2005	ND<0	108.5
	10/25/2005	ND<0	108.5
	4/29/2006	ND<0	108.5
	11/18/2006	ND<0	108.5
	5/23/2007	ND<0	108.5

	11/28/2007	ND<0	108.5	
	6/5/2008	ND<0	108.5	
	11/20/2008	ND<0	108.5	
	6/11/2009	ND<-2.30259		108.5
	11/16/2009	ND<-2.30259		108.5
	6/30/2010	ND<-2.30259		108.5
	11/12/2010	ND<-2.30259 U		108.5
	7/5/2011	ND<-2.30259 U	108.5	
	11/22/2011	ND<-2.30259 U		108.5
	11/22/2011	ND<-2.30259 U		108.5

Rank Sum = 3363.5
Rank Mean = 108.5

MW-12A R	3/16/1999	ND<0		108.5
	9/23/1999	ND<0	108.5	
	3/15/2000	ND<0	108.5	
	9/24/2003	ND<0	108.5	
	3/11/2004	ND<0	108.5	
	10/12/2004	ND<0	108.5	
	4/1/2005	ND<0	108.5	
	10/25/2005	ND<0	108.5	
	4/29/2006	ND<0	108.5	
	11/18/2006	ND<0	108.5	
	5/23/2007	ND<0	108.5	
	11/28/2007	ND<0	108.5	
	6/5/2008	ND<0	108.5	
	11/20/2008	ND<0	108.5	
	6/11/2009	ND<-2.30259		108.5
	11/16/2009	ND<-2.30259		108.5
	6/30/2010	ND<-2.30259		108.5
	11/12/2010	ND<-2.30259 U		108.5
	7/5/2011	ND<-2.30259 U	108.5	
	11/22/2011	ND<-2.30259 U		108.5
	11/22/2011	ND<-2.30259 U		108.5

Rank Sum = 2278.5
Rank Mean = 108.5

MW-9	7/20/1995	ND<0	108.5	
	8/24/1995	ND<0	108.5	
	9/28/1995	ND<0	108.5	
	10/26/1995	ND<0	108.5	
	11/19/1996	ND<0	108.5	
	12/19/1996	ND<0	108.5	
	3/24/1997	ND<0	108.5	
	9/24/1997	ND<0	108.5	
	4/7/1998	ND<0	108.5	
	9/23/1998	ND<0	108.5	
	3/16/1999	ND<0	108.5	
	9/23/1999	ND<0	108.5	
	3/15/2000	ND<0	108.5	
	9/24/2003	ND<0	108.5	
	3/11/2004	ND<0	108.5	
	10/12/2004	ND<0	108.5	
	4/1/2005	ND<0	108.5	
	10/25/2005	ND<0	108.5	
	4/29/2006	ND<0	108.5	
	11/18/2006	ND<0	108.5	
	5/23/2007	ND<0	108.5	
	11/28/2007	ND<0	108.5	
	6/5/2008	ND<0	108.5	
	11/20/2008	ND<0	108.5	
	6/11/2009	ND<-2.30259		108.5

	11/16/2009	ND<-2.30259		108.5	
	6/30/2010	ND<-2.30259		108.5	
	11/12/2010	ND<-2.30259	U	108.5	
	7/5/2011	ND<-2.30259	U	108.5	
	11/22/2011	ND<-2.30259	U	Q	108.5
	11/22/2011	ND<-2.30259	U	Q	108.5

Rank Sum = 3363.5
Rank Mean = 108.5

MW-11R	7/20/1995	ND<0	108.5		
	8/24/1995	ND<0	108.5		
	9/28/1995	ND<0	108.5		
	10/26/1995	-0.916291	J	236	
	11/19/1996	ND<0	108.5		
	12/19/1996	ND<0	108.5		
	3/24/1997	ND<0	108.5		
	9/24/1997	ND<0	108.5		
	4/7/1998	ND<0	108.5		
	9/23/1998	ND<0	108.5		
	3/16/1999	ND<0	108.5		
	9/23/1999	ND<0	108.5		
	3/15/2000	ND<0	108.5		
	9/24/2003	ND<0	108.5		
	3/11/2004	ND<0	108.5		
	10/12/2004	ND<0	108.5		
	4/1/2005	ND<0	108.5		
	10/25/2005	ND<0	108.5		
	4/29/2006	ND<0	108.5		
	11/18/2006	ND<0	108.5		
	5/23/2007	ND<0	108.5		
	11/28/2007	ND<0	108.5		
	6/5/2008	ND<0	108.5		
	11/20/2008	ND<0	108.5		
	6/11/2009	ND<-2.30259		108.5	
	11/16/2009	ND<-2.30259		108.5	
	6/30/2010	ND<-2.30259		108.5	
	11/12/2010	ND<-2.30259	U	108.5	
	7/5/2011	ND<-2.30259	U	108.5	
	11/22/2011	ND<-2.30259	U	Q	108.5
	11/22/2011	ND<-2.30259	U	Q	108.5

Rank Sum = 3491
Rank Mean = 112.613

MW-7	7/20/1995	ND<0	108.5		
	8/24/1995	ND<0	108.5		
	9/28/1995	ND<0	108.5		
	10/26/1995	ND<0	108.5		
	11/19/1996	ND<0	108.5		
	12/19/1996	ND<0	108.5		
	3/24/1997	ND<0	108.5		
	9/24/1997	ND<0	108.5		
	4/7/1998	ND<0	108.5		
	9/23/1998	ND<0	108.5		
	3/16/1999	ND<0	108.5		
	9/23/1999	ND<0	108.5		
	3/15/2000	ND<0	108.5		
	9/24/2003	ND<0	108.5		
	3/11/2004	ND<0	108.5		
	10/12/2004	ND<0	108.5		
	4/1/2005	ND<0	108.5		
	10/25/2005	ND<0	108.5		
	4/29/2006	ND<0	108.5		

	11/18/2006	ND<0	108.5	
	5/23/2007	ND<0	108.5	
	11/28/2007	ND<0	108.5	
	6/5/2008	ND<0	108.5	
	11/20/2008	ND<0	108.5	
	6/11/2009	ND<-2.30259		108.5
	11/16/2009	ND<-2.30259		108.5
	6/30/2010	ND<-2.30259		108.5
	11/12/2010	ND<-2.30259	U	108.5
	7/5/2011	ND<-2.30259	U	108.5
	11/22/2011	ND<-2.30259	U	108.5
	11/22/2011	ND<-2.30259	U	108.5

Rank Sum = 3363.5
Rank Mean = 108.5

MW-8	7/20/1995	ND<0	108.5	
	8/24/1995	1.56862		245
	9/28/1995	1.38629		244
	10/26/1995	-0.916291	J	237
	11/19/1996	ND<0	108.5	
	12/19/1996	ND<0	108.5	
	3/24/1997	1.60944		246
	9/24/1997	ND<0	108.5	
	4/7/1998	ND<0	108.5	
	9/23/1998	ND<0	108.5	
	3/16/1999	ND<0	108.5	
	9/23/1999	ND<0	108.5	
	3/15/2000	ND<0	108.5	
	9/24/2003	ND<0	108.5	
	3/11/2004	ND<0	108.5	
	10/12/2004	ND<0	108.5	
	4/1/2005	-1.27297	J	226
	10/25/2005	-0.653926	J	238
	4/29/2006	-1.27297	J	227
	11/18/2006	1.29473		243
	5/23/2007	ND<0	108.5	
	11/28/2007	-0.597837	J	239
	6/5/2008	ND<0	108.5	
	11/20/2008	-1.38629	J	223
	6/11/2009	ND<-2.30259		108.5
	6/30/2010	-1.42712	J	220
	11/12/2010	-1.46968	J	219
	7/5/2011	-1.04982	J	233
	11/22/2011	-0.941609	J	234
	11/22/2011	-0.941609	J	235

Rank Sum = 5136.5
Rank Mean = 171.217

MW-12BR	3/16/1999	ND<0	108.5	
	9/23/1999	ND<0	108.5	
	3/15/2000	ND<0	108.5	
	9/24/2003	ND<0	108.5	
	3/11/2004	ND<0	108.5	
	10/12/2004	ND<0	108.5	
	4/1/2005	-1.51413	J	218
	10/25/2005	ND<0	108.5	
	4/29/2006	ND<0	108.5	
	11/18/2006	ND<0	108.5	
	5/23/2007	ND<0	108.5	
	11/28/2007	ND<0	108.5	
	6/5/2008	ND<0	108.5	
	11/20/2008	ND<0	108.5	

	6/11/2009	ND<-2.30259		108.5
	11/16/2009	ND<-2.30259		108.5
	6/30/2010	ND<-2.30259		108.5
	11/12/2010	ND<-2.30259	U	108.5
	7/5/2011	ND<-2.30259	U	108.5
	11/22/2011	ND<-2.30259	U	108.5
	11/22/2011	ND<-2.30259	U	108.5

Rank Sum = 2388
Rank Mean = 113.714

MW-10	7/20/1995	ND<0		108.5
	8/24/1995	-1.07881	J	232
	9/28/1995	-0.356675	J	242
	10/26/1995	-0.510826	J	241
	11/19/1996	ND<0		108.5
	12/19/1996	ND<0		108.5
	3/24/1997	ND<0		108.5
	9/24/1997	ND<0		108.5
	4/7/1998	ND<0		108.5
	9/23/1998	ND<0		108.5
	3/16/1999	ND<0		108.5
	9/23/1999	ND<0		108.5
	3/15/2000	ND<0		108.5
	9/24/2003	ND<0		108.5
	3/11/2004	ND<0		108.5
	10/12/2004	ND<0		108.5
	4/1/2005	-1.42712	J	221
	10/25/2005	-1.42712	J	222
	4/29/2006	-1.23787	J	229
	11/18/2006	-0.527633	J	240
	5/23/2007	ND<0		108.5
	11/28/2007	-1.27297	J	228
	6/5/2008	ND<0		108.5
	11/20/2008	-1.56065	J	217
	6/11/2009	ND<-2.30259		108.5
	11/16/2009	-1.30933	J	224
	6/30/2010	ND<-2.30259		108.5
	11/12/2010	ND<-2.30259	U	108.5
	7/5/2011	-1.30933	J	225
	11/22/2011	-1.17118	J	230
	11/22/2011	-1.17118	J	231

Rank Sum = 4935
Rank Mean = 159.194

Calculation Results:

Kruskal-Wallis H Statistic = 28.3226
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 87.6714
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
28.3226 > 15.5073 indicating a significant group difference at 5% significance level
87.6714 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 108.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**108.5 0**	**48.231**	
MW-12AR	**108.5 0**	**52.4134**	
MW-9	**108.5 0**	**48.231**	
MW-11R	**112.613 4.1129**	**48.231**	

MW-7	108.5	0	48.231	
MW-8	171.217	62.7167	48.5355	
MW-12BR		113.714	5.21429	52.4134
MW-10	159.194	50.6935	48.231	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 108.5

Well	Mean	Rank	Dif from Bkg	Critical Value
MW-6	108.5	0	52.0829	
MW-12AR		108.5	0	56.5994
MW-9	108.5	0	52.0829	
MW-11R	112.613	4.1129	52.0829	
MW-7	108.5	0	52.0829	
MW-8	171.217	62.7167	52.4118	
MW-12BR		113.714	5.21429	56.5994
MW-10	159.194	50.6935	52.0829	

Shewhart-CUSUM Control Chart

Parameter: trans-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.33977
Baseline Std Dev = 0.951766
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	1.60944	0.334012		1.33401
3/24/1997	1.60944	0.334012		1.33401
9/24/1997	0	0	-0.356989	
9/24/1997	0	0	-0.356989	
4/7/1998	0	0	-0.356989	
4/7/1998	0	0	-0.356989	
9/23/1998	0	0	-0.356989	
9/23/1998	0	0	-0.356989	
3/16/1999	0	0	-0.356989	
3/16/1999	0	0	-0.356989	
9/23/1999	0	0	-0.356989	
9/23/1999	0	0	-0.356989	
3/15/2000	0	0	-0.356989	
3/15/2000	0	0	-0.356989	
9/24/2003	0	0	-0.356989	
9/24/2003	0	0	-0.356989	
3/11/2004	0	0	-0.356989	
3/11/2004	0	0	-0.356989	
10/12/2004	0	0	-0.356989	
10/12/2004	0	0	-0.356989	
4/1/2005	-1.27297	0	-1.69447	
4/1/2005	-1.27297	0	-1.69447	
10/25/2005	-0.653926	0	-1.04406	
10/25/2005	-0.653926	0	-1.04406	
4/29/2006	-1.27297	0	-1.69447	
4/29/2006	-1.27297	0	-1.69447	
11/18/2006	1.29473	0.0033527		1.00335
11/18/2006	1.29473	0.0033527		1.00335
5/23/2007	0	0	-0.356989	
5/23/2007	0	0	-0.356989	
11/28/2007	-0.597837	0	-0.985123	
11/28/2007	-0.597837	0	-0.985123	
6/5/2008	0	0	-0.356989	
6/5/2008	0	0	-0.356989	
11/20/2008	-1.38629	0	-1.81354	
11/20/2008	-1.38629	0	-1.81354	
6/11/2009	-2.30259	0	-2.77626	
6/11/2009	-2.30259	0	-2.77626	
6/30/2010	-1.42712	0	-1.85643	
6/30/2010	-1.42712	0	-1.85643	
11/12/2010	-1.46968	0	-1.90115	
11/12/2010	-1.46968	0	-1.90115	
7/5/2011	-1.04982	0	-1.46001	
7/5/2011	-1.04982	0	-1.46001	
11/22/2011	-0.941609	0	-1.90398	

11/22/2011	-0.941609	0	-1.90398

Shewhart-CUSUM Control Chart

Parameter: trans-1,2-Dichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.324385
Baseline Std Dev = 0.429101
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	0.755965
3/24/1997	0	0	0.755965
9/24/1997	0	0	0.755965
9/24/1997	0	0	0.755965
4/7/1998	0	0	0.755965
4/7/1998	0	0	0.755965
9/23/1998	0	0	0.755965
9/23/1998	0	0	0.755965
3/16/1999	0	0	0.755965
3/16/1999	0	0	0.755965
9/23/1999	0	0	0.755965
9/23/1999	0	0	0.755965
3/15/2000	0	0	0.755965
3/15/2000	0	0	0.755965
9/24/2003	0	0	0.755965
9/24/2003	0	0	0.755965
3/11/2004	0	0	0.755965
3/11/2004	0	0	0.755965
10/12/2004	0	0	0.755965
10/12/2004	0	0	0.755965
4/1/2005	-1.42712	0	-2.56987
4/1/2005	-1.42712	0	-2.56987
10/25/2005	-1.42712	0	-2.56987
10/25/2005	-1.42712	0	-2.56987
4/29/2006	-1.23787	0	-2.12885
4/29/2006	-1.23787	0	-2.12885
11/18/2006	-0.527633	0	-0.47366
11/18/2006	-0.527633	0	-0.47366
5/23/2007	0	0	0.755965
5/23/2007	0	0	0.755965
11/28/2007	-1.27297	0	-2.21063
11/28/2007	-1.27297	0	-2.21063
6/5/2008	0	0	0.755965
6/5/2008	0	0	0.755965
11/20/2008	-1.56065	0	-2.88106
11/20/2008	-1.56065	0	-2.88106
6/11/2009	-2.30259	0	-4.61011
6/11/2009	-2.30259	0	-4.61011
11/16/2009	-1.30933	0	-2.29538
11/16/2009	-1.30933	0	-2.29538
6/30/2010	-2.30259	0	-4.61011
6/30/2010	-2.30259	0	-4.61011
11/12/2010	-2.30259	0	-4.61011
11/12/2010	-2.30259	0	-4.61011
7/5/2011	-1.30933	0	-2.29538

7/5/2011	-1.30933	0	-2.29538
11/22/2011	-1.17118	0	-2.79085
11/22/2011	-1.17118	0	-2.79085

Sen's Slope Analysis
Parameter: trans-1,2-Dichloroethene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
1.56862 (8/24/1995)	ND<0 (7/20/1995)	(1.56862 - 0)/(2 - 1)	1.56862
1.38629 (9/28/1995)	ND<0 (7/20/1995)	(1.38629 - 0)/(3 - 1)	
0.693147			
-0.916291 J (10/26/1995)	ND<0 (7/20/1995)	(-0.916291 - 0)/(4 - 1)	-0.30543
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
1.60944 (3/24/1997)	ND<0 (7/20/1995)	(1.60944 - 0)/(7 - 1)	0.26824
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0 (3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
-1.27297 J (4/1/2005)	ND<0 (7/20/1995)	(-1.27297 - 0)/(17 - 1)	
-0.0795604			
-0.653926 J (10/25/2005)	ND<0 (7/20/1995)	(-0.653926 - 0)/(18 - 1)	
-0.0384663			
-1.27297 J (4/29/2006)	ND<0 (7/20/1995)	(-1.27297 - 0)/(19 - 1)	
-0.0707203			
1.29473 (11/18/2006)	ND<0 (7/20/1995)	(1.29473 - 0)/(20 - 1)	
0.0681435			
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
-0.597837 J (11/28/2007)	ND<0 (7/20/1995)	(-0.597837 - 0)/(22 - 1)	
-0.0284684			
ND<0 (6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1)	0
-1.38629 J (11/20/2008)	ND<0 (7/20/1995)	(-1.38629 - 0)/(24 - 1)	
-0.0602737			
ND<-2.30259 (6/11/2009)	ND<0 (7/20/1995)	(-2.30259 - 0)/(25 - 1)	
-0.095941			
-1.42712 J (6/30/2010)	ND<0 (7/20/1995)	(-1.42712 - 0)/(26 - 1)	
-0.0570847			
-1.46968 J (11/12/2010)	ND<0 (7/20/1995)	(-1.46968 - 0)/(27 - 1)	
-0.056526			
-1.04982 J (7/5/2011)	ND<0 (7/20/1995)	(-1.04982 - 0)/(28 - 1)	
-0.0388823			
-0.941609 J (11/22/2011)	ND<0 (7/20/1995)	(-0.941609 - 0)/(29 - 1)	
-0.0336289			
-0.941609 J (11/22/2011)	ND<0 (7/20/1995)	(-0.941609 - 0)/(29 - 1)	
-0.0336289			
1.38629 (9/28/1995)	1.56862 (8/24/1995)	(1.38629 - 1.56862)/(3 - 2)	
-0.182322			
-0.916291 J (10/26/1995)	1.56862 (8/24/1995)	(-0.916291 - 1.56862)/(4 - 2)	
-1.24245			
ND<0 (11/19/1996)	1.56862 (8/24/1995)	(0 - 1.56862)/(5 - 2)	
-0.522872			
ND<0 (12/19/1996)	1.56862 (8/24/1995)	(0 - 1.56862)/(6 - 2)	
-0.392154			

1.60944 (3/24/1997)	1.56862	(8/24/1995)	(1.60944 - 1.56862)/(7 - 2)
0.0081644			
ND<0 (9/24/1997)	1.56862	(8/24/1995)	(0 - 1.56862)/(8 - 2)
-0.261436			
ND<0 (4/7/1998)	1.56862	(8/24/1995)	(0 - 1.56862)/(9 - 2)
-0.224088			
ND<0 (9/23/1998)	1.56862	(8/24/1995)	(0 - 1.56862)/(10 - 2)
-0.196077			
ND<0 (3/16/1999)	1.56862	(8/24/1995)	(0 - 1.56862)/(11 - 2)
-0.174291			
ND<0 (9/23/1999)	1.56862	(8/24/1995)	(0 - 1.56862)/(12 - 2)
-0.156862			
ND<0 (3/15/2000)	1.56862	(8/24/1995)	(0 - 1.56862)/(13 - 2)
-0.142601			
ND<0 (9/24/2003)	1.56862	(8/24/1995)	(0 - 1.56862)/(14 - 2)
-0.130718			
ND<0 (3/11/2004)	1.56862	(8/24/1995)	(0 - 1.56862)/(15 - 2)
-0.120663			
ND<0 (10/12/2004)	1.56862	(8/24/1995)	(0 - 1.56862)/(16 - 2)
-0.112044			
-1.27297 J (4/1/2005)	1.56862	(8/24/1995)	(-1.27297 - 1.56862)/(17 - 2)
-0.189439			
-0.653926 J (10/25/2005)	1.56862	(8/24/1995)	(-0.653926 - 1.56862)/(18 - 2)
-0.138909			
-1.27297 J (4/29/2006)	1.56862	(8/24/1995)	(-1.27297 - 1.56862)/(19 - 2)
-0.167152			
1.29473 (11/18/2006)	1.56862	(8/24/1995)	(1.29473 - 1.56862)/(20 - 2)
-0.015216			
ND<0 (5/23/2007)	1.56862	(8/24/1995)	(0 - 1.56862)/(21 - 2)
-0.0825587			
-0.597837 J (11/28/2007)	1.56862	(8/24/1995)	(-0.597837 - 1.56862)/(22 - 2)
-0.108323			
ND<0 (6/5/2008)	1.56862	(8/24/1995)	(0 - 1.56862)/(23 - 2)
-0.074696			
-1.38629 J (11/20/2008)	1.56862	(8/24/1995)	(-1.38629 - 1.56862)/(24 - 2)
-0.134314			
ND<-2.30259 (6/11/2009)	1.56862	(8/24/1995)	(-2.30259 - 1.56862)/(25 - 2)
-0.168313			
-1.42712 J (6/30/2010)	1.56862	(8/24/1995)	(-1.42712 - 1.56862)/(26 - 2)
-0.124822			
-1.46968 J (11/12/2010)	1.56862	(8/24/1995)	(-1.46968 - 1.56862)/(27 - 2)
-0.121532			
-1.04982 J (7/5/2011)	1.56862	(8/24/1995)	(-1.04982 - 1.56862)/(28 - 2)
-0.100709			
-0.941609 J (11/22/2011)	1.56862	(8/24/1995)	(-0.941609 - 1.56862)/(29 - 2)
-0.0929713			
-0.941609 J (11/22/2011)	1.56862	(8/24/1995)	(-0.941609 - 1.56862)/(29 - 2)
-0.0929713			
-0.916291 J (10/26/1995)	1.38629	(9/28/1995)	(-0.916291 - 1.38629)/(4 - 3)
-2.30259			
ND<0 (11/19/1996)	1.38629	(9/28/1995)	(0 - 1.38629)/(5 - 3)
-0.693147			
ND<0 (12/19/1996)	1.38629	(9/28/1995)	(0 - 1.38629)/(6 - 3)
-0.462098			
1.60944 (3/24/1997)	1.38629	(9/28/1995)	(1.60944 - 1.38629)/(7 - 3)
0.0557859			
ND<0 (9/24/1997)	1.38629	(9/28/1995)	(0 - 1.38629)/(8 - 3)
-0.277259			
ND<0 (4/7/1998)	1.38629	(9/28/1995)	(0 - 1.38629)/(9 - 3)
-0.231049			

ND<0 (9/23/1998)	1.38629 (9/28/1995)	(0 - 1.38629)/(10 - 3)	
-0.198042			
ND<0 (3/16/1999)	1.38629 (9/28/1995)	(0 - 1.38629)/(11 - 3)	
-0.173287			
ND<0 (9/23/1999)	1.38629 (9/28/1995)	(0 - 1.38629)/(12 - 3)	
-0.154033			
ND<0 (3/15/2000)	1.38629 (9/28/1995)	(0 - 1.38629)/(13 - 3)	
-0.138629			
ND<0 (9/24/2003)	1.38629 (9/28/1995)	(0 - 1.38629)/(14 - 3)	
-0.126027			
ND<0 (3/11/2004)	1.38629 (9/28/1995)	(0 - 1.38629)/(15 - 3)	
-0.115525			
ND<0 (10/12/2004)	1.38629 (9/28/1995)	(0 - 1.38629)/(16 - 3)	
-0.106638			
-1.27297 J (4/1/2005)	1.38629 (9/28/1995)	(-1.27297 - 1.38629)/(17 - 3)	
-0.189947			
-0.653926 J (10/25/2005)	1.38629 (9/28/1995)	(-0.653926 - 1.38629)/(18 - 3)	
-0.136015			
-1.27297 J (4/29/2006)	1.38629 (9/28/1995)	(-1.27297 - 1.38629)/(19 - 3)	
-0.166204			
1.29473 (11/18/2006)	1.38629 (9/28/1995)	(1.29473 - 1.38629)/(20 - 3)	
-0.00538631			
ND<0 (5/23/2007)	1.38629 (9/28/1995)	(0 - 1.38629)/(21 - 3)	
-0.0770164			
-0.597837 J (11/28/2007)	1.38629 (9/28/1995)	(-0.597837 - 1.38629)/(22 - 3)	
-0.104428			
ND<0 (6/5/2008)	1.38629 (9/28/1995)	(0 - 1.38629)/(23 - 3)	
-0.0693147			
-1.38629 J (11/20/2008)	1.38629 (9/28/1995)	(-1.38629 - 1.38629)/(24 - 3)	
-0.132028			
ND<-2.30259 (6/11/2009)	1.38629 (9/28/1995)	(-2.30259 - 1.38629)/(25 - 3)	
-0.167676			
-1.42712 J (6/30/2010)	1.38629 (9/28/1995)	(-1.42712 - 1.38629)/(26 - 3)	
-0.122322			
-1.46968 J (11/12/2010)	1.38629 (9/28/1995)	(-1.46968 - 1.38629)/(27 - 3)	
-0.118999			
-1.04982 J (7/5/2011)	1.38629 (9/28/1995)	(-1.04982 - 1.38629)/(28 - 3)	
-0.0974447			
-0.941609 J (11/22/2011)	1.38629 (9/28/1995)	(-0.941609 - 1.38629)/(29 - 3)	
-0.0895347			
-0.941609 J (11/22/2011)	1.38629 (9/28/1995)	(-0.941609 - 1.38629)/(29 - 3)	
-0.0895347			
ND<0 (11/19/1996)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(5 - 4)	
0.916291			
ND<0 (12/19/1996)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(6 - 4)	
0.458145			
1.60944 (3/24/1997)	-0.916291 J (10/26/1995)	(1.60944 - -0.916291)/(7 - 4)	
0.84191			
ND<0 (9/24/1997)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(8 - 4)	
0.229073			
ND<0 (4/7/1998)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(9 - 4)	
0.183258			
ND<0 (9/23/1998)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(10 - 4)	
0.152715			
ND<0 (3/16/1999)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(11 - 4)	
0.130899			
ND<0 (9/23/1999)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(12 - 4)	
0.114536			
ND<0 (3/15/2000)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(13 - 4)	0.10181
ND<0 (9/24/2003)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(14 - 4)	
0.0916291			

ND<0 (3/11/2004)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(15 - 4)		
0.0832992				
ND<0 (10/12/2004)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(16 - 4)		
0.0763576				
-1.27297 J (4/1/2005)	-0.916291 J (10/26/1995)	(-1.27297 - -0.916291)/(17 - 4)		
-0.0274365				
-0.653926 J (10/25/2005)	-0.916291 J (10/26/1995)	(-0.653926 - -0.916291)/(18 - 4)		
0.0187403				
-1.27297 J (4/29/2006)	-0.916291 J (10/26/1995)	(-1.27297 - -0.916291)/(19 - 4)		
-0.0237783				
1.29473 (11/18/2006)	-0.916291 J (10/26/1995)	(1.29473 - -0.916291)/(20 - 4)		
0.138189				
ND<0 (5/23/2007)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(21 - 4)		
0.0538995				
-0.597837 J (11/28/2007)	-0.916291 J (10/26/1995)	(-0.597837 - -0.916291)/(22 - 4)		
0.0176919				
ND<0 (6/5/2008)	-0.916291 J (10/26/1995)	(0 - -0.916291)/(23 - 4)		
0.0482258				
-1.38629 J (11/20/2008)	-0.916291 J (10/26/1995)	(-1.38629 - -0.916291)/(24 - 4)		
-0.0235002				
ND<-2.30259 (6/11/2009)	-0.916291 J (10/26/1995)	(-2.30259 - -0.916291)/(25 - 4)		
-0.066014				
-1.42712 J (6/30/2010)	-0.916291 J (10/26/1995)	(-1.42712 - -0.916291)/(26 - 4)		
-0.0232193				
-1.46968 J (11/12/2010)	-0.916291 J (10/26/1995)	(-1.46968 - -0.916291)/(27 - 4)		
-0.0240602				
-1.04982 J (7/5/2011)	-0.916291 J (10/26/1995)	(-1.04982 - -0.916291)/(28 - 4)		
-0.00556381				
-0.941609 J (11/22/2011)	-0.916291 J (10/26/1995)	(-0.941609 - -0.916291)/(29 - 4)		
-0.00101271				
-0.941609 J (11/22/2011)	-0.916291 J (10/26/1995)	(-0.941609 - -0.916291)/(29 - 4)		
-0.00101271				
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0	
1.60944 (3/24/1997)	ND<0 (11/19/1996)	(1.60944 - 0)/(7 - 5)		
0.804719				
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0	
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0	
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0	
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0	
-1.27297 J (4/1/2005)	ND<0 (11/19/1996)	(-1.27297 - 0)/(17 - 5)		-0.10608
-0.653926 J (10/25/2005)	ND<0 (11/19/1996)	(-0.653926 - 0)/(18 - 5)		
-0.050302				
-1.27297 J (4/29/2006)	ND<0 (11/19/1996)	(-1.27297 - 0)/(19 - 5)		
-0.0909261				
1.29473 (11/18/2006)	ND<0 (11/19/1996)	(1.29473 - 0)/(20 - 5)		
0.0863151				
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0	
-0.597837 J (11/28/2007)	ND<0 (11/19/1996)	(-0.597837 - 0)/(22 - 5)		
-0.0351669				
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0	
-1.38629 J (11/20/2008)	ND<0 (11/19/1996)	(-1.38629 - 0)/(24 - 5)		
-0.0729629				
ND<-2.30259 (6/11/2009)	ND<0 (11/19/1996)	(-2.30259 - 0)/(25 - 5)		
-0.115129				
-1.42712 J (6/30/2010)	ND<0 (11/19/1996)	(-1.42712 - 0)/(26 - 5)		
-0.0679579				

-1.46968 J (11/12/2010)	ND<0 (11/19/1996)	(-1.46968 - 0)/(27 - 5)		
-0.0668035				
-1.04982 J (7/5/2011)	ND<0 (11/19/1996)	(-1.04982 - 0)/(28 - 5)		
-0.0456444				
-0.941609 J (11/22/2011)	ND<0 (11/19/1996)	(-0.941609 - 0)/(29 - 5)		
-0.0392337				
-0.941609 J (11/22/2011)	ND<0 (11/19/1996)	(-0.941609 - 0)/(29 - 5)		
-0.0392337				
1.60944 (3/24/1997)	ND<0 (12/19/1996)	(1.60944 - 0)/(7 - 6)		1.60944
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0	
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0	
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
-1.27297 J (4/1/2005)	ND<0 (12/19/1996)	(-1.27297 - 0)/(17 - 6)		
-0.115724				
-0.653926 J (10/25/2005)	ND<0 (12/19/1996)	(-0.653926 - 0)/(18 - 6)		
-0.0544939				
-1.27297 J (4/29/2006)	ND<0 (12/19/1996)	(-1.27297 - 0)/(19 - 6)		
-0.0979204				
1.29473 (11/18/2006)	ND<0 (12/19/1996)	(1.29473 - 0)/(20 - 6)		
0.0924805				
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0	
-0.597837 J (11/28/2007)	ND<0 (12/19/1996)	(-0.597837 - 0)/(22 - 6)		
-0.0373648				
ND<0 (6/5/2008)	ND<0 (12/19/1996)	(0 - 0)/(23 - 6)	0	
-1.38629 J (11/20/2008)	ND<0 (12/19/1996)	(-1.38629 - 0)/(24 - 6)		
-0.0770164				
ND<-2.30259 (6/11/2009)	ND<0 (12/19/1996)	(-2.30259 - 0)/(25 - 6)		
-0.121189				
-1.42712 J (6/30/2010)	ND<0 (12/19/1996)	(-1.42712 - 0)/(26 - 6)		
-0.0713558				
-1.46968 J (11/12/2010)	ND<0 (12/19/1996)	(-1.46968 - 0)/(27 - 6)		
-0.0699846				
-1.04982 J (7/5/2011)	ND<0 (12/19/1996)	(-1.04982 - 0)/(28 - 6)		
-0.0477192				
-0.941609 J (11/22/2011)	ND<0 (12/19/1996)	(-0.941609 - 0)/(29 - 6)		
-0.0409395				
-0.941609 J (11/22/2011)	ND<0 (12/19/1996)	(-0.941609 - 0)/(29 - 6)		
-0.0409395				
ND<0 (9/24/1997)	1.60944 (3/24/1997)	(0 - 1.60944)/(8 - 7)		-1.60944
ND<0 (4/7/1998)	1.60944 (3/24/1997)	(0 - 1.60944)/(9 - 7)		
-0.804719				
ND<0 (9/23/1998)	1.60944 (3/24/1997)	(0 - 1.60944)/(10 - 7)		
-0.536479				
ND<0 (3/16/1999)	1.60944 (3/24/1997)	(0 - 1.60944)/(11 - 7)		
-0.402359				
ND<0 (9/23/1999)	1.60944 (3/24/1997)	(0 - 1.60944)/(12 - 7)		
-0.321888				
ND<0 (3/15/2000)	1.60944 (3/24/1997)	(0 - 1.60944)/(13 - 7)		-0.26824
ND<0 (9/24/2003)	1.60944 (3/24/1997)	(0 - 1.60944)/(14 - 7)		-0.22992
ND<0 (3/11/2004)	1.60944 (3/24/1997)	(0 - 1.60944)/(15 - 7)		-0.20118
ND<0 (10/12/2004)	1.60944 (3/24/1997)	(0 - 1.60944)/(16 - 7)		
-0.178826				
-1.27297 J (4/1/2005)	1.60944 (3/24/1997)	(-1.27297 - 1.60944)/(17 - 7)		
-0.28824				

-0.653926 J (10/25/2005)	1.60944 (3/24/1997)	(-0.653926 - 1.60944)/(18 - 7)		
-0.20576				
-1.27297 J (4/29/2006)	1.60944 (3/24/1997)	(-1.27297 - 1.60944)/(19 - 7)		
-0.2402				
1.29473 (11/18/2006)	1.60944 (3/24/1997)	(1.29473 - 1.60944)/(20 - 7)		
-0.0242085				
ND<0 (5/23/2007)	1.60944 (3/24/1997)	(0 - 1.60944)/(21 - 7)		-0.11496
-0.597837 J (11/28/2007)	1.60944 (3/24/1997)	(-0.597837 - 1.60944)/(22 - 7)		
-0.147152				
ND<0 (6/5/2008)	1.60944 (3/24/1997)	(0 - 1.60944)/(23 - 7)		-0.10059
-1.38629 J (11/20/2008)	1.60944 (3/24/1997)	(-1.38629 - 1.60944)/(24 - 7)		
-0.17622				
ND<-2.30259 (6/11/2009)	1.60944 (3/24/1997)	(-2.30259 - 1.60944)/(25 - 7)		
-0.217335				
-1.42712 J (6/30/2010)	1.60944 (3/24/1997)	(-1.42712 - 1.60944)/(26 - 7)		
-0.159819				
-1.46968 J (11/12/2010)	1.60944 (3/24/1997)	(-1.46968 - 1.60944)/(27 - 7)		
-0.153956				
-1.04982 J (7/5/2011)	1.60944 (3/24/1997)	(-1.04982 - 1.60944)/(28 - 7)		
-0.126631				
-0.941609 J (11/22/2011)	1.60944 (3/24/1997)	(-0.941609 - 1.60944)/(29 - 7)		
-0.115957				
-0.941609 J (11/22/2011)	1.60944 (3/24/1997)	(-0.941609 - 1.60944)/(29 - 7)		
-0.115957				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0	
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0	
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0	
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0	
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0	
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
-1.27297 J (4/1/2005)	ND<0 (9/24/1997)	(-1.27297 - 0)/(17 - 8)		
-0.141441				
-0.653926 J (10/25/2005)	ND<0 (9/24/1997)	(-0.653926 - 0)/(18 - 8)		
-0.0653926				
-1.27297 J (4/29/2006)	ND<0 (9/24/1997)	(-1.27297 - 0)/(19 - 8)		
-0.115724				
1.29473 (11/18/2006)	ND<0 (9/24/1997)	(1.29473 - 0)/(20 - 8)		
0.107894				
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0	
-0.597837 J (11/28/2007)	ND<0 (9/24/1997)	(-0.597837 - 0)/(22 - 8)		
-0.0427026				
ND<0 (6/5/2008)	ND<0 (9/24/1997)	(0 - 0)/(23 - 8)	0	
-1.38629 J (11/20/2008)	ND<0 (9/24/1997)	(-1.38629 - 0)/(24 - 8)		
-0.0866434				
ND<-2.30259 (6/11/2009)	ND<0 (9/24/1997)	(-2.30259 - 0)/(25 - 8)		
-0.135446				
-1.42712 J (6/30/2010)	ND<0 (9/24/1997)	(-1.42712 - 0)/(26 - 8)		
-0.0792842				
-1.46968 J (11/12/2010)	ND<0 (9/24/1997)	(-1.46968 - 0)/(27 - 8)		
-0.0773514				
-1.04982 J (7/5/2011)	ND<0 (9/24/1997)	(-1.04982 - 0)/(28 - 8)		
-0.0524911				
-0.941609 J (11/22/2011)	ND<0 (9/24/1997)	(-0.941609 - 0)/(29 - 8)		
-0.0448385				
-0.941609 J (11/22/2011)	ND<0 (9/24/1997)	(-0.941609 - 0)/(29 - 8)		
-0.0448385				
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0	
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0	

ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
-1.27297 J (4/1/2005) -0.159121	ND<0 (4/7/1998)	(-1.27297 - 0)/(17 - 9)	
-0.653926 J (10/25/2005) -0.0726585	ND<0 (4/7/1998)	(-0.653926 - 0)/(18 - 9)	
-1.27297 J (4/29/2006) -0.127297	ND<0 (4/7/1998)	(-1.27297 - 0)/(19 - 9)	
1.29473 (11/18/2006) 0.117702	ND<0 (4/7/1998)	(1.29473 - 0)/(20 - 9)	
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0
-0.597837 J (11/28/2007) -0.0459875	ND<0 (4/7/1998)	(-0.597837 - 0)/(22 - 9)	
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0
-1.38629 J (11/20/2008) -0.0924196	ND<0 (4/7/1998)	(-1.38629 - 0)/(24 - 9)	
ND<-2.30259 (6/11/2009) -0.143912	ND<0 (4/7/1998)	(-2.30259 - 0)/(25 - 9)	
-1.42712 J (6/30/2010) -0.083948	ND<0 (4/7/1998)	(-1.42712 - 0)/(26 - 9)	
-1.46968 J (11/12/2010) -0.0816487	ND<0 (4/7/1998)	(-1.46968 - 0)/(27 - 9)	
-1.04982 J (7/5/2011) -0.0552538	ND<0 (4/7/1998)	(-1.04982 - 0)/(28 - 9)	
-0.941609 J (11/22/2011) -0.0470804	ND<0 (4/7/1998)	(-0.941609 - 0)/(29 - 9)	
-0.941609 J (11/22/2011) -0.0470804	ND<0 (4/7/1998)	(-0.941609 - 0)/(29 - 9)	

ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0
-1.27297 J (4/1/2005) -0.181852	ND<0 (9/23/1998)	(-1.27297 - 0)/(17 - 10)	
-0.653926 J (10/25/2005) -0.0817408	ND<0 (9/23/1998)	(-0.653926 - 0)/(18 - 10)	
-1.27297 J (4/29/2006) -0.141441	ND<0 (9/23/1998)	(-1.27297 - 0)/(19 - 10)	
1.29473 (11/18/2006) 0.129473	ND<0 (9/23/1998)	(1.29473 - 0)/(20 - 10)	
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0
-0.597837 J (11/28/2007) -0.0498198	ND<0 (9/23/1998)	(-0.597837 - 0)/(22 - 10)	
ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0
-1.38629 J (11/20/2008) -0.099021	ND<0 (9/23/1998)	(-1.38629 - 0)/(24 - 10)	
ND<-2.30259 (6/11/2009) -0.153506	ND<0 (9/23/1998)	(-2.30259 - 0)/(25 - 10)	
-1.42712 J (6/30/2010) -0.0891948	ND<0 (9/23/1998)	(-1.42712 - 0)/(26 - 10)	
-1.46968 J (11/12/2010) -0.0864515	ND<0 (9/23/1998)	(-1.46968 - 0)/(27 - 10)	
-1.04982 J (7/5/2011) -0.0583235	ND<0 (9/23/1998)	(-1.04982 - 0)/(28 - 10)	
-0.941609 J (11/22/2011) -0.0495583	ND<0 (9/23/1998)	(-0.941609 - 0)/(29 - 10)	

-0.941609 J (11/22/2011)	ND<0 (9/23/1998)	(-0.941609 - 0)/(29 - 10)		
-0.0495583				
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0	
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0	
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0	
ND<0 (3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(15 - 11)	0	
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0	
-1.27297 J (4/1/2005)	ND<0 (3/16/1999)	(-1.27297 - 0)/(17 - 11)		
-0.212161				
-0.653926 J (10/25/2005)	ND<0 (3/16/1999)	(-0.653926 - 0)/(18 - 11)		
-0.0934181				
-1.27297 J (4/29/2006)	ND<0 (3/16/1999)	(-1.27297 - 0)/(19 - 11)		
-0.159121				
1.29473 (11/18/2006)	ND<0 (3/16/1999)	(1.29473 - 0)/(20 - 11)		
0.143859				
ND<0 (5/23/2007)	ND<0 (3/16/1999)	(0 - 0)/(21 - 11)	0	
-0.597837 J (11/28/2007)	ND<0 (3/16/1999)	(-0.597837 - 0)/(22 - 11)		
-0.0543488				
ND<0 (6/5/2008)	ND<0 (3/16/1999)	(0 - 0)/(23 - 11)	0	
-1.38629 J (11/20/2008)	ND<0 (3/16/1999)	(-1.38629 - 0)/(24 - 11)		
-0.106638				
ND<-2.30259 (6/11/2009)	ND<0 (3/16/1999)	(-2.30259 - 0)/(25 - 11)		-0.16447
-1.42712 J (6/30/2010)	ND<0 (3/16/1999)	(-1.42712 - 0)/(26 - 11)		
-0.0951411				
-1.46968 J (11/12/2010)	ND<0 (3/16/1999)	(-1.46968 - 0)/(27 - 11)		
-0.0918547				
-1.04982 J (7/5/2011)	ND<0 (3/16/1999)	(-1.04982 - 0)/(28 - 11)		
-0.0617542				
-0.941609 J (11/22/2011)	ND<0 (3/16/1999)	(-0.941609 - 0)/(29 - 11)		
-0.0523116				
-0.941609 J (11/22/2011)	ND<0 (3/16/1999)	(-0.941609 - 0)/(29 - 11)		
-0.0523116				
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
-1.27297 J (4/1/2005)	ND<0 (9/23/1999)	(-1.27297 - 0)/(17 - 12)		
-0.254593				
-0.653926 J (10/25/2005)	ND<0 (9/23/1999)	(-0.653926 - 0)/(18 - 12)		
-0.108988				
-1.27297 J (4/29/2006)	ND<0 (9/23/1999)	(-1.27297 - 0)/(19 - 12)		
-0.181852				
1.29473 (11/18/2006)	ND<0 (9/23/1999)	(1.29473 - 0)/(20 - 12)		
0.161841				
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0	
-0.597837 J (11/28/2007)	ND<0 (9/23/1999)	(-0.597837 - 0)/(22 - 12)		
-0.0597837				
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0	
-1.38629 J (11/20/2008)	ND<0 (9/23/1999)	(-1.38629 - 0)/(24 - 12)		
-0.115525				
ND<-2.30259 (6/11/2009)	ND<0 (9/23/1999)	(-2.30259 - 0)/(25 - 12)		
-0.177122				
-1.42712 J (6/30/2010)	ND<0 (9/23/1999)	(-1.42712 - 0)/(26 - 12)		
-0.101937				
-1.46968 J (11/12/2010)	ND<0 (9/23/1999)	(-1.46968 - 0)/(27 - 12)		
-0.0979784				
-1.04982 J (7/5/2011)	ND<0 (9/23/1999)	(-1.04982 - 0)/(28 - 12)		
-0.0656139				
-0.941609 J (11/22/2011)	ND<0 (9/23/1999)	(-0.941609 - 0)/(29 - 12)		
-0.0553887				

-0.941609 J (11/22/2011) -0.0553887	ND<0 (9/23/1999)	(-0.941609 - 0)/(29 - 12)	
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0
-1.27297 J (4/1/2005) -0.318241	ND<0 (3/15/2000)	(-1.27297 - 0)/(17 - 13)	
-0.653926 J (10/25/2005) -0.130785	ND<0 (3/15/2000)	(-0.653926 - 0)/(18 - 13)	
-1.27297 J (4/29/2006) -0.212161	ND<0 (3/15/2000)	(-1.27297 - 0)/(19 - 13)	
1.29473 (11/18/2006) 0.184961	ND<0 (3/15/2000)	(1.29473 - 0)/(20 - 13)	
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0
-0.597837 J (11/28/2007) -0.0664263	ND<0 (3/15/2000)	(-0.597837 - 0)/(22 - 13)	
ND<0 (6/5/2008)	ND<0 (3/15/2000)	(0 - 0)/(23 - 13)	0
-1.38629 J (11/20/2008) -0.126027	ND<0 (3/15/2000)	(-1.38629 - 0)/(24 - 13)	
ND<-2.30259 (6/11/2009) -0.191882	ND<0 (3/15/2000)	(-2.30259 - 0)/(25 - 13)	
-1.42712 J (6/30/2010) -0.109778	ND<0 (3/15/2000)	(-1.42712 - 0)/(26 - 13)	
-1.46968 J (11/12/2010) -0.104977	ND<0 (3/15/2000)	(-1.46968 - 0)/(27 - 13)	
-1.04982 J (7/5/2011) -0.0699881	ND<0 (3/15/2000)	(-1.04982 - 0)/(28 - 13)	
-0.941609 J (11/22/2011) -0.0588505	ND<0 (3/15/2000)	(-0.941609 - 0)/(29 - 13)	
-0.941609 J (11/22/2011) -0.0588505	ND<0 (3/15/2000)	(-0.941609 - 0)/(29 - 13)	
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0
-1.27297 J (4/1/2005) -0.424322	ND<0 (9/24/2003)	(-1.27297 - 0)/(17 - 14)	
-0.653926 J (10/25/2005) -0.163482	ND<0 (9/24/2003)	(-0.653926 - 0)/(18 - 14)	
-1.27297 J (4/29/2006) -0.254593	ND<0 (9/24/2003)	(-1.27297 - 0)/(19 - 14)	
1.29473 (11/18/2006) 0.215788	ND<0 (9/24/2003)	(1.29473 - 0)/(20 - 14)	
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0
-0.597837 J (11/28/2007) -0.0747296	ND<0 (9/24/2003)	(-0.597837 - 0)/(22 - 14)	
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0
-1.38629 J (11/20/2008) -0.138629	ND<0 (9/24/2003)	(-1.38629 - 0)/(24 - 14)	
ND<-2.30259 (6/11/2009) -0.209326	ND<0 (9/24/2003)	(-2.30259 - 0)/(25 - 14)	
-1.42712 J (6/30/2010) -0.118926	ND<0 (9/24/2003)	(-1.42712 - 0)/(26 - 14)	
-1.46968 J (11/12/2010) -0.113052	ND<0 (9/24/2003)	(-1.46968 - 0)/(27 - 14)	
-1.04982 J (7/5/2011) -0.0749873	ND<0 (9/24/2003)	(-1.04982 - 0)/(28 - 14)	
-0.941609 J (11/22/2011) -0.0627739	ND<0 (9/24/2003)	(-0.941609 - 0)/(29 - 14)	
-0.941609 J (11/22/2011) -0.0627739	ND<0 (9/24/2003)	(-0.941609 - 0)/(29 - 14)	

ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0	
-1.27297 J (4/1/2005)	ND<0 (3/11/2004)	(-1.27297 - 0)/(17 - 15)		
-0.636483				
-0.653926 J (10/25/2005)	ND<0 (3/11/2004)	(-0.653926 - 0)/(18 - 15)		
-0.217975				
-1.27297 J (4/29/2006)	ND<0 (3/11/2004)	(-1.27297 - 0)/(19 - 15)		
-0.318241				
1.29473 (11/18/2006)	ND<0 (3/11/2004)	(1.29473 - 0)/(20 - 15)		
0.258945				
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0	
-0.597837 J (11/28/2007)	ND<0 (3/11/2004)	(-0.597837 - 0)/(22 - 15)		
-0.0854053				
ND<0 (6/5/2008)	ND<0 (3/11/2004)	(0 - 0)/(23 - 15)	0	
-1.38629 J (11/20/2008)	ND<0 (3/11/2004)	(-1.38629 - 0)/(24 - 15)		
-0.154033				
ND<-2.30259 (6/11/2009)	ND<0 (3/11/2004)	(-2.30259 - 0)/(25 - 15)		
-0.230259				
-1.42712 J (6/30/2010)	ND<0 (3/11/2004)	(-1.42712 - 0)/(26 - 15)		
-0.129738				
-1.46968 J (11/12/2010)	ND<0 (3/11/2004)	(-1.46968 - 0)/(27 - 15)		
-0.122473				
-1.04982 J (7/5/2011)	ND<0 (3/11/2004)	(-1.04982 - 0)/(28 - 15)		
-0.0807555				
-0.941609 J (11/22/2011)	ND<0 (3/11/2004)	(-0.941609 - 0)/(29 - 15)		
-0.0672578				
-0.941609 J (11/22/2011)	ND<0 (3/11/2004)	(-0.941609 - 0)/(29 - 15)		
-0.0672578				
-1.27297 J (4/1/2005)	ND<0 (10/12/2004)	(-1.27297 - 0)/(17 - 16)		-1.27297
-0.653926 J (10/25/2005)	ND<0 (10/12/2004)	(-0.653926 - 0)/(18 - 16)		
-0.326963				
-1.27297 J (4/29/2006)	ND<0 (10/12/2004)	(-1.27297 - 0)/(19 - 16)		
-0.424322				
1.29473 (11/18/2006)	ND<0 (10/12/2004)	(1.29473 - 0)/(20 - 16)		
0.323682				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
-0.597837 J (11/28/2007)	ND<0 (10/12/2004)	(-0.597837 - 0)/(22 - 16)		
-0.0996395				
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0	
-1.38629 J (11/20/2008)	ND<0 (10/12/2004)	(-1.38629 - 0)/(24 - 16)		
-0.173287				
ND<-2.30259 (6/11/2009)	ND<0 (10/12/2004)	(-2.30259 - 0)/(25 - 16)		
-0.255843				
-1.42712 J (6/30/2010)	ND<0 (10/12/2004)	(-1.42712 - 0)/(26 - 16)		
-0.142712				
-1.46968 J (11/12/2010)	ND<0 (10/12/2004)	(-1.46968 - 0)/(27 - 16)		
-0.133607				
-1.04982 J (7/5/2011)	ND<0 (10/12/2004)	(-1.04982 - 0)/(28 - 16)		
-0.0874852				
-0.941609 J (11/22/2011)	ND<0 (10/12/2004)	(-0.941609 - 0)/(29 - 16)		
-0.0724314				
-0.941609 J (11/22/2011)	ND<0 (10/12/2004)	(-0.941609 - 0)/(29 - 16)		
-0.0724314				
-0.653926 J (10/25/2005)	-1.27297 J (4/1/2005)	(-0.653926 - -1.27297)/(18 - 17)		
0.619039				
-1.27297 J (4/29/2006)	-1.27297 J (4/1/2005)	(-1.27297 - -1.27297)/(19 - 17)		
0				
1.29473 (11/18/2006)	-1.27297 J (4/1/2005)	(1.29473 - -1.27297)/(20 - 17)		
0.855898				
ND<0 (5/23/2007)	-1.27297 J (4/1/2005)	(0 - -1.27297)/(21 - 17)		
0.318241				

-0.597837 J (11/28/2007)	-1.27297 J (4/1/2005)	(-0.597837 - -1.27297)/(22 - 17)
0.135026		
ND<0 (6/5/2008)	-1.27297 J (4/1/2005)	(0 - -1.27297)/(23 - 17)
0.212161		
-1.38629 J (11/20/2008)	-1.27297 J (4/1/2005)	(-1.38629 - -1.27297)/(24 - 17)
-0.0161898		
ND<-2.30259 (6/11/2009)	-1.27297 J (4/1/2005)	(-2.30259 - -1.27297)/(25 - 17)
-0.128702		
-1.42712 J (6/30/2010)	-1.27297 J (4/1/2005)	(-1.42712 - -1.27297)/(26 - 17)
-0.0171279		
-1.46968 J (11/12/2010)	-1.27297 J (4/1/2005)	(-1.46968 - -1.27297)/(27 - 17)
-0.019671		
-1.04982 J (7/5/2011)	-1.27297 J (4/1/2005)	(-1.04982 - -1.27297)/(28 - 17)
0.0202858		
-0.941609 J (11/22/2011)	-1.27297 J (4/1/2005)	(-0.941609 - -1.27297)/(29 - 17)
0.0276131		
-0.941609 J (11/22/2011)	-1.27297 J (4/1/2005)	(-0.941609 - -1.27297)/(29 - 17)
0.0276131		
-1.27297 J (4/29/2006)	-0.653926 J (10/25/2005)	(-1.27297 - -0.653926)/(19 - 18)
-0.619039		
1.29473 (11/18/2006)	-0.653926 J (10/25/2005)	(1.29473 - -0.653926)/(20 - 18)
0.974327		
ND<0 (5/23/2007)	-0.653926 J (10/25/2005)	(0 - -0.653926)/(21 - 18)
0.217975		
-0.597837 J (11/28/2007)	-0.653926 J (10/25/2005)	(-0.597837 - -0.653926)/(22 - 18)
0.0140224		
ND<0 (6/5/2008)	-0.653926 J (10/25/2005)	(0 - -0.653926)/(23 - 18)
0.130785		
-1.38629 J (11/20/2008)	-0.653926 J (10/25/2005)	(-1.38629 - -0.653926)/(24 - 18)
-0.122061		
ND<-2.30259 (6/11/2009)	-0.653926 J (10/25/2005)	(-2.30259 - -0.653926)/(25 - 18)
-0.235523		
-1.42712 J (6/30/2010)	-0.653926 J (10/25/2005)	(-1.42712 - -0.653926)/(26 - 18)
-0.0966487		
-1.46968 J (11/12/2010)	-0.653926 J (10/25/2005)	(-1.46968 - -0.653926)/(27 - 18)
-0.0906388		
-1.04982 J (7/5/2011)	-0.653926 J (10/25/2005)	(-1.04982 - -0.653926)/(28 - 18)
-0.0395896		
-0.941609 J (11/22/2011)	-0.653926 J (10/25/2005)	(-0.941609 - -0.653926)/(29 - 18)
-0.0261529		
-0.941609 J (11/22/2011)	-0.653926 J (10/25/2005)	(-0.941609 - -0.653926)/(29 - 18)
-0.0261529		
1.29473 (11/18/2006)	-1.27297 J (4/29/2006)	(1.29473 - -1.27297)/(20 - 19)
2.56769		
ND<0 (5/23/2007)	-1.27297 J (4/29/2006)	(0 - -1.27297)/(21 - 19)
0.636483		
-0.597837 J (11/28/2007)	-1.27297 J (4/29/2006)	(-0.597837 - -1.27297)/(22 - 19)
0.225043		
ND<0 (6/5/2008)	-1.27297 J (4/29/2006)	(0 - -1.27297)/(23 - 19)
0.318241		
-1.38629 J (11/20/2008)	-1.27297 J (4/29/2006)	(-1.38629 - -1.27297)/(24 - 19)
-0.0226657		
ND<-2.30259 (6/11/2009)	-1.27297 J (4/29/2006)	(-2.30259 - -1.27297)/(25 - 19)
-0.171603		
-1.42712 J (6/30/2010)	-1.27297 J (4/29/2006)	(-1.42712 - -1.27297)/(26 - 19)
-0.0220215		
-1.46968 J (11/12/2010)	-1.27297 J (4/29/2006)	(-1.46968 - -1.27297)/(27 - 19)
-0.0245888		
-1.04982 J (7/5/2011)	-1.27297 J (4/29/2006)	(-1.04982 - -1.27297)/(28 - 19)
0.0247937		

-0.941609 J (11/22/2011)	-1.27297 J (4/29/2006)	(-0.941609 - -1.27297)/(29 - 19)	
0.0331357			
-0.941609 J (11/22/2011)	-1.27297 J (4/29/2006)	(-0.941609 - -1.27297)/(29 - 19)	
0.0331357			
ND<0 (5/23/2007)	1.29473 (11/18/2006)	(0 - 1.29473)/(21 - 20)	-1.29473
-0.597837 J (11/28/2007)	1.29473 (11/18/2006)	(-0.597837 - 1.29473)/(22 - 20)	
-0.946282			
ND<0 (6/5/2008)	1.29473 (11/18/2006)	(0 - 1.29473)/(23 - 20)	
-0.431576			
-1.38629 J (11/20/2008)	1.29473 (11/18/2006)	(-1.38629 - 1.29473)/(24 - 20)	
-0.670255			
ND<-2.30259 (6/11/2009)	1.29473 (11/18/2006)	(-2.30259 - 1.29473)/(25 - 20)	
-0.719462			
-1.42712 J (6/30/2010)	1.29473 (11/18/2006)	(-1.42712 - 1.29473)/(26 - 20)	
-0.453641			
-1.46968 J (11/12/2010)	1.29473 (11/18/2006)	(-1.46968 - 1.29473)/(27 - 20)	
-0.394915			
-1.04982 J (7/5/2011)	1.29473 (11/18/2006)	(-1.04982 - 1.29473)/(28 - 20)	
-0.293069			
-0.941609 J (11/22/2011)	1.29473 (11/18/2006)	(-0.941609 - 1.29473)/(29 - 20)	
-0.248482			
-0.941609 J (11/22/2011)	1.29473 (11/18/2006)	(-0.941609 - 1.29473)/(29 - 20)	
-0.248482			
-0.597837 J (11/28/2007)	ND<0 (5/23/2007)	(-0.597837 - 0)/(22 - 21)	
-0.597837			
ND<0 (6/5/2008)	ND<0 (5/23/2007)	(0 - 0)/(23 - 21)	0
-1.38629 J (11/20/2008)	ND<0 (5/23/2007)	(-1.38629 - 0)/(24 - 21)	
-0.462098			
ND<-2.30259 (6/11/2009)	ND<0 (5/23/2007)	(-2.30259 - 0)/(25 - 21)	
-0.575646			
-1.42712 J (6/30/2010)	ND<0 (5/23/2007)	(-1.42712 - 0)/(26 - 21)	
-0.285423			
-1.46968 J (11/12/2010)	ND<0 (5/23/2007)	(-1.46968 - 0)/(27 - 21)	
-0.244946			
-1.04982 J (7/5/2011)	ND<0 (5/23/2007)	(-1.04982 - 0)/(28 - 21)	
-0.149975			
-0.941609 J (11/22/2011)	ND<0 (5/23/2007)	(-0.941609 - 0)/(29 - 21)	
-0.117701			
-0.941609 J (11/22/2011)	ND<0 (5/23/2007)	(-0.941609 - 0)/(29 - 21)	
-0.117701			
ND<0 (6/5/2008)	-0.597837 J (11/28/2007)	(0 - -0.597837)/(23 - 22)	
0.597837			
-1.38629 J (11/20/2008)	-0.597837 J (11/28/2007)	(-1.38629 - -0.597837)/(24 - 22)	
-0.394229			
ND<-2.30259 (6/11/2009)	-0.597837 J (11/28/2007)	(-2.30259 - -0.597837)/(25 - 22)	
-0.568249			
-1.42712 J (6/30/2010)	-0.597837 J (11/28/2007)	(-1.42712 - -0.597837)/(26 - 22)	
-0.20732			
-1.46968 J (11/12/2010)	-0.597837 J (11/28/2007)	(-1.46968 - -0.597837)/(27 - 22)	
-0.174368			
-1.04982 J (7/5/2011)	-0.597837 J (11/28/2007)	(-1.04982 - -0.597837)/(28 - 22)	
-0.0753309			
-0.941609 J (11/22/2011)	-0.597837 J (11/28/2007)	(-0.941609 - -0.597837)/(29 - 22)	
-0.0491102			
-0.941609 J (11/22/2011)	-0.597837 J (11/28/2007)	(-0.941609 - -0.597837)/(29 - 22)	
-0.0491102			
-1.38629 J (11/20/2008)	ND<0 (6/5/2008)	(-1.38629 - 0)/(24 - 23)	-1.38629
ND<-2.30259 (6/11/2009)	ND<0 (6/5/2008)	(-2.30259 - 0)/(25 - 23)	-1.15129

-1.42712 J (6/30/2010)	ND<0 (6/5/2008)	(-1.42712 - 0)/(26 - 23)
-0.475705		
-1.46968 J (11/12/2010)	ND<0 (6/5/2008)	(-1.46968 - 0)/(27 - 23)
-0.367419		
-1.04982 J (7/5/2011)	ND<0 (6/5/2008)	(-1.04982 - 0)/(28 - 23)
-0.209964		
-0.941609 J (11/22/2011)	ND<0 (6/5/2008)	(-0.941609 - 0)/(29 - 23)
-0.156935		
-0.941609 J (11/22/2011)	ND<0 (6/5/2008)	(-0.941609 - 0)/(29 - 23)
-0.156935		
ND<-2.30259 (6/11/2009)	-1.38629 J (11/20/2008)	(-2.30259 - -1.38629)/(25 - 24)
-0.916291		
-1.42712 J (6/30/2010)	-1.38629 J (11/20/2008)	(-1.42712 - -1.38629)/(26 - 24)
-0.020411		
-1.46968 J (11/12/2010)	-1.38629 J (11/20/2008)	(-1.46968 - -1.38629)/(27 - 24)
-0.0277939		
-1.04982 J (7/5/2011)	-1.38629 J (11/20/2008)	(-1.04982 - -1.38629)/(28 - 24)
0.0841181		
-0.941609 J (11/22/2011)	-1.38629 J (11/20/2008)	(-0.941609 - -1.38629)/(29 - 24)
0.0889372		
-0.941609 J (11/22/2011)	-1.38629 J (11/20/2008)	(-0.941609 - -1.38629)/(29 - 24)
0.0889372		
-1.42712 J (6/30/2010)	ND<-2.30259 (6/11/2009)	(-1.42712 - -2.30259)/(26 - 25)
0.875469		
-1.46968 J (11/12/2010)	ND<-2.30259 (6/11/2009)	(-1.46968 - -2.30259)/(27 - 25)
0.416455		
-1.04982 J (7/5/2011)	ND<-2.30259 (6/11/2009)	(-1.04982 - -2.30259)/(28 - 25)
0.417588		
-0.941609 J (11/22/2011)	ND<-2.30259 (6/11/2009)	(-0.941609 - -2.30259)/(29 - 25)
0.340244		
-0.941609 J (11/22/2011)	ND<-2.30259 (6/11/2009)	(-0.941609 - -2.30259)/(29 - 25)
0.340244		
-1.46968 J (11/12/2010)	-1.42712 J (6/30/2010)	(-1.46968 - -1.42712)/(27 - 26)
-0.0425596		
-1.04982 J (7/5/2011)	-1.42712 J (6/30/2010)	(-1.04982 - -1.42712)/(28 - 26)
0.188647		
-0.941609 J (11/22/2011)	-1.42712 J (6/30/2010)	(-0.941609 - -1.42712)/(29 - 26)
0.161836		
-0.941609 J (11/22/2011)	-1.42712 J (6/30/2010)	(-0.941609 - -1.42712)/(29 - 26)
0.161836		
-1.04982 J (7/5/2011)	-1.46968 J (11/12/2010)	(-1.04982 - -1.46968)/(28 - 27)
0.419854		
-0.941609 J (11/22/2011)	-1.46968 J (11/12/2010)	(-0.941609 - -1.46968)/(29 - 27)
0.264034		
-0.941609 J (11/22/2011)	-1.46968 J (11/12/2010)	(-0.941609 - -1.46968)/(29 - 27)
0.264034		
-0.941609 J (11/22/2011)	-1.04982 J (7/5/2011)	(-0.941609 - -1.04982)/(29 - 28)
0.108214		
-0.941609 J (11/22/2011)	-1.04982 J (7/5/2011)	(-0.941609 - -1.04982)/(29 - 28)
0.108214		
-0.941609 J (11/22/2011)	-0.941609 J (11/22/2011)	(-0.941609 - -0.941609)/(29 - 29)
Same Date		

Number of Q values = 434

Ordered Q Values

n	Q
1	-2.30259
2	-1.60944
3	-1.38629
4	-1.29473
5	-1.27297
6	-1.24245
7	-1.15129
8	-0.946282
9	-0.916291
10	-0.804719
11	-0.719462
12	-0.693147
13	-0.670255
14	-0.636483
15	-0.619039
16	-0.597837
17	-0.575646
18	-0.568249
19	-0.536479
20	-0.522872
21	-0.475705
22	-0.462098
23	-0.462098
24	-0.453641
25	-0.431576
26	-0.424322
27	-0.424322
28	-0.402359
29	-0.394915
30	-0.394229
31	-0.392154
32	-0.367419
33	-0.326963
34	-0.321888
35	-0.318241
36	-0.318241
37	-0.30543
38	-0.293069
39	-0.28824
40	-0.285423
41	-0.277259
42	-0.26824
43	-0.261436
44	-0.255843
45	-0.254593
46	-0.254593
47	-0.248482
48	-0.248482
49	-0.244946
50	-0.2402
51	-0.235523
52	-0.231049
53	-0.230259
54	-0.22992
55	-0.224088
56	-0.217975
57	-0.217335
58	-0.212161
59	-0.212161

60	-0.209964
61	-0.209326
62	-0.20732
63	-0.20576
64	-0.20118
65	-0.198042
66	-0.196077
67	-0.191882
68	-0.189947
69	-0.189439
70	-0.182322
71	-0.181852
72	-0.181852
73	-0.178826
74	-0.177122
75	-0.17622
76	-0.174368
77	-0.174291
78	-0.173287
79	-0.173287
80	-0.171603
81	-0.168313
82	-0.167676
83	-0.167152
84	-0.166204
85	-0.16447
86	-0.163482
87	-0.159819
88	-0.159121
89	-0.159121
90	-0.156935
91	-0.156935
92	-0.156862
93	-0.154033
94	-0.154033
95	-0.153956
96	-0.153506
97	-0.149975
98	-0.147152
99	-0.143912
100	-0.142712
101	-0.142601
102	-0.141441
103	-0.141441
104	-0.138909
105	-0.138629
106	-0.138629
107	-0.136015
108	-0.135446
109	-0.134314
110	-0.133607
111	-0.132028
112	-0.130785
113	-0.130718
114	-0.129738
115	-0.128702
116	-0.127297
117	-0.126631
118	-0.126027
119	-0.126027
120	-0.124822
121	-0.122473

122	-0.122322
123	-0.122061
124	-0.121532
125	-0.121189
126	-0.120663
127	-0.118999
128	-0.118926
129	-0.117701
130	-0.117701
131	-0.115957
132	-0.115957
133	-0.115724
134	-0.115724
135	-0.115525
136	-0.115525
137	-0.115129
138	-0.11496
139	-0.113052
140	-0.112044
141	-0.109778
142	-0.108988
143	-0.108323
144	-0.106638
145	-0.106638
146	-0.10608
147	-0.104977
148	-0.104428
149	-0.101937
150	-0.100709
151	-0.10059
152	-0.0996395
153	-0.099021
154	-0.0979784
155	-0.0979204
156	-0.0974447
157	-0.0966487
158	-0.095941
159	-0.0951411
160	-0.0934181
161	-0.0929713
162	-0.0929713
163	-0.0924196
164	-0.0918547
165	-0.0909261
166	-0.0906388
167	-0.0895347
168	-0.0895347
169	-0.0891948
170	-0.0874852
171	-0.0866434
172	-0.0864515
173	-0.0854053
174	-0.083948
175	-0.0825587
176	-0.0817408
177	-0.0816487
178	-0.0807555
179	-0.0795604
180	-0.0792842
181	-0.0773514
182	-0.0770164
183	-0.0770164

184	-0.0753309
185	-0.0749873
186	-0.0747296
187	-0.074696
188	-0.0729629
189	-0.0726585
190	-0.0724314
191	-0.0724314
192	-0.0713558
193	-0.0707203
194	-0.0699881
195	-0.0699846
196	-0.0693147
197	-0.0679579
198	-0.0672578
199	-0.0672578
200	-0.0668035
201	-0.0664263
202	-0.066014
203	-0.0656139
204	-0.0653926
205	-0.0627739
206	-0.0627739
207	-0.0617542
208	-0.0602737
209	-0.0597837
210	-0.0588505
211	-0.0588505
212	-0.0583235
213	-0.0570847
214	-0.056526
215	-0.0553887
216	-0.0553887
217	-0.0552538
218	-0.0544939
219	-0.0543488
220	-0.0524911
221	-0.0523116
222	-0.0523116
223	-0.050302
224	-0.0498198
225	-0.0495583
226	-0.0495583
227	-0.0491102
228	-0.0491102
229	-0.0477192
230	-0.0470804
231	-0.0470804
232	-0.0459875
233	-0.0456444
234	-0.0448385
235	-0.0448385
236	-0.0427026
237	-0.0425596
238	-0.0409395
239	-0.0409395
240	-0.0395896
241	-0.0392337
242	-0.0392337
243	-0.0388823
244	-0.0384663
245	-0.0373648

246	-0.0351669
247	-0.0336289
248	-0.0336289
249	-0.0284684
250	-0.0277939
251	-0.0274365
252	-0.0261529
253	-0.0261529
254	-0.0245888
255	-0.0242085
256	-0.0240602
257	-0.0237783
258	-0.0235002
259	-0.0232193
260	-0.0226657
261	-0.0220215
262	-0.020411
263	-0.019671
264	-0.0171279
265	-0.0161898
266	-0.015216
267	-0.00556381
268	-0.00538631
269	-0.00101271
270	-0.00101271
271	0
272	0
273	0
274	0
275	0
276	0
277	0
278	0
279	0
280	0
281	0
282	0
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286	0
287	0
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353	0
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0.0081644
364	0.0140224
365	0.0176919
366	0.0187403
367	0.0202858
368	0.0247937
369	0.0276131

370	0.0276131
371	0.0331357
372	0.0331357
373	0.0482258
374	0.0538995
375	0.0557859
376	0.0681435
377	0.0763576
378	0.0832992
379	0.0841181
380	0.0863151
381	0.0889372
382	0.0889372
383	0.0916291
384	0.0924805
385	0.10181
386	0.107894
387	0.108214
388	0.108214
389	0.114536
390	0.117702
391	0.129473
392	0.130785
393	0.130899
394	0.135026
395	0.138189
396	0.143859
397	0.152715
398	0.161836
399	0.161836
400	0.161841
401	0.183258
402	0.184961
403	0.188647
404	0.212161
405	0.215788
406	0.217975
407	0.225043
408	0.229073
409	0.258945
410	0.264034
411	0.264034
412	0.26824
413	0.318241
414	0.318241
415	0.323682
416	0.340244
417	0.340244
418	0.416455
419	0.417588
420	0.419854
421	0.458145
422	0.597837
423	0.619039
424	0.636483
425	0.693147
426	0.804719
427	0.84191
428	0.855898
429	0.875469
430	0.916291
431	0.974327

432	1.56862
433	1.60944
434	2.56769

Sen's Estimator (Median Q) is -0.0548738

Tied Group	Value	Members
1	0	14
2	-1.27297	2
3	-0.941609	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 6042
B = 18
C = 2184
D = 0
E = 186
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 2805.21
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 87.1184
M1 = (434 - 87.1184)/2.0 = 173.441
M2 = (434 + 87.1184)/2.0 + 1 = 261.559
Lower limit is -0.0854053 = Q(173)
Upper limit is -0.020411 = Q(262)
-0.020411 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: trans-1,2-Dichloroethene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-1.07881 J (8/24/1995)	ND<0 (7/20/1995)	(-1.07881 - 0)/(2 - 1)	-1.07881
-0.356675 J (9/28/1995)	ND<0 (7/20/1995)	(-0.356675 - 0)/(3 - 1)	-0.178337
-0.510826 J (10/26/1995)	ND<0 (7/20/1995)	(-0.510826 - 0)/(4 - 1)	-0.170275
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
ND<0 (3/16/1999)	ND<0 (7/20/1995)	(0 - 0)/(11 - 1)	0
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
-1.42712 J (4/1/2005)	ND<0 (7/20/1995)	(-1.42712 - 0)/(17 - 1)	-0.0891948
-1.42712 J (10/25/2005)	ND<0 (7/20/1995)	(-1.42712 - 0)/(18 - 1)	-0.083948
-1.23787 J (4/29/2006)	ND<0 (7/20/1995)	(-1.23787 - 0)/(19 - 1)	-0.0687708
-0.527633 J (11/18/2006)	ND<0 (7/20/1995)	(-0.527633 - 0)/(20 - 1)	-0.0277701
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
-1.27297 J (11/28/2007)	ND<0 (7/20/1995)	(-1.27297 - 0)/(22 - 1)	-0.0606174
ND<0 (6/5/2008)	ND<0 (7/20/1995)	(0 - 0)/(23 - 1)	0
-1.56065 J (11/20/2008)	ND<0 (7/20/1995)	(-1.56065 - 0)/(24 - 1)	-0.0678542
ND<-2.30259 (6/11/2009)	ND<0 (7/20/1995)	(-2.30259 - 0)/(25 - 1)	-0.095941
-1.30933 J (11/16/2009)	ND<0 (7/20/1995)	(-1.30933 - 0)/(26 - 1)	-0.0523733
ND<-2.30259 (6/30/2010)	ND<0 (7/20/1995)	(-2.30259 - 0)/(27 - 1)	-0.088561
ND<-2.30259 U (11/12/2010)	ND<0 (7/20/1995)	(-2.30259 - 0)/(28 - 1)	-0.0852809
-1.30933 J (7/5/2011)	ND<0 (7/20/1995)	(-1.30933 - 0)/(29 - 1)	-0.0467619
-1.17118 J (11/22/2011)	ND<0 (7/20/1995)	(-1.17118 - 0)/(30 - 1)	-0.0403856
-1.17118 J (11/22/2011)	ND<0 (7/20/1995)	(-1.17118 - 0)/(30 - 1)	-0.0403856
-0.356675 J (9/28/1995)	-1.07881 J (8/24/1995)	(-0.356675 - -1.07881)/(3 - 2)	0.722135
-0.510826 J (10/26/1995)	-1.07881 J (8/24/1995)	(-0.510826 - -1.07881)/(4 - 2)	0.283992

ND<0 (11/19/1996) -1.07881 J (8/24/1995) (0 - -1.07881)/(5 - 2)
0.359603
ND<0 (12/19/1996) -1.07881 J (8/24/1995) (0 - -1.07881)/(6 - 2)
0.269702
ND<0 (3/24/1997) -1.07881 J (8/24/1995) (0 - -1.07881)/(7 - 2)
0.215762
ND<0 (9/24/1997) -1.07881 J (8/24/1995) (0 - -1.07881)/(8 - 2)
0.179802
ND<0 (4/7/1998) -1.07881 J (8/24/1995) (0 - -1.07881)/(9 - 2)
0.154116
ND<0 (9/23/1998) -1.07881 J (8/24/1995) (0 - -1.07881)/(10 - 2)
0.134851
ND<0 (3/16/1999) -1.07881 J (8/24/1995) (0 - -1.07881)/(11 - 2)
0.119868
ND<0 (9/23/1999) -1.07881 J (8/24/1995) (0 - -1.07881)/(12 - 2)
0.107881
ND<0 (3/15/2000) -1.07881 J (8/24/1995) (0 - -1.07881)/(13 - 2)
0.0980736
ND<0 (9/24/2003) -1.07881 J (8/24/1995) (0 - -1.07881)/(14 - 2)
0.0899008
ND<0 (3/11/2004) -1.07881 J (8/24/1995) (0 - -1.07881)/(15 - 2)
0.0829854
ND<0 (10/12/2004) -1.07881 J (8/24/1995) (0 - -1.07881)/(16 - 2)
0.0770578
-1.42712 J (4/1/2005) -1.07881 J (8/24/1995) (-1.42712 - -1.07881)/(17 - 2)
-0.0232204
-1.42712 J (10/25/2005) -1.07881 J (8/24/1995) (-1.42712 - -1.07881)/(18 - 2)
-0.0217692
-1.23787 J (4/29/2006) -1.07881 J (8/24/1995) (-1.23787 - -1.07881)/(19 - 2)
-0.00935675
-0.527633 J (11/18/2006) -1.07881 J (8/24/1995) (-0.527633 - -1.07881)/(20 - 2)
0.0306209
ND<0 (5/23/2007) -1.07881 J (8/24/1995) (0 - -1.07881)/(21 - 2)
0.0567795
-1.27297 J (11/28/2007) -1.07881 J (8/24/1995) (-1.27297 - -1.07881)/(22 - 2)
-0.0097078
ND<0 (6/5/2008) -1.07881 J (8/24/1995) (0 - -1.07881)/(23 - 2)
0.0513719
-1.56065 J (11/20/2008) -1.07881 J (8/24/1995) (-1.56065 - -1.07881)/(24 - 2)
-0.0219017
ND<-2.30259 (6/11/2009) -1.07881 J (8/24/1995) (-2.30259 - -1.07881)/(25 - 2)
-0.0532076
-1.30933 J (11/16/2009) -1.07881 J (8/24/1995) (-1.30933 - -1.07881)/(26 - 2)
-0.00960515
ND<-2.30259 (6/30/2010) -1.07881 J (8/24/1995) (-2.30259 - -1.07881)/(27 - 2)
-0.048951
ND<-2.30259 U (11/12/2010) -1.07881 J (8/24/1995) (-2.30259 - -1.07881)/(28 - 2)
-0.0470683
-1.30933 J (7/5/2011) -1.07881 J (8/24/1995) (-1.30933 - -1.07881)/(29 - 2)
-0.00853791
-1.17118 J (11/22/2011) -1.07881 J (8/24/1995) (-1.17118 - -1.07881)/(30 - 2)
-0.00329905
-1.17118 J (11/22/2011) -1.07881 J (8/24/1995) (-1.17118 - -1.07881)/(30 - 2)
-0.00329905

-0.510826 J (10/26/1995) -0.356675 J (9/28/1995) (-0.510826 - -0.356675)/(4 - 3)
-0.154151
ND<0 (11/19/1996) -0.356675 J (9/28/1995) (0 - -0.356675)/(5 - 3)
0.178337
ND<0 (12/19/1996) -0.356675 J (9/28/1995) (0 - -0.356675)/(6 - 3)
0.118892

ND<0 (3/24/1997) -0.356675 J (9/28/1995) (0 - -0.356675)/(7 - 3)
0.0891687
ND<0 (9/24/1997) -0.356675 J (9/28/1995) (0 - -0.356675)/(8 - 3)
0.071335
ND<0 (4/7/1998) -0.356675 J (9/28/1995) (0 - -0.356675)/(9 - 3)
0.0594458
ND<0 (9/23/1998) -0.356675 J (9/28/1995) (0 - -0.356675)/(10 - 3)
0.0509536
ND<0 (3/16/1999) -0.356675 J (9/28/1995) (0 - -0.356675)/(11 - 3)
0.0445844
ND<0 (9/23/1999) -0.356675 J (9/28/1995) (0 - -0.356675)/(12 - 3)
0.0396305
ND<0 (3/15/2000) -0.356675 J (9/28/1995) (0 - -0.356675)/(13 - 3)
0.0356675
ND<0 (9/24/2003) -0.356675 J (9/28/1995) (0 - -0.356675)/(14 - 3)
0.032425
ND<0 (3/11/2004) -0.356675 J (9/28/1995) (0 - -0.356675)/(15 - 3)
0.0297229
ND<0 (10/12/2004) -0.356675 J (9/28/1995) (0 - -0.356675)/(16 - 3)
0.0274365
-1.42712 J (4/1/2005) -0.356675 J (9/28/1995) (-1.42712 - -0.356675)/(17 - 3)
-0.0764601
-1.42712 J (10/25/2005) -0.356675 J (9/28/1995) (-1.42712 - -0.356675)/(18 - 3)
-0.0713628
-1.23787 J (4/29/2006) -0.356675 J (9/28/1995) (-1.23787 - -0.356675)/(19 - 3)
-0.055075
-0.527633 J (11/18/2006) -0.356675 J (9/28/1995) (-0.527633 - -0.356675)/(20 - 3)
-0.0100563
ND<0 (5/23/2007) -0.356675 J (9/28/1995) (0 - -0.356675)/(21 - 3)
0.0198153
-1.27297 J (11/28/2007) -0.356675 J (9/28/1995) (-1.27297 - -0.356675)/(22 - 3)
-0.0482258
ND<0 (6/5/2008) -0.356675 J (9/28/1995) (0 - -0.356675)/(23 - 3)
0.0178337
-1.56065 J (11/20/2008) -0.356675 J (9/28/1995) (-1.56065 - -0.356675)/(24 - 3)
-0.057332
ND<-2.30259 (6/11/2009) -0.356675 J (9/28/1995) (-2.30259 - -0.356675)/(25 - 3)
-0.0884505
-1.30933 J (11/16/2009) -0.356675 J (9/28/1995) (-1.30933 - -0.356675)/(26 - 3)
-0.0414199
ND<-2.30259 (6/30/2010) -0.356675 J (9/28/1995) (-2.30259 - -0.356675)/(27 - 3)
-0.0810796
ND<-2.30259 U (11/12/2010) -0.356675 J (9/28/1995) (-2.30259 - -0.356675)/(28 - 3)
-0.0778364
-1.30933 J (7/5/2011) -0.356675 J (9/28/1995) (-1.30933 - -0.356675)/(29 - 3)
-0.0366407
-1.17118 J (11/22/2011) -0.356675 J (9/28/1995) (-1.17118 - -0.356675)/(30 - 3)
-0.030167
-1.17118 J (11/22/2011) -0.356675 J (9/28/1995) (-1.17118 - -0.356675)/(30 - 3)
-0.030167

ND<0 (11/19/1996) -0.510826 J (10/26/1995) (0 - -0.510826)/(5 - 4)
0.510826
ND<0 (12/19/1996) -0.510826 J (10/26/1995) (0 - -0.510826)/(6 - 4)
0.255413
ND<0 (3/24/1997) -0.510826 J (10/26/1995) (0 - -0.510826)/(7 - 4)
0.170275
ND<0 (9/24/1997) -0.510826 J (10/26/1995) (0 - -0.510826)/(8 - 4)
0.127706
ND<0 (4/7/1998) -0.510826 J (10/26/1995) (0 - -0.510826)/(9 - 4)
0.102165

ND<0 (9/23/1998) -0.510826 J (10/26/1995) (0 - -0.510826)/(10 - 4)
0.0851376
ND<0 (3/16/1999) -0.510826 J (10/26/1995) (0 - -0.510826)/(11 - 4)
0.0729751
ND<0 (9/23/1999) -0.510826 J (10/26/1995) (0 - -0.510826)/(12 - 4)
0.0638532
ND<0 (3/15/2000) -0.510826 J (10/26/1995) (0 - -0.510826)/(13 - 4)
0.0567584
ND<0 (9/24/2003) -0.510826 J (10/26/1995) (0 - -0.510826)/(14 - 4)
0.0510826
ND<0 (3/11/2004) -0.510826 J (10/26/1995) (0 - -0.510826)/(15 - 4)
0.0464387
ND<0 (10/12/2004) -0.510826 J (10/26/1995) (0 - -0.510826)/(16 - 4)
0.0425688
-1.42712 J (4/1/2005) -0.510826 J (10/26/1995) (-1.42712 - -0.510826)/(17 - 4)
-0.0704839
-1.42712 J (10/25/2005) -0.510826 J (10/26/1995) (-1.42712 - -0.510826)/(18 - 4)
-0.0654493
-1.23787 J (4/29/2006) -0.510826 J (10/26/1995) (-1.23787 - -0.510826)/(19 - 4)
-0.0484699
-0.527633 J (11/18/2006) -0.510826 J (10/26/1995) (-0.527633 - -0.510826)/(20 - 4)
-0.00105044
ND<0 (5/23/2007) -0.510826 J (10/26/1995) (0 - -0.510826)/(21 - 4)
0.0300486
-1.27297 J (11/28/2007) -0.510826 J (10/26/1995) (-1.27297 - -0.510826)/(22 - 4)
-0.0423411
ND<0 (6/5/2008) -0.510826 J (10/26/1995) (0 - -0.510826)/(23 - 4)
0.0268856
-1.56065 J (11/20/2008) -0.510826 J (10/26/1995) (-1.56065 - -0.510826)/(24 - 4)
-0.0524911
ND<-2.30259 (6/11/2009) -0.510826 J (10/26/1995) (-2.30259 - -0.510826)/(25 - 4)
-0.0853219
-1.30933 J (11/16/2009) -0.510826 J (10/26/1995) (-1.30933 - -0.510826)/(26 - 4)
-0.0362958
ND<-2.30259 (6/30/2010) -0.510826 J (10/26/1995) (-2.30259 - -0.510826)/(27 - 4)
-0.0779026
ND<-2.30259 U (11/12/2010) -0.510826 J (10/26/1995) (-2.30259 - -0.510826)/(28 - 4)
-0.0746566
-1.30933 J (7/5/2011) -0.510826 J (10/26/1995) (-1.30933 - -0.510826)/(29 - 4)
-0.0319403
-1.17118 J (11/22/2011) -0.510826 J (10/26/1995) (-1.17118 - -0.510826)/(30 - 4)
-0.0253984
-1.17118 J (11/22/2011) -0.510826 J (10/26/1995) (-1.17118 - -0.510826)/(30 - 4)
-0.0253984

ND<0 (12/19/1996) ND<0 (11/19/1996) (0 - 0)/(6 - 5) 0
ND<0 (3/24/1997) ND<0 (11/19/1996) (0 - 0)/(7 - 5) 0
ND<0 (9/24/1997) ND<0 (11/19/1996) (0 - 0)/(8 - 5) 0
ND<0 (4/7/1998) ND<0 (11/19/1996) (0 - 0)/(9 - 5) 0
ND<0 (9/23/1998) ND<0 (11/19/1996) (0 - 0)/(10 - 5) 0
ND<0 (3/16/1999) ND<0 (11/19/1996) (0 - 0)/(11 - 5) 0
ND<0 (9/23/1999) ND<0 (11/19/1996) (0 - 0)/(12 - 5) 0
ND<0 (3/15/2000) ND<0 (11/19/1996) (0 - 0)/(13 - 5) 0
ND<0 (9/24/2003) ND<0 (11/19/1996) (0 - 0)/(14 - 5) 0
ND<0 (3/11/2004) ND<0 (11/19/1996) (0 - 0)/(15 - 5) 0
ND<0 (10/12/2004) ND<0 (11/19/1996) (0 - 0)/(16 - 5) 0
-1.42712 J (4/1/2005) ND<0 (11/19/1996) (-1.42712 - 0)/(17 - 5)
-0.118926
-1.42712 J (10/25/2005) ND<0 (11/19/1996) (-1.42712 - 0)/(18 - 5)
-0.109778
-1.23787 J (4/29/2006) ND<0 (11/19/1996) (-1.23787 - 0)/(19 - 5)
-0.0884196

-0.527633 J (11/18/2006) ND<0 (11/19/1996) (-0.527633 - 0)/(20 - 5)
-0.0351755
ND<0 (5/23/2007) ND<0 (11/19/1996) (0 - 0)/(21 - 5) 0
-1.27297 J (11/28/2007) ND<0 (11/19/1996) (-1.27297 - 0)/(22 - 5)
-0.0748803
ND<0 (6/5/2008) ND<0 (11/19/1996) (0 - 0)/(23 - 5) 0
-1.56065 J (11/20/2008) ND<0 (11/19/1996) (-1.56065 - 0)/(24 - 5)
-0.0821394
ND<-2.30259 (6/11/2009) ND<0 (11/19/1996) (-2.30259 - 0)/(25 - 5)
-0.115129
-1.30933 J (11/16/2009) ND<0 (11/19/1996) (-1.30933 - 0)/(26 - 5)
-0.0623492
ND<-2.30259 (6/30/2010) ND<0 (11/19/1996) (-2.30259 - 0)/(27 - 5)
-0.104663
ND<-2.30259 U (11/12/2010) ND<0 (11/19/1996) (-2.30259 - 0)/(28 - 5)
-0.100112
-1.30933 J (7/5/2011) ND<0 (11/19/1996) (-1.30933 - 0)/(29 - 5)
-0.0545556
-1.17118 J (11/22/2011) ND<0 (11/19/1996) (-1.17118 - 0)/(30 - 5)
-0.0468473
-1.17118 J (11/22/2011) ND<0 (11/19/1996) (-1.17118 - 0)/(30 - 5)
-0.0468473

ND<0 (3/24/1997) ND<0 (12/19/1996) (0 - 0)/(7 - 6) 0
ND<0 (9/24/1997) ND<0 (12/19/1996) (0 - 0)/(8 - 6) 0
ND<0 (4/7/1998) ND<0 (12/19/1996) (0 - 0)/(9 - 6) 0
ND<0 (9/23/1998) ND<0 (12/19/1996) (0 - 0)/(10 - 6) 0
ND<0 (3/16/1999) ND<0 (12/19/1996) (0 - 0)/(11 - 6) 0
ND<0 (9/23/1999) ND<0 (12/19/1996) (0 - 0)/(12 - 6) 0
ND<0 (3/15/2000) ND<0 (12/19/1996) (0 - 0)/(13 - 6) 0
ND<0 (9/24/2003) ND<0 (12/19/1996) (0 - 0)/(14 - 6) 0
ND<0 (3/11/2004) ND<0 (12/19/1996) (0 - 0)/(15 - 6) 0
ND<0 (10/12/2004) ND<0 (12/19/1996) (0 - 0)/(16 - 6) 0
-1.42712 J (4/1/2005) ND<0 (12/19/1996) (-1.42712 - 0)/(17 - 6)
-0.129738
-1.42712 J (10/25/2005) ND<0 (12/19/1996) (-1.42712 - 0)/(18 - 6)
-0.118926
-1.23787 J (4/29/2006) ND<0 (12/19/1996) (-1.23787 - 0)/(19 - 6)
-0.0952211
-0.527633 J (11/18/2006) ND<0 (12/19/1996) (-0.527633 - 0)/(20 - 6)
-0.0376881
ND<0 (5/23/2007) ND<0 (12/19/1996) (0 - 0)/(21 - 6) 0
-1.27297 J (11/28/2007) ND<0 (12/19/1996) (-1.27297 - 0)/(22 - 6)
-0.0795604
ND<0 (6/5/2008) ND<0 (12/19/1996) (0 - 0)/(23 - 6) 0
-1.56065 J (11/20/2008) ND<0 (12/19/1996) (-1.56065 - 0)/(24 - 6)
-0.0867027
ND<-2.30259 (6/11/2009) ND<0 (12/19/1996) (-2.30259 - 0)/(25 - 6)
-0.121189
-1.30933 J (11/16/2009) ND<0 (12/19/1996) (-1.30933 - 0)/(26 - 6)
-0.0654667
ND<-2.30259 (6/30/2010) ND<0 (12/19/1996) (-2.30259 - 0)/(27 - 6)
-0.109647
ND<-2.30259 U (11/12/2010) ND<0 (12/19/1996) (-2.30259 - 0)/(28 - 6)
-0.104663
-1.30933 J (7/5/2011) ND<0 (12/19/1996) (-1.30933 - 0)/(29 - 6)
-0.0569275
-1.17118 J (11/22/2011) ND<0 (12/19/1996) (-1.17118 - 0)/(30 - 6)
-0.0487993
-1.17118 J (11/22/2011) ND<0 (12/19/1996) (-1.17118 - 0)/(30 - 6)
-0.0487993

ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
-1.42712 J (4/1/2005)	ND<0 (3/24/1997)	(-1.42712 - 0)/(17 - 7)	
-0.142712			
-1.42712 J (10/25/2005)	ND<0 (3/24/1997)	(-1.42712 - 0)/(18 - 7)	
-0.129738			
-1.23787 J (4/29/2006)	ND<0 (3/24/1997)	(-1.23787 - 0)/(19 - 7)	
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ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
-1.27297 J (11/28/2007)	ND<0 (3/24/1997)	(-1.27297 - 0)/(22 - 7)	
-0.0848644			
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0
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-1.30933 J (11/16/2009)	ND<0 (3/24/1997)	(-1.30933 - 0)/(26 - 7)	
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ND<-2.30259 (6/30/2010)	ND<0 (3/24/1997)	(-2.30259 - 0)/(27 - 7)	
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ND<-2.30259 U (11/12/2010)	ND<0 (3/24/1997)	(-2.30259 - 0)/(28 - 7)	
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ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0
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ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0
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ND<-2.30259 U (11/12/2010) ND<0 (3/16/1999) (-2.30259 - 0)/(28 - 11)
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ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
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-1.23787 J (4/29/2006) ND<0 (9/24/2003) (-1.23787 - 0)/(19 - 14)
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ND<-2.30259 (6/30/2010) ND<0 (9/24/2003) (-2.30259 - 0)/(27 - 14)
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ND<-2.30259 U (11/12/2010) ND<0 (9/24/2003) (-2.30259 - 0)/(28 - 14)
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ND<-2.30259 U (11/12/2010) ND<0 (10/12/2004) (-2.30259 - 0)/(28 - 16)
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ND<-2.30259 (6/30/2010) -1.42712 J (4/1/2005) (-2.30259 - -1.42712)/(27 - 17)
-0.0875469
ND<-2.30259 U (11/12/2010) -1.42712 J (4/1/2005) (-2.30259 - -1.42712)/(28 - 17)
-0.0795881
-1.30933 J (7/5/2011) -1.42712 J (4/1/2005) (-1.30933 - -1.42712)/(29 - 17)
0.00981525
-1.17118 J (11/22/2011) -1.42712 J (4/1/2005) (-1.17118 - -1.42712)/(30 - 17)
0.0196872
-1.17118 J (11/22/2011) -1.42712 J (4/1/2005) (-1.17118 - -1.42712)/(30 - 17)
0.0196872

-1.23787 J (4/29/2006) -1.42712 J (10/25/2005) (-1.23787 - -1.42712)/(19 - 18)
0.189242
-0.527633 J (11/18/2006) -1.42712 J (10/25/2005) (-0.527633 - -1.42712)/(20 - 18)
0.449742
ND<0 (5/23/2007) -1.42712 J (10/25/2005) (0 - -1.42712)/(21 - 18)
0.475705
-1.27297 J (11/28/2007) -1.42712 J (10/25/2005) (-1.27297 - -1.42712)/(22 - 18)
0.0385377
ND<0 (6/5/2008) -1.42712 J (10/25/2005) (0 - -1.42712)/(23 - 18)
0.285423
-1.56065 J (11/20/2008) -1.42712 J (10/25/2005) (-1.56065 - -1.42712)/(24 - 18)
-0.0222552
ND<-2.30259 (6/11/2009) -1.42712 J (10/25/2005) (-2.30259 - -1.42712)/(25 - 18)
-0.125067

-1.30933 J (11/16/2009) -1.42712 J (10/25/2005) (-1.30933 - -1.42712)/(26 - 18)
0.0147229
ND<-2.30259 (6/30/2010) -1.42712 J (10/25/2005) (-2.30259 - -1.42712)/(27 - 18)
-0.0972743
ND<-2.30259 U (11/12/2010) -1.42712 J (10/25/2005) (-2.30259 - -1.42712)/(28 - 18)
-0.0875469
-1.30933 J (7/5/2011) -1.42712 J (10/25/2005) (-1.30933 - -1.42712)/(29 - 18)
0.0107075
-1.17118 J (11/22/2011) -1.42712 J (10/25/2005) (-1.17118 - -1.42712)/(30 - 18)
0.0213278
-1.17118 J (11/22/2011) -1.42712 J (10/25/2005) (-1.17118 - -1.42712)/(30 - 18)
0.0213278

-0.527633 J (11/18/2006) -1.23787 J (4/29/2006) (-0.527633 - -1.23787)/(20 - 19)
0.710242
ND<0 (5/23/2007) -1.23787 J (4/29/2006) (0 - -1.23787)/(21 - 19)
0.618937
-1.27297 J (11/28/2007) -1.23787 J (4/29/2006) (-1.27297 - -1.23787)/(22 - 19)
-0.0116971
ND<0 (6/5/2008) -1.23787 J (4/29/2006) (0 - -1.23787)/(23 - 19)
0.309469
-1.56065 J (11/20/2008) -1.23787 J (4/29/2006) (-1.56065 - -1.23787)/(24 - 19)
-0.0645547
ND<-2.30259 (6/11/2009) -1.23787 J (4/29/2006) (-2.30259 - -1.23787)/(25 - 19)
-0.177452
-1.30933 J (11/16/2009) -1.23787 J (4/29/2006) (-1.30933 - -1.23787)/(26 - 19)
-0.0102084
ND<-2.30259 (6/30/2010) -1.23787 J (4/29/2006) (-2.30259 - -1.23787)/(27 - 19)
-0.133089
ND<-2.30259 U (11/12/2010) -1.23787 J (4/29/2006) (-2.30259 - -1.23787)/(28 - 19)
-0.118301
-1.30933 J (7/5/2011) -1.23787 J (4/29/2006) (-1.30933 - -1.23787)/(29 - 19)
-0.0071459
-1.17118 J (11/22/2011) -1.23787 J (4/29/2006) (-1.17118 - -1.23787)/(30 - 19)
0.00606285
-1.17118 J (11/22/2011) -1.23787 J (4/29/2006) (-1.17118 - -1.23787)/(30 - 19)
0.00606285

ND<0 (5/23/2007) -0.527633 J (11/18/2006) (0 - -0.527633)/(21 - 20)
0.527633
-1.27297 J (11/28/2007) -0.527633 J (11/18/2006) (-1.27297 - -0.527633)/(22 - 20)
-0.372666
ND<0 (6/5/2008) -0.527633 J (11/18/2006) (0 - -0.527633)/(23 - 20)
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-1.56065 J (11/20/2008) -0.527633 J (11/18/2006) (-1.56065 - -0.527633)/(24 - 20)
-0.258254
ND<-2.30259 (6/11/2009) -0.527633 J (11/18/2006) (-2.30259 - -0.527633)/(25 - 20)
-0.35499
-1.30933 J (11/16/2009) -0.527633 J (11/18/2006) (-1.30933 - -0.527633)/(26 - 20)
-0.130283
ND<-2.30259 (6/30/2010) -0.527633 J (11/18/2006) (-2.30259 - -0.527633)/(27 - 20)
-0.253565
ND<-2.30259 U (11/12/2010) -0.527633 J (11/18/2006) (-2.30259 - -0.527633)/(28 - 20)
-0.221869
-1.30933 J (7/5/2011) -0.527633 J (11/18/2006) (-1.30933 - -0.527633)/(29 - 20)
-0.0868556
-1.17118 J (11/22/2011) -0.527633 J (11/18/2006) (-1.17118 - -0.527633)/(30 - 20)
-0.064355
-1.17118 J (11/22/2011) -0.527633 J (11/18/2006) (-1.17118 - -0.527633)/(30 - 20)
-0.064355

-1.27297 J (11/28/2007) ND<0 (5/23/2007) (-1.27297 - 0)/(22 - 21) -1.27297

ND<0 (6/5/2008)	ND<0 (5/23/2007)	(0 - 0)/(23 - 21)	0
-1.56065 J (11/20/2008)	ND<0 (5/23/2007)	(-1.56065 - 0)/(24 - 21)	
-0.520216			
ND<-2.30259 (6/11/2009)	ND<0 (5/23/2007)	(-2.30259 - 0)/(25 - 21)	
-0.575646			
-1.30933 J (11/16/2009)	ND<0 (5/23/2007)	(-1.30933 - 0)/(26 - 21)	
-0.261867			
ND<-2.30259 (6/30/2010)	ND<0 (5/23/2007)	(-2.30259 - 0)/(27 - 21)	
-0.383764			
ND<-2.30259 U (11/12/2010)	ND<0 (5/23/2007)	(-2.30259 - 0)/(28 - 21)	
-0.328941			
-1.30933 J (7/5/2011)	ND<0 (5/23/2007)	(-1.30933 - 0)/(29 - 21)	
-0.163667			
-1.17118 J (11/22/2011)	ND<0 (5/23/2007)	(-1.17118 - 0)/(30 - 21)	
-0.130131			
-1.17118 J (11/22/2011)	ND<0 (5/23/2007)	(-1.17118 - 0)/(30 - 21)	
-0.130131			
ND<0 (6/5/2008)	-1.27297 J (11/28/2007)	(0 - -1.27297)/(23 - 22)	1.27297
-1.56065 J (11/20/2008)	-1.27297 J (11/28/2007)	(-1.56065 - -1.27297)/(24 - 22)	
-0.143841			
ND<-2.30259 (6/11/2009)	-1.27297 J (11/28/2007)	(-2.30259 - -1.27297)/(25 - 22)	
-0.343206			
-1.30933 J (11/16/2009)	-1.27297 J (11/28/2007)	(-1.30933 - -1.27297)/(26 - 22)	
-0.00909191			
ND<-2.30259 (6/30/2010)	-1.27297 J (11/28/2007)	(-2.30259 - -1.27297)/(27 - 22)	
-0.205924			
ND<-2.30259 U (11/12/2010)	-1.27297 J (11/28/2007)	(-2.30259 - -1.27297)/(28 - 22)	
-0.171603			
-1.30933 J (7/5/2011)	-1.27297 J (11/28/2007)	(-1.30933 - -1.27297)/(29 - 22)	
-0.00519538			
-1.17118 J (11/22/2011)	-1.27297 J (11/28/2007)	(-1.17118 - -1.27297)/(30 - 22)	
0.0127228			
-1.17118 J (11/22/2011)	-1.27297 J (11/28/2007)	(-1.17118 - -1.27297)/(30 - 22)	
0.0127228			
-1.56065 J (11/20/2008)	ND<0 (6/5/2008)	(-1.56065 - 0)/(24 - 23)	-1.56065
ND<-2.30259 (6/11/2009)	ND<0 (6/5/2008)	(-2.30259 - 0)/(25 - 23)	-1.15129
-1.30933 J (11/16/2009)	ND<0 (6/5/2008)	(-1.30933 - 0)/(26 - 23)	
-0.436444			
ND<-2.30259 (6/30/2010)	ND<0 (6/5/2008)	(-2.30259 - 0)/(27 - 23)	
-0.575646			
ND<-2.30259 U (11/12/2010)	ND<0 (6/5/2008)	(-2.30259 - 0)/(28 - 23)	
-0.460517			
-1.30933 J (7/5/2011)	ND<0 (6/5/2008)	(-1.30933 - 0)/(29 - 23)	
-0.218222			
-1.17118 J (11/22/2011)	ND<0 (6/5/2008)	(-1.17118 - 0)/(30 - 23)	
-0.167312			
-1.17118 J (11/22/2011)	ND<0 (6/5/2008)	(-1.17118 - 0)/(30 - 23)	
-0.167312			
ND<-2.30259 (6/11/2009)	-1.56065 J (11/20/2008)	(-2.30259 - -1.56065)/(25 - 24)	
-0.741937			
-1.30933 J (11/16/2009)	-1.56065 J (11/20/2008)	(-1.30933 - -1.56065)/(26 - 24)	
0.125657			
ND<-2.30259 (6/30/2010)	-1.56065 J (11/20/2008)	(-2.30259 - -1.56065)/(27 - 24)	
-0.247312			
ND<-2.30259 U (11/12/2010)	-1.56065 J (11/20/2008)	(-2.30259 - -1.56065)/(28 - 24)	
-0.185484			
-1.30933 J (7/5/2011)	-1.56065 J (11/20/2008)	(-1.30933 - -1.56065)/(29 - 24)	
0.0502629			

-1.17118 J (11/22/2011) -1.56065 J (11/20/2008) (-1.17118 - -1.56065)/(30 - 24)
0.0649108
-1.17118 J (11/22/2011) -1.56065 J (11/20/2008) (-1.17118 - -1.56065)/(30 - 24)
0.0649108

-1.30933 J (11/16/2009) ND<-2.30259 (6/11/2009) (-1.30933 - -2.30259)/(26 - 25)
0.993252
ND<-2.30259 (6/30/2010) ND<-2.30259 (6/11/2009) (-2.30259 - -2.30259)/(27 - 25)
0
ND<-2.30259 U (11/12/2010) ND<-2.30259 (6/11/2009) (-2.30259 - -2.30259)/(28 - 25)
0
-1.30933 J (7/5/2011) ND<-2.30259 (6/11/2009) (-1.30933 - -2.30259)/(29 - 25)
0.248313
-1.17118 J (11/22/2011) ND<-2.30259 (6/11/2009) (-1.17118 - -2.30259)/(30 - 25)
0.22628
-1.17118 J (11/22/2011) ND<-2.30259 (6/11/2009) (-1.17118 - -2.30259)/(30 - 25)
0.22628

ND<-2.30259 (6/30/2010) -1.30933 J (11/16/2009) (-2.30259 - -1.30933)/(27 - 26)
-0.993252
ND<-2.30259 U (11/12/2010) -1.30933 J (11/16/2009) (-2.30259 - -1.30933)/(28 - 26)
-0.496626
-1.30933 J (7/5/2011) -1.30933 J (11/16/2009) (-1.30933 - -1.30933)/(29 - 26)
0
-1.17118 J (11/22/2011) -1.30933 J (11/16/2009) (-1.17118 - -1.30933)/(30 - 26)
0.0345376
-1.17118 J (11/22/2011) -1.30933 J (11/16/2009) (-1.17118 - -1.30933)/(30 - 26)
0.0345376

ND<-2.30259 U (11/12/2010) ND<-2.30259 (6/30/2010) (-2.30259 - -2.30259)/(28 - 27)
0
-1.30933 J (7/5/2011) ND<-2.30259 (6/30/2010) (-1.30933 - -2.30259)/(29 - 27)
0.496626
-1.17118 J (11/22/2011) ND<-2.30259 (6/30/2010) (-1.17118 - -2.30259)/(30 - 27)
0.377134
-1.17118 J (11/22/2011) ND<-2.30259 (6/30/2010) (-1.17118 - -2.30259)/(30 - 27)
0.377134

-1.30933 J (7/5/2011) ND<-2.30259 U (11/12/2010) (-1.30933 - -2.30259)/(29 - 28)
0.993252
-1.17118 J (11/22/2011) ND<-2.30259 U (11/12/2010) (-1.17118 - -2.30259)/(30 - 28)
0.565701
-1.17118 J (11/22/2011) ND<-2.30259 U (11/12/2010) (-1.17118 - -2.30259)/(30 - 28)
0.565701

-1.17118 J (11/22/2011) -1.30933 J (7/5/2011) (-1.17118 - -1.30933)/(30 - 29)
0.13815
-1.17118 J (11/22/2011) -1.30933 J (7/5/2011) (-1.17118 - -1.30933)/(30 - 29)
0.13815

-1.17118 J (11/22/2011) -1.17118 J (11/22/2011) (-1.17118 - -1.17118)/(30 - 30)
Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.56065
2	-1.42712
3	-1.27297

4	-1.15129
5	-1.07881
6	-0.993252
7	-0.741937
8	-0.713558
9	-0.713558
10	-0.575646
11	-0.575646
12	-0.520216
13	-0.496626
14	-0.475705
15	-0.475705
16	-0.460517
17	-0.436444
18	-0.412625
19	-0.383764
20	-0.372666
21	-0.356779
22	-0.356779
23	-0.35499
24	-0.343206
25	-0.328941
26	-0.309469
27	-0.285423
28	-0.285423
29	-0.261867
30	-0.258254
31	-0.255843
32	-0.253565
33	-0.247575
34	-0.247312
35	-0.237853
36	-0.237853
37	-0.230259
38	-0.221869
39	-0.218222
40	-0.212161
41	-0.209326
42	-0.209326
43	-0.206312
44	-0.205924
45	-0.203874
46	-0.203874
47	-0.195081
48	-0.191882
49	-0.191882
50	-0.191882
51	-0.185484
52	-0.181852
53	-0.17839
54	-0.17839
55	-0.178337
56	-0.177452
57	-0.177122
58	-0.177122
59	-0.177122
60	-0.176839
61	-0.173405
62	-0.171603
63	-0.170275
64	-0.167312
65	-0.167312

66	-0.16447
67	-0.16447
68	-0.16447
69	-0.163667
70	-0.159121
71	-0.158568
72	-0.158568
73	-0.156065
74	-0.154734
75	-0.154151
76	-0.153506
77	-0.153506
78	-0.153506
79	-0.143912
80	-0.143912
81	-0.143912
82	-0.143841
83	-0.142712
84	-0.142712
85	-0.141877
86	-0.141441
87	-0.137542
88	-0.135446
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91	-0.133089
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94	-0.130283
95	-0.130131
96	-0.130131
97	-0.130054
98	-0.129738
99	-0.129738
100	-0.127921
101	-0.127921
102	-0.127921
103	-0.127297
104	-0.125067
105	-0.123787
106	-0.121189
107	-0.121189
108	-0.121189
109	-0.12005
110	-0.11903
111	-0.118926
112	-0.118926
113	-0.118301
114	-0.115724
115	-0.115129
116	-0.115129
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118	-0.112534
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124	-0.109111
125	-0.10608
126	-0.105527
127	-0.104663

128	-0.104663
129	-0.104043
130	-0.103156
131	-0.100718
132	-0.100718
133	-0.100112
134	-0.0979204
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136	-0.0972743
137	-0.095941
138	-0.0952211
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248	-0.0219017
249	-0.0217692
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251	-0.0116971

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259	-0.0071459
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263	-0.00105044
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375	0.00606285

376	0.00981525
377	0.0107075
378	0.0127228
379	0.0127228
380	0.013087
381	0.0147229
382	0.0178337
383	0.0196872
384	0.0196872
385	0.0198153
386	0.0213278
387	0.0213278
388	0.0268856
389	0.0274365
390	0.0297229
391	0.0300486
392	0.0306209
393	0.0308301
394	0.032425
395	0.0345376
396	0.0345376
397	0.0356675
398	0.0385377
399	0.0396305
400	0.0425688
401	0.0445844
402	0.0464387
403	0.0502629
404	0.0509536
405	0.0510826
406	0.0513719
407	0.0567584
408	0.0567795
409	0.0594458
410	0.0638532
411	0.0649108
412	0.0649108
413	0.071335
414	0.0729751
415	0.0770578
416	0.0829854
417	0.0851376
418	0.0891687
419	0.0899008
420	0.094621
421	0.0980736
422	0.102165
423	0.107881
424	0.118892
425	0.119868
426	0.125657
427	0.127706
428	0.134851
429	0.13815
430	0.13815
431	0.154116
432	0.170275
433	0.175878
434	0.178337
435	0.179802
436	0.189242
437	0.215762

438	0.22628
439	0.22628
440	0.237853
441	0.248313
442	0.255413
443	0.269702
444	0.283992
445	0.285423
446	0.299828
447	0.309469
448	0.356779
449	0.359603
450	0.377134
451	0.377134
452	0.449742
453	0.475705
454	0.496626
455	0.510826
456	0.527633
457	0.565701
458	0.565701
459	0.618937
460	0.710242
461	0.722135
462	0.993252
463	0.993252
464	1.27297

Sen's Estimator (Median Q) is -0.0410035

Tied Group	Value	Members
1	0	15
2	-1.42712	2
3	-2.30259	3
4	-1.30933	2
5	-1.17118	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1

6/11/2009 1
11/16/2009 1
6/30/2010 1
11/12/2010 1
7/5/2011 1
11/22/2011 2
There are 1 time periods with multiple data

A = 7470
B = 18
C = 2736
D = 0
E = 222
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3045.91
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 90.779
M1 = (464 - 90.779)/2.0 = 186.611
M2 = (464 + 90.779)/2.0 + 1 = 278.389
Lower limit is -0.0678542 = Q(187)
Upper limit is 0 = Q(278)
-0.0678542 < 0 < 0 indicating no trend in data.

Concentrations (ppb)
Parameter: Trichloroethene
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 246
Total Non-Detect: 150
Percent Non-Detects: 60.9756%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.13	ND<0.13
			11/16/2009	ND<0.13	ND<0.13
			6/30/2010	ND<0.13	ND<0.13
			11/12/2010	ND<0.13 U	ND<0.13 U
			7/5/2011	ND<0.13 U	ND<0.13 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-11R	31	12 (38.7097%)	7/20/1995	3.5	3.5
			8/24/1995	8.8	8.8
			9/28/1995	6	6
			10/26/1995	8	8
			11/19/1996	ND<2	ND<2
			12/19/1996	9	9
			3/24/1997	7	7
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	5.1	5.1
			9/23/1999	2.3	2.3
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	3.01	3.01
			10/25/2005	1.28 J	1.28 J
			4/29/2006	0.59 J	0.59 J
			11/18/2006	0.96 J	0.96 J
			5/23/2007	2	2
			11/28/2007	1.01 J	1.01 J
			6/5/2008	ND<2	ND<2
			11/20/2008	0.29 J	0.29 J

			6/11/2009	1.5	1.5	
			11/16/2009	0.22 J	0.22 J	
			6/30/2010	1.4	1.4	
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	0.2 J	0.2 J	
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
MW-7	31	27 (87.0968%)	7/20/1995		1.1	1.1
			8/24/1995	0.8 J	0.8 J	
			9/28/1995	0.9 J	0.9 J	
			10/26/1995	1 J	1 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	ND<0.13		ND<0.13
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	ND<0.13 U		ND<0.13 U
			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U
MW-12A R	21	13 (61.9048%)	3/16/1999		ND<2	ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	5.2	5.2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	0.64 J	0.64 J	
			4/29/2006	0.55 J	0.55 J	
			11/18/2006	0.35 J	0.35 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.45 J	0.45 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.23 J	0.23 J	
			6/11/2009	ND<0.13		ND<0.13
			11/16/2009	0.13 J	0.13 J	
			6/30/2010	ND<0.13		ND<0.13
			11/12/2010	0.27 J	0.27 J	
			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U		ND<0.13 U
			11/22/2011	ND<0.13 U		ND<0.13 U

MW-12BR		21	18 (85.7143%)	3/16/1999		6.1	6.1
			9/23/1999	4.5	4.5		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005 2.14	2.14			
			10/25/2005	ND<2	ND<2		
			4/29/2006	ND<2	ND<2		
			11/18/2006	ND<2	ND<2		
			5/23/2007	ND<2	ND<2		
			11/28/2007	ND<2	ND<2		
			6/5/2008 ND<2	ND<2			
			11/20/2008	ND<2	ND<2		
			6/11/2009	ND<0.13		ND<0.13	
			11/16/2009	ND<0.13		ND<0.13	
			6/30/2010	ND<0.13		ND<0.13	
			11/12/2010	ND<0.13 U		ND<0.13 U	
			7/5/2011 ND<0.13 U		ND<0.13 U		
			11/22/2011	ND<0.13 U		ND<0.13 U	
			11/22/2011	ND<0.13 U		ND<0.13 U	
MW-10	31	13 (41.9355%)	7/20/1995		0.58 J	0.58 J	
			8/24/1995	2.2	2.2		
			9/28/1995	3	3		
			10/26/1995	3	3		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		
			4/7/1998 ND<2	ND<2			
			9/23/1998	ND<2	ND<2		
			3/16/1999	3.2	3.2		
			9/23/1999	ND<2	ND<2		
			3/15/2000	ND<2	ND<2		
			9/24/2003	ND<2	ND<2		
			3/11/2004	ND<2	ND<2		
			10/12/2004	ND<2	ND<2		
			4/1/2005 0.88 J	0.88 J			
			10/25/2005	1.15 J	1.15 J		
			4/29/2006	1.27 J	1.27 J		
			11/18/2006	0.89 J	0.89 J		
			5/23/2007	ND<2	ND<2		
			11/28/2007	1 J	1 J		
			6/5/2008 ND<2	ND<2			
			11/20/2008	0.91 J	0.91 J		
			6/11/2009	0.59 J	0.59 J		
			11/16/2009	0.94 J	0.94 J		
			6/30/2010	0.52 J	0.52 J		
			11/12/2010	0.86 J	0.86 J		
			7/5/2011 1.4	1.4			
			11/22/2011	1.4	1.4		
			11/22/2011	1.4	1.4		
MW-9	31	13 (41.9355%)	7/20/1995		0.33 J	0.33 J	
			8/24/1995	0.5 J	0.5 J		
			9/28/1995	0.8 J	0.8 J		
			10/26/1995	1 J	1 J		
			11/19/1996	ND<2	ND<2		
			12/19/1996	ND<2	ND<2		
			3/24/1997	ND<2	ND<2		
			9/24/1997	ND<2	ND<2		

			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.7 J	0.7 J	
			10/25/2005	0.53 J	0.53 J	
			4/29/2006	0.45 J	0.45 J	
			11/18/2006	0.43 J	0.43 J	
			5/23/2007	0.6 J	0.6 J	
			11/28/2007	0.74 J	0.74 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.6 J	0.6 J	
			6/11/2009	0.67 J	0.67 J	
			11/16/2009	0.73 J	0.73 J	
			6/30/2010	0.68 J	0.68 J	
			11/12/2010	0.71 J	0.71 J	
			7/5/2011	0.42 J	0.42 J	
			11/22/2011	0.45 J	0.45 J	
			11/22/2011	0.45 J	0.45 J	
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.13	ND<0.13	
			11/16/2009	ND<0.13	ND<0.13	
			6/30/2010	ND<0.13	ND<0.13	
			11/12/2010	ND<0.13 U	ND<0.13 U	
			7/5/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
MW-8	30	4 (13.3333%)	7/20/1995	19	19	
			8/24/1995	300	300	
			9/28/1995	190	190	
			10/26/1995	15	15	
			11/19/1996	ND<2	ND<2	
			12/19/1996	280	280	

3/24/1997	260	260
9/24/1997	150	150
4/7/1998	120	120
9/23/1998	150	150
3/16/1999	120	120
9/23/1999	77.4	77.4
3/15/2000	160	160
9/24/2003	ND<2	ND<2
3/11/2004	8.9	8.9
10/12/2004	ND<2	ND<2
4/1/2005	2.29	2.29
10/25/2005	6.66	6.66
4/29/2006	2.22	2.22
11/18/2006	3.54	3.54
5/23/2007	1.6	1.6
11/28/2007	4.18	4.18
6/5/2008	ND<2 J	ND<2 J
11/20/2008	1.3 J	1.3 J
6/11/2009	1.3	1.3
6/30/2010	0.87 J	0.87 J
11/12/2010	1.9	1.9
7/5/2011	2.6	2.6
11/22/2011	2	2
11/22/2011	2	2

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Trichloroethene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.065	-2.65209	7.03356	-0.172386
2	0.065	-2.40892	12.8365	-0.328966
3	0.065	-2.25713	17.9311	-0.475679
4	0.065	-2.14441	22.5296	-0.615066
5	0.065	-2.05375	26.7475	-0.748559
6	0.065	-1.97737	30.6575	-0.877088
7	0.065	-1.91103	34.3095	-1.00131
8	0.065	-1.85218	37.7401	-1.1217
9	0.065	-1.79912	40.9769	-1.23864
10	0.065	-1.75069	44.0418	-1.35243
11	0.065	-1.70604	46.9524	-1.46333
12	0.065	-1.66456	49.7231	-1.57152
13	0.065	-1.62576	52.3662	-1.6772
14	0.065	-1.58927	54.892	-1.7805
15	0.065	-1.55477	57.3093	-1.88156
16	0.065	-1.52203	59.6259	-1.98049
17	0.065	-1.49085	61.8486	-2.0774
18	0.065	-1.46106	63.9833	-2.17237
19	0.065	-1.4325	66.0353	-2.26548
20	0.065	-1.40507	68.0096	-2.35681
21	0.065	-1.3722	69.8925	-2.446
22	0.065	-1.34694	71.7067	-2.53355
23	0.065	-1.32251	73.4558	-2.61952
24	0.065	-1.29884	75.1427	-2.70394
25	0.065	-1.27588	76.7706	-2.78687
26	0.065	-1.25357	78.342	-2.86835
27	0.065	-1.23187	79.8595	-2.94843
28	0.065	-1.21073	81.3254	-3.02712
29	0.065	-1.19012	82.7418	-3.10448
30	0.065	-1.17	84.1107	-3.18053
31	0.065	-1.15035	85.434	-3.2553
32	0.065	-1.13113	86.7134	-3.32883
33	0.065	-1.11232	87.9507	-3.40113
34	0.065	-1.0939	89.1473	-3.47223
35	0.13	-1.07584	90.3047	-3.61209
36	0.2	-1.05812	91.4243	-3.82371
37	0.22	-1.04073	92.5075	-4.05268
38	0.23	-1.02365	93.5553	-4.28812
39	0.27	-1.00687	94.5691	-4.55997
40	0.29	-0.990356	95.5499	-4.84717
41	0.33	-0.974114	96.4988	-5.16863
42	0.35	-0.954165	97.4092	-5.50259
43	0.42	-0.938476	98.29	-5.89675
44	0.43	-0.923014	99.1419	-6.29364
45	0.45	-0.907769	99.966	-6.70214
46	0.45	-0.892733	100.763	-7.10387
47	0.45	-0.877897	101.534	-7.49892
48	0.45	-0.863249	102.279	-7.88739
49	0.5	-0.848786	102.999	-8.31178
50	0.52	-0.834498	103.696	-8.74572
51	0.53	-0.820379	104.369	-9.18052

52	0.55	-0.806422	105.019	-9.62405
53	0.58	-0.792618	105.647	-10.0838
54	0.59	-0.778966	106.254	-10.5434
55	0.59	-0.765456	106.84	-10.995
56	0.6	-0.752084	107.406	-11.4462
57	0.6	-0.738846	107.951	-11.8895
58	0.64	-0.725736	108.478	-12.354
59	0.67	-0.712751	108.986	-12.8315
60	0.68	-0.699883	109.476	-13.3075
61	0.7	-0.687131	109.948	-13.7885
62	0.71	-0.671346	110.399	-14.2651
63	0.73	-0.658838	110.833	-14.7461
64	0.74	-0.646431	111.251	-15.2244
65	0.8	-0.634124	111.653	-15.7317
66	0.8	-0.621911	112.04	-16.2293
67	0.86	-0.609791	112.412	-16.7537
68	0.87	-0.597761	112.769	-17.2737
69	0.88	-0.585815	113.112	-17.7892
70	0.89	-0.573953	113.441	-18.3001
71	0.9	-0.56217	113.758	-18.806
72	0.91	-0.550465	114.061	-19.3069
73	0.94	-0.538836	114.351	-19.8134
74	0.96	-0.52728	114.629	-20.3196
75	1	-0.515791	114.895	-20.8354
76	1	-0.504372	115.149	-21.3398
77	1	-0.493018	115.392	-21.8328
78	1	-0.481728	115.624	-22.3145
79	1	-0.470498	115.846	-22.785
80	1	-0.459327	116.057	-23.2444
81	1	-0.448213	116.258	-23.6926
82	1	-0.437153	116.449	-24.1297
83	1	-0.423405	116.628	-24.5531
84	1	-0.412463	116.798	-24.9656
85	1	-0.401571	116.959	-25.3672
86	1	-0.390726	117.112	-25.7579
87	1	-0.379927	117.256	-26.1378
88	1	-0.369171	117.393	-26.507
89	1	-0.358459	117.521	-26.8655
90	1	-0.347787	117.642	-27.2132
91	1	-0.337155	117.756	-27.5504
92	1	-0.326561	117.863	-27.877
93	1	-0.316004	117.962	-28.193
94	1	-0.305481	118.056	-28.4984
95	1	-0.294992	118.143	-28.7934
96	1	-0.284535	118.224	-29.078
97	1	-0.27411	118.299	-29.3521
98	1	-0.263715	118.368	-29.6158
99	1	-0.253347	118.433	-29.8691
100	1	-0.243007	118.492	-30.1121
101	1	-0.232693	118.546	-30.3448
102	1	-0.222403	118.595	-30.5672
103	1	-0.209575	118.639	-30.7768
104	1	-0.199336	118.679	-30.9762
105	1	-0.189118	118.715	-31.1653
106	1	-0.17892	118.747	-31.3442
107	1	-0.168741	118.775	-31.5129
108	1	-0.158579	118.8	-31.6715
109	1	-0.148434	118.822	-31.8199
110	1	-0.138305	118.841	-31.9583
111	1	-0.128189	118.858	-32.0864
112	1	-0.118085	118.872	-32.2045
113	1	-0.107995	118.883	-32.3125

114	1	-0.0979139	118.893	-32.4104
115	1	-0.0878447	118.901	-32.4983
116	1	-0.0777834	118.907	-32.5761
117	1	-0.0677301	118.911	-32.6438
118	1	-0.0576847	118.915	-32.7015
119	1	-0.0476439	118.917	-32.7491
120	1	-0.0376076	118.918	-32.7867
121	1	-0.0275759	118.919	-32.8143
122	1	-0.0175476	118.919	-32.8319
123	1	-0.00751925	118.92	-32.8394
124	1	0.00751925	118.92	-32.8319
125	1	0.0175476	118.92	-32.8143
126	1	0.0275759	118.921	-32.7867
127	1	0.0376076	118.922	-32.7491
128	1	0.0476439	118.924	-32.7015
129	1	0.0576847	118.928	-32.6438
130	1	0.0677301	118.932	-32.5761
131	1	0.0777834	118.938	-32.4983
132	1	0.0878447	118.946	-32.4104
133	1	0.0979139	118.956	-32.3125
134	1	0.107995	118.967	-32.2045
135	1	0.118085	118.981	-32.0864
136	1	0.128189	118.998	-31.9583
137	1	0.138305	119.017	-31.8199
138	1	0.148434	119.039	-31.6715
139	1	0.158579	119.064	-31.5129
140	1	0.168741	119.092	-31.3442
141	1	0.17892	119.124	-31.1653
142	1	0.189118	119.16	-30.9762
143	1	0.199336	119.2	-30.7768
144	1	0.209575	119.244	-30.5672
145	1	0.222403	119.293	-30.3448
146	1	0.232693	119.347	-30.1121
147	1	0.243007	119.407	-29.8691
148	1	0.253347	119.471	-29.6158
149	1	0.263715	119.54	-29.3521
150	1	0.27411	119.615	-29.078
151	1	0.284535	119.696	-28.7934
152	1	0.294992	119.783	-28.4984
153	1	0.305481	119.877	-28.193
154	1	0.316004	119.977	-27.877
155	1	0.326561	120.083	-27.5504
156	1	0.337155	120.197	-27.2132
157	1	0.347787	120.318	-26.8655
158	1	0.358459	120.446	-26.507
159	1	0.369171	120.583	-26.1378
160	1	0.379927	120.727	-25.7579
161	1	0.390726	120.88	-25.3672
162	1	0.401571	121.041	-24.9656
163	1	0.412463	121.211	-24.5531
164	1	0.423405	121.39	-24.1297
165	1	0.437153	121.581	-23.6926
166	1	0.448213	121.782	-23.2444
167	1	0.459327	121.993	-22.785
168	1	0.470498	122.215	-22.3145
169	1	0.481728	122.447	-21.8328
170	1	0.493018	122.69	-21.3398
171	1	0.504372	122.944	-20.8354
172	1	0.515791	123.21	-20.3196
173	1	0.52728	123.488	-19.7924
174	1	0.538836	123.779	-19.2535
175	1	0.550465	124.082	-18.7031

176	1	0.56217	124.398	-18.1409	
177	1	0.573953		124.727	-17.5669
178	1	0.585815		125.07	-16.9811
179	1	0.597761		125.428	-16.3834
180	1	0.609791		125.799	-15.7736
181	1	0.621911		126.186	-15.1517
182	1	0.634124		126.588	-14.5175
183	1	0.646431		127.006	-13.8711
184	1	0.658838		127.44	-13.2123
185	1	0.671346		127.891	-12.5409
186	1	0.687131		128.363	-11.8538
187	1	0.699883		128.853	-11.1539
188	1	0.712751		129.361	-10.4411
189	1	0.725736		129.888	-9.71541
190	1	0.738846		130.433	-8.97657
191	1	0.752084		130.999	-8.22448
192	1	0.765456		131.585	-7.45903
193	1	0.778966		132.192	-6.68006
194	1.01	0.792618		132.82	-5.87952
195	1.1	0.806422		133.47	-4.99245
196	1.15	0.820379		134.143	-4.04902
197	1.27	0.834498		134.84	-2.9892
198	1.28	0.848786		135.56	-1.90276
199	1.3	0.863249		136.305	-0.780535
200	1.3	0.877897		137.076	0.360731
201	1.4	0.892733		137.873	1.61056
202	1.4	0.907769		138.697	2.88143
203	1.4	0.923014		139.549	4.17365
204	1.4	0.938476		140.43	5.48752
205	1.5	0.954165		141.34	6.91877
206	1.6	0.974114		142.289	8.47735
207	1.9	0.990356		143.27	10.359
208	2	1.00687	144.284	12.3728	
209	2	1.02365	145.332	14.4201	
210	2	1.04073	146.415	16.5015	
211	2.14	1.05812	147.534	18.7659	
212	2.2	1.07584	148.692	21.1327	
213	2.22	1.0939	149.888	23.5612	
214	2.29	1.11232	151.126	26.1084	
215	2.3	1.13113	152.405	28.71	
216	2.6	1.15035	153.728	31.7009	
217	3	1.17	155.097	35.2109	
218	3	1.19012	156.514	38.7813	
219	3.01	1.21073	157.98	42.4256	
220	3.2	1.23187	159.497	46.3675	
221	3.5	1.25357	161.068	50.755	
222	3.54	1.27588	162.696	55.2716	
223	4.18	1.29884	164.383	60.7008	
224	4.5	1.32251	166.132	66.652	
225	5.1	1.34694	167.947	73.5214	
226	5.2	1.3722	169.83	80.6569	
227	6	1.40507	171.804	89.0873	
228	6.1	1.4325	173.856	97.8256	
229	6.66	1.46106	175.991	107.556	
230	7	1.49085	178.213	117.992	
231	8	1.52203	180.53	130.168	
232	8.8	1.55477	182.947	143.85	
233	8.9	1.58927	185.473	157.995	
234	9	1.62576	188.116	172.627	
235	15	1.66456	190.887	197.595	
236	19	1.70604	193.797	230.01	
237	77.4	1.75069	196.862	365.513	

238	120	1.79912	200.099	581.407
239	120	1.85218	203.53	803.668
240	150	1.91103	207.182	1090.32
241	150	1.97737	211.092	1386.93
242	160	2.05375	215.309	1715.53
243	190	2.14441	219.908	2122.97
244	260	2.25713	225.003	2709.82
245	280	2.40892	230.806	3384.32
246	300	2.65209	237.839	4179.94

Data Set Standard Deviation = 38.3631
Numerator = 1.74719e+007
Denominator = 8.57584e+007
W Statistic = 0.203734 = 1.74719e+007 / 8.57584e+007

5% Critical value of 0.976 exceeds 0.203734
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.203734
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichloroethene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.459957
0.459957 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.065	0.00404858	-2.65209	39.1159	344.01	
2	0.065	0.00809717	-2.40892	39.1159	332.136	
3	0.065	0.0121457	-2.25713	39.1159	324.723	
4	0.065	0.0161943	-2.14441	39.1159	319.219	
5	0.065	0.0202429	-2.05375	39.1159	314.791	
6	0.065	0.0242915	-1.97737	39.1159	311.062	
7	0.065	0.0283401	-1.91103	39.1159	307.822	
8	0.065	0.0323887	-1.85218	39.1159	304.948	
9	0.065	0.0364372	-1.79912	39.1159	302.357	
10	0.065	0.0404858	-1.75069	39.1159	299.992	
11	0.065	0.0445344	-1.70604	39.1159	297.812	
12	0.065	0.048583	-1.66456	39.1159	295.786	
13	0.065	0.0526316	-1.62576	39.1159	293.891	
14	0.065	0.0566802	-1.58927	39.1159	292.109	
15	0.065	0.0607287	-1.55477	39.1159	290.425	
16	0.065	0.0647773	-1.52203	39.1159	288.826	
17	0.065	0.0688259	-1.49085	39.1159	287.303	
18	0.065	0.0728745	-1.46106	39.1159	285.848	
19	0.065	0.0769231	-1.4325	39.1159	284.454	
20	0.065	0.0809717	-1.40507	39.1159	283.114	
21	0.065	0.0850202	-1.3722	39.1159	281.509	
22	0.065	0.0890688	-1.34694	39.1159	280.276	
23	0.065	0.0931174	-1.32251	39.1159	279.082	
24	0.065	0.097166	-1.29884	39.1159	277.926	
25	0.065	0.101215	-1.27588	39.1159	276.805	
26	0.065	0.105263	-1.25357	39.1159	275.716	
27	0.065	0.109312	-1.23187	39.1159	274.656	
28	0.065	0.11336	-1.21073	39.1159	273.624	
29	0.065	0.117409	-1.19012	39.1159	272.617	
30	0.065	0.121457	-1.17	39.1159	271.635	
31	0.065	0.125506	-1.15035	39.1159	270.675	
32	0.065	0.129555	-1.13113	39.1159	269.737	
33	0.065	0.133603	-1.11232	39.1159	268.818	
34	0.065	0.137652	-1.0939	39.1159	267.919	
35	0.13	0.1417	-1.07584	39.2318	267.037	
36	0.2	0.145749	-1.05812	39.3567	266.172	
37	0.22	0.149798	-1.04073	39.3923	265.322	
38	0.23	0.153846	-1.02365	39.4102	264.488	
39	0.27	0.157895	-1.00687	39.4815	263.669	
40	0.29	0.161943	-0.990356	39.5172	262.862	
41	0.33	0.165992	-0.974114	39.5885	262.069	
42	0.35	0.17004	-0.954165	39.6242	261.095	
43	0.42	0.174089	-0.938476	39.749	260.329	
44	0.43	0.178138	-0.923014	39.7668	259.574	
45	0.45	0.182186	-0.907769	39.8025	258.829	
46	0.45	0.186235	-0.892733	39.8025	258.095	
47	0.45	0.190283	-0.877897	39.8025	257.371	
48	0.45	0.194332	-0.863249	39.8025	256.655	

49	0.5	0.198381	-0.848786	39.8917	255.949
50	0.52	0.202429	-0.834498	39.9273	255.251
51	0.53	0.206478	-0.820379	39.9452	254.562
52	0.55	0.210526	-0.806422	39.9808	253.88
53	0.58	0.214575	-0.792618	40.0343	253.206
54	0.59	0.218623	-0.778966	40.0522	252.54
55	0.59	0.222672	-0.765456	40.0522	251.88
56	0.6	0.226721	-0.752084	40.07	251.227
57	0.6	0.230769	-0.738846	40.07	250.58
58	0.64	0.234818	-0.725736	40.1413	249.94
59	0.67	0.238866	-0.712751	40.1948	249.306
60	0.68	0.242915	-0.699883	40.2127	248.678
61	0.7	0.246964	-0.687131	40.2483	248.055
62	0.71	0.251012	-0.671346	40.2662	247.284
63	0.73	0.255061	-0.658838	40.3018	246.673
64	0.74	0.259109	-0.646431	40.3197	246.067
65	0.8	0.263158	-0.634124	40.4267	245.466
66	0.8	0.267206	-0.621911	40.4267	244.87
67	0.86	0.271255	-0.609791	40.5337	244.278
68	0.87	0.275304	-0.597761	40.5515	243.691
69	0.88	0.279352	-0.585815	40.5693	243.107
70	0.89	0.283401	-0.573953	40.5872	242.528
71	0.9	0.287449	-0.56217	40.605	241.953
72	0.91	0.291498	-0.550465	40.6228	241.381
73	0.94	0.295547	-0.538836	40.6763	240.813
74	0.96	0.299595	-0.52728	40.712	240.249
75	1	0.303644	-0.515791	40.7833	239.688
76	1	0.307692	-0.504372	40.7833	239.13
77	1	0.311741	-0.493018	40.7833	238.576
78	1	0.315789	-0.481728	40.7833	238.024
79	1	0.319838	-0.470498	40.7833	237.476
80	1	0.323887	-0.459327	40.7833	236.93
81	1	0.327935	-0.448213	40.7833	236.388
82	1	0.331984	-0.437153	40.7833	235.848
83	1	0.336032	-0.423405	40.7833	235.176
84	1	0.340081	-0.412463	40.7833	234.642
85	1	0.34413	-0.401571	40.7833	234.11
86	1	0.348178	-0.390726	40.7833	233.58
87	1	0.352227	-0.379927	40.7833	233.053
88	1	0.356275	-0.369171	40.7833	232.528
89	1	0.360324	-0.358459	40.7833	232.005
90	1	0.364372	-0.347787	40.7833	231.484
91	1	0.368421	-0.337155	40.7833	230.964
92	1	0.37247	-0.326561	40.7833	230.447
93	1	0.376518	-0.316004	40.7833	229.932
94	1	0.380567	-0.305481	40.7833	229.418
95	1	0.384615	-0.294992	40.7833	228.905
96	1	0.388664	-0.284535	40.7833	228.395
97	1	0.392713	-0.27411	40.7833	227.886
98	1	0.396761	-0.263715	40.7833	227.378
99	1	0.40081	-0.253347	40.7833	226.872
100	1	0.404858	-0.243007	40.7833	226.367
101	1	0.408907	-0.232693	40.7833	225.863
102	1	0.412955	-0.222403	40.7833	225.361
103	1	0.417004	-0.209575	40.7833	224.734
104	1	0.421053	-0.199336	40.7833	224.234
105	1	0.425101	-0.189118	40.7833	223.735
106	1	0.42915	-0.17892	40.7833	223.237
107	1	0.433198	-0.168741	40.7833	222.74
108	1	0.437247	-0.158579	40.7833	222.244
109	1	0.441296	-0.148434	40.7833	221.749
110	1	0.445344	-0.138305	40.7833	221.254

111	1	0.449393	-0.128189	40.7833	220.76
112	1	0.453441	-0.118085	40.7833	220.267
113	1	0.45749	-0.107995	40.7833	219.774
114	1	0.461538	-0.0979139	40.7833	219.281
115	1	0.465587	-0.0878447	40.7833	218.79
116	1	0.469636	-0.0777834	40.7833	218.298
117	1	0.473684	-0.0677301	40.7833	217.807
118	1	0.477733	-0.0576847	40.7833	217.317
119	1	0.481781	-0.0476439	40.7833	216.827
120	1	0.48583	-0.0376076	40.7833	216.337
121	1	0.489879	-0.0275759	40.7833	215.847
122	1	0.493927	-0.0175476	40.7833	215.357
123	1	0.497976	-0.00751925	40.7833	214.867
124	1	0.502024	0.00751925	40.7833	214.133
125	1	0.506073	0.0175476	40.7833	213.643
126	1	0.510121	0.0275759	40.7833	213.153
127	1	0.51417	0.0376076	40.7833	212.663
128	1	0.518219	0.0476439	40.7833	212.173
129	1	0.522267	0.0576847	40.7833	211.683
130	1	0.526316	0.0677301	40.7833	211.193
131	1	0.530364	0.0777834	40.7833	210.702
132	1	0.534413	0.0878447	40.7833	210.21
133	1	0.538462	0.0979139	40.7833	209.719
134	1	0.54251	0.107995	40.7833	209.226
135	1	0.546559	0.118085	40.7833	208.733
136	1	0.550607	0.128189	40.7833	208.24
137	1	0.554656	0.138305	40.7833	207.746
138	1	0.558704	0.148434	40.7833	207.251
139	1	0.562753	0.158579	40.7833	206.756
140	1	0.566802	0.168741	40.7833	206.26
141	1	0.57085	0.17892	40.7833	205.763
142	1	0.574899	0.189118	40.7833	205.265
143	1	0.578947	0.199336	40.7833	204.766
144	1	0.582996	0.209575	40.7833	204.266
145	1	0.587045	0.222403	40.7833	203.639
146	1	0.591093	0.232693	40.7833	203.137
147	1	0.595142	0.243007	40.7833	202.633
148	1	0.59919	0.253347	40.7833	202.128
149	1	0.603239	0.263715	40.7833	201.622
150	1	0.607287	0.27411	40.7833	201.114
151	1	0.611336	0.284535	40.7833	200.605
152	1	0.615385	0.294992	40.7833	200.095
153	1	0.619433	0.305481	40.7833	199.582
154	1	0.623482	0.316004	40.7833	199.068
155	1	0.62753	0.326561	40.7833	198.553
156	1	0.631579	0.337155	40.7833	198.036
157	1	0.635628	0.347787	40.7833	197.516
158	1	0.639676	0.358459	40.7833	196.995
159	1	0.643725	0.369171	40.7833	196.472
160	1	0.647773	0.379927	40.7833	195.947
161	1	0.651822	0.390726	40.7833	195.42
162	1	0.65587	0.401571	40.7833	194.89
163	1	0.659919	0.412463	40.7833	194.358
164	1	0.663968	0.423405	40.7833	193.824
165	1	0.668016	0.437153	40.7833	193.152
166	1	0.672065	0.448213	40.7833	192.612
167	1	0.676113	0.459327	40.7833	192.07
168	1	0.680162	0.470498	40.7833	191.524
169	1	0.684211	0.481728	40.7833	190.976
170	1	0.688259	0.493018	40.7833	190.424
171	1	0.692308	0.504372	40.7833	189.87
172	1	0.696356	0.515791	40.7833	189.312

173	1	0.700405	0.52728	40.7833	188.751	
174	1	0.704453	0.538836		40.7833	188.187
175	1	0.708502	0.550465		40.7833	187.619
176	1	0.712551	0.56217	40.7833	187.047	
177	1	0.716599	0.573953		40.7833	186.472
178	1	0.720648	0.585815		40.7833	185.893
179	1	0.724696	0.597761		40.7833	185.309
180	1	0.728745	0.609791		40.7833	184.722
181	1	0.732794	0.621911		40.7833	184.13
182	1	0.736842	0.634124		40.7833	183.534
183	1	0.740891	0.646431		40.7833	182.933
184	1	0.744939	0.658838		40.7833	182.327
185	1	0.748988	0.671346		40.7833	181.716
186	1	0.753036	0.687131		40.7833	180.945
187	1	0.757085	0.699883		40.7833	180.322
188	1	0.761134	0.712751		40.7833	179.694
189	1	0.765182	0.725736		40.7833	179.06
190	1	0.769231	0.738846		40.7833	178.42
191	1	0.773279	0.752084		40.7833	177.773
192	1	0.777328	0.765456		40.7833	177.12
193	1	0.781377	0.778966		40.7833	176.46
194	1.01	0.785425	0.792618		40.8012	175.794
195	1.1	0.789474	0.806422		40.9617	175.12
196	1.15	0.793522	0.820379		41.0508	174.438
197	1.27	0.797571	0.834498		41.2648	173.749
198	1.28	0.801619	0.848786		41.2827	173.051
199	1.3	0.805668	0.863249		41.3183	172.345
200	1.3	0.809717	0.877897		41.3183	171.629
201	1.4	0.813765	0.892733		41.4967	170.905
202	1.4	0.817814	0.907769		41.4967	170.171
203	1.4	0.821862	0.923014		41.4967	169.426
204	1.4	0.825911	0.938476		41.4967	168.671
205	1.5	0.82996	0.954165	41.675	167.905	
206	1.6	0.834008	0.974114		41.8533	166.931
207	1.9	0.838057	0.990356		42.3883	166.138
208	2	0.842105	1.00687	42.5667	165.331	
209	2	0.846154	1.02365	42.5667	164.512	
210	2	0.850202	1.04073	42.5667	163.678	
211	2.14	0.854251	1.05812	42.8163	162.828	
212	2.2	0.8583	1.07584	42.9233	161.963	
213	2.22	0.862348	1.0939	42.959	161.081	
214	2.29	0.866397	1.11232	43.0838	160.182	
215	2.3	0.870445	1.13113	43.1017	159.263	
216	2.6	0.874494	1.15035	43.6367	158.325	
217	3	0.878543	1.17	44.35	157.365	
218	3	0.882591	1.19012	44.35	156.383	
219	3.01	0.88664	1.21073	44.3678	155.376	
220	3.2	0.890688	1.23187	44.7067	154.344	
221	3.5	0.894737	1.25357	45.2417	153.284	
222	3.54	0.898785	1.27588	45.313	152.195	
223	4.18	0.902834	1.29884	46.4543	151.074	
224	4.5	0.906883	1.32251	47.025	149.918	
225	5.1	0.910931	1.34694	48.095	148.724	
226	5.2	0.91498	1.3722	48.2733	147.491	
227	6	0.919028	1.40507	49.7	145.886	
228	6.1	0.923077	1.4325	49.8783	144.546	
229	6.66	0.927126	1.46106	50.877	143.152	
230	7	0.931174	1.49085	51.4833	141.697	
231	8	0.935223	1.52203	53.2667	140.174	
232	8.8	0.939271	1.55477	54.6933	138.575	
233	8.9	0.94332	1.58927	54.8717	136.891	
234	9	0.947368	1.62576	55.05	135.109	

235	15	0.951417	1.66456	65.75	133.214
236	19	0.955466	1.70604	72.8833	131.188
237	77.4	0.959514	1.75069	177.03	129.008
238	120	0.963563	1.79912	253	126.643
239	120	0.967611	1.85218	253	124.052
240	150	0.97166	1.91103	306.5	121.178
241	150	0.975709	1.97737	306.5	117.938
242	160	0.979757	2.05375	324.333	114.209
243	190	0.983806	2.14441	377.833	109.781
244	260	0.987854	2.25713	502.667	104.277
245	280	0.991903	2.40892	538.333	96.8642
246	300	0.995951	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: Trichloroethene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.73337	-2.65209	7.03356	7.24913	
2	-2.73337	-2.40892	12.8365	13.8336	
3	-2.73337	-2.25713	17.9311	20.0032	
4	-2.73337	-2.14441	22.5296	25.8646	
5	-2.73337	-2.05375	26.7475	31.4783	
6	-2.73337	-1.97737	30.6575	36.8831	
7	-2.73337	-1.91103	34.3095	42.1067	
8	-2.73337	-1.85218	37.7401	47.1694	
9	-2.73337	-1.79912	40.9769	52.087	
10	-2.73337	-1.75069	44.0418	56.8723	
11	-2.73337	-1.70604	46.9524	61.5355	
12	-2.73337	-1.66456	49.7231	66.0854	
13	-2.73337	-1.62576	52.3662	70.5292	
14	-2.73337	-1.58927	54.892	74.8733	
15	-2.73337	-1.55477	57.3093	79.123	
16	-2.73337	-1.52203	59.6259	83.2833	
17	-2.73337	-1.49085	61.8486	87.3584	
18	-2.73337	-1.46106	63.9833	91.352	
19	-2.73337	-1.4325	66.0353	95.2675	
20	-2.73337	-1.40507	68.0096	99.1081	
21	-2.73337	-1.3722	69.8925	102.859	
22	-2.73337	-1.34694	71.7067	106.541	
23	-2.73337	-1.32251	73.4558	110.155	
24	-2.73337	-1.29884	75.1427	113.706	
25	-2.73337	-1.27588	76.7706	117.193	
26	-2.73337	-1.25357	78.342	120.62	
27	-2.73337	-1.23187	79.8595	123.987	
28	-2.73337	-1.21073	81.3254	127.296	
29	-2.73337	-1.19012	82.7418	130.549	
30	-2.73337	-1.17	84.1107	133.747	
31	-2.73337	-1.15035	85.434	136.891	
32	-2.73337	-1.13113	86.7134	139.983	
33	-2.73337	-1.11232	87.9507	143.024	
34	-2.73337	-1.0939	89.1473	146.014	
35	-2.04022	-1.07584	90.3047	148.209	
36	-1.60944	-1.05812	91.4243	149.912	
37	-1.51413	-1.04073	92.5075	151.487	
38	-1.46968	-1.02365	93.5553	152.992	
39	-1.30933	-1.00687	94.5691	154.31	
40	-1.23787	-0.990356	95.5499	155.536	
41	-1.10866	-0.974114	96.4988	156.616	
42	-1.04982	-0.954165	97.4092	157.618	
43	-0.867501	-0.938476	98.29	158.432	
44	-0.84397	-0.923014	99.1419	159.211	
45	-0.798508	-0.907769	99.966	159.936	
46	-0.798508	-0.892733	100.763	160.649	
47	-0.798508	-0.877897	101.534	161.35	
48	-0.798508	-0.863249	102.279	162.039	
49	-0.693147	-0.848786	102.999	162.627	
50	-0.653926	-0.834498	103.696	163.173	
51	-0.634878	-0.820379	104.369	163.694	

52	-0.597837	-0.806422	105.019	164.176
53	-0.544727	-0.792618	105.647	164.608
54	-0.527633	-0.778966	106.254	165.019
55	-0.527633	-0.765456	106.84	165.423
56	-0.510826	-0.752084	107.406	165.807
57	-0.510826	-0.738846	107.951	166.184
58	-0.446287	-0.725736	108.478	166.508
59	-0.400478	-0.712751	108.986	166.793
60	-0.385662	-0.699883	109.476	167.063
61	-0.356675	-0.687131	109.948	167.308
62	-0.34249	-0.671346	110.399	167.538
63	-0.314711	-0.658838	110.833	167.746
64	-0.301105	-0.646431	111.251	167.94
65	-0.223144	-0.634124	111.653	168.082
66	-0.223144	-0.621911	112.04	168.221
67	-0.150823	-0.609791	112.412	168.313
68	-0.139262	-0.597761	112.769	168.396
69	-0.127833	-0.585815	113.112	168.471
70	-0.116534	-0.573953	113.441	168.538
71	-0.105361	-0.56217	113.758	168.597
72	-0.0943107	-0.550465	114.061	168.649
73	-0.0618754	-0.538836	114.351	168.682
74	-0.040822	-0.52728	114.629	168.704
75	0	-0.515791	114.895	168.704
76	0	-0.504372	115.149	168.704
77	0	-0.493018	115.392	168.704
78	0	-0.481728	115.624	168.704
79	0	-0.470498	115.846	168.704
80	0	-0.459327	116.057	168.704
81	0	-0.448213	116.258	168.704
82	0	-0.437153	116.449	168.704
83	0	-0.423405	116.628	168.704
84	0	-0.412463	116.798	168.704
85	0	-0.401571	116.959	168.704
86	0	-0.390726	117.112	168.704
87	0	-0.379927	117.256	168.704
88	0	-0.369171	117.393	168.704
89	0	-0.358459	117.521	168.704
90	0	-0.347787	117.642	168.704
91	0	-0.337155	117.756	168.704
92	0	-0.326561	117.863	168.704
93	0	-0.316004	117.962	168.704
94	0	-0.305481	118.056	168.704
95	0	-0.294992	118.143	168.704
96	0	-0.284535	118.224	168.704
97	0	-0.27411	118.299	168.704
98	0	-0.263715	118.368	168.704
99	0	-0.253347	118.433	168.704
100	0	-0.243007	118.492	168.704
101	0	-0.232693	118.546	168.704
102	0	-0.222403	118.595	168.704
103	0	-0.209575	118.639	168.704
104	0	-0.199336	118.679	168.704
105	0	-0.189118	118.715	168.704
106	0	-0.17892	118.747	168.704
107	0	-0.168741	118.775	168.704
108	0	-0.158579	118.8	168.704
109	0	-0.148434	118.822	168.704
110	0	-0.138305	118.841	168.704
111	0	-0.128189	118.858	168.704
112	0	-0.118085	118.872	168.704
113	0	-0.107995	118.883	168.704

114	0	-0.0979139	118.893	168.704
115	0	-0.0878447	118.901	168.704
116	0	-0.0777834	118.907	168.704
117	0	-0.0677301	118.911	168.704
118	0	-0.0576847	118.915	168.704
119	0	-0.0476439	118.917	168.704
120	0	-0.0376076	118.918	168.704
121	0	-0.0275759	118.919	168.704
122	0	-0.0175476	118.919	168.704
123	0	-0.00751925	118.92	168.704
124	0	0.00751925	118.92	168.704
125	0	0.0175476	118.92	168.704
126	0	0.0275759	118.921	168.704
127	0	0.0376076	118.922	168.704
128	0	0.0476439	118.924	168.704
129	0	0.0576847	118.928	168.704
130	0	0.0677301	118.932	168.704
131	0	0.0777834	118.938	168.704
132	0	0.0878447	118.946	168.704
133	0	0.0979139	118.956	168.704
134	0	0.107995	118.967	168.704
135	0	0.118085	118.981	168.704
136	0	0.128189	118.998	168.704
137	0	0.138305	119.017	168.704
138	0	0.148434	119.039	168.704
139	0	0.158579	119.064	168.704
140	0	0.168741	119.092	168.704
141	0	0.17892	119.124	168.704
142	0	0.189118	119.16	168.704
143	0	0.199336	119.2	168.704
144	0	0.209575	119.244	168.704
145	0	0.222403	119.293	168.704
146	0	0.232693	119.347	168.704
147	0	0.243007	119.407	168.704
148	0	0.253347	119.471	168.704
149	0	0.263715	119.54	168.704
150	0	0.27411	119.615	168.704
151	0	0.284535	119.696	168.704
152	0	0.294992	119.783	168.704
153	0	0.305481	119.877	168.704
154	0	0.316004	119.977	168.704
155	0	0.326561	120.083	168.704
156	0	0.337155	120.197	168.704
157	0	0.347787	120.318	168.704
158	0	0.358459	120.446	168.704
159	0	0.369171	120.583	168.704
160	0	0.379927	120.727	168.704
161	0	0.390726	120.88	168.704
162	0	0.401571	121.041	168.704
163	0	0.412463	121.211	168.704
164	0	0.423405	121.39	168.704
165	0	0.437153	121.581	168.704
166	0	0.448213	121.782	168.704
167	0	0.459327	121.993	168.704
168	0	0.470498	122.215	168.704
169	0	0.481728	122.447	168.704
170	0	0.493018	122.69	168.704
171	0	0.504372	122.944	168.704
172	0	0.515791	123.21	168.704
173	0	0.52728	123.488	168.704
174	0	0.538836	123.779	168.704
175	0	0.550465	124.082	168.704

176	0	0.56217	124.398	168.704		
177	0	0.573953		124.727	168.704	
178	0	0.585815		125.07	168.704	
179	0	0.597761		125.428	168.704	
180	0	0.609791		125.799	168.704	
181	0	0.621911		126.186	168.704	
182	0	0.634124		126.588	168.704	
183	0	0.646431		127.006	168.704	
184	0	0.658838		127.44	168.704	
185	0	0.671346		127.891	168.704	
186	0	0.687131		128.363	168.704	
187	0	0.699883		128.853	168.704	
188	0	0.712751		129.361	168.704	
189	0	0.725736		129.888	168.704	
190	0	0.738846		130.433	168.704	
191	0	0.752084		130.999	168.704	
192	0	0.765456		131.585	168.704	
193	0	0.778966		132.192	168.704	
194	0.00995033		0.792618		132.82	168.712
195	0.0953102		0.806422		133.47	168.788
196	0.139762		0.820379		134.143	168.903
197	0.239017		0.834498		134.84	169.103
198	0.24686	0.848786		135.56	169.312	
199	0.262364		0.863249		136.305	169.539
200	0.262364		0.877897		137.076	169.769
201	0.336472		0.892733		137.873	170.069
202	0.336472		0.907769		138.697	170.375
203	0.336472		0.923014		139.549	170.685
204	0.336472		0.938476		140.43	171.001
205	0.405465		0.954165		141.34	171.388
206	0.470004		0.974114		142.289	171.846
207	0.641854		0.990356		143.27	172.481
208	0.693147		1.00687	144.284	173.179	
209	0.693147		1.02365	145.332	173.889	
210	0.693147		1.04073	146.415	174.61	
211	0.760806		1.05812	147.534	175.415	
212	0.788457		1.07584	148.692	176.263	
213	0.797507		1.0939	149.888	177.136	
214	0.828552		1.11232	151.126	178.058	
215	0.832909		1.13113	152.405	179	
216	0.955511		1.15035	153.728	180.099	
217	1.09861	1.17	155.097	181.384		
218	1.09861	1.19012	156.514	182.692		
219	1.10194	1.21073	157.98	184.026		
220	1.16315	1.23187	159.497	185.459		
221	1.25276	1.25357	161.068	187.029		
222	1.26413	1.27588	162.696	188.642		
223	1.43031	1.29884	164.383	190.5		
224	1.50408	1.32251	166.132	192.489		
225	1.62924	1.34694	167.947	194.683		
226	1.64866	1.3722	169.83	196.946		
227	1.79176	1.40507	171.804	199.463		
228	1.80829	1.4325	173.856	202.054		
229	1.89612	1.46106	175.991	204.824		
230	1.94591	1.49085	178.213	207.725		
231	2.07944	1.52203	180.53	210.89		
232	2.17475	1.55477	182.947	214.271		
233	2.18605	1.58927	185.473	217.745		
234	2.19722	1.62576	188.116	221.318		
235	2.70805	1.66456	190.887	225.825		
236	2.94444	1.70604	193.797	230.849		
237	4.34899	1.75069	196.862	238.462		

238	4.78749	1.79912	200.099	247.076
239	4.78749	1.85218	203.53	255.943
240	5.01064	1.91103	207.182	265.518
241	5.01064	1.97737	211.092	275.426
242	5.07517	2.05375	215.309	285.849
243	5.24702	2.14441	219.908	297.101
244	5.56068	2.25713	225.003	309.652
245	5.63479	2.40892	230.806	323.226
246	5.70378	2.65209	237.839	338.353

Data Set Standard Deviation = 1.58326
Numerator = 114483
Denominator = 146067
W Statistic = 0.783769 = 114483 / 146067

5% Critical value of 0.976 exceeds 0.783769
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.783769
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.886945
0.886945 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.73337	0.00404858	-2.65209	54.8498	344.01
2	-2.73337	0.00809717	-2.40892	54.8498	332.136
3	-2.73337	0.0121457	-2.25713	54.8498	324.723
4	-2.73337	0.0161943	-2.14441	54.8498	319.219
5	-2.73337	0.0202429	-2.05375	54.8498	314.791
6	-2.73337	0.0242915	-1.97737	54.8498	311.062
7	-2.73337	0.0283401	-1.91103	54.8498	307.822
8	-2.73337	0.0323887	-1.85218	54.8498	304.948
9	-2.73337	0.0364372	-1.79912	54.8498	302.357
10	-2.73337	0.0404858	-1.75069	54.8498	299.992
11	-2.73337	0.0445344	-1.70604	54.8498	297.812
12	-2.73337	0.048583	-1.66456	54.8498	295.786
13	-2.73337	0.0526316	-1.62576	54.8498	293.891
14	-2.73337	0.0566802	-1.58927	54.8498	292.109
15	-2.73337	0.0607287	-1.55477	54.8498	290.425
16	-2.73337	0.0647773	-1.52203	54.8498	288.826
17	-2.73337	0.0688259	-1.49085	54.8498	287.303
18	-2.73337	0.0728745	-1.46106	54.8498	285.848
19	-2.73337	0.0769231	-1.4325	54.8498	284.454
20	-2.73337	0.0809717	-1.40507	54.8498	283.114
21	-2.73337	0.0850202	-1.3722	54.8498	281.509
22	-2.73337	0.0890688	-1.34694	54.8498	280.276
23	-2.73337	0.0931174	-1.32251	54.8498	279.082
24	-2.73337	0.097166	-1.29884	54.8498	277.926
25	-2.73337	0.101215	-1.27588	54.8498	276.805
26	-2.73337	0.105263	-1.25357	54.8498	275.716
27	-2.73337	0.109312	-1.23187	54.8498	274.656
28	-2.73337	0.11336	-1.21073	54.8498	273.624
29	-2.73337	0.117409	-1.19012	54.8498	272.617
30	-2.73337	0.121457	-1.17	54.8498	271.635
31	-2.73337	0.125506	-1.15035	54.8498	270.675
32	-2.73337	0.129555	-1.13113	54.8498	269.737
33	-2.73337	0.133603	-1.11232	54.8498	268.818
34	-2.73337	0.137652	-1.0939	54.8498	267.919
35	-2.04022	0.1417	-1.07584	96.0535	267.037
36	-1.60944	0.145749	-1.05812	121.661	266.172
37	-1.51413	0.149798	-1.04073	127.327	265.322
38	-1.46968	0.153846	-1.02365	129.969	264.488
39	-1.30933	0.157895	-1.00687	139.501	263.669
40	-1.23787	0.161943	-0.990356	143.749	262.862
41	-1.10866	0.165992	-0.974114	151.429	262.069
42	-1.04982	0.17004	-0.954165	154.927	261.095
43	-0.867501	0.174089	-0.938476	165.765	260.329
44	-0.84397	0.178138	-0.923014	167.164	259.574
45	-0.798508	0.182186	-0.907769	169.866	258.829
46	-0.798508	0.186235	-0.892733	169.866	258.095
47	-0.798508	0.190283	-0.877897	169.866	257.371
48	-0.798508	0.194332	-0.863249	169.866	256.655

49	-0.693147	0.198381	-0.848786	176.13	255.949
50	-0.653926	0.202429	-0.834498	178.461	255.251
51	-0.634878	0.206478	-0.820379	179.593	254.562
52	-0.597837	0.210526	-0.806422	181.795	253.88
53	-0.544727	0.214575	-0.792618	184.952	253.206
54	-0.527633	0.218623	-0.778966	185.968	252.54
55	-0.527633	0.222672	-0.765456	185.968	251.88
56	-0.510826	0.226721	-0.752084	186.968	251.227
57	-0.510826	0.230769	-0.738846	186.968	250.58
58	-0.446287	0.234818	-0.725736	190.804	249.94
59	-0.400478	0.238866	-0.712751	193.527	249.306
60	-0.385662	0.242915	-0.699883	194.408	248.678
61	-0.356675	0.246964	-0.687131	196.131	248.055
62	-0.34249	0.251012	-0.671346	196.974	247.284
63	-0.314711	0.255061	-0.658838	198.626	246.673
64	-0.301105	0.259109	-0.646431	199.434	246.067
65	-0.223144	0.263158	-0.634124	204.069	245.466
66	-0.223144	0.267206	-0.621911	204.069	244.87
67	-0.150823	0.271255	-0.609791	208.368	244.278
68	-0.139262	0.275304	-0.597761	209.055	243.691
69	-0.127833	0.279352	-0.585815	209.734	243.107
70	-0.116534	0.283401	-0.573953	210.406	242.528
71	-0.105361	0.287449	-0.56217	211.07	241.953
72	-0.0943107	0.291498	-0.550465	211.727	241.381
73	-0.0618754	0.295547	-0.538836	213.655	240.813
74	-0.040822	0.299595	-0.52728	214.907	240.249
75	0	0.303644	-0.515791	217.333	239.688
76	0	0.307692	-0.504372	217.333	239.13
77	0	0.311741	-0.493018	217.333	238.576
78	0	0.315789	-0.481728	217.333	238.024
79	0	0.319838	-0.470498	217.333	237.476
80	0	0.323887	-0.459327	217.333	236.93
81	0	0.327935	-0.448213	217.333	236.388
82	0	0.331984	-0.437153	217.333	235.848
83	0	0.336032	-0.423405	217.333	235.176
84	0	0.340081	-0.412463	217.333	234.642
85	0	0.34413	-0.401571	217.333	234.11
86	0	0.348178	-0.390726	217.333	233.58
87	0	0.352227	-0.379927	217.333	233.053
88	0	0.356275	-0.369171	217.333	232.528
89	0	0.360324	-0.358459	217.333	232.005
90	0	0.364372	-0.347787	217.333	231.484
91	0	0.368421	-0.337155	217.333	230.964
92	0	0.37247	-0.326561	217.333	230.447
93	0	0.376518	-0.316004	217.333	229.932
94	0	0.380567	-0.305481	217.333	229.418
95	0	0.384615	-0.294992	217.333	228.905
96	0	0.388664	-0.284535	217.333	228.395
97	0	0.392713	-0.27411	217.333	227.886
98	0	0.396761	-0.263715	217.333	227.378
99	0	0.40081	-0.253347	217.333	226.872
100	0	0.404858	-0.243007	217.333	226.367
101	0	0.408907	-0.232693	217.333	225.863
102	0	0.412955	-0.222403	217.333	225.361
103	0	0.417004	-0.209575	217.333	224.734
104	0	0.421053	-0.199336	217.333	224.234
105	0	0.425101	-0.189118	217.333	223.735
106	0	0.42915	-0.17892	217.333	223.237
107	0	0.433198	-0.168741	217.333	222.74
108	0	0.437247	-0.158579	217.333	222.244
109	0	0.441296	-0.148434	217.333	221.749
110	0	0.445344	-0.138305	217.333	221.254

111	0	0.449393	-0.128189	217.333	220.76
112	0	0.453441	-0.118085	217.333	220.267
113	0	0.45749	-0.107995	217.333	219.774
114	0	0.461538	-0.0979139	217.333	219.281
115	0	0.465587	-0.0878447	217.333	218.79
116	0	0.469636	-0.0777834	217.333	218.298
117	0	0.473684	-0.0677301	217.333	217.807
118	0	0.477733	-0.0576847	217.333	217.317
119	0	0.481781	-0.0476439	217.333	216.827
120	0	0.48583	-0.0376076	217.333	216.337
121	0	0.489879	-0.0275759	217.333	215.847
122	0	0.493927	-0.0175476	217.333	215.357
123	0	0.497976	-0.00751925	217.333	214.867
124	0	0.502024	0.00751925	217.333	214.133
125	0	0.506073	0.0175476	217.333	213.643
126	0	0.510121	0.0275759	217.333	213.153
127	0	0.51417	0.0376076	217.333	212.663
128	0	0.518219	0.0476439	217.333	212.173
129	0	0.522267	0.0576847	217.333	211.683
130	0	0.526316	0.0677301	217.333	211.193
131	0	0.530364	0.0777834	217.333	210.702
132	0	0.534413	0.0878447	217.333	210.21
133	0	0.538462	0.0979139	217.333	209.719
134	0	0.54251	0.107995	217.333	209.226
135	0	0.546559	0.118085	217.333	208.733
136	0	0.550607	0.128189	217.333	208.24
137	0	0.554656	0.138305	217.333	207.746
138	0	0.558704	0.148434	217.333	207.251
139	0	0.562753	0.158579	217.333	206.756
140	0	0.566802	0.168741	217.333	206.26
141	0	0.57085	0.17892	217.333	205.763
142	0	0.574899	0.189118	217.333	205.265
143	0	0.578947	0.199336	217.333	204.766
144	0	0.582996	0.209575	217.333	204.266
145	0	0.587045	0.222403	217.333	203.639
146	0	0.591093	0.232693	217.333	203.137
147	0	0.595142	0.243007	217.333	202.633
148	0	0.59919	0.253347	217.333	202.128
149	0	0.603239	0.263715	217.333	201.622
150	0	0.607287	0.27411	217.333	201.114
151	0	0.611336	0.284535	217.333	200.605
152	0	0.615385	0.294992	217.333	200.095
153	0	0.619433	0.305481	217.333	199.582
154	0	0.623482	0.316004	217.333	199.068
155	0	0.62753	0.326561	217.333	198.553
156	0	0.631579	0.337155	217.333	198.036
157	0	0.635628	0.347787	217.333	197.516
158	0	0.639676	0.358459	217.333	196.995
159	0	0.643725	0.369171	217.333	196.472
160	0	0.647773	0.379927	217.333	195.947
161	0	0.651822	0.390726	217.333	195.42
162	0	0.65587	0.401571	217.333	194.89
163	0	0.659919	0.412463	217.333	194.358
164	0	0.663968	0.423405	217.333	193.824
165	0	0.668016	0.437153	217.333	193.152
166	0	0.672065	0.448213	217.333	192.612
167	0	0.676113	0.459327	217.333	192.07
168	0	0.680162	0.470498	217.333	191.524
169	0	0.684211	0.481728	217.333	190.976
170	0	0.688259	0.493018	217.333	190.424
171	0	0.692308	0.504372	217.333	189.87
172	0	0.696356	0.515791	217.333	189.312

173	0	0.700405	0.52728	217.333	188.751	
174	0	0.704453	0.538836	217.333	188.187	
175	0	0.708502	0.550465	217.333	187.619	
176	0	0.712551	0.56217	217.333	187.047	
177	0	0.716599	0.573953	217.333	186.472	
178	0	0.720648	0.585815	217.333	185.893	
179	0	0.724696	0.597761	217.333	185.309	
180	0	0.728745	0.609791	217.333	184.722	
181	0	0.732794	0.621911	217.333	184.13	
182	0	0.736842	0.634124	217.333	183.534	
183	0	0.740891	0.646431	217.333	182.933	
184	0	0.744939	0.658838	217.333	182.327	
185	0	0.748988	0.671346	217.333	181.716	
186	0	0.753036	0.687131	217.333	180.945	
187	0	0.757085	0.699883	217.333	180.322	
188	0	0.761134	0.712751	217.333	179.694	
189	0	0.765182	0.725736	217.333	179.06	
190	0	0.769231	0.738846	217.333	178.42	
191	0	0.773279	0.752084	217.333	177.773	
192	0	0.777328	0.765456	217.333	177.12	
193	0	0.781377	0.778966	217.333	176.46	
194	0.00995033	0.785425	0.792618	217.925	175.794	
195	0.0953102	0.789474	0.806422	222.999	175.12	
196	0.139762	0.793522	0.820379	225.641	174.438	
197	0.239017	0.797571	0.834498	231.542	173.749	
198	0.24686	0.801619	0.848786	232.008	173.051	
199	0.262364	0.805668	0.863249	232.929	172.345	
200	0.262364	0.809717	0.877897	232.929	171.629	
201	0.336472	0.813765	0.892733	237.335	170.905	
202	0.336472	0.817814	0.907769	237.335	170.171	
203	0.336472	0.821862	0.923014	237.335	169.426	
204	0.336472	0.825911	0.938476	237.335	168.671	
205	0.405465	0.82996	0.954165	241.436	167.905	
206	0.470004	0.834008	0.974114	245.272	166.931	
207	0.641854	0.838057	0.990356	255.488	166.138	
208	0.693147	0.842105	1.00687	258.537	165.331	
209	0.693147	0.846154	1.02365	258.537	164.512	
210	0.693147	0.850202	1.04073	258.537	163.678	
211	0.760806	0.854251	1.05812	262.559	162.828	
212	0.788457	0.8583	1.07584	264.203	161.963	
213	0.797507	0.862348	1.0939	264.741	161.081	
214	0.828552	0.866397	1.11232	266.586	160.182	
215	0.832909	0.870445	1.13113	266.845	159.263	
216	0.955511	0.874494	1.15035	274.133	158.325	
217	1.09861	0.878543	1.17	282.64	157.365	
218	1.09861	0.882591	1.19012	282.64	156.383	
219	1.10194	0.88664	1.21073	282.838	155.376	
220	1.16315	0.890688	1.23187	286.476	154.344	
221	1.25276	0.894737	1.25357	291.803	153.284	
222	1.26413	0.898785	1.27588	292.479	152.195	
223	1.43031	0.902834	1.29884	302.357	151.074	
224	1.50408	0.906883	1.32251	306.742	149.918	
225	1.62924	0.910931	1.34694	314.183	148.724	
226	1.64866	0.91498	1.3722	315.337	147.491	
227	1.79176	0.919028	1.40507	323.843	145.886	
228	1.80829	0.923077	1.4325	324.826	144.546	
229	1.89612	0.927126	1.46106	330.047	143.152	
230	1.94591	0.931174	1.49085	333.007	141.697	
231	2.07944	0.935223	1.52203	340.945	140.174	
232	2.17475	0.939271	1.55477	346.61	138.575	
233	2.18605	0.94332	1.58927	347.282	136.891	
234	2.19722	0.947368	1.62576	347.946	135.109	

235	2.70805	0.951417		1.66456	378.312	133.214
236	2.94444	0.955466		1.70604	392.364	131.188
237	4.34899	0.959514		1.75069	475.856	129.008
238	4.78749	0.963563		1.79912	501.923	126.643
239	4.78749	0.967611		1.85218	501.923	124.052
240	5.01064	0.97166	1.91103	515.188	121.178	
241	5.01064	0.975709		1.97737	515.188	117.938
242	5.07517	0.979757		2.05375	519.024	114.209
243	5.24702	0.983806		2.14441	529.24	109.781
244	5.56068	0.987854		2.25713	547.885	104.277
245	5.63479	0.991903		2.40892	552.29	96.8642
246	5.70378	0.995951		2.65209	556.392	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<0	75.5
	9/23/1999	ND<0	75.5
	3/15/2000	ND<0	75.5
	9/24/2003	ND<0	75.5
	3/11/2004	ND<0	75.5
	10/12/2004	ND<0	75.5
	4/1/2005	ND<0	75.5
	10/25/2005	ND<0	75.5
	4/29/2006	ND<0	75.5
	11/18/2006	ND<0	75.5
	5/23/2007	ND<0	75.5
	11/28/2007	ND<0	75.5
	6/5/2008	ND<0	75.5
	11/20/2008	ND<0	75.5
	6/11/2009	ND<-2.73337	75.5
	11/16/2009	ND<-2.73337	75.5
	6/30/2010	ND<-2.73337	75.5
	11/12/2010	ND<-2.73337 U	75.5
	7/5/2011	ND<-2.73337 U	75.5

Rank Sum = 1434.5
Rank Mean = 75.5

Background Rank Sum = 1434.5
Background Rank Mean = 75.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	1.25276	221
	8/24/1995	2.17475	232
	9/28/1995	1.79176	227
	10/26/1995	2.07944	231
	11/19/1996	ND<0	75.5
	12/19/1996	2.19722	234
	3/24/1997	1.94591	230
	9/24/1997	ND<0	75.5
	4/7/1998	ND<0	75.5
	9/23/1998	ND<0	75.5
	3/16/1999	1.62924	225
	9/23/1999	0.832909	215
	3/15/2000	ND<0	75.5
	9/24/2003	ND<0	75.5
	3/11/2004	ND<0	75.5
	10/12/2004	ND<0	75.5
	4/1/2005	1.10194	219
	10/25/2005	0.24686 J	198
	4/29/2006	-0.527633 J	170
	11/18/2006	-0.040822 J	190
	5/23/2007	0.693147	208

	11/28/2007	0.00995033	J	194
	6/5/2008	ND<0	75.5	
	11/20/2008	-1.23787	J	156
	6/11/2009	0.405465		205
	11/16/2009	-1.51413	J	153
	6/30/2010	0.336472		201
	11/12/2010	ND<-2.73337	U	75.5
	7/5/2011	-1.60944	J	152
	11/22/2011	ND<-2.73337	U	75.5
	11/22/2011	ND<-2.73337	U	75.5

Rank Sum = 4767
Rank Mean = 153.774

MW-7	7/20/1995	0.0953102		195
	8/24/1995	-0.223144	J	181
	9/28/1995	-0.105361	J	187
	10/26/1995	0	J	191
	11/19/1996	ND<0	75.5	
	12/19/1996	ND<0	75.5	
	3/24/1997	ND<0	75.5	
	9/24/1997	ND<0	75.5	
	4/7/1998	ND<0	75.5	
	9/23/1998	ND<0	75.5	
	3/16/1999	ND<0	75.5	
	9/23/1999	ND<0	75.5	
	3/15/2000	ND<0	75.5	
	9/24/2003	ND<0	75.5	
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	ND<0	75.5	
	10/25/2005	ND<0	75.5	
	4/29/2006	ND<0	75.5	
	11/18/2006	ND<0	75.5	
	5/23/2007	ND<0	75.5	
	11/28/2007	ND<0	75.5	
	6/5/2008	ND<0	75.5	
	11/20/2008	ND<0	75.5	
	6/11/2009	ND<-2.73337		75.5
	11/16/2009	ND<-2.73337		75.5
	6/30/2010	ND<-2.73337		75.5
	11/12/2010	ND<-2.73337	U	75.5
	7/5/2011	ND<-2.73337	U	75.5
	11/22/2011	ND<-2.73337	U	75.5
	11/22/2011	ND<-2.73337	U	75.5

Rank Sum = 2792.5
Rank Mean = 90.0806

MW-12A	R	3/16/1999	ND<0	75.5
	9/23/1999	ND<0	75.5	
	3/15/2000	ND<0	75.5	
	9/24/2003	1.64866		226
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	ND<0	75.5	
	10/25/2005	-0.446287	J	174
	4/29/2006	-0.597837	J	168
	11/18/2006	-1.04982	J	158
	5/23/2007	ND<0	75.5	
	11/28/2007	-0.798508	J	161
	6/5/2008	ND<0	75.5	
	11/20/2008	-1.46968	J	154
	6/11/2009	ND<-2.73337		75.5

	11/16/2009	-2.04022 J		151
	6/30/2010	ND<-2.73337		75.5
	11/12/2010	-1.30933 J		155
	7/5/2011	ND<-2.73337 U	75.5	
	11/22/2011	ND<-2.73337 U		75.5
	11/22/2011	ND<-2.73337 U		75.5

Rank Sum = 2328.5
Rank Mean = 110.881

MW-12BR	3/16/1999	1.80829		228
	9/23/1999	1.50408		224
	3/15/2000	ND<0	75.5	
	9/24/2003	ND<0	75.5	
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	0.760806	211	
	10/25/2005	ND<0	75.5	
	4/29/2006	ND<0	75.5	
	11/18/2006	ND<0	75.5	
	5/23/2007	ND<0	75.5	
	11/28/2007	ND<0	75.5	
	6/5/2008	ND<0	75.5	
	11/20/2008	ND<0	75.5	
	6/11/2009	ND<-2.73337		75.5
	11/16/2009	ND<-2.73337		75.5
	6/30/2010	ND<-2.73337		75.5
	11/12/2010	ND<-2.73337 U		75.5
	7/5/2011	ND<-2.73337 U	75.5	
	11/22/2011	ND<-2.73337 U		75.5
	11/22/2011	ND<-2.73337 U		75.5

Rank Sum = 2022
Rank Mean = 96.2857

MW-10	7/20/1995	-0.544727 J		169
	8/24/1995	0.788457		212
	9/28/1995	1.09861		217
	10/26/1995	1.09861		218
	11/19/1996	ND<0	75.5	
	12/19/1996	ND<0	75.5	
	3/24/1997	ND<0	75.5	
	9/24/1997	ND<0	75.5	
	4/7/1998	ND<0	75.5	
	9/23/1998	ND<0	75.5	
	3/16/1999	1.16315		220
	9/23/1999	ND<0	75.5	
	3/15/2000	ND<0	75.5	
	9/24/2003	ND<0	75.5	
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	-0.127833 J	185	
	10/25/2005	0.139762 J		196
	4/29/2006	0.239017 J		197
	11/18/2006	-0.116534 J		186
	5/23/2007	ND<0	75.5	
	11/28/2007	0 J	192	
	6/5/2008	ND<0	75.5	
	11/20/2008	-0.094310 7 J		188
	6/11/2009	-0.527633 J		171
	11/16/2009	-0.061875 4 J		189
	6/30/2010	-0.653926 J		166
	11/12/2010	-0.150823 J		183
	7/5/2011	0.336472	202	

	11/22/2011	0.336472		203
	11/22/2011	0.336472		204

Rank Sum = 4479.5
Rank Mean = 144.5

MW-9	7/20/1995	-1.10866	J	157
	8/24/1995	-0.693147	J	165
	9/28/1995	-0.223144	J	182
	10/26/1995	0	J	193
	11/19/1996	ND<0	75.5	
	12/19/1996	ND<0	75.5	
	3/24/1997	ND<0	75.5	
	9/24/1997	ND<0	75.5	
	4/7/1998	ND<0	75.5	
	9/23/1998	ND<0	75.5	
	3/16/1999	ND<0	75.5	
	9/23/1999	ND<0	75.5	
	3/15/2000	ND<0	75.5	
	9/24/2003	ND<0	75.5	
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	-0.356675	J	177
	10/25/2005	-0.634878	J	167
	4/29/2006	-0.798508	J	162
	11/18/2006	-0.84397	J	160
	5/23/2007	-0.510826	J	172
	11/28/2007	-0.301105	J	180
	6/5/2008	ND<0	75.5	
	11/20/2008	-0.510826	J	173
	6/11/2009	-0.400478	J	175
	11/16/2009	-0.314711	J	179
	6/30/2010	-0.385662	J	176
	11/12/2010	-0.34249	J	178
	7/5/2011	-0.867501	J	159
	11/22/2011	-0.798508	J	163
	11/22/2011	-0.798508	J	164

Rank Sum = 4063.5
Rank Mean = 131.081

MW-6	7/20/1995	ND<0	75.5	
	8/24/1995	ND<0	75.5	
	9/28/1995	ND<0	75.5	
	10/26/1995	ND<0	75.5	
	11/19/1996	ND<0	75.5	
	12/19/1996	ND<0	75.5	
	3/24/1997	ND<0	75.5	
	9/24/1997	ND<0	75.5	
	4/7/1998	ND<0	75.5	
	9/23/1998	ND<0	75.5	
	3/16/1999	ND<0	75.5	
	9/23/1999	ND<0	75.5	
	3/15/2000	ND<0	75.5	
	9/24/2003	ND<0	75.5	
	3/11/2004	ND<0	75.5	
	10/12/2004	ND<0	75.5	
	4/1/2005	ND<0	75.5	
	10/25/2005	ND<0	75.5	
	4/29/2006	ND<0	75.5	
	11/18/2006	ND<0	75.5	
	5/23/2007	ND<0	75.5	
	11/28/2007	ND<0	75.5	
	6/5/2008	ND<0	75.5	

	11/20/2008	ND<0		75.5
	6/11/2009	ND<-2.73337		75.5
	11/16/2009	ND<-2.73337		75.5
	6/30/2010	ND<-2.73337		75.5
	11/12/2010	ND<-2.73337	U	75.5
	7/5/2011	ND<-2.73337	U	75.5
	11/22/2011	ND<-2.73337	U	75.5
	11/22/2011	ND<-2.73337	U	75.5

Rank Sum = 2340.5
Rank Mean = 75.5

MW-8	7/20/1995	2.94444		236
	8/24/1995	5.70378		246
	9/28/1995	5.24702		243
	10/26/1995	2.70805		235
	11/19/1996	ND<0		75.5
	12/19/1996	5.63479		245
	3/24/1997	5.56068		244
	9/24/1997	5.01064		240
	4/7/1998	4.78749		238
	9/23/1998	5.01064		241
	3/16/1999	4.78749		239
	9/23/1999	4.34899		237
	3/15/2000	5.07517		242
	9/24/2003	ND<0		75.5
	3/11/2004	2.18605		233
	10/12/2004	ND<0		75.5
	4/1/2005	0.828552		214
	10/25/2005	1.89612		229
	4/29/2006	0.797507		213
	11/18/2006	1.26413		222
	5/23/2007	0.470004		206
	11/28/2007	1.43031		223
	6/5/2008	ND<0	J	75.5
	11/20/2008	0.262364	J	199
	6/11/2009	0.262364		200
	6/30/2010	-0.139262	J	184
	11/12/2010	0.641854		207
	7/5/2011	0.955511		216
	11/22/2011	0.693147		209
	11/22/2011	0.693147		210

Rank Sum = 6153
Rank Mean = 205.1

Calculation Results:

Kruskal-Wallis H Statistic = 81.434
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 105.307
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
81.434 > 15.5073 indicating a significant group difference at 5% significance level
105.307 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 75.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	**153.774**	**78.2742**	**48.231**
MW-7	**90.0806**	**14.5806**	**48.231**
MW-12AR	**110.881**	**35.381**	**52.4134**
MW-12BR	**96.2857**	**20.7857**	**52.4134**

MW-10	**144.5**	**69**	**48.231**
MW-9	**131.081**	**55.5806**	**48.231**
MW-6	**75.5**	**0**	**48.231**
MW-8	**205.1**	**129.6**	**48.5355**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 75.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	**153.774**	**78.2742**	**52.0829**
MW-7	**90.0806**	**14.5806**	**52.0829**
MW-12AR		**110.881**	**35.381**	**56.5994**
MW-12BR		**96.2857**	**20.7857**	**56.5994**
MW-10	**144.5**	**69**	**52.0829**
MW-9	**131.081**	**55.5806**	**52.0829**
MW-6	**75.5**	**0**	**52.0829**
MW-8	**205.1**	**129.6**	**52.4118**

Shewhart-CUSUM Control Chart

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 1.58266
Baseline Std Dev = 0.85234
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	1.94591	0	0.426183
3/24/1997	1.94591	0	0.426183
9/24/1997	0	0	-1.85684
9/24/1997	0	0	-1.85684
4/7/1998	0	0	-1.85684
4/7/1998	0	0	-1.85684
9/23/1998	0	0	-1.85684
9/23/1998	0	0	-1.85684
3/16/1999	1.62924	0	0.054654
3/16/1999	1.62924	0	0.054654
9/23/1999	0.832909	0	-0.879634
9/23/1999	0.832909	0	-0.879634
3/15/2000	0	0	-1.85684
3/15/2000	0	0	-1.85684
9/24/2003	0	0	-1.85684
9/24/2003	0	0	-1.85684
3/11/2004	0	0	-1.85684
3/11/2004	0	0	-1.85684
10/12/2004	0	0	-1.85684
10/12/2004	0	0	-1.85684
4/1/2005	1.10194	0	-0.563996
4/1/2005	1.10194	0	-0.563996
10/25/2005	0.24686	0	-1.56721
10/25/2005	0.24686	0	-1.56721
4/29/2006	-0.527633	0	-2.47588
4/29/2006	-0.527633	0	-2.47588
11/18/2006	-0.040822	0	-1.90473
11/18/2006	-0.040822	0	-1.90473
5/23/2007	0.693147	0	-1.04361
5/23/2007	0.693147	0	-1.04361
11/28/2007	0.00995033	0	-1.84516
11/28/2007	0.00995033	0	-1.84516
6/5/2008	0	0	-1.85684
6/5/2008	0	0	-1.85684
11/20/2008	-1.23787	0	-3.30916
11/20/2008	-1.23787	0	-3.30916
6/11/2009	0.405465	0	-1.38113
6/11/2009	0.405465	0	-1.38113
11/16/2009	-1.51413	0	-3.63327
11/16/2009	-1.51413	0	-3.63327
6/30/2010	0.336472	0	-1.46207
6/30/2010	0.336472	0	-1.46207
11/12/2010	-2.73337	0	-5.06373
11/12/2010	-2.73337	0	-5.06373
7/5/2011	-1.60944	0	-3.74509

7/5/2011	-1.60944	0	-3.74509
11/22/2011	-2.73337	0	-7.1612
11/22/2011	-2.73337	0	-7.1612

Shewhart-CUSUM Control Chart

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.406826
Baseline Std Dev = 0.683995
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-0.594779
3/24/1997	0	0	-0.594779
9/24/1997	0	0	-0.594779
9/24/1997	0	0	-0.594779
4/7/1998	0	0	-0.594779
4/7/1998	0	0	-0.594779
9/23/1998	0	0	-0.594779
9/23/1998	0	0	-0.594779
3/16/1999	1.16315	0.105746	1.10575
3/16/1999	1.16315	0.105746	1.10575
9/23/1999	0	0	-0.594779
9/23/1999	0	0	-0.594779
3/15/2000	0	0	-0.594779
3/15/2000	0	0	-0.594779
9/24/2003	0	0	-0.594779
9/24/2003	0	0	-0.594779
3/11/2004	0	0	-0.594779
3/11/2004	0	0	-0.594779
10/12/2004	0	0	-0.594779
10/12/2004	0	0	-0.594779
4/1/2005	-0.127833	0	-0.781671
4/1/2005	-0.127833	0	-0.781671
10/25/2005	0.139762	0	-0.390447
10/25/2005	0.139762	0	-0.390447
4/29/2006	0.239017	0	-0.245336
4/29/2006	0.239017	0	-0.245336
11/18/2006	-0.116534	0	-0.765151
11/18/2006	-0.116534	0	-0.765151
5/23/2007	0	0	-0.594779
5/23/2007	0	0	-0.594779
11/28/2007	0	0	-0.594779
11/28/2007	0	0	-0.594779
6/5/2008	0	0	-0.594779
6/5/2008	0	0	-0.594779
11/20/2008	-0.0943107	0	-0.732661
11/20/2008	-0.0943107	0	-0.732661
6/11/2009	-0.527633	0	-1.36618
6/11/2009	-0.527633	0	-1.36618
11/16/2009	-0.0618754	0	-0.68524
11/16/2009	-0.0618754	0	-0.68524
6/30/2010	-0.653926	0	-1.55082
6/30/2010	-0.653926	0	-1.55082
11/12/2010	-0.150823	0	-0.815282
11/12/2010	-0.150823	0	-0.815282
7/5/2011	0.336472	0	-0.102857

7/5/2011	0.336472	0	-0.102857
11/22/2011	0.336472	0	-0.145461
11/22/2011	0.336472	0	-0.145461

Shewhart-CUSUM Control Chart

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.337492
Baseline Std Dev = 0.463891
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	0.727525
3/24/1997	0	0	0.727525
9/24/1997	0	0	0.727525
9/24/1997	0	0	0.727525
4/7/1998	0	0	0.727525
4/7/1998	0	0	0.727525
9/23/1998	0	0	0.727525
9/23/1998	0	0	0.727525
3/16/1999	0	0	0.727525
3/16/1999	0	0	0.727525
9/23/1999	0	0	0.727525
9/23/1999	0	0	0.727525
3/15/2000	0	0	0.727525
3/15/2000	0	0	0.727525
9/24/2003	0	0	0.727525
9/24/2003	0	0	0.727525
3/11/2004	0	0	0.727525
3/11/2004	0	0	0.727525
10/12/2004	0	0	0.727525
10/12/2004	0	0	0.727525
4/1/2005	-0.356675	0	-0.041351 8
4/1/2005	-0.356675	0	-0.041351 8
10/25/2005	-0.634878	0	-0.641069
10/25/2005	-0.634878	0	-0.641069
4/29/2006	-0.798508	0	-0.993802
4/29/2006	-0.798508	0	-0.993802
11/18/2006	-0.843970	-1.0918	
11/18/2006	-0.843970	-1.0918	
5/23/2007	-0.510826	0	-0.373651
5/23/2007	-0.510826	0	-0.373651
11/28/2007	-0.301105	0	0.078439
11/28/2007	-0.301105	0	0.078439
6/5/2008	0	0	0.727525
6/5/2008	0	0	0.727525
11/20/2008	-0.510826	0	-0.373651
11/20/2008	-0.510826	0	-0.373651
6/11/2009	-0.400478	0	-0.135776
6/11/2009	-0.400478	0	-0.135776
11/16/2009	-0.314711	0	0.0491096
11/16/2009	-0.314711	0	0.0491096
6/30/2010	-0.385662	0	-0.10384
6/30/2010	-0.385662	0	-0.10384
11/12/2010	-0.342490	-0.010774 3	
11/12/2010	-0.342490	-0.010774 3	
7/5/2011	-0.867501	0	-1.14253

7/5/2011	-0.867501	0	-1.14253	
11/22/2011	-0.798508	0	-1.40545	
11/22/2011	-0.798508	0	-1.40545	

Shewhart-CUSUM Control Chart

Parameter: Trichloroethene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 3.70635
Baseline Std Dev = 2.25373
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	5.56068	0	0.822785
3/24/1997	5.56068	0	0.822785
9/24/1997	5.01064	0	0.578725
9/24/1997	5.01064	0	0.578725
4/7/1998	4.78749	0	0.479714
4/7/1998	4.78749	0	0.479714
9/23/1998	5.01064	0	0.578725
9/23/1998	5.01064	0	0.578725
3/16/1999	4.78749	0	0.479714
3/16/1999	4.78749	0	0.479714
9/23/1999	4.34899	0	0.285145
9/23/1999	4.34899	0	0.285145
3/15/2000	5.07517	0	0.607361
3/15/2000	5.07517	0	0.607361
9/24/2003	0	0	-1.64454
9/24/2003	0	0	-1.64454
3/11/2004	2.18605	0	-0.67457
3/11/2004	2.18605	0	-0.67457
10/12/2004	0	0	-1.64454
10/12/2004	0	0	-1.64454
4/1/2005	0.828552	0	-1.27691
4/1/2005	0.828552	0	-1.27691
10/25/2005	1.89612	0	-0.803215
10/25/2005	1.89612	0	-0.803215
4/29/2006	0.797507	0	-1.29068
4/29/2006	0.797507	0	-1.29068
11/18/2006	1.26413	0	-1.08364
11/18/2006	1.26413	0	-1.08364
5/23/2007	0.470004	0	-1.436
5/23/2007	0.470004	0	-1.436
11/28/2007	1.43031	0	-1.0099
11/28/2007	1.43031	0	-1.0099
6/5/2008	0	0	-1.64454
6/5/2008	0	0	-1.64454
11/20/2008	0.262364	0	-1.52813
11/20/2008	0.262364	0	-1.52813
6/11/2009	0.262364	0	-1.52813
6/11/2009	0.262364	0	-1.52813
6/30/2010	-0.139262	0	-1.70633
6/30/2010	-0.139262	0	-1.70633
11/12/2010	0.641854	0	-1.35974
11/12/2010	0.641854	0	-1.35974
7/5/2011	0.955511	0	-1.22057
7/5/2011	0.955511	0	-1.22057
11/22/2011	0.693147	0	-1.89078

11/22/2011	0.693147	0	-1.89078

Sen's Slope Analysis
Parameter: Trichloroethene
Location: MW-11R
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
2.17475	(8/24/1995)	1.25276 (7/20/1995)	(2.17475 - 1.25276)/(2 - 1)
0.921989			
1.79176	(9/28/1995)	1.25276 (7/20/1995)	(1.79176 - 1.25276)/(3 - 1)
0.269498			
2.07944	(10/26/1995)	1.25276 (7/20/1995)	(2.07944 - 1.25276)/(4 - 1) 0.27556
ND<0	(11/19/1996)	1.25276 (7/20/1995)	(0 - 1.25276)/(5 - 1)
-0.313191			
2.19722	(12/19/1996)	1.25276 (7/20/1995)	(2.19722 - 1.25276)/(6 - 1)
0.188892			
1.94591	(3/24/1997)	1.25276 (7/20/1995)	(1.94591 - 1.25276)/(7 - 1)
0.115525			
ND<0	(9/24/1997)	1.25276 (7/20/1995)	(0 - 1.25276)/(8 - 1)
-0.178966			
ND<0	(4/7/1998)	1.25276 (7/20/1995)	(0 - 1.25276)/(9 - 1)
-0.156595			
ND<0	(9/23/1998)	1.25276 (7/20/1995)	(0 - 1.25276)/(10 - 1)
-0.139196			
1.62924	(3/16/1999)	1.25276 (7/20/1995)	(1.62924 - 1.25276)/(11 - 1)
0.0376478			
0.832909	(9/23/1999)	1.25276 (7/20/1995)	(0.832909 - 1.25276)/(12 - 1)
-0.0381685			
ND<0	(3/15/2000)	1.25276 (7/20/1995)	(0 - 1.25276)/(13 - 1)
-0.104397			
ND<0	(9/24/2003)	1.25276 (7/20/1995)	(0 - 1.25276)/(14 - 1)
-0.0963664			
ND<0	(3/11/2004)	1.25276 (7/20/1995)	(0 - 1.25276)/(15 - 1)
-0.0894831			
ND<0	(10/12/2004)	1.25276 (7/20/1995)	(0 - 1.25276)/(16 - 1)
-0.0835175			
1.10194	(4/1/2005)	1.25276 (7/20/1995)	(1.10194 - 1.25276)/(17 - 1)
-0.00942643			
0.24686 J	(10/25/2005)	1.25276 (7/20/1995)	(0.24686 - 1.25276)/(18 - 1)
-0.0591708			
-0.527633 J	(4/29/2006)	1.25276 (7/20/1995)	(-0.527633 - 1.25276)/(19 - 1)
-0.0989109			
-0.040822 J	(11/18/2006)	1.25276 (7/20/1995)	(-0.040822 - 1.25276)/(20 - 1)
-0.0680834			
0.693147	(5/23/2007)	1.25276 (7/20/1995)	(0.693147 - 1.25276)/(21 - 1)
-0.0279808			
0.00995033 J	(11/28/2007)	1.25276 (7/20/1995)	(0.00995033 - 1.25276)/(22 - 1)
-0.0591816			
ND<0	(6/5/2008)	1.25276 (7/20/1995)	(0 - 1.25276)/(23 - 1)
-0.0569438			
-1.23787 J	(11/20/2008)	1.25276 (7/20/1995)	(-1.23787 - 1.25276)/(24 - 1)
-0.108289			
0.405465	(6/11/2009)	1.25276 (7/20/1995)	(0.405465 - 1.25276)/(25 - 1)
-0.0353041			
-1.51413 J	(11/16/2009)	1.25276 (7/20/1995)	(-1.51413 - 1.25276)/(26 - 1)
-0.110676			
0.336472	(6/30/2010)	1.25276 (7/20/1995)	(0.336472 - 1.25276)/(27 - 1)
-0.035242			

ND<-2.73337 U (11/12/2010) 1.25276 (7/20/1995) (-2.73337 - 1.25276)/(28 - 1)
-0.147634
-1.60944 J (7/5/2011) 1.25276 (7/20/1995) (-1.60944 - 1.25276)/(29 - 1)
-0.102221
ND<-2.73337 U (11/22/2011) 1.25276 (7/20/1995) (-2.73337 - 1.25276)/(30 - 1)
-0.137453
ND<-2.73337 U (11/22/2011) 1.25276 (7/20/1995) (-2.73337 - 1.25276)/(30 - 1)
-0.137453

1.79176 (9/28/1995) 2.17475 (8/24/1995) (1.79176 - 2.17475)/(3 - 2)
-0.382992
2.07944 (10/26/1995) 2.17475 (8/24/1995) (2.07944 - 2.17475)/(4 - 2)
-0.0476551
ND<0 (11/19/1996) 2.17475 (8/24/1995) (0 - 2.17475)/(5 - 2)
-0.724917
2.19722 (12/19/1996) 2.17475 (8/24/1995) (2.19722 - 2.17475)/(6 - 2)
0.00561821
1.94591 (3/24/1997) 2.17475 (8/24/1995) (1.94591 - 2.17475)/(7 - 2)
-0.0457683
ND<0 (9/24/1997) 2.17475 (8/24/1995) (0 - 2.17475)/(8 - 2)
-0.362459
ND<0 (4/7/1998) 2.17475 (8/24/1995) (0 - 2.17475)/(9 - 2)
-0.310679
ND<0 (9/23/1998) 2.17475 (8/24/1995) (0 - 2.17475)/(10 - 2)
-0.271844
1.62924 (3/16/1999) 2.17475 (8/24/1995) (1.62924 - 2.17475)/(11 - 2)
-0.0606124
0.832909 (9/23/1999) 2.17475 (8/24/1995) (0.832909 - 2.17475)/(12 - 2)
-0.134184
ND<0 (3/15/2000) 2.17475 (8/24/1995) (0 - 2.17475)/(13 - 2)
-0.197705
ND<0 (9/24/2003) 2.17475 (8/24/1995) (0 - 2.17475)/(14 - 2)
-0.181229
ND<0 (3/11/2004) 2.17475 (8/24/1995) (0 - 2.17475)/(15 - 2)
-0.167289
ND<0 (10/12/2004) 2.17475 (8/24/1995) (0 - 2.17475)/(16 - 2)
-0.155339
1.10194 (4/1/2005) 2.17475 (8/24/1995) (1.10194 - 2.17475)/(17 - 2)
-0.0715208
0.24686 J (10/25/2005) 2.17475 (8/24/1995) (0.24686 - 2.17475)/(18 - 2)
-0.120493
-0.527633 J (4/29/2006) 2.17475 (8/24/1995) (-0.527633 - 2.17475)/(19 - 2)
-0.158964
-0.040822 J (11/18/2006) 2.17475 (8/24/1995) (-0.040822 - 2.17475)/(20 - 2)
-0.123087
0.693147 (5/23/2007) 2.17475 (8/24/1995) (0.693147 - 2.17475)/(21 - 2)
-0.0779792
0.00995033 J (11/28/2007) 2.17475 (8/24/1995) (0.00995033 - 2.17475)/(22 - 2)
-0.10824
ND<0 (6/5/2008) 2.17475 (8/24/1995) (0 - 2.17475)/(23 - 2) -0.10356
-1.23787 J (11/20/2008) 2.17475 (8/24/1995) (-1.23787 - 2.17475)/(24 - 2)
-0.155119
0.405465 (6/11/2009) 2.17475 (8/24/1995) (0.405465 - 2.17475)/(25 - 2)
-0.0769255
-1.51413 J (11/16/2009) 2.17475 (8/24/1995) (-1.51413 - 2.17475)/(26 - 2)
-0.153703
0.336472 (6/30/2010) 2.17475 (8/24/1995) (0.336472 - 2.17475)/(27 - 2)
-0.0735312
ND<-2.73337 U (11/12/2010) 2.17475 (8/24/1995) (-2.73337 - 2.17475)/(28 - 2)
-0.188774
-1.60944 J (7/5/2011) 2.17475 (8/24/1995) (-1.60944 - 2.17475)/(29 - 2)
-0.140155

ND<-2.73337 U (11/22/2011) 2.17475 (8/24/1995) (-2.73337 - 2.17475)/(30 - 2)
-0.17529
ND<-2.73337 U (11/22/2011) 2.17475 (8/24/1995) (-2.73337 - 2.17475)/(30 - 2)
-0.17529

2.07944 (10/26/1995) 1.79176 (9/28/1995) (2.07944 - 1.79176)/(4 - 3)
0.287682
ND<0 (11/19/1996) 1.79176 (9/28/1995) (0 - 1.79176)/(5 - 3) -0.89588
2.19722 (12/19/1996) 1.79176 (9/28/1995) (2.19722 - 1.79176)/(6 - 3)
0.135155
1.94591 (3/24/1997) 1.79176 (9/28/1995) (1.94591 - 1.79176)/(7 - 3)
0.0385377
ND<0 (9/24/1997) 1.79176 (9/28/1995) (0 - 1.79176)/(8 - 3)
-0.358352
ND<0 (4/7/1998) 1.79176 (9/28/1995) (0 - 1.79176)/(9 - 3)
-0.298627
ND<0 (9/23/1998) 1.79176 (9/28/1995) (0 - 1.79176)/(10 - 3)
-0.255966
1.62924 (3/16/1999) 1.79176 (9/28/1995) (1.62924 - 1.79176)/(11 - 3)
-0.0203149
0.832909 (9/23/1999) 1.79176 (9/28/1995) (0.832909 - 1.79176)/(12 - 3)
-0.106539
ND<0 (3/15/2000) 1.79176 (9/28/1995) (0 - 1.79176)/(13 - 3)
-0.179176
ND<0 (9/24/2003) 1.79176 (9/28/1995) (0 - 1.79176)/(14 - 3)
-0.162887
ND<0 (3/11/2004) 1.79176 (9/28/1995) (0 - 1.79176)/(15 - 3)
-0.149313
ND<0 (10/12/2004) 1.79176 (9/28/1995) (0 - 1.79176)/(16 - 3)
-0.137828
1.10194 (4/1/2005) 1.79176 (9/28/1995) (1.10194 - 1.79176)/(17 - 3)
-0.0492728
0.24686 J (10/25/2005) 1.79176 (9/28/1995) (0.24686 - 1.79176)/(18 - 3)
-0.102993
-0.527633 J (4/29/2006) 1.79176 (9/28/1995) (-0.527633 - 1.79176)/(19 - 3)
-0.144962
-0.040822 J (11/18/2006) 1.79176 (9/28/1995) (-0.040822 - 1.79176)/(20 - 3)
-0.107799
0.693147 (5/23/2007) 1.79176 (9/28/1995) (0.693147 - 1.79176)/(21 - 3)
-0.061034
0.00995033 J (11/28/2007) 1.79176 (9/28/1995) (0.00995033 - 1.79176)/(22 - 3)
-0.0937794
ND<0 (6/5/2008) 1.79176 (9/28/1995) (0 - 1.79176)/(23 - 3)
-0.089588
-1.23787 J (11/20/2008) 1.79176 (9/28/1995) (-1.23787 - 1.79176)/(24 - 3)
-0.144268
0.405465 (6/11/2009) 1.79176 (9/28/1995) (0.405465 - 1.79176)/(25 - 3)
-0.0630134
-1.51413 J (11/16/2009) 1.79176 (9/28/1995) (-1.51413 - 1.79176)/(26 - 3)
-0.143734
0.336472 (6/30/2010) 1.79176 (9/28/1995) (0.336472 - 1.79176)/(27 - 3)
-0.060637
ND<-2.73337 U (11/12/2010) 1.79176 (9/28/1995) (-2.73337 - 1.79176)/(28 - 3)
-0.181005
-1.60944 J (7/5/2011) 1.79176 (9/28/1995) (-1.60944 - 1.79176)/(29 - 3)
-0.130815
ND<-2.73337 U (11/22/2011) 1.79176 (9/28/1995) (-2.73337 - 1.79176)/(30 - 3)
-0.167597
ND<-2.73337 U (11/22/2011) 1.79176 (9/28/1995) (-2.73337 - 1.79176)/(30 - 3)
-0.167597

ND<0 (11/19/1996) 2.07944 (10/26/1995) (0 - 2.07944)/(5 - 4) -2.07944

2.19722 (12/19/1996)	2.07944 (10/26/1995)	(2.19722 - 2.07944)/(6 - 4)		
0.0588915				
1.94591 (3/24/1997)	2.07944 (10/26/1995)	(1.94591 - 2.07944)/(7 - 4)		
-0.0445105				
ND<0 (9/24/1997)	2.07944 (10/26/1995)	(0 - 2.07944)/(8 - 4)		-0.51986
ND<0 (4/7/1998)	2.07944 (10/26/1995)	(0 - 2.07944)/(9 - 4)		
-0.415888				
ND<0 (9/23/1998)	2.07944 (10/26/1995)	(0 - 2.07944)/(10 - 4)		
-0.346574				
1.62924 (3/16/1999)	2.07944 (10/26/1995)	(1.62924 - 2.07944)/(11 - 4)		
-0.0643144				
0.832909 (9/23/1999)	2.07944 (10/26/1995)	(0.832909 - 2.07944)/(12 - 4)		
-0.155817				
ND<0 (3/15/2000)	2.07944 (10/26/1995)	(0 - 2.07944)/(13 - 4)		
-0.231049				
ND<0 (9/24/2003)	2.07944 (10/26/1995)	(0 - 2.07944)/(14 - 4)		
-0.207944				
ND<0 (3/11/2004)	2.07944 (10/26/1995)	(0 - 2.07944)/(15 - 4)		-0.18904
ND<0 (10/12/2004)	2.07944 (10/26/1995)	(0 - 2.07944)/(16 - 4)		
-0.173287				
1.10194 (4/1/2005)	2.07944 (10/26/1995)	(1.10194 - 2.07944)/(17 - 4)		
-0.0751924				
0.24686 J (10/25/2005)	2.07944 (10/26/1995)	(0.24686 - 2.07944)/(18 - 4)		
-0.130899				
-0.527633 J (4/29/2006)	2.07944 (10/26/1995)	(-0.527633 - 2.07944)/(19 - 4)		
-0.173805				
-0.040822 J (11/18/2006)	2.07944 (10/26/1995)	(-0.040822 - 2.07944)/(20 - 4)		
-0.132516				
0.693147 (5/23/2007)	2.07944 (10/26/1995)	(0.693147 - 2.07944)/(21 - 4)		
-0.0815467				
0.00995033 J (11/28/2007)	2.07944 (10/26/1995)	(0.00995033 - 2.07944)/(22 - 4)		
-0.114972				
ND<0 (6/5/2008)	2.07944 (10/26/1995)	(0 - 2.07944)/(23 - 4)		
-0.109444				
-1.23787 J (11/20/2008)	2.07944 (10/26/1995)	(-1.23787 - 2.07944)/(24 - 4)		
-0.165866				
0.405465 (6/11/2009)	2.07944 (10/26/1995)	(0.405465 - 2.07944)/(25 - 4)		
-0.0797132				
-1.51413 J (11/16/2009)	2.07944 (10/26/1995)	(-1.51413 - 2.07944)/(26 - 4)		
-0.163344				
0.336472 (6/30/2010)	2.07944 (10/26/1995)	(0.336472 - 2.07944)/(27 - 4)		
-0.0757813				
ND<-2.73337 U (11/12/2010)	2.07944 (10/26/1995)	(-2.73337 - 2.07944)/(28 - 4)		
-0.200534				
-1.60944 J (7/5/2011)	2.07944 (10/26/1995)	(-1.60944 - 2.07944)/(29 - 4)		
-0.147555				
ND<-2.73337 U (11/22/2011)	2.07944 (10/26/1995)	(-2.73337 - 2.07944)/(30 - 4)		
-0.185108				
ND<-2.73337 U (11/22/2011)	2.07944 (10/26/1995)	(-2.73337 - 2.07944)/(30 - 4)		
-0.185108				
2.19722 (12/19/1996)	ND<0 (11/19/1996)	(2.19722 - 0)/(6 - 5)		2.19722
1.94591 (3/24/1997)	ND<0 (11/19/1996)	(1.94591 - 0)/(7 - 5)		
0.972955				
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0	
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0	
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0	
1.62924 (3/16/1999)	ND<0 (11/19/1996)	(1.62924 - 0)/(11 - 5)		0.27154
0.832909 (9/23/1999)	ND<0 (11/19/1996)	(0.832909 - 0)/(12 - 5)		
0.118987				
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0	
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0	

ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
1.10194 (4/1/2005)	ND<0 (11/19/1996)	(1.10194 - 0)/(17 - 5)	
0.0918283			
0.24686 J (10/25/2005)	ND<0 (11/19/1996)	(0.24686 - 0)/(18 - 5)	
0.0189892			
-0.527633 J (4/29/2006)	ND<0 (11/19/1996)	(-0.527633 - 0)/(19 - 5)	
-0.0376881			
-0.040822 J (11/18/2006)	ND<0 (11/19/1996)	(-0.040822 - 0)/(20 - 5)	
-0.00272147			
0.693147 (5/23/2007)	ND<0 (11/19/1996)	(0.693147 - 0)/(21 - 5)	
0.0433217			
0.00995033 J (11/28/2007)	ND<0 (11/19/1996)	(0.00995033 - 0)/(22 - 5)	
0.000585314			
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
-1.23787 J (11/20/2008)	ND<0 (11/19/1996)	(-1.23787 - 0)/(24 - 5)	
-0.0651513			
0.405465 (6/11/2009)	ND<0 (11/19/1996)	(0.405465 - 0)/(25 - 5)	
0.0202733			
-1.51413 J (11/16/2009)	ND<0 (11/19/1996)	(-1.51413 - 0)/(26 - 5)	
-0.0721013			
0.336472 (6/30/2010)	ND<0 (11/19/1996)	(0.336472 - 0)/(27 - 5)	
0.0152942			
ND<-2.73337 U (11/12/2010)	ND<0 (11/19/1996)	(-2.73337 - 0)/(28 - 5)	
-0.118842			
-1.60944 J (7/5/2011)	ND<0 (11/19/1996)	(-1.60944 - 0)/(29 - 5)	
-0.0670599			
ND<-2.73337 U (11/22/2011)	ND<0 (11/19/1996)	(-2.73337 - 0)/(30 - 5)	
-0.109335			
ND<-2.73337 U (11/22/2011)	ND<0 (11/19/1996)	(-2.73337 - 0)/(30 - 5)	
-0.109335			

1.94591 (3/24/1997)	2.19722 (12/19/1996)	(1.94591 - 2.19722)/(7 - 6)	
-0.251314			
ND<0 (9/24/1997)	2.19722 (12/19/1996)	(0 - 2.19722)/(8 - 6)	-1.09861
ND<0 (4/7/1998)	2.19722 (12/19/1996)	(0 - 2.19722)/(9 - 6)	
-0.732408			
ND<0 (9/23/1998)	2.19722 (12/19/1996)	(0 - 2.19722)/(10 - 6)	
-0.549306			
1.62924 (3/16/1999)	2.19722 (12/19/1996)	(1.62924 - 2.19722)/(11 - 6)	
-0.113597			
0.832909 (9/23/1999)	2.19722 (12/19/1996)	(0.832909 - 2.19722)/(12 - 6)	
-0.227386			
ND<0 (3/15/2000)	2.19722 (12/19/1996)	(0 - 2.19722)/(13 - 6)	
-0.313889			
ND<0 (9/24/2003)	2.19722 (12/19/1996)	(0 - 2.19722)/(14 - 6)	
-0.274653			
ND<0 (3/11/2004)	2.19722 (12/19/1996)	(0 - 2.19722)/(15 - 6)	
-0.244136			
ND<0 (10/12/2004)	2.19722 (12/19/1996)	(0 - 2.19722)/(16 - 6)	
-0.219722			
1.10194 (4/1/2005)	2.19722 (12/19/1996)	(1.10194 - 2.19722)/(17 - 6)	
-0.0995713			
0.24686 J (10/25/2005)	2.19722 (12/19/1996)	(0.24686 - 2.19722)/(18 - 6)	
-0.16253			
-0.527633 J (4/29/2006)	2.19722 (12/19/1996)	(-0.527633 - 2.19722)/(19 - 6)	
-0.209604			
-0.040822 J (11/18/2006)	2.19722 (12/19/1996)	(-0.040822 - 2.19722)/(20 - 6)	
-0.15986			
0.693147 (5/23/2007)	2.19722 (12/19/1996)	(0.693147 - 2.19722)/(21 - 6)	
-0.100272			

0.00995033 J (11/28/2007) 2.19722 (12/19/1996) (0.00995033 - 2.19722)/(22 - 6)
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ND<0 (6/5/2008) 2.19722 (12/19/1996) (0 - 2.19722)/(23 - 6)
-0.129249
-1.23787 J (11/20/2008) 2.19722 (12/19/1996) (-1.23787 - 2.19722)/(24 - 6)
-0.190839
0.405465 (6/11/2009) 2.19722 (12/19/1996) (0.405465 - 2.19722)/(25 - 6)
-0.0943031
-1.51413 J (11/16/2009) 2.19722 (12/19/1996) (-1.51413 - 2.19722)/(26 - 6)
-0.185568
0.336472 (6/30/2010) 2.19722 (12/19/1996) (0.336472 - 2.19722)/(27 - 6)
-0.0886073
ND<-2.73337 U (11/12/2010) 2.19722 (12/19/1996) (-2.73337 - 2.19722)/(28 - 6)
-0.224118
-1.60944 J (7/5/2011) 2.19722 (12/19/1996) (-1.60944 - 2.19722)/(29 - 6)
-0.165507
ND<-2.73337 U (11/22/2011) 2.19722 (12/19/1996) (-2.73337 - 2.19722)/(30 - 6)
-0.205441
ND<-2.73337 U (11/22/2011) 2.19722 (12/19/1996) (-2.73337 - 2.19722)/(30 - 6)
-0.205441

ND<0 (9/24/1997) 1.94591 (3/24/1997) (0 - 1.94591)/(8 - 7) -1.94591
ND<0 (4/7/1998) 1.94591 (3/24/1997) (0 - 1.94591)/(9 - 7)
-0.972955
ND<0 (9/23/1998) 1.94591 (3/24/1997) (0 - 1.94591)/(10 - 7)
-0.648637
1.62924 (3/16/1999) 1.94591 (3/24/1997) (1.62924 - 1.94591)/(11 - 7)
-0.0791674
0.832909 (9/23/1999) 1.94591 (3/24/1997) (0.832909 - 1.94591)/(12 - 7)
-0.2226
ND<0 (3/15/2000) 1.94591 (3/24/1997) (0 - 1.94591)/(13 - 7)
-0.324318
ND<0 (9/24/2003) 1.94591 (3/24/1997) (0 - 1.94591)/(14 - 7)
-0.277987
ND<0 (3/11/2004) 1.94591 (3/24/1997) (0 - 1.94591)/(15 - 7)
-0.243239
ND<0 (10/12/2004) 1.94591 (3/24/1997) (0 - 1.94591)/(16 - 7)
-0.216212
1.10194 (4/1/2005) 1.94591 (3/24/1997) (1.10194 - 1.94591)/(17 - 7)
-0.084397
0.24686 J (10/25/2005) 1.94591 (3/24/1997) (0.24686 - 1.94591)/(18 - 7)
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-0.527633 J (4/29/2006) 1.94591 (3/24/1997) (-0.527633 - 1.94591)/(19 - 7)
-0.206129
-0.040822 J (11/18/2006) 1.94591 (3/24/1997) (-0.040822 - 1.94591)/(20 - 7)
-0.152826
0.693147 (5/23/2007) 1.94591 (3/24/1997) (0.693147 - 1.94591)/(21 - 7)
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-0.203447
ND<-2.73337 U (11/22/2011) 1.94591 (3/24/1997) (-2.73337 - 1.94591)/(30 - 7)
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ND<0 (9/23/1998) ND<0 (9/24/1997) (0 - 0)/(10 - 8) 0
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ND<0 (3/15/2000) ND<0 (9/24/1997) (0 - 0)/(13 - 8) 0
ND<0 (9/24/2003) ND<0 (9/24/1997) (0 - 0)/(14 - 8) 0
ND<0 (3/11/2004) ND<0 (9/24/1997) (0 - 0)/(15 - 8) 0
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ND<-2.73337 U (11/22/2011) ND<0 (9/24/1997) (-2.73337 - 0)/(30 - 8)
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ND<0 (9/23/1998) ND<0 (4/7/1998) (0 - 0)/(10 - 9) 0
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0.832909 (9/23/1999) ND<0 (4/7/1998) (0.832909 - 0)/(12 - 9)
0.277636
ND<0 (3/15/2000) ND<0 (4/7/1998) (0 - 0)/(13 - 9) 0
ND<0 (9/24/2003) ND<0 (4/7/1998) (0 - 0)/(14 - 9) 0
ND<0 (3/11/2004) ND<0 (4/7/1998) (0 - 0)/(15 - 9) 0
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-0.00371109

0.693147 (5/23/2007)	ND<0 (4/7/1998)	(0.693147 - 0)/(21 - 9)		
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0.00995033 J (11/28/2007)	ND<0 (4/7/1998)	(0.00995033 - 0)/(22 - 9)		
0.00076541				
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0	
-1.23787 J (11/20/2008)	ND<0 (4/7/1998)	(-1.23787 - 0)/(24 - 9)		
-0.082525				
0.405465 (6/11/2009)	ND<0 (4/7/1998)	(0.405465 - 0)/(25 - 9)		
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-1.51413 J (11/16/2009)	ND<0 (4/7/1998)	(-1.51413 - 0)/(26 - 9)		
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0.336472 (6/30/2010)	ND<0 (4/7/1998)	(0.336472 - 0)/(27 - 9)		
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ND<-2.73337 U (11/12/2010)	ND<0 (4/7/1998)	(-2.73337 - 0)/(28 - 9)		
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ND<-2.73337 U (11/22/2011)	ND<0 (4/7/1998)	(-2.73337 - 0)/(30 - 9)		
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ND<-2.73337 U (11/22/2011)	ND<0 (4/7/1998)	(-2.73337 - 0)/(30 - 9)		
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1.62924 (3/16/1999)	ND<0 (9/23/1998)	(1.62924 - 0)/(11 - 10)		1.62924
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0.416455				
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
1.10194 (4/1/2005)	ND<0 (9/23/1998)	(1.10194 - 0)/(17 - 10)		0.15742
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0.693147 (5/23/2007)	ND<0 (9/23/1998)	(0.693147 - 0)/(21 - 10)		
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0.00995033 J (11/28/2007)	ND<0 (9/23/1998)	(0.00995033 - 0)/(22 - 10)		
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ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0	
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ND<-2.73337 U (11/12/2010)	ND<0 (9/23/1998)	(-2.73337 - 0)/(28 - 10)		
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ND<-2.73337 U (11/22/2011)	ND<0 (9/23/1998)	(-2.73337 - 0)/(30 - 10)		
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ND<-2.73337 U (11/22/2011)	ND<0 (9/23/1998)	(-2.73337 - 0)/(30 - 10)		
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ND<0 (3/15/2000)	1.62924 (3/16/1999)	(0 - 1.62924)/(13 - 11)		-0.81462
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ND<0 (3/11/2004) 1.62924 (3/16/1999) (0 - 1.62924)/(15 - 11) -0.40731
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ND<-2.73337 U (11/22/2011) 1.62924 (3/16/1999) (-2.73337 - 1.62924)/(30 - 11)
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ND<-2.73337 U (11/22/2011) 1.62924 (3/16/1999) (-2.73337 - 1.62924)/(30 - 11)
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ND<0 (3/15/2000) 0.832909 (9/23/1999) (0 - 0.832909)/(13 - 12)
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ND<0 (9/24/2003) 0.832909 (9/23/1999) (0 - 0.832909)/(14 - 12)
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ND<0 (3/11/2004) 0.832909 (9/23/1999) (0 - 0.832909)/(15 - 12)
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ND<0 (10/12/2004) 0.832909 (9/23/1999) (0 - 0.832909)/(16 - 12)
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ND<-2.73337 U (11/12/2010) 0.832909 (9/23/1999) (-2.73337 - 0.832909)/(28 - 12)
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ND<-2.73337 U (11/22/2011) 0.832909 (9/23/1999) (-2.73337 - 0.832909)/(30 - 12)
-0.198127

ND<0 (9/24/2003) ND<0 (3/15/2000) (0 - 0)/(14 - 13) 0
ND<0 (3/11/2004) ND<0 (3/15/2000) (0 - 0)/(15 - 13) 0
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1.10194 (4/1/2005) ND<0 (3/15/2000) (1.10194 - 0)/(17 - 13)
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ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
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ND<-2.73337 U (11/12/2010) ND<0 (9/24/2003) (-2.73337 - 0)/(28 - 14)
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ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0
1.10194 (4/1/2005) ND<0 (3/11/2004) (1.10194 - 0)/(17 - 15) 0.55097
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-0.040822 J (11/18/2006) ND<0 (3/11/2004) (-0.040822 - 0)/(20 - 15)
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0.693147 (5/23/2007) ND<0 (3/11/2004) (0.693147 - 0)/(21 - 15)
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0.00995033 J (11/28/2007) ND<0 (3/11/2004) (0.00995033 - 0)/(22 - 15)
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ND<-2.73337 U (11/12/2010) ND<0 (10/12/2004) (-2.73337 - 0)/(28 - 16)
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0.24686 J (10/25/2005) 1.10194 (4/1/2005) (0.24686 - 1.10194)/(18 - 17)
-0.85508
-0.527633 J (4/29/2006) 1.10194 (4/1/2005) (-0.527633 - 1.10194)/(19 - 17)
-0.814786
-0.040822 J (11/18/2006) 1.10194 (4/1/2005) (-0.040822 - 1.10194)/(20 - 17)
-0.380921
0.693147 (5/23/2007) 1.10194 (4/1/2005) (0.693147 - 1.10194)/(21 - 17)
-0.102198
0.00995033 J (11/28/2007) 1.10194 (4/1/2005) (0.00995033 - 1.10194)/(22 - 17)
-0.218398
ND<0 (6/5/2008) 1.10194 (4/1/2005) (0 - 1.10194)/(23 - 17)
-0.183657
-1.23787 J (11/20/2008) 1.10194 (4/1/2005) (-1.23787 - 1.10194)/(24 - 17)
-0.334259
0.405465 (6/11/2009) 1.10194 (4/1/2005) (0.405465 - 1.10194)/(25 - 17)
-0.0870594
-1.51413 J (11/16/2009) 1.10194 (4/1/2005) (-1.51413 - 1.10194)/(26 - 17)
-0.290674
0.336472 (6/30/2010) 1.10194 (4/1/2005) (0.336472 - 1.10194)/(27 - 17)
-0.0765468
ND<-2.73337 U (11/12/2010) 1.10194 (4/1/2005) (-2.73337 - 1.10194)/(28 - 17)
-0.348664
-1.60944 J (7/5/2011) 1.10194 (4/1/2005) (-1.60944 - 1.10194)/(29 - 17)
-0.225948
ND<-2.73337 U (11/22/2011) 1.10194 (4/1/2005) (-2.73337 - 1.10194)/(30 - 17)
-0.295024
ND<-2.73337 U (11/22/2011) 1.10194 (4/1/2005) (-2.73337 - 1.10194)/(30 - 17)
-0.295024

-0.527633 J (4/29/2006) 0.24686 J (10/25/2005) (-0.527633 - 0.24686)/(19 - 18)
-0.774493
-0.040822 J (11/18/2006) 0.24686 J (10/25/2005) (-0.040822 - 0.24686)/(20 - 18)
-0.143841
0.693147 (5/23/2007) 0.24686 J (10/25/2005) (0.693147 - 0.24686)/(21 - 18)
0.148762
0.00995033 J (11/28/2007) 0.24686 J (10/25/2005) (0.00995033 - 0.24686)/(22 - 18)
-0.0592274
ND<0 (6/5/2008) 0.24686 J (10/25/2005) (0 - 0.24686)/(23 - 18)
-0.049372
-1.23787 J (11/20/2008) 0.24686 J (10/25/2005) (-1.23787 - 0.24686)/(24 - 18)
-0.247456
0.405465 (6/11/2009) 0.24686 J (10/25/2005) (0.405465 - 0.24686)/(25 - 18)
0.0226579
-1.51413 J (11/16/2009) 0.24686 J (10/25/2005) (-1.51413 - 0.24686)/(26 - 18)
-0.220123
0.336472 (6/30/2010) 0.24686 J (10/25/2005) (0.336472 - 0.24686)/(27 - 18)
0.00995691
ND<-2.73337 U (11/12/2010) 0.24686 J (10/25/2005) (-2.73337 - 0.24686)/(28 - 18)
-0.298023
-1.60944 J (7/5/2011) 0.24686 J (10/25/2005) (-1.60944 - 0.24686)/(29 - 18)
-0.168754
ND<-2.73337 U (11/22/2011) 0.24686 J (10/25/2005) (-2.73337 - 0.24686)/(30 - 18)
-0.248352

ND<-2.73337 U (11/22/2011) 0.24686 J (10/25/2005) (-2.73337 - 0.24686)/(30 - 18)
-0.248352

-0.040822 J (11/18/2006) -0.527633 J (4/29/2006) (-0.040822 - -0.527633)/(20 - 19)
0.486811
0.693147 (5/23/2007) -0.527633 J (4/29/2006) (0.693147 - -0.527633)/(21 - 19)
0.61039
0.00995033 J (11/28/2007) -0.527633 J (4/29/2006) (0.00995033 - -0.527633)/(22 - 19)
0.179194
ND<0 (6/5/2008) -0.527633 J (4/29/2006) (0 - -0.527633)/(23 - 19)
0.131908
-1.23787 J (11/20/2008) -0.527633 J (4/29/2006) (-1.23787 - -0.527633)/(24 - 19)
-0.142048
0.405465 (6/11/2009) -0.527633 J (4/29/2006) (0.405465 - -0.527633)/(25 - 19)
0.155516
-1.51413 J (11/16/2009) -0.527633 J (4/29/2006) (-1.51413 - -0.527633)/(26 - 19)
-0.140928
0.336472 (6/30/2010) -0.527633 J (4/29/2006) (0.336472 - -0.527633)/(27 - 19)
0.108013
ND<-2.73337 U (11/12/2010) -0.527633 J (4/29/2006) (-2.73337 - -0.527633)/(28 - 19)
-0.245082
-1.60944 J (7/5/2011) -0.527633 J (4/29/2006) (-1.60944 - -0.527633)/(29 - 19)
-0.108181
ND<-2.73337 U (11/22/2011) -0.527633 J (4/29/2006) (-2.73337 - -0.527633)/(30 - 19)
-0.200521
ND<-2.73337 U (11/22/2011) -0.527633 J (4/29/2006) (-2.73337 - -0.527633)/(30 - 19)
-0.200521

0.693147 (5/23/2007) -0.040822 J (11/18/2006) (0.693147 - -0.040822)/(21 - 20)
0.733969
0.00995033 J (11/28/2007) -0.040822 J (11/18/2006) (0.00995033 - -0.040822)/(22 - 20)
0.0253862
ND<0 (6/5/2008) -0.040822 J (11/18/2006) (0 - -0.040822)/(23 - 20)
0.0136073
-1.23787 J (11/20/2008) -0.040822 J (11/18/2006) (-1.23787 - -0.040822)/(24 - 20)
-0.299263
0.405465 (6/11/2009) -0.040822 J (11/18/2006) (0.405465 - -0.040822)/(25 - 20)
0.0892574
-1.51413 J (11/16/2009) -0.040822 J (11/18/2006) (-1.51413 - -0.040822)/(26 - 20)
-0.245551
0.336472 (6/30/2010) -0.040822 J (11/18/2006) (0.336472 - -0.040822)/(27 - 20)
0.0538992
ND<-2.73337 U (11/12/2010) -0.040822 J (11/18/2006) (-2.73337 - -0.040822)/(28 - 20)
-0.336568
-1.60944 J (7/5/2011) -0.040822 J (11/18/2006) (-1.60944 - -0.040822)/(29 - 20)
-0.174291
ND<-2.73337 U (11/22/2011) -0.040822 J (11/18/2006) (-2.73337 - -0.040822)/(30 - 20)
-0.269255
ND<-2.73337 U (11/22/2011) -0.040822 J (11/18/2006) (-2.73337 - -0.040822)/(30 - 20)
-0.269255

0.00995033 J (11/28/2007) 0.693147 (5/23/2007) (0.00995033 - 0.693147)/(22 - 21)
-0.683197
ND<0 (6/5/2008) 0.693147 (5/23/2007) (0 - 0.693147)/(23 - 21)
-0.346574
-1.23787 J (11/20/2008) 0.693147 (5/23/2007) (-1.23787 - 0.693147)/(24 - 21)
-0.643674
0.405465 (6/11/2009) 0.693147 (5/23/2007) (0.405465 - 0.693147)/(25 - 21)
-0.0719205
-1.51413 J (11/16/2009) 0.693147 (5/23/2007) (-1.51413 - 0.693147)/(26 - 21)
-0.441455

0.336472 (6/30/2010) 0.693147 (5/23/2007) (0.336472 - 0.693147)/(27 - 21)
-0.0594458
ND<-2.73337 U (11/12/2010) 0.693147 (5/23/2007) (-2.73337 - 0.693147)/(28 - 21)
-0.489502
-1.60944 J (7/5/2011) 0.693147 (5/23/2007) (-1.60944 - 0.693147)/(29 - 21)
-0.287823
ND<-2.73337 U (11/22/2011) 0.693147 (5/23/2007) (-2.73337 - 0.693147)/(30 - 21)
-0.380724
ND<-2.73337 U (11/22/2011) 0.693147 (5/23/2007) (-2.73337 - 0.693147)/(30 - 21)
-0.380724

ND<0 (6/5/2008) 0.00995033 J (11/28/2007) (0 - 0.00995033)/(23 - 22)
-0.00995033
-1.23787 J (11/20/2008) 0.00995033 J (11/28/2007) (-1.23787 - 0.00995033)/(24 - 22)
-0.623912
0.405465 (6/11/2009) 0.00995033 J (11/28/2007) (0.405465 - 0.00995033)/(25 - 22)
0.131838
-1.51413 J (11/16/2009) 0.00995033 J (11/28/2007) (-1.51413 - 0.00995033)/(26 - 22)
-0.38102
0.336472 (6/30/2010) 0.00995033 J (11/28/2007) (0.336472 - 0.00995033)/(27 - 22)
0.0653044
ND<-2.73337 U (11/12/2010) 0.00995033 J (11/28/2007) (-2.73337 -
0.00995033)/(28 - 22) -0.45722
-1.60944 J (7/5/2011) 0.00995033 J (11/28/2007) (-1.60944 - 0.00995033)/(29 - 22)
-0.231341
ND<-2.73337 U (11/22/2011) 0.00995033 J (11/28/2007) (-2.73337 -
0.00995033)/(30 - 22) -0.342915
ND<-2.73337 U (11/22/2011) 0.00995033 J (11/28/2007) (-2.73337 -
0.00995033)/(30 - 22) -0.342915

-1.23787 J (11/20/2008) ND<0 (6/5/2008) (-1.23787 - 0)/(24 - 23) -1.23787
0.405465 (6/11/2009) ND<0 (6/5/2008) (0.405465 - 0)/(25 - 23)
0.202733
-1.51413 J (11/16/2009) ND<0 (6/5/2008) (-1.51413 - 0)/(26 - 23)
-0.504709
0.336472 (6/30/2010) ND<0 (6/5/2008) (0.336472 - 0)/(27 - 23)
0.0841181
ND<-2.73337 U (11/12/2010) ND<0 (6/5/2008) (-2.73337 - 0)/(28 - 23)
-0.546674
-1.60944 J (7/5/2011) ND<0 (6/5/2008) (-1.60944 - 0)/(29 - 23) -0.26824
ND<-2.73337 U (11/22/2011) ND<0 (6/5/2008) (-2.73337 - 0)/(30 - 23)
-0.390481
ND<-2.73337 U (11/22/2011) ND<0 (6/5/2008) (-2.73337 - 0)/(30 - 23)
-0.390481

0.405465 (6/11/2009) -1.23787 J (11/20/2008) (0.405465 - -1.23787)/(25 - 24)
1.64334
-1.51413 J (11/16/2009) -1.23787 J (11/20/2008) (-1.51413 - -1.23787)/(26 - 24)
-0.138127
0.336472 (6/30/2010) -1.23787 J (11/20/2008) (0.336472 - -1.23787)/(27 - 24)
0.524782
ND<-2.73337 U (11/12/2010) -1.23787 J (11/20/2008) (-2.73337 - -1.23787)/(28 - 24)
-0.373873
-1.60944 J (7/5/2011) -1.23787 J (11/20/2008) (-1.60944 - -1.23787)/(29 - 24)
-0.0743127
ND<-2.73337 U (11/22/2011) -1.23787 J (11/20/2008) (-2.73337 - -1.23787)/(30 - 24)
-0.249249
ND<-2.73337 U (11/22/2011) -1.23787 J (11/20/2008) (-2.73337 - -1.23787)/(30 - 24)
-0.249249

-1.51413 J (11/16/2009) 0.405465 (6/11/2009) (-1.51413 - 0.405465)/(26 - 25)
-1.91959

0.336472 (6/30/2010) 0.405465 (6/11/2009) (0.336472 - 0.405465)/(27 - 25)
-0.0344964
ND<-2.73337 U (11/12/2010) 0.405465 (6/11/2009) (-2.73337 - 0.405465)/(28 - 25)
-1.04628
-1.60944 J (7/5/2011) 0.405465 (6/11/2009) (-1.60944 - 0.405465)/(29 - 25)
-0.503726
ND<-2.73337 U (11/22/2011) 0.405465 (6/11/2009) (-2.73337 - 0.405465)/(30 - 25)
-0.627767
ND<-2.73337 U (11/22/2011) 0.405465 (6/11/2009) (-2.73337 - 0.405465)/(30 - 25)
-0.627767

0.336472 (6/30/2010) -1.51413 J (11/16/2009) (0.336472 - -1.51413)/(27 - 26)
1.8506
ND<-2.73337 U (11/12/2010) -1.51413 J (11/16/2009) (-2.73337 - -1.51413)/(28 - 26)
-0.60962
-1.60944 J (7/5/2011) -1.51413 J (11/16/2009) (-1.60944 - -1.51413)/(29 - 26)
-0.0317701
ND<-2.73337 U (11/22/2011) -1.51413 J (11/16/2009) (-2.73337 - -1.51413)/(30 - 26)
-0.30481
ND<-2.73337 U (11/22/2011) -1.51413 J (11/16/2009) (-2.73337 - -1.51413)/(30 - 26)
-0.30481

ND<-2.73337 U (11/12/2010) 0.336472 (6/30/2010) (-2.73337 - 0.336472)/(28 - 27)
-3.06984
-1.60944 J (7/5/2011) 0.336472 (6/30/2010) (-1.60944 - 0.336472)/(29 - 27)
-0.972955
ND<-2.73337 U (11/22/2011) 0.336472 (6/30/2010) (-2.73337 - 0.336472)/(30 - 27)
-1.02328
ND<-2.73337 U (11/22/2011) 0.336472 (6/30/2010) (-2.73337 - 0.336472)/(30 - 27)
-1.02328

-1.60944 J (7/5/2011) ND<-2.73337 U (11/12/2010) (-1.60944 - -2.73337)/(29 - 28)
1.12393
ND<-2.73337 U (11/22/2011) ND<-2.73337 U (11/12/2010) (-2.73337 - -2.73337)/(30 -
28) 0
ND<-2.73337 U (11/22/2011) ND<-2.73337 U (11/12/2010) (-2.73337 - -2.73337)/(30 -
28) 0

ND<-2.73337 U (11/22/2011) -1.60944 J (7/5/2011) (-2.73337 - -1.60944)/(30 - 29)
-1.12393
ND<-2.73337 U (11/22/2011) -1.60944 J (7/5/2011) (-2.73337 - -1.60944)/(30 - 29)
-1.12393

ND<-2.73337 U (11/22/2011) ND<-2.73337 U (11/22/2011) (-2.73337 - -2.73337)/(30 -
30) Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-3.06984
2	-2.07944
3	-1.94591
4	-1.91959
5	-1.23787
6	-1.12393
7	-1.12393
8	-1.09861
9	-1.04628
10	-1.02328

11	-1.02328
12	-0.972955
13	-0.972955
14	-0.89588
15	-0.85508
16	-0.832909
17	-0.814786
18	-0.81462
19	-0.796331
20	-0.774493
21	-0.732408
22	-0.724917
23	-0.683197
24	-0.648637
25	-0.643674
26	-0.627767
27	-0.627767
28	-0.623912
29	-0.60962
30	-0.549306
31	-0.546674
32	-0.54308
33	-0.51986
34	-0.504709
35	-0.503726
36	-0.489502
37	-0.45722
38	-0.441455
39	-0.416455
40	-0.415888
41	-0.40731
42	-0.390481
43	-0.390481
44	-0.382992
45	-0.38102
46	-0.380921
47	-0.380724
48	-0.380724
49	-0.373873
50	-0.362459
51	-0.358352
52	-0.348664
53	-0.346574
54	-0.346574
55	-0.342915
56	-0.342915
57	-0.336568
58	-0.334259
59	-0.325848
60	-0.324318
61	-0.313889
62	-0.313191
63	-0.310679
64	-0.30481
65	-0.30481
66	-0.299263
67	-0.298627
68	-0.298023
69	-0.295024
70	-0.295024
71	-0.290674
72	-0.287823

73	-0.277987
74	-0.277636
75	-0.274653
76	-0.271844
77	-0.269609
78	-0.269255
79	-0.269255
80	-0.26824
81	-0.256624
82	-0.255966
83	-0.251314
84	-0.249249
85	-0.249249
86	-0.248352
87	-0.248352
88	-0.247456
89	-0.245551
90	-0.245082
91	-0.244136
92	-0.243239
93	-0.231341
94	-0.231049
95	-0.229611
96	-0.229611
97	-0.227781
98	-0.227386
99	-0.225948
100	-0.224118
101	-0.222892
102	-0.222823
103	-0.2226
104	-0.220547
105	-0.220123
106	-0.219722
107	-0.218398
108	-0.216212
109	-0.210259
110	-0.209604
111	-0.209558
112	-0.208227
113	-0.207944
114	-0.206129
115	-0.205441
116	-0.205441
117	-0.203447
118	-0.203447
119	-0.200534
120	-0.200521
121	-0.200521
122	-0.198127
123	-0.198127
124	-0.197705
125	-0.197483
126	-0.195241
127	-0.195241
128	-0.195241
129	-0.194363
130	-0.190839
131	-0.18904
132	-0.188774
133	-0.187281
134	-0.185568

135	-0.185563
136	-0.185108
137	-0.185108
138	-0.183657
139	-0.182225
140	-0.182225
141	-0.182225
142	-0.182107
143	-0.181229
144	-0.181005
145	-0.179927
146	-0.179176
147	-0.178966
148	-0.175878
149	-0.17529
150	-0.17529
151	-0.174291
152	-0.173805
153	-0.173287
154	-0.172565
155	-0.170836
156	-0.170836
157	-0.168754
158	-0.167645
159	-0.167597
160	-0.167597
161	-0.167289
162	-0.165866
163	-0.165507
164	-0.163344
165	-0.162887
166	-0.16253
167	-0.161607
168	-0.160786
169	-0.160786
170	-0.15986
171	-0.158964
172	-0.156595
173	-0.155817
174	-0.155339
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177	-0.154459
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180	-0.151854
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182	-0.149313
183	-0.147634
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185	-0.147208
186	-0.144962
187	-0.144268
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189	-0.143841
190	-0.143734
191	-0.143667
192	-0.142048
193	-0.140928
194	-0.140155
195	-0.139196
196	-0.138127

197	-0.137828
198	-0.137648
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203	-0.136668
204	-0.136668
205	-0.136668
206	-0.13577
207	-0.134184
208	-0.132516
209	-0.131908
210	-0.130899
211	-0.130815
212	-0.13016
213	-0.13016
214	-0.129249
215	-0.129064
216	-0.126177
217	-0.124244
218	-0.124244
219	-0.123803
220	-0.123787
221	-0.123087
222	-0.121619
223	-0.120493
224	-0.118842
225	-0.116471
226	-0.114972
227	-0.11496
228	-0.113597
229	-0.112534
230	-0.110676
231	-0.109444
232	-0.109335
233	-0.109335
234	-0.109216
235	-0.108289
236	-0.10824
237	-0.108181
238	-0.107799
239	-0.107296
240	-0.106539
241	-0.105527
242	-0.104397
243	-0.10356
244	-0.102993
245	-0.102221
246	-0.102198
247	-0.10059
248	-0.100272
249	-0.0995713
250	-0.0989109
251	-0.0976748
252	-0.0963664
253	-0.094633
254	-0.0943031
255	-0.0937794
256	-0.0936093
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258	-0.0894831

259	-0.0894831
260	-0.0890663
261	-0.0886073
262	-0.0884196
263	-0.0879388
264	-0.0878834
265	-0.0874125
266	-0.0870594
267	-0.0855803
268	-0.0847073
269	-0.084397
270	-0.0841182
271	-0.0835175
272	-0.082525
273	-0.0822959
274	-0.0815467
275	-0.080798
276	-0.0804719
277	-0.0804719
278	-0.0797132
279	-0.0791674
280	-0.0779792
281	-0.0773671
282	-0.0769255
283	-0.0766399
284	-0.0765468
285	-0.0757813
286	-0.075719
287	-0.0751924
288	-0.0743127
289	-0.0735312
290	-0.0721013
291	-0.0719205
292	-0.0715208
293	-0.0680834
294	-0.0670599
295	-0.0651513
296	-0.0643144
297	-0.0630134
298	-0.061034
299	-0.060637
300	-0.0606124
301	-0.0594458
302	-0.0592274
303	-0.0591816
304	-0.0591708
305	-0.0586259
306	-0.0569438
307	-0.0527633
308	-0.049372
309	-0.0492728
310	-0.0479666
311	-0.0476551
312	-0.0457683
313	-0.0445105
314	-0.0381685
315	-0.0376881
316	-0.0353041
317	-0.035242
318	-0.0344964
319	-0.0330958
320	-0.0328803

321	-0.0317701
322	-0.0279808
323	-0.0203149
324	-0.0155291
325	-0.0102055
326	-0.00995033
327	-0.00942643
328	-0.0081644
329	-0.00680367
330	-0.00583171
331	-0.0040822
332	-0.00371109
333	-0.00340183
334	-0.00272147
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0
348	0
349	0
350	0
351	0
352	0
353	0
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0
364	0
365	0
366	0
367	0
368	0
369	0
370	0
371	0
372	0
373	0.000585314
374	0.000710738
375	0.00076541
376	0.000829194
377	0.00110559
378	0.00124379
379	0.00142148
380	0.00165839
381	0.00561821
382	0.00995691

383	0.0136073
384	0.0152942
385	0.0177091
386	0.0186929
387	0.0189892
388	0.0197925
389	0.0202733
390	0.0226579
391	0.0238509
392	0.0240337
393	0.024686
394	0.0253416
395	0.0253862
396	0.0258825
397	0.027031
398	0.0274289
399	0.0280394
400	0.0305884
401	0.0308575
402	0.0337888
403	0.0368605
404	0.0376478
405	0.0385377
406	0.0405465
407	0.0433217
408	0.0450517
409	0.049372
410	0.053319
411	0.0538062
412	0.0538992
413	0.0577623
414	0.0588915
415	0.061715
416	0.0630134
417	0.0653044
418	0.0822867
419	0.0841181
420	0.0866434
421	0.0892574
422	0.0918283
423	0.099021
424	0.108013
425	0.115525
426	0.115525
427	0.118987
428	0.122438
429	0.12343
430	0.131838
431	0.131908
432	0.135155
433	0.137743
434	0.138629
435	0.148762
436	0.155516
437	0.15742
438	0.179194
439	0.188892
440	0.202733
441	0.208227
442	0.269498
443	0.27154
444	0.275485

445	0.27556
446	0.277636
447	0.287682
448	0.367313
449	0.416455
450	0.486811
451	0.524782
452	0.54308
453	0.55097
454	0.61039
455	0.733969
456	0.81462
457	0.921989
458	0.972955
459	1.10194
460	1.12393
461	1.62924
462	1.64334
463	1.8506
464	2.19722

Sen's Estimator (Median Q) is -0.109335

Tied Group	Value	Members
1	0	9
2	-2.73337	3

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 1722
B = 18

C = 510
D = 0
E = 78
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3365.08
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 95.4168
M1 = (464 - 95.4168)/2.0 = 184.292
M2 = (464 + 95.4168)/2.0 + 1 = 280.708
Lower limit is -0.147555 = Q(184)
Upper limit is -0.0773671 = Q(281)
-0.0773671 < 0 indicating a downward trend in data.

Sen's Slope Analysis
Parameter: Trichloroethene
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
0.788457	(8/24/1995)	-0.544727 J (7/20/1995)	(0.788457 - -0.544727)/(2 - 1)
1.33318			
1.09861	(9/28/1995)	-0.544727 J (7/20/1995)	(1.09861 - -0.544727)/(3 - 1)
0.82167			
1.09861	(10/26/1995)	-0.544727 J (7/20/1995)	(1.09861 - -0.544727)/(4 - 1)
0.54778			
ND<0	(11/19/1996)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(5 - 1)
0.136182			
ND<0	(12/19/1996)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(6 - 1)
0.108945			
ND<0	(3/24/1997)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(7 - 1)
0.0907879			
ND<0	(9/24/1997)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(8 - 1)
0.0778182			
ND<0	(4/7/1998)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(9 - 1)
0.0680909			
ND<0	(9/23/1998)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(10 - 1)
0.0605252			
1.16315	(3/16/1999)	-0.544727 J (7/20/1995)	(1.16315 - -0.544727)/(11 - 1)
0.170788			
ND<0	(9/23/1999)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(12 - 1)
0.0495207			
ND<0	(3/15/2000)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(13 - 1)
0.0453939			
ND<0	(9/24/2003)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(14 - 1)
0.0419021			
ND<0	(3/11/2004)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(15 - 1)
0.0389091			
ND<0	(10/12/2004)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(16 - 1)
0.0363151			
-0.127833 J (4/1/2005)		-0.544727 J (7/20/1995)	(-0.127833 - -0.544727)/(17 - 1)
0.0260559			
0.139762 J (10/25/2005)		-0.544727 J (7/20/1995)	(0.139762 - -0.544727)/(18 - 1)
0.0402641			
0.239017 J (4/29/2006)		-0.544727 J (7/20/1995)	(0.239017 - -0.544727)/(19 - 1)
0.0435413			
-0.116534 J (11/18/2006)		-0.544727 J (7/20/1995)	(-0.116534 - -0.544727)/(20 - 1)
0.0225365			
ND<0	(5/23/2007)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(21 - 1)
0.0272364			
0 J (11/28/2007)		-0.544727 J (7/20/1995)	(0 - -0.544727)/(22 - 1)
0.0259394			
ND<0	(6/5/2008)	-0.544727 J (7/20/1995)	(0 - -0.544727)/(23 - 1)
0.0247603			
-0.0943107 J (11/20/2008)		-0.544727 J (7/20/1995)	(-0.0943107 - -0.544727)/(24 - 1)
0.0195833			
-0.527633 J (6/11/2009)		-0.544727 J (7/20/1995)	(-0.527633 - -0.544727)/(25 - 1)
0.000712268			
-0.0618754 J (11/16/2009)		-0.544727 J (7/20/1995)	(-0.0618754 - -0.544727)/(26 - 1)
0.0193141			
-0.653926 J (6/30/2010)		-0.544727 J (7/20/1995)	(-0.653926 - -0.544727)/(27 - 1)
-0.00419997			

-0.150823 J (11/12/2010) -0.544727 J (7/20/1995) (-0.150823 - -0.544727)/(28 - 1)
0.014589
0.336472 (7/5/2011) -0.544727 J (7/20/1995) (0.336472 - -0.544727)/(29 - 1)
0.0314714
0.336472 (11/22/2011) -0.544727 J (7/20/1995) (0.336472 - -0.544727)/(30 - 1)
0.0303862
0.336472 (11/22/2011) -0.544727 J (7/20/1995) (0.336472 - -0.544727)/(30 - 1)
0.0303862

1.09861 (9/28/1995) 0.788457 (8/24/1995) (1.09861 - 0.788457)/(3 - 2)
0.310155
1.09861 (10/26/1995) 0.788457 (8/24/1995) (1.09861 - 0.788457)/(4 - 2)
0.155077
ND<0 (11/19/1996) 0.788457 (8/24/1995) (0 - 0.788457)/(5 - 2)
-0.262819
ND<0 (12/19/1996) 0.788457 (8/24/1995) (0 - 0.788457)/(6 - 2)
-0.197114
ND<0 (3/24/1997) 0.788457 (8/24/1995) (0 - 0.788457)/(7 - 2)
-0.157691
ND<0 (9/24/1997) 0.788457 (8/24/1995) (0 - 0.788457)/(8 - 2) -0.13141
ND<0 (4/7/1998) 0.788457 (8/24/1995) (0 - 0.788457)/(9 - 2)
-0.112637
ND<0 (9/23/1998) 0.788457 (8/24/1995) (0 - 0.788457)/(10 - 2)
-0.0985572
1.16315 (3/16/1999) 0.788457 (8/24/1995) (1.16315 - 0.788457)/(11 - 2)
0.0416326
ND<0 (9/23/1999) 0.788457 (8/24/1995) (0 - 0.788457)/(12 - 2)
-0.0788457
ND<0 (3/15/2000) 0.788457 (8/24/1995) (0 - 0.788457)/(13 - 2)
-0.0716779
ND<0 (9/24/2003) 0.788457 (8/24/1995) (0 - 0.788457)/(14 - 2)
-0.0657048
ND<0 (3/11/2004) 0.788457 (8/24/1995) (0 - 0.788457)/(15 - 2)
-0.0606506
ND<0 (10/12/2004) 0.788457 (8/24/1995) (0 - 0.788457)/(16 - 2)
-0.0563184
-0.127833 J (4/1/2005) 0.788457 (8/24/1995) (-0.127833 - 0.788457)/(17 - 2)
-0.061086
0.139762 J (10/25/2005) 0.788457 (8/24/1995) (0.139762 - 0.788457)/(18 - 2)
-0.0405435
0.239017 J (4/29/2006) 0.788457 (8/24/1995) (0.239017 - 0.788457)/(19 - 2)
-0.03232
-0.116534 J (11/18/2006) 0.788457 (8/24/1995) (-0.116534 - 0.788457)/(20 - 2)
-0.0502773
ND<0 (5/23/2007) 0.788457 (8/24/1995) (0 - 0.788457)/(21 - 2)
-0.0414978
0 J (11/28/2007) 0.788457 (8/24/1995) (0 - 0.788457)/(22 - 2) -0.0394229
ND<0 (6/5/2008) 0.788457 (8/24/1995) (0 - 0.788457)/(23 - 2)
-0.0375456
-0.0943107 J (11/20/2008) 0.788457 (8/24/1995) (-0.0943107 - 0.788457)/(24 - 2)
-0.0401258
-0.527633 J (6/11/2009) 0.788457 (8/24/1995) (-0.527633 - 0.788457)/(25 - 2)
-0.0572213
-0.0618754 J (11/16/2009) 0.788457 (8/24/1995) (-0.0618754 - 0.788457)/(26 - 2)
-0.0354305
-0.653926 J (6/30/2010) 0.788457 (8/24/1995) (-0.653926 - 0.788457)/(27 - 2)
-0.0576954
-0.150823 J (11/12/2010) 0.788457 (8/24/1995) (-0.150823 - 0.788457)/(28 - 2)
-0.0361262
0.336472 (7/5/2011) 0.788457 (8/24/1995) (0.336472 - 0.788457)/(29 - 2)
-0.0167402

0.336472	(11/22/2011)	0.788457	(8/24/1995)	(0.336472 - 0.788457)/(30 - 2)	-0.0161423	
0.336472	(11/22/2011)	0.788457	(8/24/1995)	(0.336472 - 0.788457)/(30 - 2)	-0.0161423	
1.09861	(10/26/1995)	1.09861	(9/28/1995)	(1.09861 - 1.09861)/(4 - 3)	0	
ND<0	(11/19/1996)	1.09861	(9/28/1995)	(0 - 1.09861)/(5 - 3)	-0.549306	
ND<0	(12/19/1996)	1.09861	(9/28/1995)	(0 - 1.09861)/(6 - 3)	-0.366204	
ND<0	(3/24/1997)	1.09861	(9/28/1995)	(0 - 1.09861)/(7 - 3)	-0.274653	
ND<0	(9/24/1997)	1.09861	(9/28/1995)	(0 - 1.09861)/(8 - 3)	-0.219722	
ND<0	(4/7/1998)	1.09861	(9/28/1995)	(0 - 1.09861)/(9 - 3)	-0.183102	
ND<0	(9/23/1998)	1.09861	(9/28/1995)	(0 - 1.09861)/(10 - 3)	-0.156945	
1.16315	(3/16/1999)	1.09861	(9/28/1995)	(1.16315 - 1.09861)/(11 - 3)	0.00806732	
ND<0	(9/23/1999)	1.09861	(9/28/1995)	(0 - 1.09861)/(12 - 3)	-0.122068	
ND<0	(3/15/2000)	1.09861	(9/28/1995)	(0 - 1.09861)/(13 - 3)	-0.109861	
ND<0	(9/24/2003)	1.09861	(9/28/1995)	(0 - 1.09861)/(14 - 3)	-0.0998738	
ND<0	(3/11/2004)	1.09861	(9/28/1995)	(0 - 1.09861)/(15 - 3)	-0.091551	
ND<0	(10/12/2004)	1.09861	(9/28/1995)	(0 - 1.09861)/(16 - 3)	-0.0845086	
-0.127833 J	(4/1/2005)	1.09861	(9/28/1995)	(-0.127833 - 1.09861)/(17 - 3)	-0.0876033	
0.139762 J	(10/25/2005)	1.09861	(9/28/1995)	(0.139762 - 1.09861)/(18 - 3)	-0.0639234	
0.239017 J	(4/29/2006)	1.09861	(9/28/1995)	(0.239017 - 1.09861)/(19 - 3)	-0.0537247	
-0.116534 J	(11/18/2006)	1.09861	(9/28/1995)	(-0.116534 - 1.09861)/(20 - 3)	-0.0714792	
ND<0	(5/23/2007)	1.09861	(9/28/1995)	(0 - 1.09861)/(21 - 3)	-0.061034	
0 J	(11/28/2007)	1.09861	(9/28/1995)	(0 - 1.09861)/(22 - 3)	-0.0578217	
ND<0	(6/5/2008)	1.09861	(9/28/1995)	(0 - 1.09861)/(23 - 3)	-0.0549306	
-0.0943107 J	(11/20/2008)	1.09861	(9/28/1995)	(-0.0943107 - 1.09861)/(24 - 3)	-0.0568059	
-0.527633 J	(6/11/2009)	1.09861	(9/28/1995)	(-0.527633 - 1.09861)/(25 - 3)	-0.0739202	
-0.0618754 J	(11/16/2009)	1.09861	(9/28/1995)	(-0.0618754 - 1.09861)/(26 - 3)	-0.050456	
-0.653926 J	(6/30/2010)	1.09861	(9/28/1995)	(-0.653926 - 1.09861)/(27 - 3)	-0.0730224	
-0.150823 J	(11/12/2010)	1.09861	(9/28/1995)	(-0.150823 - 1.09861)/(28 - 3)	-0.0499774	
0.336472	(7/5/2011)	1.09861	(9/28/1995)	(0.336472 - 1.09861)/(29 - 3)	-0.0293131	
0.336472	(11/22/2011)	1.09861	(9/28/1995)	(0.336472 - 1.09861)/(30 - 3)	-0.0282274	
0.336472	(11/22/2011)	1.09861	(9/28/1995)	(0.336472 - 1.09861)/(30 - 3)	-0.0282274	
ND<0	(11/19/1996)	1.09861	(10/26/1995)	(0 - 1.09861)/(5 - 4)	-1.09861	

ND<0 (12/19/1996) 1.09861 (10/26/1995) (0 - 1.09861)/(6 - 4)
-0.549306
ND<0 (3/24/1997) 1.09861 (10/26/1995) (0 - 1.09861)/(7 - 4)
-0.366204
ND<0 (9/24/1997) 1.09861 (10/26/1995) (0 - 1.09861)/(8 - 4)
-0.274653
ND<0 (4/7/1998) 1.09861 (10/26/1995) (0 - 1.09861)/(9 - 4)
-0.219722
ND<0 (9/23/1998) 1.09861 (10/26/1995) (0 - 1.09861)/(10 - 4)
-0.183102
1.16315 (3/16/1999) 1.09861 (10/26/1995) (1.16315 - 1.09861)/(11 - 4)
0.00921979
ND<0 (9/23/1999) 1.09861 (10/26/1995) (0 - 1.09861)/(12 - 4)
-0.137327
ND<0 (3/15/2000) 1.09861 (10/26/1995) (0 - 1.09861)/(13 - 4)
-0.122068
ND<0 (9/24/2003) 1.09861 (10/26/1995) (0 - 1.09861)/(14 - 4)
-0.109861
ND<0 (3/11/2004) 1.09861 (10/26/1995) (0 - 1.09861)/(15 - 4)
-0.0998738
ND<0 (10/12/2004) 1.09861 (10/26/1995) (0 - 1.09861)/(16 - 4)
-0.091551
-0.127833 J (4/1/2005) 1.09861 (10/26/1995) (-0.127833 - 1.09861)/(17 - 4)
-0.094342
0.139762 J (10/25/2005) 1.09861 (10/26/1995) (0.139762 - 1.09861)/(18 - 4)
-0.0684893
0.239017 J (4/29/2006) 1.09861 (10/26/1995) (0.239017 - 1.09861)/(19 - 4)
-0.0573064
-0.116534 J (11/18/2006) 1.09861 (10/26/1995) (-0.116534 - 1.09861)/(20 - 4)
-0.0759466
ND<0 (5/23/2007) 1.09861 (10/26/1995) (0 - 1.09861)/(21 - 4)
-0.0646243
0 J (11/28/2007) 1.09861 (10/26/1995) (0 - 1.09861)/(22 - 4) -0.061034
ND<0 (6/5/2008) 1.09861 (10/26/1995) (0 - 1.09861)/(23 - 4)
-0.0578217
-0.0943107 J (11/20/2008) 1.09861 (10/26/1995) (-0.0943107 - 1.09861)/(24 - 4)
-0.0596461
-0.527633 J (6/11/2009) 1.09861 (10/26/1995) (-0.527633 - 1.09861)/(25 - 4)
-0.0774402
-0.0618754 J (11/16/2009) 1.09861 (10/26/1995) (-0.0618754 - 1.09861)/(26 - 4)
-0.0527494
-0.653926 J (6/30/2010) 1.09861 (10/26/1995) (-0.653926 - 1.09861)/(27 - 4)
-0.0761973
-0.150823 J (11/12/2010) 1.09861 (10/26/1995) (-0.150823 - 1.09861)/(28 - 4)
-0.0520598
0.336472 (7/5/2011) 1.09861 (10/26/1995) (0.336472 - 1.09861)/(29 - 4)
-0.0304856
0.336472 (11/22/2011) 1.09861 (10/26/1995) (0.336472 - 1.09861)/(30 - 4)
-0.0293131
0.336472 (11/22/2011) 1.09861 (10/26/1995) (0.336472 - 1.09861)/(30 - 4)
-0.0293131

ND<0 (12/19/1996) ND<0 (11/19/1996) (0 - 0)/(6 - 5) 0
ND<0 (3/24/1997) ND<0 (11/19/1996) (0 - 0)/(7 - 5) 0
ND<0 (9/24/1997) ND<0 (11/19/1996) (0 - 0)/(8 - 5) 0
ND<0 (4/7/1998) ND<0 (11/19/1996) (0 - 0)/(9 - 5) 0
ND<0 (9/23/1998) ND<0 (11/19/1996) (0 - 0)/(10 - 5) 0
1.16315 (3/16/1999) ND<0 (11/19/1996) (1.16315 - 0)/(11 - 5)
0.193858
ND<0 (9/23/1999) ND<0 (11/19/1996) (0 - 0)/(12 - 5) 0
ND<0 (3/15/2000) ND<0 (11/19/1996) (0 - 0)/(13 - 5) 0
ND<0 (9/24/2003) ND<0 (11/19/1996) (0 - 0)/(14 - 5) 0

ND<0 (3/11/2004) ND<0 (11/19/1996) (0 - 0)/(15 - 5) 0
ND<0 (10/12/2004) ND<0 (11/19/1996) (0 - 0)/(16 - 5) 0
-0.127833 J (4/1/2005) ND<0 (11/19/1996) (-0.127833 - 0)/(17 - 5)
-0.0106528
0.139762 J (10/25/2005) ND<0 (11/19/1996) (0.139762 - 0)/(18 - 5)
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0.336472 (11/22/2011) ND<0 (9/24/2003) (0.336472 - 0)/(30 - 14)
0.0210295
0.336472 (11/22/2011) ND<0 (9/24/2003) (0.336472 - 0)/(30 - 14)
0.0210295

ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0
-0.127833 J (4/1/2005) ND<0 (3/11/2004) (-0.127833 - 0)/(17 - 15)
-0.0639167
0.139762 J (10/25/2005) ND<0 (3/11/2004) (0.139762 - 0)/(18 - 15)
0.0465873
0.239017 J (4/29/2006) ND<0 (3/11/2004) (0.239017 - 0)/(19 - 15)
0.0597542
-0.116534 J (11/18/2006) ND<0 (3/11/2004) (-0.116534 - 0)/(20 - 15)
-0.0233068
ND<0 (5/23/2007) ND<0 (3/11/2004) (0 - 0)/(21 - 15) 0
0 J (11/28/2007) ND<0 (3/11/2004) (0 - 0)/(22 - 15) 0
ND<0 (6/5/2008) ND<0 (3/11/2004) (0 - 0)/(23 - 15) 0
-0.0943107 J (11/20/2008) ND<0 (3/11/2004) (-0.0943107 - 0)/(24 - 15)
-0.010479
-0.527633 J (6/11/2009) ND<0 (3/11/2004) (-0.527633 - 0)/(25 - 15)
-0.0527633
-0.0618754 J (11/16/2009) ND<0 (3/11/2004) (-0.0618754 - 0)/(26 - 15)
-0.00562504
-0.653926 J (6/30/2010) ND<0 (3/11/2004) (-0.653926 - 0)/(27 - 15)
-0.0544939
-0.150823 J (11/12/2010) ND<0 (3/11/2004) (-0.150823 - 0)/(28 - 15)
-0.0116018
0.336472 (7/5/2011) ND<0 (3/11/2004) (0.336472 - 0)/(29 - 15)
0.0240337

0.336472 (11/22/2011) ND<0 (3/11/2004) (0.336472 - 0)/(30 - 15)
0.0224315
0.336472 (11/22/2011) ND<0 (3/11/2004) (0.336472 - 0)/(30 - 15)
0.0224315

-0.127833 J (4/1/2005) ND<0 (10/12/2004) (-0.127833 - 0)/(17 - 16)
-0.127833
0.139762 J (10/25/2005) ND<0 (10/12/2004) (0.139762 - 0)/(18 - 16)
0.069881
0.239017 J (4/29/2006) ND<0 (10/12/2004) (0.239017 - 0)/(19 - 16)
0.0796723
-0.116534 J (11/18/2006) ND<0 (10/12/2004) (-0.116534 - 0)/(20 - 16)
-0.0291335
ND<0 (5/23/2007) ND<0 (10/12/2004) (0 - 0)/(21 - 16) 0
0 J (11/28/2007) ND<0 (10/12/2004) (0 - 0)/(22 - 16) 0
ND<0 (6/5/2008) ND<0 (10/12/2004) (0 - 0)/(23 - 16) 0
-0.0943107 J (11/20/2008) ND<0 (10/12/2004) (-0.0943107 - 0)/(24 - 16)
-0.0117888
-0.527633 J (6/11/2009) ND<0 (10/12/2004) (-0.527633 - 0)/(25 - 16)
-0.0586259
-0.0618754 J (11/16/2009) ND<0 (10/12/2004) (-0.0618754 - 0)/(26 - 16)
-0.00618754
-0.653926 J (6/30/2010) ND<0 (10/12/2004) (-0.653926 - 0)/(27 - 16)
-0.0594479
-0.150823 J (11/12/2010) ND<0 (10/12/2004) (-0.150823 - 0)/(28 - 16)
-0.0125686
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0.0240337

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0.267595
0.239017 J (4/29/2006) -0.127833 J (4/1/2005) (0.239017 - -0.127833)/(19 - 17)
0.183425
-0.116534 J (11/18/2006) -0.127833 J (4/1/2005) (-0.116534 - -0.127833)/(20 - 17)
0.00376652
ND<0 (5/23/2007) -0.127833 J (4/1/2005) (0 - -0.127833)/(21 - 17)
0.0319583
0 J (11/28/2007) -0.127833 J (4/1/2005) (0 - -0.127833)/(22 - 17) 0.0255667
ND<0 (6/5/2008) -0.127833 J (4/1/2005) (0 - -0.127833)/(23 - 17)
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-0.0943107 J (11/20/2008) -0.127833 J (4/1/2005) (-0.0943107 - -0.127833)/(24 - 17)
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-0.527633 J (6/11/2009) -0.127833 J (4/1/2005) (-0.527633 - -0.127833)/(25 - 17)
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-0.0618754 J (11/16/2009) -0.127833 J (4/1/2005) (-0.0618754 - -0.127833)/(26 - 17)
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-0.150823 J (11/12/2010) -0.127833 J (4/1/2005) (-0.150823 - -0.127833)/(28 - 17)
-0.00208996
0.336472 (7/5/2011) -0.127833 J (4/1/2005) (0.336472 - -0.127833)/(29 - 17)
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0.336472 (11/22/2011) -0.127833 J (4/1/2005) (0.336472 - -0.127833)/(30 - 17)
0.0357158
0.336472 (11/22/2011) -0.127833 J (4/1/2005) (0.336472 - -0.127833)/(30 - 17)
0.0357158

0.239017 J (4/29/2006) 0.139762 J (10/25/2005) (0.239017 - 0.139762)/(19 - 18) 0.099255
-0.116534 J (11/18/2006) 0.139762 J (10/25/2005) (-0.116534 - 0.139762)/(20 - 18) -0.128148
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ND<0 (6/5/2008) 0.139762 J (10/25/2005) (0 - 0.139762)/(23 - 18) -0.0279524
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-0.527633 J (6/11/2009) 0.139762 J (10/25/2005) (-0.527633 - 0.139762)/(25 - 18) -0.0953421
-0.0618754 J (11/16/2009) 0.139762 J (10/25/2005) (-0.0618754 - 0.139762)/(26 - 18) -0.0252047
-0.653926 J (6/30/2010) 0.139762 J (10/25/2005) (-0.653926 - 0.139762)/(27 - 18) -0.0881876
-0.150823 J (11/12/2010) 0.139762 J (10/25/2005) (-0.150823 - 0.139762)/(28 - 18) -0.0290585
0.336472 (7/5/2011) 0.139762 J (10/25/2005) (0.336472 - 0.139762)/(29 - 18) 0.0178828
0.336472 (11/22/2011) 0.139762 J (10/25/2005) (0.336472 - 0.139762)/(30 - 18) 0.0163925
0.336472 (11/22/2011) 0.139762 J (10/25/2005) (0.336472 - 0.139762)/(30 - 18) 0.0163925

-0.116534 J (11/18/2006) 0.239017 J (4/29/2006) (-0.116534 - 0.239017)/(20 - 19) -0.355551
ND<0 (5/23/2007) 0.239017 J (4/29/2006) (0 - 0.239017)/(21 - 19) -0.119508
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ND<0 (6/5/2008) 0.239017 J (4/29/2006) (0 - 0.239017)/(23 - 19) -0.0597542
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-0.0618754 J (11/16/2009) 0.239017 J (4/29/2006) (-0.0618754 - 0.239017)/(26 - 19) -0.0429846
-0.653926 J (6/30/2010) 0.239017 J (4/29/2006) (-0.653926 - 0.239017)/(27 - 19) -0.111618
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0.336472 (7/5/2011) 0.239017 J (4/29/2006) (0.336472 - 0.239017)/(29 - 19) 0.00974553
0.336472 (11/22/2011) 0.239017 J (4/29/2006) (0.336472 - 0.239017)/(30 - 19) 0.00885958
0.336472 (11/22/2011) 0.239017 J (4/29/2006) (0.336472 - 0.239017)/(30 - 19) 0.00885958

ND<0 (5/23/2007) -0.116534 J (11/18/2006) (0 - -0.116534)/(21 - 20) 0.116534
0 J (11/28/2007) -0.116534 J (11/18/2006) (0 - -0.116534)/(22 - 20) 0.0582669
ND<0 (6/5/2008) -0.116534 J (11/18/2006) (0 - -0.116534)/(23 - 20) 0.0388446
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-0.0618754 J (11/16/2009) -0.116534 J (11/18/2006) (-0.0618754 - -0.116534)/(26 - 20) 0.00910974

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0.0453006
0.336472 (11/22/2011) -0.116534 J (11/18/2006) (0.336472 - -0.116534)/(30 - 20)
0.0453006

0 J (11/28/2007) ND<0 (5/23/2007) (0 - 0)/(22 - 21) 0
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(23 - 21) 0
-0.0943107 J (11/20/2008) ND<0 (5/23/2007) (-0.0943107 - 0)/(24 - 21)
-0.0314369
-0.527633 J (6/11/2009) ND<0 (5/23/2007) (-0.527633 - 0)/(25 - 21)
-0.131908
-0.0618754 J (11/16/2009) ND<0 (5/23/2007) (-0.0618754 - 0)/(26 - 21)
-0.0123751
-0.653926 J (6/30/2010) ND<0 (5/23/2007) (-0.653926 - 0)/(27 - 21)
-0.108988
-0.150823 J (11/12/2010) ND<0 (5/23/2007) (-0.150823 - 0)/(28 - 21)
-0.0215461
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0.336472 (11/22/2011) ND<0 (5/23/2007) (0.336472 - 0)/(30 - 21)
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0.336472 (11/22/2011) ND<0 (5/23/2007) (0.336472 - 0)/(30 - 21)
0.0373858

ND<0 (6/5/2008) 0 J (11/28/2007) (0 - 0)/(23 - 22) 0
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-0.527633 J (6/11/2009) 0 J (11/28/2007) (-0.527633 - 0)/(25 - 22) -0.175878
-0.0618754 J (11/16/2009) 0 J (11/28/2007) (-0.0618754 - 0)/(26 - 22) -0.0154689
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-0.150823 J (11/12/2010) 0 J (11/28/2007) (-0.150823 - 0)/(28 - 22) -0.0251371
0.336472 (7/5/2011) 0 J (11/28/2007) (0.336472 - 0)/(29 - 22) 0.0480675
0.336472 (11/22/2011) 0 J (11/28/2007) (0.336472 - 0)/(30 - 22) 0.042059
0.336472 (11/22/2011) 0 J (11/28/2007) (0.336472 - 0)/(30 - 22) 0.042059

-0.0943107 J (11/20/2008) ND<0 (6/5/2008) (-0.0943107 - 0)/(24 - 23)
-0.0943107
-0.527633 J (6/11/2009) ND<0 (6/5/2008) (-0.527633 - 0)/(25 - 23)
-0.263816
-0.0618754 J (11/16/2009) ND<0 (6/5/2008) (-0.0618754 - 0)/(26 - 23)
-0.0206251
-0.653926 J (6/30/2010) ND<0 (6/5/2008) (-0.653926 - 0)/(27 - 23)
-0.163482
-0.150823 J (11/12/2010) ND<0 (6/5/2008) (-0.150823 - 0)/(28 - 23)
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0.336472 (7/5/2011) ND<0 (6/5/2008) (0.336472 - 0)/(29 - 23)
0.0560787
0.336472 (11/22/2011) ND<0 (6/5/2008) (0.336472 - 0)/(30 - 23)
0.0480675
0.336472 (11/22/2011) ND<0 (6/5/2008) (0.336472 - 0)/(30 - 23)
0.0480675

-0.527633 J (6/11/2009) -0.0943107 J (11/20/2008) (-0.527633 - -0.0943107)/(25 - 24)
-0.433322
-0.0618754 J (11/16/2009) -0.0943107 J (11/20/2008) (-0.0618754 - -0.0943107)/(26 - 24)
0.0162176

-0.653926 J (6/30/2010)	-0.0943107 J (11/20/2008)	(-0.653926 - -0.0943107)/(27 - 24)
-0.186539		
-0.150823 J (11/12/2010)	-0.0943107 J (11/20/2008)	(-0.150823 - -0.0943107)/(28 - 24)
-0.0141281		
0.336472 (7/5/2011)	-0.0943107 J (11/20/2008)	(0.336472 - -0.0943107)/(29 - 24)
0.0861566		
0.336472 (11/22/2011)	-0.0943107 J (11/20/2008)	(0.336472 - -0.0943107)/(30 - 24)
0.0717972		
0.336472 (11/22/2011)	-0.0943107 J (11/20/2008)	(0.336472 - -0.0943107)/(30 - 24)
0.0717972		
-0.0618754 J (11/16/2009)	-0.527633 J (6/11/2009)	(-0.0618754 - -0.527633)/(26 - 25)
0.465757		
-0.653926 J (6/30/2010)	-0.527633 J (6/11/2009)	(-0.653926 - -0.527633)/(27 - 25)
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0.125603		
0.336472 (7/5/2011)	-0.527633 J (6/11/2009)	(0.336472 - -0.527633)/(29 - 25)
0.216026		
0.336472 (11/22/2011)	-0.527633 J (6/11/2009)	(0.336472 - -0.527633)/(30 - 25)
0.172821		
0.336472 (11/22/2011)	-0.527633 J (6/11/2009)	(0.336472 - -0.527633)/(30 - 25)
0.172821		
-0.653926 J (6/30/2010)	-0.0618754 J (11/16/2009)	(-0.653926 - -0.0618754)/(27 - 26)
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-0.150823 J (11/12/2010)	-0.0618754 J (11/16/2009)	(-0.150823 - -0.0618754)/(28 - 26)
-0.0444737		
0.336472 (7/5/2011)	-0.0618754 J (11/16/2009)	(0.336472 - -0.0618754)/(29 - 26)
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0.336472 (11/22/2011)	-0.0618754 J (11/16/2009)	(0.336472 - -0.0618754)/(30 - 26)
0.0995869		
0.336472 (11/22/2011)	-0.0618754 J (11/16/2009)	(0.336472 - -0.0618754)/(30 - 26)
0.0995869		
-0.150823 J (11/12/2010)	-0.653926 J (6/30/2010)	(-0.150823 - -0.653926)/(28 - 27)
0.503104		
0.336472 (7/5/2011)	-0.653926 J (6/30/2010)	(0.336472 - -0.653926)/(29 - 27)
0.495199		
0.336472 (11/22/2011)	-0.653926 J (6/30/2010)	(0.336472 - -0.653926)/(30 - 27)
0.330133		
0.336472 (11/22/2011)	-0.653926 J (6/30/2010)	(0.336472 - -0.653926)/(30 - 27)
0.330133		
0.336472 (7/5/2011)	-0.150823 J (11/12/2010)	(0.336472 - -0.150823)/(29 - 28)
0.487295		
0.336472 (11/22/2011)	-0.150823 J (11/12/2010)	(0.336472 - -0.150823)/(30 - 28)
0.243648		
0.336472 (11/22/2011)	-0.150823 J (11/12/2010)	(0.336472 - -0.150823)/(30 - 28)
0.243648		
0.336472 (11/22/2011)	0.336472 (7/5/2011)	(0.336472 - 0.336472)/(30 - 29)
0		
0.336472 (11/22/2011)	0.336472 (7/5/2011)	(0.336472 - 0.336472)/(30 - 29)
0		
0.336472 (11/22/2011)	0.336472 (11/22/2011)	(0.336472 - 0.336472)/(30 - 30)
Same Date		

Number of Q values = 464

Ordered Q Values

n	Q
1	-1.16315
2	-1.09861
3	-0.592051
4	-0.581575
5	-0.549306
6	-0.549306
7	-0.433322
8	-0.387717
9	-0.366204
10	-0.366204
11	-0.355551
12	-0.290788
13	-0.274653
14	-0.274653
15	-0.263816
16	-0.262819
17	-0.23263
18	-0.219722
19	-0.219722
20	-0.215164
21	-0.197114
22	-0.186539
23	-0.183102
24	-0.183102
25	-0.175878
26	-0.163482
27	-0.157691
28	-0.156945
29	-0.146198
30	-0.142187
31	-0.137327
32	-0.131908
33	-0.13141
34	-0.130785
35	-0.128148
36	-0.127833
37	-0.127775
38	-0.122068
39	-0.122068
40	-0.12077
41	-0.119508
42	-0.116315
43	-0.115517
44	-0.113567
45	-0.112637
46	-0.111618
47	-0.109861
48	-0.109861
49	-0.108988
50	-0.105741
51	-0.0998738
52	-0.0998738
53	-0.0985572
54	-0.0969292
55	-0.0967278
56	-0.0953421
57	-0.094342
58	-0.0943107
59	-0.091551

60	-0.091551
61	-0.0881876
62	-0.0876033
63	-0.0845086
64	-0.0822198
65	-0.0816684
66	-0.0796723
67	-0.0788457
68	-0.0774402
69	-0.0772926
70	-0.0767704
71	-0.0761973
72	-0.0759466
73	-0.0739202
74	-0.0730224
75	-0.0716779
76	-0.0714792
77	-0.0684893
78	-0.0666655
79	-0.0657048
80	-0.0646243
81	-0.0639234
82	-0.0639167
83	-0.0631469
84	-0.061086
85	-0.061034
86	-0.061034
87	-0.0606506
88	-0.0597542
89	-0.0596461
90	-0.0594479
91	-0.0586259
92	-0.0578217
93	-0.0578217
94	-0.0576954
95	-0.0573064
96	-0.0572213
97	-0.0568059
98	-0.0563184
99	-0.0549306
100	-0.0544939
101	-0.0537247
102	-0.0527633
103	-0.0527494
104	-0.0526093
105	-0.0520598
106	-0.050456
107	-0.050302
108	-0.0502773
109	-0.0499774
110	-0.0499749
111	-0.0479666
112	-0.0471553
113	-0.046709
114	-0.0465873
115	-0.0459266
116	-0.0444737
117	-0.0439694
118	-0.0435951
119	-0.0435094
120	-0.0435094
121	-0.0433155

122	-0.0429846
123	-0.0426111
124	-0.0414978
125	-0.0405871
126	-0.0405435
127	-0.0401258
128	-0.0394229
129	-0.0390121
130	-0.0384663
131	-0.0375456
132	-0.0363292
133	-0.0361262
134	-0.0354305
135	-0.0351755
136	-0.0349405
137	-0.0344172
138	-0.032977
139	-0.0326963
140	-0.03232
141	-0.0319583
142	-0.0314369
143	-0.0311394
144	-0.0310372
145	-0.0304856
146	-0.0301646
147	-0.0297239
148	-0.0293131
149	-0.0293131
150	-0.0293131
151	-0.0293129
152	-0.0291335
153	-0.0290585
154	-0.0282274
155	-0.0282274
156	-0.0279524
157	-0.0277701
158	-0.0263816
159	-0.0255667
160	-0.0252047
161	-0.0251371
162	-0.0233068
163	-0.0215461
164	-0.0206251
165	-0.0194223
166	-0.0182619
167	-0.0167402
168	-0.0166477
169	-0.0161423
170	-0.0161423
171	-0.0159792
172	-0.0154689
173	-0.0145667
174	-0.0142037
175	-0.0141281
176	-0.0127833
177	-0.0125686
178	-0.0123751
179	-0.0117888
180	-0.0116534
181	-0.0116212
182	-0.0116018
183	-0.0107731

184	-0.0106528
185	-0.010594
186	-0.010479
187	-0.0100549
188	-0.00971115
189	-0.00943107
190	-0.00942643
191	-0.00896414
192	-0.008573 7
193	-0.00837905
194	-0.00832384
195	-0.00793805
196	-0.00785922
197	-0.00776892
198	-0.00754114
199	-0.00718204
200	-0.00685559
201	-0.00673648
202	-0.00655752
203	-0.00628738
204	-0.00618754
205	-0.00589442
206	-0.00562504
207	-0.00554769
208	-0.00523948
209	-0.00515628
210	-0.00496372
211	-0.00475965
212	-0.00441967
213	-0.00428613
214	-0.00419997
215	-0.00386721
216	-0.00363973
217	-0.00343752
218	-0.003256 6
219	-0.00309377
220	-0.00294645
221	-0.00208996
222	0
223	0
224	0
225	0
226	0
227	0
228	0
229	0
230	0
231	0
232	0
233	0
234	0
235	0
236	0
237	0
238	0
239	0
240	0
241	0
242	0
243	0
244	0
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246	0
247	0
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250	0
251	0
252	0
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260	0
261	0
262	0
263	0
264	0
265	0
266	0
267	0
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271	0
272	0
273	0
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285	0
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290	0
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292	0
293	0
294	0
295	0
296	0
297	0
298	0
299	0
300	0
301	0
302	0
303	0
304	0
305	0
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307	0

308	0
309	0
310	0
311	0
312	0
313	0
314	0
315	0
316	0.000712268
317	0.00376652
318	0.00478896
319	0.00555578
320	0.00732866
321	0.00806732
322	0.00885958
323	0.00885958
324	0.00910974
325	0.00921979
326	0.00974553
327	0.0107509
328	0.0116468
329	0.0127056
330	0.0134589
331	0.0134589
332	0.0139762
333	0.0140197
334	0.0140197
335	0.0140197
336	0.014589
337	0.0146292
338	0.0146292
339	0.0146292
340	0.0152942
341	0.0152942
342	0.0152942
343	0.0155291
344	0.0160225
345	0.0160225
346	0.0160225
347	0.0162176
348	0.0163925
349	0.0163925
350	0.0168236
351	0.0168236
352	0.0168236
353	0.0170726
354	0.0174702
355	0.0177091
356	0.0178828
357	0.0183859
358	0.0186929
359	0.0186929
360	0.0193141
361	0.0195833
362	0.0197925
363	0.0197925
364	0.0197925
365	0.0199181
366	0.0210295
367	0.0210295
368	0.0210295
369	0.0213056

370	0.0217288
371	0.0224315
372	0.0224315
373	0.0224315
374	0.0225365
375	0.0232937
376	0.0239017
377	0.0240337
378	0.0240337
379	0.0240337
380	0.0247603
381	0.0255667
382	0.0258825
383	0.0259394
384	0.0260559
385	0.0265574
386	0.0272364
387	0.0279524
388	0.0303862
389	0.0303862
390	0.0314714
391	0.0319583
392	0.0341453
393	0.0349405
394	0.0357158
395	0.0357158
396	0.0363151
397	0.0373858
398	0.0373858
399	0.0386921
400	0.0388446
401	0.0389091
402	0.0398362
403	0.0402641
404	0.0416326
405	0.0419021
406	0.042059
407	0.042059
408	0.042059
409	0.0435413
410	0.0453006
411	0.0453006
412	0.0453939
413	0.0465873
414	0.0478034
415	0.0480675
416	0.0480675
417	0.0480675
418	0.0495207
419	0.050334
420	0.0560787
421	0.0582669
422	0.0597542
423	0.0605252
424	0.0680909
425	0.069881
426	0.0717972
427	0.0717972
428	0.0778182
429	0.0796723
430	0.0861566
431	0.0907879

432	0.099255
433	0.0995869
434	0.0995869
435	0.108945
436	0.116534
437	0.125603
438	0.132783
439	0.136182
440	0.155077
441	0.170788
442	0.172821
443	0.172821
444	0.183425
445	0.193858
446	0.216026
447	0.23263
448	0.243648
449	0.243648
450	0.267595
451	0.290788
452	0.310155
453	0.330133
454	0.330133
455	0.387717
456	0.465757
457	0.487295
458	0.495199
459	0.503104
460	0.54778
461	0.581575
462	0.82167
463	1.16315
464	1.33318

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	1.09861	2
2	0	14
3	0.336472	3

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1

5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 6090
B = 18
C = 2190
D = 0
E = 190
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3122.54
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9138
M1 = (464 - 91.9138)/2.0 = 186.043
M2 = (464 + 91.9138)/2.0 + 1 = 278.957
Lower limit is -0.010479 = Q(186)
Upper limit is 0 = Q(279)
-0.010479 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Trichloroethene
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
-0.693147 J (8/24/1995)	-1.10866 J (7/20/1995)	(-0.693147 - -1.10866)/(2 - 1)	0.415515
-0.223144 J (9/28/1995)	-1.10866 J (7/20/1995)	(-0.223144 - -1.10866)/(3 - 1)	0.44276
0 J (10/26/1995)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(4 - 1)	0.369554
ND<0 (11/19/1996)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(5 - 1)	0.277166
ND<0 (12/19/1996)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(6 - 1)	0.221733
ND<0 (3/24/1997)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(7 - 1)	0.184777
ND<0 (9/24/1997)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(8 - 1)	0.15838
ND<0 (4/7/1998)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(9 - 1)	0.138583
ND<0 (9/23/1998)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(10 - 1)	0.123185
ND<0 (3/16/1999)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(11 - 1)	0.110866
ND<0 (9/23/1999)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(12 - 1)	0.100788
ND<0 (3/15/2000)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(13 - 1)	0.0923886
ND<0 (9/24/2003)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(14 - 1)	0.0852817
ND<0 (3/11/2004)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(15 - 1)	0.0791902
ND<0 (10/12/2004)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(16 - 1)	0.0739108
-0.356675 J (4/1/2005)	-1.10866 J (7/20/1995)	(-0.356675 - -1.10866)/(17 - 1)	0.0469992
-0.634878 J (10/25/2005)	-1.10866 J (7/20/1995)	(-0.634878 - -1.10866)/(18 - 1)	0.0278697
-0.798508 J (4/29/2006)	-1.10866 J (7/20/1995)	(-0.798508 - -1.10866)/(19 - 1)	0.0172308
-0.84397 J (11/18/2006)	-1.10866 J (7/20/1995)	(-0.84397 - -1.10866)/(20 - 1)	0.0139312
-0.510826 J (5/23/2007)	-1.10866 J (7/20/1995)	(-0.510826 - -1.10866)/(21 - 1)	0.0298919
-0.301105 J (11/28/2007)	-1.10866 J (7/20/1995)	(-0.301105 - -1.10866)/(22 - 1)	0.0384551
ND<0 (6/5/2008)	-1.10866 J (7/20/1995)	(0 - -1.10866)/(23 - 1)	0.0503938
-0.510826 J (11/20/2008)	-1.10866 J (7/20/1995)	(-0.510826 - -1.10866)/(24 - 1)	0.0259929
-0.400478 J (6/11/2009)	-1.10866 J (7/20/1995)	(-0.400478 - -1.10866)/(25 - 1)	0.0295077
-0.314711 J (11/16/2009)	-1.10866 J (7/20/1995)	(-0.314711 - -1.10866)/(26 - 1)	0.0317581
-0.385662 J (6/30/2010)	-1.10866 J (7/20/1995)	(-0.385662 - -1.10866)/(27 - 1)	0.0278077

-0.34249 J (11/12/2010) -1.10866 J (7/20/1995) (-0.34249 - -1.10866)/(28 - 1)
0.0283768
-0.867501 J (7/5/2011) -1.10866 J (7/20/1995) (-0.867501 - -1.10866)/(29 - 1)
0.00861293
-0.798508 J (11/22/2011) -1.10866 J (7/20/1995) (-0.798508 - -1.10866)/(30 - 1)
0.010695
-0.798508 J (11/22/2011) -1.10866 J (7/20/1995) (-0.798508 - -1.10866)/(30 - 1)
0.010695

-0.223144 J (9/28/1995) -0.693147 J (8/24/1995) (-0.223144 - -0.693147)/(3 - 2)
0.470004
0 J (10/26/1995) -0.693147 J (8/24/1995) (0 - -0.693147)/(4 - 2) 0.346574
ND<0 (11/19/1996) -0.693147 J (8/24/1995) (0 - -0.693147)/(5 - 2)
0.231049
ND<0 (12/19/1996) -0.693147 J (8/24/1995) (0 - -0.693147)/(6 - 2)
0.173287
ND<0 (3/24/1997) -0.693147 J (8/24/1995) (0 - -0.693147)/(7 - 2)
0.138629
ND<0 (9/24/1997) -0.693147 J (8/24/1995) (0 - -0.693147)/(8 - 2)
0.115525
ND<0 (4/7/1998) -0.693147 J (8/24/1995) (0 - -0.693147)/(9 - 2)
0.099021
ND<0 (9/23/1998) -0.693147 J (8/24/1995) (0 - -0.693147)/(10 - 2)
0.0866434
ND<0 (3/16/1999) -0.693147 J (8/24/1995) (0 - -0.693147)/(11 - 2)
0.0770164
ND<0 (9/23/1999) -0.693147 J (8/24/1995) (0 - -0.693147)/(12 - 2)
0.0693147
ND<0 (3/15/2000) -0.693147 J (8/24/1995) (0 - -0.693147)/(13 - 2)
0.0630134
ND<0 (9/24/2003) -0.693147 J (8/24/1995) (0 - -0.693147)/(14 - 2)
0.0577623
ND<0 (3/11/2004) -0.693147 J (8/24/1995) (0 - -0.693147)/(15 - 2)
0.053319
ND<0 (10/12/2004) -0.693147 J (8/24/1995) (0 - -0.693147)/(16 - 2)
0.0495105
-0.356675 J (4/1/2005) -0.693147 J (8/24/1995) (-0.356675 - -0.693147)/(17 - 2)
0.0224315
-0.634878 J (10/25/2005) -0.693147 J (8/24/1995) (-0.634878 - -0.693147)/(18 - 2)
0.00364181
-0.798508 J (4/29/2006) -0.693147 J (8/24/1995) (-0.798508 - -0.693147)/(19 - 2)
-0.00619768
-0.84397 J (11/18/2006) -0.693147 J (8/24/1995) (-0.84397 - -0.693147)/(20 - 2)
-0.00837905
-0.510826 J (5/23/2007) -0.693147 J (8/24/1995) (-0.510826 - -0.693147)/(21 - 2)
0.00959587
-0.301105 J (11/28/2007) -0.693147 J (8/24/1995) (-0.301105 - -0.693147)/(22 - 2)
0.0196021
ND<0 (6/5/2008) -0.693147 J (8/24/1995) (0 - -0.693147)/(23 - 2)
0.033007
-0.510826 J (11/20/2008) -0.693147 J (8/24/1995) (-0.510826 - -0.693147)/(24 - 2)
0.00828734
-0.400478 J (6/11/2009) -0.693147 J (8/24/1995) (-0.400478 - -0.693147)/(25 - 2)
0.0127248
-0.314711 J (11/16/2009) -0.693147 J (8/24/1995) (-0.314711 - -0.693147)/(26 - 2)
0.0157682
-0.385662 J (6/30/2010) -0.693147 J (8/24/1995) (-0.385662 - -0.693147)/(27 - 2)
0.0122994
-0.34249 J (11/12/2010) -0.693147 J (8/24/1995) (-0.34249 - -0.693147)/(28 - 2)
0.0134868
-0.867501 J (7/5/2011) -0.693147 J (8/24/1995) (-0.867501 - -0.693147)/(29 - 2)
-0.00645753

-0.798508 J (11/22/2011) -0.693147 J (8/24/1995) (-0.798508 - -0.693147)/(30 - 2)
-0.00376288
-0.798508 J (11/22/2011) -0.693147 J (8/24/1995) (-0.798508 - -0.693147)/(30 - 2)
-0.00376288

0 J (10/26/1995) -0.223144 J (9/28/1995) (0 - -0.223144)/(4 - 3) 0.223144
ND<0 (11/19/1996) -0.223144 J (9/28/1995) (0 - -0.223144)/(5 - 3)
0.111572
ND<0 (12/19/1996) -0.223144 J (9/28/1995) (0 - -0.223144)/(6 - 3)
0.0743812
ND<0 (3/24/1997) -0.223144 J (9/28/1995) (0 - -0.223144)/(7 - 3)
0.0557859
ND<0 (9/24/1997) -0.223144 J (9/28/1995) (0 - -0.223144)/(8 - 3)
0.0446287
ND<0 (4/7/1998) -0.223144 J (9/28/1995) (0 - -0.223144)/(9 - 3)
0.0371906
ND<0 (9/23/1998) -0.223144 J (9/28/1995) (0 - -0.223144)/(10 - 3)
0.0318777
ND<0 (3/16/1999) -0.223144 J (9/28/1995) (0 - -0.223144)/(11 - 3)
0.0278929
ND<0 (9/23/1999) -0.223144 J (9/28/1995) (0 - -0.223144)/(12 - 3)
0.0247937
ND<0 (3/15/2000) -0.223144 J (9/28/1995) (0 - -0.223144)/(13 - 3)
0.0223144
ND<0 (9/24/2003) -0.223144 J (9/28/1995) (0 - -0.223144)/(14 - 3)
0.0202858
ND<0 (3/11/2004) -0.223144 J (9/28/1995) (0 - -0.223144)/(15 - 3)
0.0185953
ND<0 (10/12/2004) -0.223144 J (9/28/1995) (0 - -0.223144)/(16 - 3)
0.0171649
-0.356675 J (4/1/2005) -0.223144 J (9/28/1995) (-0.356675 - -0.223144)/(17 - 3)
-0.00953796
-0.634878 J (10/25/2005) -0.223144 J (9/28/1995) (-0.634878 - -0.223144)/(18 - 3)
-0.027449
-0.798508 J (4/29/2006) -0.223144 J (9/28/1995) (-0.798508 - -0.223144)/(19 - 3)
-0.0359603
-0.84397 J (11/18/2006) -0.223144 J (9/28/1995) (-0.84397 - -0.223144)/(20 - 3)
-0.0365192
-0.510826 J (5/23/2007) -0.223144 J (9/28/1995) (-0.510826 - -0.223144)/(21 - 3)
-0.0159823
-0.301105 J (11/28/2007) -0.223144 J (9/28/1995) (-0.301105 - -0.223144)/(22 - 3)
-0.00410324
ND<0 (6/5/2008) -0.223144 J (9/28/1995) (0 - -0.223144)/(23 - 3)
0.0111572
-0.510826 J (11/20/2008) -0.223144 J (9/28/1995) (-0.510826 - -0.223144)/(24 - 3)
-0.0136991
-0.400478 J (6/11/2009) -0.223144 J (9/28/1995) (-0.400478 - -0.223144)/(25 - 3)
-0.00806064
-0.314711 J (11/16/2009) -0.223144 J (9/28/1995) (-0.314711 - -0.223144)/(26 - 3)
-0.00398118
-0.385662 J (6/30/2010) -0.223144 J (9/28/1995) (-0.385662 - -0.223144)/(27 - 3)
-0.00677162
-0.34249 J (11/12/2010) -0.223144 J (9/28/1995) (-0.34249 - -0.223144)/(28 - 3)
-0.00477387
-0.867501 J (7/5/2011) -0.223144 J (9/28/1995) (-0.867501 - -0.223144)/(29 - 3)
-0.024783
-0.798508 J (11/22/2011) -0.223144 J (9/28/1995) (-0.798508 - -0.223144)/(30 - 3)
-0.0213098
-0.798508 J (11/22/2011) -0.223144 J (9/28/1995) (-0.798508 - -0.223144)/(30 - 3)
-0.0213098

ND<0 (11/19/1996) 0 J (10/26/1995) (0 - 0)/(5 - 4) 0

ND<0 (12/19/1996)	0 J (10/26/1995)	(0 - 0)/(6 - 4)	0
ND<0 (3/24/1997)	0 J (10/26/1995)	(0 - 0)/(7 - 4)	0
ND<0 (9/24/1997)	0 J (10/26/1995)	(0 - 0)/(8 - 4)	0
ND<0 (4/7/1998)	0 J (10/26/1995)	(0 - 0)/(9 - 4)	0
ND<0 (9/23/1998)	0 J (10/26/1995)	(0 - 0)/(10 - 4)	0
ND<0 (3/16/1999)	0 J (10/26/1995)	(0 - 0)/(11 - 4)	0
ND<0 (9/23/1999)	0 J (10/26/1995)	(0 - 0)/(12 - 4)	0
ND<0 (3/15/2000)	0 J (10/26/1995)	(0 - 0)/(13 - 4)	0
ND<0 (9/24/2003)	0 J (10/26/1995)	(0 - 0)/(14 - 4)	0
ND<0 (3/11/2004)	0 J (10/26/1995)	(0 - 0)/(15 - 4)	0
ND<0 (10/12/2004)	0 J (10/26/1995)	(0 - 0)/(16 - 4)	0
-0.356675 J (4/1/2005)	0 J (10/26/1995)	(-0.356675 - 0)/(17 - 4)	-0.0274365
-0.634878 J (10/25/2005)	0 J (10/26/1995)	(-0.634878 - 0)/(18 - 4)	-0.0453484
-0.798508 J (4/29/2006)	0 J (10/26/1995)	(-0.798508 - 0)/(19 - 4)	-0.0532338
-0.84397 J (11/18/2006)	0 J (10/26/1995)	(-0.84397 - 0)/(20 - 4)	-0.0527481
-0.510826 J (5/23/2007)	0 J (10/26/1995)	(-0.510826 - 0)/(21 - 4)	-0.0300486
-0.301105 J (11/28/2007)	0 J (10/26/1995)	(-0.301105 - 0)/(22 - 4)	-0.0167281
ND<0 (6/5/2008)	0 J (10/26/1995)	(0 - 0)/(23 - 4)	0
-0.510826 J (11/20/2008)	0 J (10/26/1995)	(-0.510826 - 0)/(24 - 4)	-0.0255413
-0.400478 J (6/11/2009)	0 J (10/26/1995)	(-0.400478 - 0)/(25 - 4)	-0.0190704
-0.314711 J (11/16/2009)	0 J (10/26/1995)	(-0.314711 - 0)/(26 - 4)	-0.014305
-0.385662 J (6/30/2010)	0 J (10/26/1995)	(-0.385662 - 0)/(27 - 4)	-0.0167679
-0.34249 J (11/12/2010)	0 J (10/26/1995)	(-0.34249 - 0)/(28 - 4)	-0.0142704
-0.867501 J (7/5/2011)	0 J (10/26/1995)	(-0.867501 - 0)/(29 - 4)	-0.0347
-0.798508 J (11/22/2011)	0 J (10/26/1995)	(-0.798508 - 0)/(30 - 4)	-0.0307118
-0.798508 J (11/22/2011)	0 J (10/26/1995)	(-0.798508 - 0)/(30 - 4)	-0.0307118

ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
ND<0 (3/16/1999)	ND<0 (11/19/1996)	(0 - 0)/(11 - 5)	0
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
-0.356675 J (4/1/2005)	ND<0 (11/19/1996)	(-0.356675 - 0)/(17 - 5)	-0.0297229
-0.634878 J (10/25/2005)	ND<0 (11/19/1996)	(-0.634878 - 0)/(18 - 5)	-0.0488368
-0.798508 J (4/29/2006)	ND<0 (11/19/1996)	(-0.798508 - 0)/(19 - 5)	-0.0570363
-0.84397 J (11/18/2006)	ND<0 (11/19/1996)	(-0.84397 - 0)/(20 - 5)	-0.0562647
-0.510826 J (5/23/2007)	ND<0 (11/19/1996)	(-0.510826 - 0)/(21 - 5)	-0.0319266
-0.301105 J (11/28/2007)	ND<0 (11/19/1996)	(-0.301105 - 0)/(22 - 5)	-0.0177121
ND<0 (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
-0.510826 J (11/20/2008)	ND<0 (11/19/1996)	(-0.510826 - 0)/(24 - 5)	-0.0268856
-0.400478 J (6/11/2009)	ND<0 (11/19/1996)	(-0.400478 - 0)/(25 - 5)	-0.0200239
-0.314711 J (11/16/2009)	ND<0 (11/19/1996)	(-0.314711 - 0)/(26 - 5)	-0.0149862
-0.385662 J (6/30/2010)	ND<0 (11/19/1996)	(-0.385662 - 0)/(27 - 5)	-0.0175301
-0.34249 J (11/12/2010)	ND<0 (11/19/1996)	(-0.34249 - 0)/(28 - 5)	-0.0148909

-0.867501 J (7/5/2011)	ND<0 (11/19/1996)	(-0.867501 - 0)/(29 - 5)	
-0.0361459			
-0.798508 J (11/22/2011)	ND<0 (11/19/1996)	(-0.798508 - 0)/(30 - 5)	
-0.0319403			
-0.798508 J (11/22/2011)	ND<0 (11/19/1996)	(-0.798508 - 0)/(30 - 5)	
-0.0319403			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
ND<0 (3/16/1999)	ND<0 (12/19/1996)	(0 - 0)/(11 - 6)	0
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
-0.356675 J (4/1/2005)	ND<0 (12/19/1996)	(-0.356675 - 0)/(17 - 6)	
-0.032425			
-0.634878 J (10/25/2005)	ND<0 (12/19/1996)	(-0.634878 - 0)/(18 - 6)	
-0.0529065			
-0.798508 J (4/29/2006)	ND<0 (12/19/1996)	(-0.798508 - 0)/(19 - 6)	
-0.0614237			
-0.84397 J (11/18/2006)	ND<0 (12/19/1996)	(-0.84397 - 0)/(20 - 6)	
-0.0602836			
-0.510826 J (5/23/2007)	ND<0 (12/19/1996)	(-0.510826 - 0)/(21 - 6)	
-0.034055			
-0.301105 J (11/28/2007)	ND<0 (12/19/1996)	(-0.301105 - 0)/(22 - 6)	
-0.0188191			
ND<0 (6/5/2008)	ND<0 (12/19/1996)	(0 - 0)/(23 - 6)	0
-0.510826 J (11/20/2008)	ND<0 (12/19/1996)	(-0.510826 - 0)/(24 - 6)	
-0.0283792			
-0.400478 J (6/11/2009)	ND<0 (12/19/1996)	(-0.400478 - 0)/(25 - 6)	
-0.0210778			
-0.314711 J (11/16/2009)	ND<0 (12/19/1996)	(-0.314711 - 0)/(26 - 6)	
-0.0157355			
-0.385662 J (6/30/2010)	ND<0 (12/19/1996)	(-0.385662 - 0)/(27 - 6)	
-0.0183649			
-0.34249 J (11/12/2010)	ND<0 (12/19/1996)	(-0.34249 - 0)/(28 - 6)	
-0.0155677			
-0.867501 J (7/5/2011)	ND<0 (12/19/1996)	(-0.867501 - 0)/(29 - 6)	
-0.0377174			
-0.798508 J (11/22/2011)	ND<0 (12/19/1996)	(-0.798508 - 0)/(30 - 6)	
-0.0332712			
-0.798508 J (11/22/2011)	ND<0 (12/19/1996)	(-0.798508 - 0)/(30 - 6)	
-0.0332712			
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
ND<0 (3/16/1999)	ND<0 (3/24/1997)	(0 - 0)/(11 - 7)	0
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
-0.356675 J (4/1/2005)	ND<0 (3/24/1997)	(-0.356675 - 0)/(17 - 7)	
-0.0356675			
-0.634878 J (10/25/2005)	ND<0 (3/24/1997)	(-0.634878 - 0)/(18 - 7)	
-0.0577162			
-0.798508 J (4/29/2006)	ND<0 (3/24/1997)	(-0.798508 - 0)/(19 - 7)	
-0.0665423			

-0.84397 J (11/18/2006)	ND<0 (3/24/1997)	(-0.84397 - 0)/(20 - 7)	
-0.0649208			
-0.510826 J (5/23/2007)	ND<0 (3/24/1997)	(-0.510826 - 0)/(21 - 7)	
-0.0364875			
-0.301105 J (11/28/2007)	ND<0 (3/24/1997)	(-0.301105 - 0)/(22 - 7)	
-0.0200737			
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0
-0.510826 J (11/20/2008)	ND<0 (3/24/1997)	(-0.510826 - 0)/(24 - 7)	
-0.0300486			
-0.400478 J (6/11/2009)	ND<0 (3/24/1997)	(-0.400478 - 0)/(25 - 7)	
-0.0222488			
-0.314711 J (11/16/2009)	ND<0 (3/24/1997)	(-0.314711 - 0)/(26 - 7)	
-0.0165637			
-0.385662 J (6/30/2010)	ND<0 (3/24/1997)	(-0.385662 - 0)/(27 - 7)	
-0.0192831			
-0.34249 J (11/12/2010)	ND<0 (3/24/1997)	(-0.34249 - 0)/(28 - 7)	
-0.0163091			
-0.867501 J (7/5/2011)	ND<0 (3/24/1997)	(-0.867501 - 0)/(29 - 7)	
-0.0394318			
-0.798508 J (11/22/2011)	ND<0 (3/24/1997)	(-0.798508 - 0)/(30 - 7)	
-0.0347177			
-0.798508 J (11/22/2011)	ND<0 (3/24/1997)	(-0.798508 - 0)/(30 - 7)	
-0.0347177			
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
ND<0 (3/16/1999)	ND<0 (9/24/1997)	(0 - 0)/(11 - 8)	0
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0
-0.356675 J (4/1/2005)	ND<0 (9/24/1997)	(-0.356675 - 0)/(17 - 8)	
-0.0396305			
-0.634878 J (10/25/2005)	ND<0 (9/24/1997)	(-0.634878 - 0)/(18 - 8)	
-0.0634878			
-0.798508 J (4/29/2006)	ND<0 (9/24/1997)	(-0.798508 - 0)/(19 - 8)	
-0.0725916			
-0.84397 J (11/18/2006)	ND<0 (9/24/1997)	(-0.84397 - 0)/(20 - 8)	
-0.0703308			
-0.510826 J (5/23/2007)	ND<0 (9/24/1997)	(-0.510826 - 0)/(21 - 8)	
-0.0392943			
-0.301105 J (11/28/2007)	ND<0 (9/24/1997)	(-0.301105 - 0)/(22 - 8)	
-0.0215075			
ND<0 (6/5/2008)	ND<0 (9/24/1997)	(0 - 0)/(23 - 8)	0
-0.510826 J (11/20/2008)	ND<0 (9/24/1997)	(-0.510826 - 0)/(24 - 8)	
-0.0319266			
-0.400478 J (6/11/2009)	ND<0 (9/24/1997)	(-0.400478 - 0)/(25 - 8)	
-0.0235575			
-0.314711 J (11/16/2009)	ND<0 (9/24/1997)	(-0.314711 - 0)/(26 - 8)	
-0.0174839			
-0.385662 J (6/30/2010)	ND<0 (9/24/1997)	(-0.385662 - 0)/(27 - 8)	
-0.020298			
-0.34249 J (11/12/2010)	ND<0 (9/24/1997)	(-0.34249 - 0)/(28 - 8)	
-0.0171245			
-0.867501 J (7/5/2011)	ND<0 (9/24/1997)	(-0.867501 - 0)/(29 - 8)	
-0.0413096			
-0.798508 J (11/22/2011)	ND<0 (9/24/1997)	(-0.798508 - 0)/(30 - 8)	
-0.0362958			
-0.798508 J (11/22/2011)	ND<0 (9/24/1997)	(-0.798508 - 0)/(30 - 8)	
-0.0362958			

ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
ND<0 (3/16/1999)	ND<0 (4/7/1998)	(0 - 0)/(11 - 9)	0
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0
-0.356675 J (4/1/2005) -0.0445844	ND<0 (4/7/1998)	(-0.356675 - 0)/(17 - 9)	
-0.634878 J (10/25/2005) -0.070542	ND<0 (4/7/1998)	(-0.634878 - 0)/(18 - 9)	
-0.798508 J (4/29/2006) -0.0798508	ND<0 (4/7/1998)	(-0.798508 - 0)/(19 - 9)	
-0.84397 J (11/18/2006) -0.0767246	ND<0 (4/7/1998)	(-0.84397 - 0)/(20 - 9)	
-0.510826 J (5/23/2007) -0.0425688	ND<0 (4/7/1998)	(-0.510826 - 0)/(21 - 9)	
-0.301105 J (11/28/2007) -0.0231619	ND<0 (4/7/1998)	(-0.301105 - 0)/(22 - 9)	
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0
-0.510826 J (11/20/2008) -0.034055	ND<0 (4/7/1998)	(-0.510826 - 0)/(24 - 9)	
-0.400478 J (6/11/2009) -0.0250298	ND<0 (4/7/1998)	(-0.400478 - 0)/(25 - 9)	
-0.314711 J (11/16/2009) -0.0185124	ND<0 (4/7/1998)	(-0.314711 - 0)/(26 - 9)	
-0.385662 J (6/30/2010) -0.0214257	ND<0 (4/7/1998)	(-0.385662 - 0)/(27 - 9)	
-0.34249 J (11/12/2010) -0.0180258	ND<0 (4/7/1998)	(-0.34249 - 0)/(28 - 9)	
-0.867501 J (7/5/2011) -0.043375	ND<0 (4/7/1998)	(-0.867501 - 0)/(29 - 9)	
-0.798508 J (11/22/2011) -0.0380242	ND<0 (4/7/1998)	(-0.798508 - 0)/(30 - 9)	
-0.798508 J (11/22/2011) -0.0380242	ND<0 (4/7/1998)	(-0.798508 - 0)/(30 - 9)	

ND<0 (3/16/1999)	ND<0 (9/23/1998)	(0 - 0)/(11 - 10)	0
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0
ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0
-0.356675 J (4/1/2005) -0.0509536	ND<0 (9/23/1998)	(-0.356675 - 0)/(17 - 10)	
-0.634878 J (10/25/2005) -0.0793598	ND<0 (9/23/1998)	(-0.634878 - 0)/(18 - 10)	
-0.798508 J (4/29/2006) -0.0887231	ND<0 (9/23/1998)	(-0.798508 - 0)/(19 - 10)	
-0.84397 J (11/18/2006) -0.084397	ND<0 (9/23/1998)	(-0.84397 - 0)/(20 - 10)	
-0.510826 J (5/23/2007) -0.0464387	ND<0 (9/23/1998)	(-0.510826 - 0)/(21 - 10)	
-0.301105 J (11/28/2007) -0.0250921	ND<0 (9/23/1998)	(-0.301105 - 0)/(22 - 10)	
ND<0 (6/5/2008)	ND<0 (9/23/1998)	(0 - 0)/(23 - 10)	0
-0.510826 J (11/20/2008) -0.0364875	ND<0 (9/23/1998)	(-0.510826 - 0)/(24 - 10)	
-0.400478 J (6/11/2009) -0.0266985	ND<0 (9/23/1998)	(-0.400478 - 0)/(25 - 10)	
-0.314711 J (11/16/2009) -0.0196694	ND<0 (9/23/1998)	(-0.314711 - 0)/(26 - 10)	

-0.385662 J (6/30/2010)	ND<0 (9/23/1998)	(-0.385662 - 0)/(27 - 10)	
-0.022686			
-0.34249 J (11/12/2010)	ND<0 (9/23/1998)	(-0.34249 - 0)/(28 - 10)	
-0.0190272			
-0.867501 J (7/5/2011)	ND<0 (9/23/1998)	(-0.867501 - 0)/(29 - 10)	
-0.0456579			
-0.798508 J (11/22/2011)	ND<0 (9/23/1998)	(-0.798508 - 0)/(30 - 10)	
-0.0399254			
-0.798508 J (11/22/2011)	ND<0 (9/23/1998)	(-0.798508 - 0)/(30 - 10)	
-0.0399254			
ND<0 (9/23/1999)	ND<0 (3/16/1999)	(0 - 0)/(12 - 11)	0
ND<0 (3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(13 - 11)	0
ND<0 (9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(14 - 11)	0
ND<0 (3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(15 - 11)	0
ND<0 (10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(16 - 11)	0
-0.356675 J (4/1/2005)	ND<0 (3/16/1999)	(-0.356675 - 0)/(17 - 11)	
-0.0594458			
-0.634878 J (10/25/2005)	ND<0 (3/16/1999)	(-0.634878 - 0)/(18 - 11)	
-0.0906969			
-0.798508 J (4/29/2006)	ND<0 (3/16/1999)	(-0.798508 - 0)/(19 - 11)	
-0.0998135			
-0.84397 J (11/18/2006)	ND<0 (3/16/1999)	(-0.84397 - 0)/(20 - 11)	
-0.0937745			
-0.510826 J (5/23/2007)	ND<0 (3/16/1999)	(-0.510826 - 0)/(21 - 11)	
-0.0510826			
-0.301105 J (11/28/2007)	ND<0 (3/16/1999)	(-0.301105 - 0)/(22 - 11)	
-0.0273732			
ND<0 (6/5/2008)	ND<0 (3/16/1999)	(0 - 0)/(23 - 11)	0
-0.510826 J (11/20/2008)	ND<0 (3/16/1999)	(-0.510826 - 0)/(24 - 11)	
-0.0392943			
-0.400478 J (6/11/2009)	ND<0 (3/16/1999)	(-0.400478 - 0)/(25 - 11)	
-0.0286055			
-0.314711 J (11/16/2009)	ND<0 (3/16/1999)	(-0.314711 - 0)/(26 - 11)	
-0.0209807			
-0.385662 J (6/30/2010)	ND<0 (3/16/1999)	(-0.385662 - 0)/(27 - 11)	
-0.0241039			
-0.34249 J (11/12/2010)	ND<0 (3/16/1999)	(-0.34249 - 0)/(28 - 11)	
-0.0201465			
-0.867501 J (7/5/2011)	ND<0 (3/16/1999)	(-0.867501 - 0)/(29 - 11)	
-0.0481945			
-0.798508 J (11/22/2011)	ND<0 (3/16/1999)	(-0.798508 - 0)/(30 - 11)	
-0.0420267			
-0.798508 J (11/22/2011)	ND<0 (3/16/1999)	(-0.798508 - 0)/(30 - 11)	
-0.0420267			
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0
-0.356675 J (4/1/2005)	ND<0 (9/23/1999)	(-0.356675 - 0)/(17 - 12)	
-0.071335			
-0.634878 J (10/25/2005)	ND<0 (9/23/1999)	(-0.634878 - 0)/(18 - 12)	
-0.105813			
-0.798508 J (4/29/2006)	ND<0 (9/23/1999)	(-0.798508 - 0)/(19 - 12)	
-0.114073			
-0.84397 J (11/18/2006)	ND<0 (9/23/1999)	(-0.84397 - 0)/(20 - 12)	
-0.105496			
-0.510826 J (5/23/2007)	ND<0 (9/23/1999)	(-0.510826 - 0)/(21 - 12)	
-0.0567584			
-0.301105 J (11/28/2007)	ND<0 (9/23/1999)	(-0.301105 - 0)/(22 - 12)	
-0.0301105			

ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0	
-0.510826 J (11/20/2008) -0.0425688	ND<0 (9/23/1999)	(-0.510826 - 0)/(24 - 12)		
-0.400478 J (6/11/2009) -0.030806	ND<0 (9/23/1999)	(-0.400478 - 0)/(25 - 12)		
-0.314711 J (11/16/2009) -0.0224793	ND<0 (9/23/1999)	(-0.314711 - 0)/(26 - 12)		
-0.385662 J (6/30/2010) -0.0257108	ND<0 (9/23/1999)	(-0.385662 - 0)/(27 - 12)		
-0.34249 J (11/12/2010) -0.0214056	ND<0 (9/23/1999)	(-0.34249 - 0)/(28 - 12)		
-0.867501 J (7/5/2011) -0.0510294	ND<0 (9/23/1999)	(-0.867501 - 0)/(29 - 12)		
-0.798508 J (11/22/2011) -0.0443615	ND<0 (9/23/1999)	(-0.798508 - 0)/(30 - 12)		
-0.798508 J (11/22/2011) -0.0443615	ND<0 (9/23/1999)	(-0.798508 - 0)/(30 - 12)		
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
-0.356675 J (4/1/2005) -0.0891687	ND<0 (3/15/2000)	(-0.356675 - 0)/(17 - 13)		
-0.634878 J (10/25/2005) -0.126976	ND<0 (3/15/2000)	(-0.634878 - 0)/(18 - 13)		
-0.798508 J (4/29/2006) -0.133085	ND<0 (3/15/2000)	(-0.798508 - 0)/(19 - 13)		
-0.84397 J (11/18/2006) -0.120567	ND<0 (3/15/2000)	(-0.84397 - 0)/(20 - 13)		
-0.510826 J (5/23/2007) -0.0638532	ND<0 (3/15/2000)	(-0.510826 - 0)/(21 - 13)		
-0.301105 J (11/28/2007) -0.0334561	ND<0 (3/15/2000)	(-0.301105 - 0)/(22 - 13)		
ND<0 (6/5/2008)	ND<0 (3/15/2000)	(0 - 0)/(23 - 13)	0	
-0.510826 J (11/20/2008) -0.0464387	ND<0 (3/15/2000)	(-0.510826 - 0)/(24 - 13)		
-0.400478 J (6/11/2009) -0.0333731	ND<0 (3/15/2000)	(-0.400478 - 0)/(25 - 13)		
-0.314711 J (11/16/2009) -0.0242085	ND<0 (3/15/2000)	(-0.314711 - 0)/(26 - 13)		
-0.385662 J (6/30/2010) -0.0275473	ND<0 (3/15/2000)	(-0.385662 - 0)/(27 - 13)		
-0.34249 J (11/12/2010) -0.0228327	ND<0 (3/15/2000)	(-0.34249 - 0)/(28 - 13)		
-0.867501 J (7/5/2011) -0.0542188	ND<0 (3/15/2000)	(-0.867501 - 0)/(29 - 13)		
-0.798508 J (11/22/2011) -0.046971	ND<0 (3/15/2000)	(-0.798508 - 0)/(30 - 13)		
-0.798508 J (11/22/2011) -0.046971	ND<0 (3/15/2000)	(-0.798508 - 0)/(30 - 13)		
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0	
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
-0.356675 J (4/1/2005) -0.118892	ND<0 (9/24/2003)	(-0.356675 - 0)/(17 - 14)		
-0.634878 J (10/25/2005)	ND<0 (9/24/2003)	(-0.634878 - 0)/(18 - 14)		-0.15872
-0.798508 J (4/29/2006) -0.159702	ND<0 (9/24/2003)	(-0.798508 - 0)/(19 - 14)		
-0.84397 J (11/18/2006) -0.140662	ND<0 (9/24/2003)	(-0.84397 - 0)/(20 - 14)		
-0.510826 J (5/23/2007) -0.0729751	ND<0 (9/24/2003)	(-0.510826 - 0)/(21 - 14)		

-0.301105 J (11/28/2007)	ND<0	(9/24/2003)	(-0.301105 - 0)/(22 - 14)	
-0.0376381				
ND<0 (6/5/2008)	ND<0	(9/24/2003)	(0 - 0)/(23 - 14)	0
-0.510826 J (11/20/2008)	ND<0	(9/24/2003)	(-0.510826 - 0)/(24 - 14)	
-0.0510826				
-0.400478 J (6/11/2009)	ND<0	(9/24/2003)	(-0.400478 - 0)/(25 - 14)	
-0.0364071				
-0.314711 J (11/16/2009)	ND<0	(9/24/2003)	(-0.314711 - 0)/(26 - 14)	
-0.0262259				
-0.385662 J (6/30/2010)	ND<0	(9/24/2003)	(-0.385662 - 0)/(27 - 14)	
-0.0296663				
-0.34249 J (11/12/2010)	ND<0	(9/24/2003)	(-0.34249 - 0)/(28 - 14)	
-0.0244636				
-0.867501 J (7/5/2011)	ND<0	(9/24/2003)	(-0.867501 - 0)/(29 - 14)	
-0.0578334				
-0.798508 J (11/22/2011)	ND<0	(9/24/2003)	(-0.798508 - 0)/(30 - 14)	
-0.0499067				
-0.798508 J (11/22/2011)	ND<0	(9/24/2003)	(-0.798508 - 0)/(30 - 14)	
-0.0499067				
ND<0 (10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(16 - 15)	0
-0.356675 J (4/1/2005)	ND<0	(3/11/2004)	(-0.356675 - 0)/(17 - 15)	
-0.178337				
-0.634878 J (10/25/2005)	ND<0	(3/11/2004)	(-0.634878 - 0)/(18 - 15)	
-0.211626				
-0.798508 J (4/29/2006)	ND<0	(3/11/2004)	(-0.798508 - 0)/(19 - 15)	
-0.199627				
-0.84397 J (11/18/2006)	ND<0	(3/11/2004)	(-0.84397 - 0)/(20 - 15)	
-0.168794				
-0.510826 J (5/23/2007)	ND<0	(3/11/2004)	(-0.510826 - 0)/(21 - 15)	
-0.0851376				
-0.301105 J (11/28/2007)	ND<0	(3/11/2004)	(-0.301105 - 0)/(22 - 15)	
-0.043015				
ND<0 (6/5/2008)	ND<0	(3/11/2004)	(0 - 0)/(23 - 15)	0
-0.510826 J (11/20/2008)	ND<0	(3/11/2004)	(-0.510826 - 0)/(24 - 15)	
-0.0567584				
-0.400478 J (6/11/2009)	ND<0	(3/11/2004)	(-0.400478 - 0)/(25 - 15)	
-0.0400478				
-0.314711 J (11/16/2009)	ND<0	(3/11/2004)	(-0.314711 - 0)/(26 - 15)	
-0.0286101				
-0.385662 J (6/30/2010)	ND<0	(3/11/2004)	(-0.385662 - 0)/(27 - 15)	
-0.0321385				
-0.34249 J (11/12/2010)	ND<0	(3/11/2004)	(-0.34249 - 0)/(28 - 15)	
-0.0263454				
-0.867501 J (7/5/2011)	ND<0	(3/11/2004)	(-0.867501 - 0)/(29 - 15)	
-0.0619643				
-0.798508 J (11/22/2011)	ND<0	(3/11/2004)	(-0.798508 - 0)/(30 - 15)	
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-0.798508 J (11/22/2011)	ND<0	(3/11/2004)	(-0.798508 - 0)/(30 - 15)	
-0.0532338				
-0.356675 J (4/1/2005)	ND<0	(10/12/2004)	(-0.356675 - 0)/(17 - 16)	
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-0.634878 J (10/25/2005)	ND<0	(10/12/2004)	(-0.634878 - 0)/(18 - 16)	
-0.317439				
-0.798508 J (4/29/2006)	ND<0	(10/12/2004)	(-0.798508 - 0)/(19 - 16)	
-0.266169				
-0.84397 J (11/18/2006)	ND<0	(10/12/2004)	(-0.84397 - 0)/(20 - 16)	
-0.210993				
-0.510826 J (5/23/2007)	ND<0	(10/12/2004)	(-0.510826 - 0)/(21 - 16)	
-0.102165				

-0.301105 J (11/28/2007)	ND<0 (10/12/2004)	(-0.301105 - 0)/(22 - 16)	
-0.0501842			
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0
-0.510826 J (11/20/2008)	ND<0 (10/12/2004)	(-0.510826 - 0)/(24 - 16)	
-0.0638532			
-0.400478 J (6/11/2009)	ND<0 (10/12/2004)	(-0.400478 - 0)/(25 - 16)	
-0.0444975			
-0.314711 J (11/16/2009)	ND<0 (10/12/2004)	(-0.314711 - 0)/(26 - 16)	
-0.0314711			
-0.385662 J (6/30/2010)	ND<0 (10/12/2004)	(-0.385662 - 0)/(27 - 16)	
-0.0350602			
-0.34249 J (11/12/2010)	ND<0 (10/12/2004)	(-0.34249 - 0)/(28 - 16)	
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-0.867501 J (7/5/2011)	ND<0 (10/12/2004)	(-0.867501 - 0)/(29 - 16)	
-0.0667308			
-0.798508 J (11/22/2011)	ND<0 (10/12/2004)	(-0.798508 - 0)/(30 - 16)	
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-0.798508 J (11/22/2011)	ND<0 (10/12/2004)	(-0.798508 - 0)/(30 - 16)	
-0.0570363			
-0.634878 J (10/25/2005)	-0.356675 J (4/1/2005)	(-0.634878 - -0.356675)/(18 - 17)	
-0.278203			
-0.798508 J (4/29/2006)	-0.356675 J (4/1/2005)	(-0.798508 - -0.356675)/(19 - 17)	
-0.220916			
-0.84397 J (11/18/2006)	-0.356675 J (4/1/2005)	(-0.84397 - -0.356675)/(20 - 17)	
-0.162432			
-0.510826 J (5/23/2007)	-0.356675 J (4/1/2005)	(-0.510826 - -0.356675)/(21 - 17)	
-0.0385377			
-0.301105 J (11/28/2007)	-0.356675 J (4/1/2005)	(-0.301105 - -0.356675)/(22 - 17)	
0.011114			
ND<0 (6/5/2008)	-0.356675 J (4/1/2005)	(0 - -0.356675)/(23 - 17)	
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-0.510826 J (11/20/2008)	-0.356675 J (4/1/2005)	(-0.510826 - -0.356675)/(24 - 17)	
-0.0220215			
-0.400478 J (6/11/2009)	-0.356675 J (4/1/2005)	(-0.400478 - -0.356675)/(25 - 17)	
-0.00547533			
-0.314711 J (11/16/2009)	-0.356675 J (4/1/2005)	(-0.314711 - -0.356675)/(26 - 17)	
0.00466269			
-0.385662 J (6/30/2010)	-0.356675 J (4/1/2005)	(-0.385662 - -0.356675)/(27 - 17)	
-0.00289875			
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0.00128951			
-0.867501 J (7/5/2011)	-0.356675 J (4/1/2005)	(-0.867501 - -0.356675)/(29 - 17)	
-0.0425688			
-0.798508 J (11/22/2011)	-0.356675 J (4/1/2005)	(-0.798508 - -0.356675)/(30 - 17)	
-0.0339871			
-0.798508 J (11/22/2011)	-0.356675 J (4/1/2005)	(-0.798508 - -0.356675)/(30 - 17)	
-0.0339871			
-0.798508 J (4/29/2006)	-0.634878 J (10/25/2005)	(-0.798508 - -0.634878)/(19 - 18)	
-0.163629			
-0.84397 J (11/18/2006)	-0.634878 J (10/25/2005)	(-0.84397 - -0.634878)/(20 - 18)	
-0.104546			
-0.510826 J (5/23/2007)	-0.634878 J (10/25/2005)	(-0.510826 - -0.634878)/(21 - 18)	
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ND<0 (6/5/2008)	-0.634878 J (10/25/2005)	(0 - -0.634878)/(23 - 18)	
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0.0206754			

-0.400478 J (6/11/2009)	-0.634878 J (10/25/2005)	(-0.400478 - -0.634878)/(25 - 18)
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-0.314711 J (11/16/2009)	-0.634878 J (10/25/2005)	(-0.314711 - -0.634878)/(26 - 18)
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-0.385662 J (6/30/2010)	-0.634878 J (10/25/2005)	(-0.385662 - -0.634878)/(27 - 18)
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-0.34249 J (11/12/2010)	-0.634878 J (10/25/2005)	(-0.34249 - -0.634878)/(28 - 18)
0.0292388		
-0.867501 J (7/5/2011)	-0.634878 J (10/25/2005)	(-0.867501 - -0.634878)/(29 - 18)
-0.0211475		
-0.798508 J (11/22/2011)	-0.634878 J (10/25/2005)	(-0.798508 - -0.634878)/(30 - 18)
-0.0136358		
-0.798508 J (11/22/2011)	-0.634878 J (10/25/2005)	(-0.798508 - -0.634878)/(30 - 18)
-0.0136358		
-0.84397 J (11/18/2006)	-0.798508 J (4/29/2006)	(-0.84397 - -0.798508)/(20 - 19)
-0.0454624		
-0.510826 J (5/23/2007)	-0.798508 J (4/29/2006)	(-0.510826 - -0.798508)/(21 - 19)
0.143841		
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0.165801		
ND<0 (6/5/2008)	-0.798508 J (4/29/2006)	(0 - -0.798508)/(23 - 19)
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-0.400478 J (6/11/2009)	-0.798508 J (4/29/2006)	(-0.400478 - -0.798508)/(25 - 19)
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-0.314711 J (11/16/2009)	-0.798508 J (4/29/2006)	(-0.314711 - -0.798508)/(26 - 19)
0.0691139		
-0.385662 J (6/30/2010)	-0.798508 J (4/29/2006)	(-0.385662 - -0.798508)/(27 - 19)
0.0516057		
-0.34249 J (11/12/2010)	-0.798508 J (4/29/2006)	(-0.34249 - -0.798508)/(28 - 19)
0.0506686		
-0.867501 J (7/5/2011)	-0.798508 J (4/29/2006)	(-0.867501 - -0.798508)/(29 - 19)
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-0.798508 J (11/22/2011)	-0.798508 J (4/29/2006)	(-0.798508 - -0.798508)/(30 - 19)
0		
-0.798508 J (11/22/2011)	-0.798508 J (4/29/2006)	(-0.798508 - -0.798508)/(30 - 19)
0		
-0.510826 J (5/23/2007)	-0.84397 J (11/18/2006)	(-0.510826 - -0.84397)/(21 - 20)
0.333144		
-0.301105 J (11/28/2007)	-0.84397 J (11/18/2006)	(-0.301105 - -0.84397)/(22 - 20)
0.271432		
ND<0 (6/5/2008)	-0.84397 J (11/18/2006)	(0 - -0.84397)/(23 - 20)
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0.0832861		
-0.400478 J (6/11/2009)	-0.84397 J (11/18/2006)	(-0.400478 - -0.84397)/(25 - 20)
0.0886985		
-0.314711 J (11/16/2009)	-0.84397 J (11/18/2006)	(-0.314711 - -0.84397)/(26 - 20)
0.0882099		
-0.385662 J (6/30/2010)	-0.84397 J (11/18/2006)	(-0.385662 - -0.84397)/(27 - 20)
0.0654725		
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0.062685		
-0.867501 J (7/5/2011)	-0.84397 J (11/18/2006)	(-0.867501 - -0.84397)/(29 - 20)
-0.0026145		
-0.798508 J (11/22/2011)	-0.84397 J (11/18/2006)	(-0.798508 - -0.84397)/(30 - 20)
0.00454624		
-0.798508 J (11/22/2011)	-0.84397 J (11/18/2006)	(-0.798508 - -0.84397)/(30 - 20)
0.00454624		

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0.209721		
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-0.510826 J (11/20/2008)	-0.510826 J (5/23/2007)	(-0.510826 - -0.510826)/(24 - 21)
0		
-0.400478 J (6/11/2009)	-0.510826 J (5/23/2007)	(-0.400478 - -0.510826)/(25 - 21)
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-0.314711 J (11/16/2009)	-0.510826 J (5/23/2007)	(-0.314711 - -0.510826)/(26 - 21)
0.039223		
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-0.867501 J (7/5/2011)	-0.510826 J (5/23/2007)	(-0.867501 - -0.510826)/(29 - 21)
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-0.798508 J (11/22/2011)	-0.510826 J (5/23/2007)	(-0.798508 - -0.510826)/(30 - 21)
-0.0319647		
-0.798508 J (11/22/2011)	-0.510826 J (5/23/2007)	(-0.798508 - -0.510826)/(30 - 21)
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ND<0 (6/5/2008)	-0.301105 J (11/28/2007)	(0 - -0.301105)/(23 - 22)
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-0.400478 J (6/11/2009)	-0.301105 J (11/28/2007)	(-0.400478 - -0.301105)/(25 - 22)
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-0.314711 J (11/16/2009)	-0.301105 J (11/28/2007)	(-0.314711 - -0.301105)/(26 - 22)
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-0.798508 J (11/22/2011)	-0.301105 J (11/28/2007)	(-0.798508 - -0.301105)/(30 - 22)
-0.0621753		
-0.798508 J (11/22/2011)	-0.301105 J (11/28/2007)	(-0.798508 - -0.301105)/(30 - 22)
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-0.314711 J (11/16/2009)	ND<0 (6/5/2008)	(-0.314711 - 0)/(26 - 23)
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-0.867501 J (7/5/2011)	ND<0 (6/5/2008)	(-0.867501 - 0)/(29 - 23)
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-0.798508 J (11/22/2011)	ND<0 (6/5/2008)	(-0.798508 - 0)/(30 - 23)
-0.114073		
-0.400478 J (6/11/2009)	-0.510826 J (11/20/2008)	(-0.400478 - -0.510826)/(25 - 24)
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-0.314711 J (11/16/2009)	-0.510826 J (11/20/2008)	(-0.314711 - -0.510826)/(26 - 24)
0.0980574		

-0.385662 J (6/30/2010)	-0.510826 J (11/20/2008)	(-0.385662 - -0.510826)/(27 - 24)
0.041721		
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-0.047947		
-0.798508 J (11/22/2011)	-0.510826 J (11/20/2008)	(-0.798508 - -0.510826)/(30 - 24)
-0.047947		
-0.314711 J (11/16/2009)	-0.400478 J (6/11/2009)	(-0.314711 - -0.400478)/(26 - 25)
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0.0193291		
-0.867501 J (7/5/2011)	-0.400478 J (6/11/2009)	(-0.867501 - -0.400478)/(29 - 25)
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-0.798508 J (11/22/2011)	-0.400478 J (6/11/2009)	(-0.798508 - -0.400478)/(30 - 25)
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-0.798508 J (11/22/2011)	-0.400478 J (6/11/2009)	(-0.798508 - -0.400478)/(30 - 25)
-0.079606		
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-0.0709517		
-0.34249 J (11/12/2010)	-0.314711 J (11/16/2009)	(-0.34249 - -0.314711)/(28 - 26)
-0.0138898		
-0.867501 J (7/5/2011)	-0.314711 J (11/16/2009)	(-0.867501 - -0.314711)/(29 - 26)
-0.184263		
-0.798508 J (11/22/2011)	-0.314711 J (11/16/2009)	(-0.798508 - -0.314711)/(30 - 26)
-0.120949		
-0.798508 J (11/22/2011)	-0.314711 J (11/16/2009)	(-0.798508 - -0.314711)/(30 - 26)
-0.120949		
-0.34249 J (11/12/2010)	-0.385662 J (6/30/2010)	(-0.34249 - -0.385662)/(28 - 27)
0.0431722		
-0.867501 J (7/5/2011)	-0.385662 J (6/30/2010)	(-0.867501 - -0.385662)/(29 - 27)
-0.240919		
-0.798508 J (11/22/2011)	-0.385662 J (6/30/2010)	(-0.798508 - -0.385662)/(30 - 27)
-0.137615		
-0.798508 J (11/22/2011)	-0.385662 J (6/30/2010)	(-0.798508 - -0.385662)/(30 - 27)
-0.137615		
-0.867501 J (7/5/2011)	-0.34249 J (11/12/2010)	(-0.867501 - -0.34249)/(29 - 28)
-0.52501		
-0.798508 J (11/22/2011)	-0.34249 J (11/12/2010)	(-0.798508 - -0.34249)/(30 - 28)
-0.228009		
-0.798508 J (11/22/2011)	-0.34249 J (11/12/2010)	(-0.798508 - -0.34249)/(30 - 28)
-0.228009		
-0.798508 J (11/22/2011)	-0.867501 J (7/5/2011)	(-0.798508 - -0.867501)/(30 - 29)
0.0689929		
-0.798508 J (11/22/2011)	-0.867501 J (7/5/2011)	(-0.798508 - -0.867501)/(30 - 29)
0.0689929		
-0.798508 J (11/22/2011)	-0.798508 J (11/22/2011)	(-0.798508 - -0.798508)/(30 - 30)
Same Date		

Number of Q values = 464

Ordered Q Values

n	Q
1	-0.52501
2	-0.510826
3	-0.356675
4	-0.317439
5	-0.278203
6	-0.266169
7	-0.240919
8	-0.228009
9	-0.228009
10	-0.220916
11	-0.211626
12	-0.210993
13	-0.200239
14	-0.199627
15	-0.184263
16	-0.178337
17	-0.168794
18	-0.163629
19	-0.162432
20	-0.159702
21	-0.15872
22	-0.144583
23	-0.140662
24	-0.137615
25	-0.137615
26	-0.133085
27	-0.126976
28	-0.120949
29	-0.120949
30	-0.120567
31	-0.118892
32	-0.116756
33	-0.114073
34	-0.114073
35	-0.114073
36	-0.105813
37	-0.105496
38	-0.104904
39	-0.10486
40	-0.104546
41	-0.102165
42	-0.0998135
43	-0.0964156
44	-0.0937745
45	-0.0906969
46	-0.0891687
47	-0.0887231
48	-0.0851376
49	-0.084397
50	-0.0809136
51	-0.0798508
52	-0.079606
53	-0.079606
54	-0.0793598
55	-0.0767246
56	-0.0729751
57	-0.0725916
58	-0.071335
59	-0.071335

60	-0.0709517
61	-0.070542
62	-0.0703308
63	-0.0684981
64	-0.0667308
65	-0.0665423
66	-0.0649208
67	-0.0638532
68	-0.0638532
69	-0.0634878
70	-0.0621753
71	-0.0621753
72	-0.0619643
73	-0.0614237
74	-0.0602836
75	-0.0594458
76	-0.0578334
77	-0.0577162
78	-0.0570363
79	-0.0570363
80	-0.0570363
81	-0.0567584
82	-0.0567584
83	-0.0562647
84	-0.0542188
85	-0.0532338
86	-0.0532338
87	-0.0532338
88	-0.0529065
89	-0.0527481
90	-0.0510826
91	-0.0510826
92	-0.0510294
93	-0.0509536
94	-0.0501842
95	-0.0499067
96	-0.0499067
97	-0.0488368
98	-0.0481945
99	-0.047947
100	-0.047947
101	-0.046971
102	-0.046971
103	-0.0464387
104	-0.0464387
105	-0.0456579
106	-0.0454624
107	-0.0453484
108	-0.0445844
109	-0.0445844
110	-0.0444975
111	-0.0443615
112	-0.0443615
113	-0.043375
114	-0.043015
115	-0.0425688
116	-0.0425688
117	-0.0425688
118	-0.0420267
119	-0.0420267
120	-0.0413096
121	-0.0400478

122	-0.0399254
123	-0.0399254
124	-0.0396305
125	-0.0394318
126	-0.0392943
127	-0.0392943
128	-0.0385377
129	-0.0380242
130	-0.0380242
131	-0.0377174
132	-0.0376381
133	-0.0365192
134	-0.0364875
135	-0.0364875
136	-0.0364071
137	-0.0362958
138	-0.0362958
139	-0.0361459
140	-0.0359603
141	-0.0356675
142	-0.0350602
143	-0.0347177
144	-0.0347177
145	-0.0347
146	-0.034055
147	-0.034055
148	-0.0339871
149	-0.0339871
150	-0.0334561
151	-0.0333731
152	-0.0332712
153	-0.0332712
154	-0.0331242
155	-0.032425
156	-0.0321385
157	-0.0319647
158	-0.0319647
159	-0.0319403
160	-0.0319403
161	-0.0319266
162	-0.0319266
163	-0.0314711
164	-0.030806
165	-0.0307118
166	-0.0307118
167	-0.0301105
168	-0.0300486
169	-0.0300486
170	-0.0297229
171	-0.0296663
172	-0.0286101
173	-0.0286055
174	-0.0285409
175	-0.0283792
176	-0.0275473
177	-0.027449
178	-0.0274365
179	-0.0273732
180	-0.0268856
181	-0.0266985
182	-0.0263454
183	-0.0262259

184	-0.0257108
185	-0.0255413
186	-0.0250921
187	-0.0250298
188	-0.024783
189	-0.0244636
190	-0.0242085
191	-0.0241039
192	-0.0235575
193	-0.0231619
194	-0.0228327
195	-0.022686
196	-0.0224793
197	-0.0222488
198	-0.0220215
199	-0.0215075
200	-0.0214257
201	-0.0214056
202	-0.0213098
203	-0.0213098
204	-0.0211475
205	-0.0210778
206	-0.0209807
207	-0.020298
208	-0.0201465
209	-0.0200737
210	-0.0200239
211	-0.0196694
212	-0.0192831
213	-0.0190704
214	-0.0190272
215	-0.0188191
216	-0.0185124
217	-0.0183649
218	-0.0180258
219	-0.0177121
220	-0.0175301
221	-0.0174839
222	-0.0171245
223	-0.0169115
224	-0.0167679
225	-0.0167281
226	-0.0165637
227	-0.0163091
228	-0.0159823
229	-0.0157355
230	-0.0155677
231	-0.0149862
232	-0.0148909
233	-0.014305
234	-0.0142704
235	-0.0138898
236	-0.0136991
237	-0.0136358
238	-0.0136358
239	-0.00953796
240	-0.00837905
241	-0.00806064
242	-0.00689929
243	-0.00689754
244	-0.00677162
245	-0.00645753

246	-0.00619768
247	-0.00547533
248	-0.00477387
249	-0.00410324
250	-0.00398118
251	-0.00376288
252	-0.00376288
253	-0.00340141
254	-0.00289875
255	-0.002614 5
256	0
257	0
258	0
259	0
260	0
261	0
262	0
263	0
264	0
265	0
266	0
267	0
268	0
269	0
270	0
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308	0
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318	0
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331	0
332	0
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334	0
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0
348	0
349	0
350	0.00128951
351	0.00364181
352	0.00454624
353	0.00454624
354	0.00466269
355	0.00740754
356	0.00828734
357	0.00861293
358	0.00959587
359	0.010695
360	0.010695
361	0.011114
362	0.0111572
363	0.0122994
364	0.0127248
365	0.0134868
366	0.0139312
367	0.0157682
368	0.0171649
369	0.0172308

370	0.0185953
371	0.0193291
372	0.0196021
373	0.0202858
374	0.0206754
375	0.0208605
376	0.0223144
377	0.0224315
378	0.0240479
379	0.0247937
380	0.0259929
381	0.027587
382	0.0276906
383	0.0278077
384	0.0278697
385	0.0278929
386	0.0283768
387	0.0292388
388	0.0295077
389	0.0298919
390	0.0317581
391	0.0318777
392	0.033007
393	0.0334858
394	0.0371906
395	0.0384551
396	0.039223
397	0.0400209
398	0.0413509
399	0.041721
400	0.0420838
401	0.0431722
402	0.0446287
403	0.0469992
404	0.0495105
405	0.0503938
406	0.0506686
407	0.0516057
408	0.053319
409	0.0557859
410	0.0575364
411	0.0577623
412	0.0594458
413	0.062685
414	0.0630134
415	0.0654725
416	0.0663384
417	0.0689929
418	0.0689929
419	0.0691139
420	0.0693147
421	0.0739108
422	0.0743812
423	0.0770164
424	0.0791902
425	0.0832861
426	0.0834433
427	0.0852817
428	0.0857668
429	0.0866434
430	0.0882099
431	0.0886985

432	0.0923886
433	0.0980574
434	0.099021
435	0.100788
436	0.110348
437	0.110866
438	0.111572
439	0.115525
440	0.123185
441	0.126976
442	0.138583
443	0.138629
444	0.143841
445	0.15838
446	0.165801
447	0.173287
448	0.184777
449	0.199627
450	0.209721
451	0.221733
452	0.223144
453	0.231049
454	0.255413
455	0.271432
456	0.277166
457	0.281323
458	0.301105
459	0.333144
460	0.346574
461	0.369554
462	0.415515
463	0.44276
464	0.470004

Sen's Estimator (Median Q) is -0.014598

Tied Group	Value	Members
1	0	14
2	-0.798508	3
3	-0.510826	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1

5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 6090
B = 18
C = 2190
D = 0
E = 190
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3122.54
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9138
M1 = (464 - 91.9138)/2.0 = 186.043
M2 = (464 + 91.9138)/2.0 + 1 = 278.957
Lower limit is -0.0250921 = Q(186)
Upper limit is 0 = Q(279)
-0.0250921 < 0 < 0 indicating no trend in data.

Sen's Slope Analysis
Parameter: Trichloroethene
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
5.70378	(8/24/1995)	2.94444 (7/20/1995)	(5.70378 - 2.94444)/(2 - 1)	2.75934
5.24702	(9/28/1995)	2.94444 (7/20/1995)	(5.24702 - 2.94444)/(3 - 1)	1.15129
2.70805	(10/26/1995)	2.94444 (7/20/1995)	(2.70805 - 2.94444)/(4 - 1)	-0.0787963
ND<0	(11/19/1996)	2.94444 (7/20/1995)	(0 - 2.94444)/(5 - 1)	-0.73611
5.63479	(12/19/1996)	2.94444 (7/20/1995)	(5.63479 - 2.94444)/(6 - 1)	0.53807
5.56068	(3/24/1997)	2.94444 (7/20/1995)	(5.56068 - 2.94444)/(7 - 1)	0.43604
5.01064	(9/24/1997)	2.94444 (7/20/1995)	(5.01064 - 2.94444)/(8 - 1)	0.295171
4.78749	(4/7/1998)	2.94444 (7/20/1995)	(4.78749 - 2.94444)/(9 - 1)	0.230382
5.01064	(9/23/1998)	2.94444 (7/20/1995)	(5.01064 - 2.94444)/(10 - 1)	0.229577
4.78749	(3/16/1999)	2.94444 (7/20/1995)	(4.78749 - 2.94444)/(11 - 1)	0.184305
4.34899	(9/23/1999)	2.94444 (7/20/1995)	(4.34899 - 2.94444)/(12 - 1)	0.127686
5.07517	(3/15/2000)	2.94444 (7/20/1995)	(5.07517 - 2.94444)/(13 - 1)	0.177561
ND<0	(9/24/2003)	2.94444 (7/20/1995)	(0 - 2.94444)/(14 - 1)	-0.226495
2.18605	(3/11/2004)	2.94444 (7/20/1995)	(2.18605 - 2.94444)/(15 - 1)	-0.0541706
ND<0	(10/12/2004)	2.94444 (7/20/1995)	(0 - 2.94444)/(16 - 1)	-0.196296
0.828552	(4/1/2005)	2.94444 (7/20/1995)	(0.828552 - 2.94444)/(17 - 1)	-0.132243
1.89612	(10/25/2005)	2.94444 (7/20/1995)	(1.89612 - 2.94444)/(18 - 1)	-0.0616659
0.797507	(4/29/2006)	2.94444 (7/20/1995)	(0.797507 - 2.94444)/(19 - 1)	-0.119274
1.26413	(11/18/2006)	2.94444 (7/20/1995)	(1.26413 - 2.94444)/(20 - 1)	-0.0884375
0.470004	(5/23/2007)	2.94444 (7/20/1995)	(0.470004 - 2.94444)/(21 - 1)	-0.123722
1.43031	(11/28/2007)	2.94444 (7/20/1995)	(1.43031 - 2.94444)/(22 - 1)	-0.0721013
ND<0 J	(6/5/2008)	2.94444 (7/20/1995)	(0 - 2.94444)/(23 - 1)	-0.133838
0.262364 J	(11/20/2008)	2.94444 (7/20/1995)	(0.262364 - 2.94444)/(24 - 1)	-0.116612
0.262364	(6/11/2009)	2.94444 (7/20/1995)	(0.262364 - 2.94444)/(25 - 1)	-0.111753
-0.139262 J	(6/30/2010)	2.94444 (7/20/1995)	(-0.139262 - 2.94444)/(26 - 1)	-0.123348
0.641854	(11/12/2010)	2.94444 (7/20/1995)	(0.641854 - 2.94444)/(27 - 1)	-0.088561
0.955511	(7/5/2011)	2.94444 (7/20/1995)	(0.955511 - 2.94444)/(28 - 1)	-0.073664
0.693147	(11/22/2011)	2.94444 (7/20/1995)	(0.693147 - 2.94444)/(29 - 1)	-0.0804033

0.693147 (11/22/2011)	2.94444 (7/20/1995)	(0.693147 - 2.94444)/(29 - 1)		
-0.0804033				
5.24702 (9/28/1995)	5.70378 (8/24/1995)	(5.24702 - 5.70378)/(3 - 2)		
-0.456758				
2.70805 (10/26/1995)	5.70378 (8/24/1995)	(2.70805 - 5.70378)/(4 - 2)	-1.49787	
ND<0 (11/19/1996)	5.70378 (8/24/1995)	(0 - 5.70378)/(5 - 2)	-1.90126	
5.63479 (12/19/1996)	5.70378 (8/24/1995)	(5.63479 - 5.70378)/(6 - 2)		
-0.0172482				
5.56068 (3/24/1997)	5.70378 (8/24/1995)	(5.56068 - 5.70378)/(7 - 2)		
-0.0286202				
5.01064 (9/24/1997)	5.70378 (8/24/1995)	(5.01064 - 5.70378)/(8 - 2)		
-0.115525				
4.78749 (4/7/1998)	5.70378 (8/24/1995)	(4.78749 - 5.70378)/(9 - 2)		
-0.130899				
5.01064 (9/23/1998)	5.70378 (8/24/1995)	(5.01064 - 5.70378)/(10 - 2)		
-0.0866434				
4.78749 (3/16/1999)	5.70378 (8/24/1995)	(4.78749 - 5.70378)/(11 - 2)		
-0.10181				
4.34899 (9/23/1999)	5.70378 (8/24/1995)	(4.34899 - 5.70378)/(12 - 2)		
-0.13548				
5.07517 (3/15/2000)	5.70378 (8/24/1995)	(5.07517 - 5.70378)/(13 - 2)		
-0.0571462				
ND<0 (9/24/2003)	5.70378 (8/24/1995)	(0 - 5.70378)/(14 - 2)		
-0.475315				
2.18605 (3/11/2004)	5.70378 (8/24/1995)	(2.18605 - 5.70378)/(15 - 2)		
-0.270595				
ND<0 (10/12/2004)	5.70378 (8/24/1995)	(0 - 5.70378)/(16 - 2)		
-0.407413				
0.828552 (4/1/2005)	5.70378 (8/24/1995)	(0.828552 - 5.70378)/(17 - 2)		
-0.325015				
1.89612 (10/25/2005)	5.70378 (8/24/1995)	(1.89612 - 5.70378)/(18 - 2)		
-0.237979				
0.797507 (4/29/2006)	5.70378 (8/24/1995)	(0.797507 - 5.70378)/(19 - 2)		
-0.288604				
1.26413 (11/18/2006)	5.70378 (8/24/1995)	(1.26413 - 5.70378)/(20 - 2)		
-0.246648				
0.470004 (5/23/2007)	5.70378 (8/24/1995)	(0.470004 - 5.70378)/(21 - 2)		
-0.275462				
1.43031 (11/28/2007)	5.70378 (8/24/1995)	(1.43031 - 5.70378)/(22 - 2)		
-0.213674				
ND<0 J (6/5/2008)	5.70378 (8/24/1995)	(0 - 5.70378)/(23 - 2)		
-0.271609				
0.262364 J (11/20/2008)	5.70378 (8/24/1995)	(0.262364 - 5.70378)/(24 - 2)		
-0.247337				
0.262364 (6/11/2009)	5.70378 (8/24/1995)	(0.262364 - 5.70378)/(25 - 2)		
-0.236583				
-0.139262 J (6/30/2010)	5.70378 (8/24/1995)	(-0.139262 - 5.70378)/(26 - 2)		
-0.24346				
0.641854 (11/12/2010)	5.70378 (8/24/1995)	(0.641854 - 5.70378)/(27 - 2)		
-0.202477				
0.955511 (7/5/2011)	5.70378 (8/24/1995)	(0.955511 - 5.70378)/(28 - 2)		
-0.182626				
0.693147 (11/22/2011)	5.70378 (8/24/1995)	(0.693147 - 5.70378)/(29 - 2)		
-0.185579				
0.693147 (11/22/2011)	5.70378 (8/24/1995)	(0.693147 - 5.70378)/(29 - 2)		
-0.185579				
2.70805 (10/26/1995)	5.24702 (9/28/1995)	(2.70805 - 5.24702)/(4 - 3)	-2.53897	
ND<0 (11/19/1996)	5.24702 (9/28/1995)	(0 - 5.24702)/(5 - 3)	-2.62351	
5.63479 (12/19/1996)	5.24702 (9/28/1995)	(5.63479 - 5.24702)/(6 - 3)		
0.129255				

5.56068 (3/24/1997)	5.24702 (9/28/1995)	(5.56068 - 5.24702)/(7 - 3)		
0.0784144				
5.01064 (9/24/1997)	5.24702 (9/28/1995)	(5.01064 - 5.24702)/(8 - 3)		
-0.0472778				
4.78749 (4/7/1998)	5.24702 (9/28/1995)	(4.78749 - 5.24702)/(9 - 3)		
-0.0765887				
5.01064 (9/23/1998)	5.24702 (9/28/1995)	(5.01064 - 5.24702)/(10 - 3)		
-0.0337698				
4.78749 (3/16/1999)	5.24702 (9/28/1995)	(4.78749 - 5.24702)/(11 - 3)		
-0.0574415				
4.34899 (9/23/1999)	5.24702 (9/28/1995)	(4.34899 - 5.24702)/(12 - 3)		
-0.0997819				
5.07517 (3/15/2000)	5.24702 (9/28/1995)	(5.07517 - 5.24702)/(13 - 3)		
-0.017185				
ND<0 (9/24/2003)	5.24702 (9/28/1995)	(0 - 5.24702)/(14 - 3)		
-0.477002				
2.18605 (3/11/2004)	5.24702 (9/28/1995)	(2.18605 - 5.24702)/(15 - 3)		
-0.255081				
ND<0 (10/12/2004)	5.24702 (9/28/1995)	(0 - 5.24702)/(16 - 3)		
-0.403617				
0.828552 (4/1/2005)	5.24702 (9/28/1995)	(0.828552 - 5.24702)/(17 - 3)		
-0.315605				
1.89612 (10/25/2005)	5.24702 (9/28/1995)	(1.89612 - 5.24702)/(18 - 3)		
-0.223394				
0.797507 (4/29/2006)	5.24702 (9/28/1995)	(0.797507 - 5.24702)/(19 - 3)		
-0.278095				
1.26413 (11/18/2006)	5.24702 (9/28/1995)	(1.26413 - 5.24702)/(20 - 3)		
-0.234288				
0.470004 (5/23/2007)	5.24702 (9/28/1995)	(0.470004 - 5.24702)/(21 - 3)		
-0.26539				
1.43031 (11/28/2007)	5.24702 (9/28/1995)	(1.43031 - 5.24702)/(22 - 3)		
-0.20088				
ND<0 J (6/5/2008)	5.24702 (9/28/1995)	(0 - 5.24702)/(23 - 3)		
-0.262351				
0.262364 J (11/20/2008)	5.24702 (9/28/1995)	(0.262364 - 5.24702)/(24 - 3)		
-0.237365				
0.262364 (6/11/2009)	5.24702 (9/28/1995)	(0.262364 - 5.24702)/(25 - 3)		
-0.226575				
-0.139262 J (6/30/2010)	5.24702 (9/28/1995)	(-0.139262 - 5.24702)/(26 - 3)		
-0.234186				
0.641854 (11/12/2010)	5.24702 (9/28/1995)	(0.641854 - 5.24702)/(27 - 3)		
-0.191882				
0.955511 (7/5/2011)	5.24702 (9/28/1995)	(0.955511 - 5.24702)/(28 - 3)		
-0.171661				
0.693147 (11/22/2011)	5.24702 (9/28/1995)	(0.693147 - 5.24702)/(29 - 3)		
-0.175149				
0.693147 (11/22/2011)	5.24702 (9/28/1995)	(0.693147 - 5.24702)/(29 - 3)		
-0.175149				
ND<0 (11/19/1996)	2.70805 (10/26/1995)	(0 - 2.70805)/(5 - 4)	-2.70805	
5.63479 (12/19/1996)	2.70805 (10/26/1995)	(5.63479 - 2.70805)/(6 - 4)	1.46337	
5.56068 (3/24/1997)	2.70805 (10/26/1995)	(5.56068 - 2.70805)/(7 - 4)		
0.950877				
5.01064 (9/24/1997)	2.70805 (10/26/1995)	(5.01064 - 2.70805)/(8 - 4)		
0.575646				
4.78749 (4/7/1998)	2.70805 (10/26/1995)	(4.78749 - 2.70805)/(9 - 4)		
0.415888				
5.01064 (9/23/1998)	2.70805 (10/26/1995)	(5.01064 - 2.70805)/(10 - 4)		
0.383764				
4.78749 (3/16/1999)	2.70805 (10/26/1995)	(4.78749 - 2.70805)/(11 - 4)		
0.297063				

4.34899 (9/23/1999)	2.70805 (10/26/1995)	(4.34899 - 2.70805)/(12 - 4)	
0.205117			
5.07517 (3/15/2000)	2.70805 (10/26/1995)	(5.07517 - 2.70805)/(13 - 4)	
0.263014			
ND<0 (9/24/2003)	2.70805 (10/26/1995)	(0 - 2.70805)/(14 - 4)	
-0.270805			
2.18605 (3/11/2004)	2.70805 (10/26/1995)	(2.18605 - 2.70805)/(15 - 4)	
-0.0474544			
ND<0 (10/12/2004)	2.70805 (10/26/1995)	(0 - 2.70805)/(16 - 4)	
-0.225671			
0.828552 (4/1/2005)	2.70805 (10/26/1995)	(0.828552 - 2.70805)/(17 - 4)	
-0.144577			
1.89612 (10/25/2005)	2.70805 (10/26/1995)	(1.89612 - 2.70805)/(18 - 4)	
-0.0579951			
0.797507 (4/29/2006)	2.70805 (10/26/1995)	(0.797507 - 2.70805)/(19 - 4)	
-0.12737			
1.26413 (11/18/2006)	2.70805 (10/26/1995)	(1.26413 - 2.70805)/(20 - 4)	
-0.0902452			
0.470004 (5/23/2007)	2.70805 (10/26/1995)	(0.470004 - 2.70805)/(21 - 4)	
-0.13165			
1.43031 (11/28/2007)	2.70805 (10/26/1995)	(1.43031 - 2.70805)/(22 - 4)	
-0.0709855			
ND<0 J (6/5/2008)	2.70805 (10/26/1995)	(0 - 2.70805)/(23 - 4)	
-0.142529			
0.262364 J (11/20/2008)	2.70805 (10/26/1995)	(0.262364 - 2.70805)/(24 - 4)	
-0.122284			
0.262364 (6/11/2009)	2.70805 (10/26/1995)	(0.262364 - 2.70805)/(25 - 4)	
-0.116461			
-0.139262 J (6/30/2010)	2.70805 (10/26/1995)	(-0.139262 - 2.70805)/(26 - 4)	
-0.129423			
0.641854 (11/12/2010)	2.70805 (10/26/1995)	(0.641854 - 2.70805)/(27 - 4)	
-0.0898346			
0.955511 (7/5/2011)	2.70805 (10/26/1995)	(0.955511 - 2.70805)/(28 - 4)	
-0.0730224			
0.693147 (11/22/2011)	2.70805 (10/26/1995)	(0.693147 - 2.70805)/(29 - 4)	
-0.0805961			
0.693147 (11/22/2011)	2.70805 (10/26/1995)	(0.693147 - 2.70805)/(29 - 4)	
-0.0805961			
5.63479 (12/19/1996)	ND<0 (11/19/1996)	(5.63479 - 0)/(6 - 5)	5.63479
5.56068 (3/24/1997)	ND<0 (11/19/1996)	(5.56068 - 0)/(7 - 5)	2.78034
5.01064 (9/24/1997)	ND<0 (11/19/1996)	(5.01064 - 0)/(8 - 5)	1.67021
4.78749 (4/7/1998)	ND<0 (11/19/1996)	(4.78749 - 0)/(9 - 5)	1.19687
5.01064 (9/23/1998)	ND<0 (11/19/1996)	(5.01064 - 0)/(10 - 5)	1.00213
4.78749 (3/16/1999)	ND<0 (11/19/1996)	(4.78749 - 0)/(11 - 5)	
0.797915			
4.34899 (9/23/1999)	ND<0 (11/19/1996)	(4.34899 - 0)/(12 - 5)	
0.621284			
5.07517 (3/15/2000)	ND<0 (11/19/1996)	(5.07517 - 0)/(13 - 5)	
0.634397			
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
2.18605 (3/11/2004)	ND<0 (11/19/1996)	(2.18605 - 0)/(15 - 5)	
0.218605			
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
0.828552 (4/1/2005)	ND<0 (11/19/1996)	(0.828552 - 0)/(17 - 5)	
0.069046			
1.89612 (10/25/2005)	ND<0 (11/19/1996)	(1.89612 - 0)/(18 - 5)	
0.145855			
0.797507 (4/29/2006)	ND<0 (11/19/1996)	(0.797507 - 0)/(19 - 5)	
0.0569648			
1.26413 (11/18/2006)	ND<0 (11/19/1996)	(1.26413 - 0)/(20 - 5)	
0.0842751			

0.470004 (5/23/2007)	ND<0 (11/19/1996)	(0.470004 - 0)/(21 - 5)	
0.0293752			
1.43031 (11/28/2007)	ND<0 (11/19/1996)	(1.43031 - 0)/(22 - 5)	
0.084136			
ND<0 J (6/5/2008)	ND<0 (11/19/1996)	(0 - 0)/(23 - 5)	0
0.262364 J (11/20/2008)	ND<0 (11/19/1996)	(0.262364 - 0)/(24 - 5)	
0.0138086			
0.262364 (6/11/2009)	ND<0 (11/19/1996)	(0.262364 - 0)/(25 - 5)	
0.0131182			
-0.139262 J (6/30/2010)	ND<0 (11/19/1996)	(-0.139262 - 0)/(26 - 5)	
-0.00663153			
0.641854 (11/12/2010)	ND<0 (11/19/1996)	(0.641854 - 0)/(27 - 5)	
0.0291752			
0.955511 (7/5/2011)	ND<0 (11/19/1996)	(0.955511 - 0)/(28 - 5)	
0.041544			
0.693147 (11/22/2011)	ND<0 (11/19/1996)	(0.693147 - 0)/(29 - 5)	
0.0288811			
0.693147 (11/22/2011)	ND<0 (11/19/1996)	(0.693147 - 0)/(29 - 5)	
0.0288811			
5.56068 (3/24/1997)	5.63479 (12/19/1996)	(5.56068 - 5.63479)/(7 - 6)	
-0.074108			
5.01064 (9/24/1997)	5.63479 (12/19/1996)	(5.01064 - 5.63479)/(8 - 6)	
-0.312077			
4.78749 (4/7/1998)	5.63479 (12/19/1996)	(4.78749 - 5.63479)/(9 - 6)	
-0.282433			
5.01064 (9/23/1998)	5.63479 (12/19/1996)	(5.01064 - 5.63479)/(10 - 6)	
-0.156039			
4.78749 (3/16/1999)	5.63479 (12/19/1996)	(4.78749 - 5.63479)/(11 - 6)	
-0.16946			
4.34899 (9/23/1999)	5.63479 (12/19/1996)	(4.34899 - 5.63479)/(12 - 6)	
-0.2143			
5.07517 (3/15/2000)	5.63479 (12/19/1996)	(5.07517 - 5.63479)/(13 - 6)	
-0.0799451			
ND<0 (9/24/2003)	5.63479 (12/19/1996)	(0 - 5.63479)/(14 - 6)	
-0.704349			
2.18605 (3/11/2004)	5.63479 (12/19/1996)	(2.18605 - 5.63479)/(15 - 6)	
-0.383193			
ND<0 (10/12/2004)	5.63479 (12/19/1996)	(0 - 5.63479)/(16 - 6)	
-0.563479			
0.828552 (4/1/2005)	5.63479 (12/19/1996)	(0.828552 - 5.63479)/(17 - 6)	
-0.436931			
1.89612 (10/25/2005)	5.63479 (12/19/1996)	(1.89612 - 5.63479)/(18 - 6)	
-0.311556			
0.797507 (4/29/2006)	5.63479 (12/19/1996)	(0.797507 - 5.63479)/(19 - 6)	
-0.372099			
1.26413 (11/18/2006)	5.63479 (12/19/1996)	(1.26413 - 5.63479)/(20 - 6)	
-0.31219			
0.470004 (5/23/2007)	5.63479 (12/19/1996)	(0.470004 - 5.63479)/(21 - 6)	
-0.344319			
1.43031 (11/28/2007)	5.63479 (12/19/1996)	(1.43031 - 5.63479)/(22 - 6)	
-0.26278			
ND<0 J (6/5/2008)	5.63479 (12/19/1996)	(0 - 5.63479)/(23 - 6)	
-0.331458			
0.262364 J (11/20/2008)	5.63479 (12/19/1996)	(0.262364 - 5.63479)/(24 - 6)	
-0.298468			
0.262364 (6/11/2009)	5.63479 (12/19/1996)	(0.262364 - 5.63479)/(25 - 6)	
-0.282759			
-0.139262 J (6/30/2010)	5.63479 (12/19/1996)	(-0.139262 - 5.63479)/(26 - 6)	
-0.288703			
0.641854 (11/12/2010)	5.63479 (12/19/1996)	(0.641854 - 5.63479)/(27 - 6)	
-0.237759			

0.955511	(7/5/2011)	5.63479	(12/19/1996)	(0.955511 - 5.63479)/(28 - 6)
-0.212694				
0.693147	(11/22/2011)	5.63479	(12/19/1996)	(0.693147 - 5.63479)/(29 - 6)
-0.214854				
0.693147	(11/22/2011)	5.63479	(12/19/1996)	(0.693147 - 5.63479)/(29 - 6)
-0.214854				
5.01064	(9/24/1997)	5.56068	(3/24/1997)	(5.01064 - 5.56068)/(8 - 7)
-0.550046				
4.78749	(4/7/1998)	5.56068	(3/24/1997)	(4.78749 - 5.56068)/(9 - 7)
-0.386595				
5.01064	(9/23/1998)	5.56068	(3/24/1997)	(5.01064 - 5.56068)/(10 - 7)
-0.183349				
4.78749	(3/16/1999)	5.56068	(3/24/1997)	(4.78749 - 5.56068)/(11 - 7)
-0.193297				
4.34899	(9/23/1999)	5.56068	(3/24/1997)	(4.34899 - 5.56068)/(12 - 7)
-0.242339				
5.07517	(3/15/2000)	5.56068	(3/24/1997)	(5.07517 - 5.56068)/(13 - 7)
-0.080918				
ND<0	(9/24/2003)	5.56068	(3/24/1997)	(0 - 5.56068)/(14 - 7)
-0.794383				
2.18605	(3/11/2004)	5.56068	(3/24/1997)	(2.18605 - 5.56068)/(15 - 7)
-0.421829				
ND<0	(10/12/2004)	5.56068	(3/24/1997)	(0 - 5.56068)/(16 - 7)
-0.617854				
0.828552	(4/1/2005)	5.56068	(3/24/1997)	(0.828552 - 5.56068)/(17 - 7)
-0.473213				
1.89612	(10/25/2005)	5.56068	(3/24/1997)	(1.89612 - 5.56068)/(18 - 7)
-0.333142				
0.797507	(4/29/2006)	5.56068	(3/24/1997)	(0.797507 - 5.56068)/(19 - 7)
-0.396931				
1.26413	(11/18/2006)	5.56068	(3/24/1997)	(1.26413 - 5.56068)/(20 - 7)
-0.330504				
0.470004	(5/23/2007)	5.56068	(3/24/1997)	(0.470004 - 5.56068)/(21 - 7)
-0.36362				
1.43031	(11/28/2007)	5.56068	(3/24/1997)	(1.43031 - 5.56068)/(22 - 7)
-0.275358				
ND<0 J	(6/5/2008)	5.56068	(3/24/1997)	(0 - 5.56068)/(23 - 7)
-0.347543				
0.262364 J	(11/20/2008)	5.56068	(3/24/1997)	(0.262364 - 5.56068)/(24 - 7)
-0.311666				
0.262364	(6/11/2009)	5.56068	(3/24/1997)	(0.262364 - 5.56068)/(25 - 7)
-0.294351				
-0.139262 J	(6/30/2010)	5.56068	(3/24/1997)	(-0.139262 - 5.56068)/(26 - 7)
-0.299997				
0.641854	(11/12/2010)	5.56068	(3/24/1997)	(0.641854 - 5.56068)/(27 - 7)
-0.245941				
0.955511	(7/5/2011)	5.56068	(3/24/1997)	(0.955511 - 5.56068)/(28 - 7)
-0.219294				
0.693147	(11/22/2011)	5.56068	(3/24/1997)	(0.693147 - 5.56068)/(29 - 7)
-0.221252				
0.693147	(11/22/2011)	5.56068	(3/24/1997)	(0.693147 - 5.56068)/(29 - 7)
-0.221252				
4.78749	(4/7/1998)	5.01064	(9/24/1997)	(4.78749 - 5.01064)/(9 - 8)
-0.223144				
5.01064	(9/23/1998)	5.01064	(9/24/1997)	(5.01064 - 5.01064)/(10 - 8)
0				
4.78749	(3/16/1999)	5.01064	(9/24/1997)	(4.78749 - 5.01064)/(11 - 8)
-0.0743812				
4.34899	(9/23/1999)	5.01064	(9/24/1997)	(4.34899 - 5.01064)/(12 - 8)
-0.165412				

5.07517 (3/15/2000)	5.01064 (9/24/1997)	(5.07517 - 5.01064)/(13 - 8)
0.0129077		
ND<0 (9/24/2003)	5.01064 (9/24/1997)	(0 - 5.01064)/(14 - 8)
-0.835106		
2.18605 (3/11/2004)	5.01064 (9/24/1997)	(2.18605 - 5.01064)/(15 - 8)
-0.403512		
ND<0 (10/12/2004)	5.01064 (9/24/1997)	(0 - 5.01064)/(16 - 8)
-0.626329		
0.828552 (4/1/2005)	5.01064 (9/24/1997)	(0.828552 - 5.01064)/(17 - 8)
-0.464676		
1.89612 (10/25/2005)	5.01064 (9/24/1997)	(1.89612 - 5.01064)/(18 - 8)
-0.311452		
0.797507 (4/29/2006)	5.01064 (9/24/1997)	(0.797507 - 5.01064)/(19 - 8)
-0.383012		
1.26413 (11/18/2006)	5.01064 (9/24/1997)	(1.26413 - 5.01064)/(20 - 8)
-0.312209		
0.470004 (5/23/2007)	5.01064 (9/24/1997)	(0.470004 - 5.01064)/(21 - 8)
-0.349279		
1.43031 (11/28/2007)	5.01064 (9/24/1997)	(1.43031 - 5.01064)/(22 - 8)
-0.255737		
ND<0 J (6/5/2008)	5.01064 (9/24/1997)	(0 - 5.01064)/(23 - 8)
-0.334042		
0.262364 J (11/20/2008)	5.01064 (9/24/1997)	(0.262364 - 5.01064)/(24 - 8)
-0.296767		
0.262364 (6/11/2009)	5.01064 (9/24/1997)	(0.262364 - 5.01064)/(25 - 8)
-0.27931		
-0.139262 J (6/30/2010)	5.01064 (9/24/1997)	(-0.139262 - 5.01064)/(26 - 8)
-0.286105		
0.641854 (11/12/2010)	5.01064 (9/24/1997)	(0.641854 - 5.01064)/(27 - 8)
-0.229936		
0.955511 (7/5/2011)	5.01064 (9/24/1997)	(0.955511 - 5.01064)/(28 - 8)
-0.202756		
0.693147 (11/22/2011)	5.01064 (9/24/1997)	(0.693147 - 5.01064)/(29 - 8)
-0.205595		
0.693147 (11/22/2011)	5.01064 (9/24/1997)	(0.693147 - 5.01064)/(29 - 8)
-0.205595		
5.01064 (9/23/1998)	4.78749 (4/7/1998)	(5.01064 - 4.78749)/(10 - 9)
0.223144		
4.78749 (3/16/1999)	4.78749 (4/7/1998)	(4.78749 - 4.78749)/(11 - 9)
0		
4.34899 (9/23/1999)	4.78749 (4/7/1998)	(4.34899 - 4.78749)/(12 - 9)
-0.146168		
5.07517 (3/15/2000)	4.78749 (4/7/1998)	(5.07517 - 4.78749)/(13 - 9)
0.0719205		
ND<0 (9/24/2003)	4.78749 (4/7/1998)	(0 - 4.78749)/(14 - 9)
-0.957498		
2.18605 (3/11/2004)	4.78749 (4/7/1998)	(2.18605 - 4.78749)/(15 - 9)
-0.433573		
ND<0 (10/12/2004)	4.78749 (4/7/1998)	(0 - 4.78749)/(16 - 9)
-0.683927		
0.828552 (4/1/2005)	4.78749 (4/7/1998)	(0.828552 - 4.78749)/(17 - 9)
-0.494867		
1.89612 (10/25/2005)	4.78749 (4/7/1998)	(1.89612 - 4.78749)/(18 - 9)
-0.321264		
0.797507 (4/29/2006)	4.78749 (4/7/1998)	(0.797507 - 4.78749)/(19 - 9)
-0.398998		
1.26413 (11/18/2006)	4.78749 (4/7/1998)	(1.26413 - 4.78749)/(20 - 9)
-0.320306		
0.470004 (5/23/2007)	4.78749 (4/7/1998)	(0.470004 - 4.78749)/(21 - 9)
-0.359791		

1.43031 (11/28/2007)	4.78749 (4/7/1998)	(1.43031 - 4.78749)/(22 - 9)		
-0.258245				
ND<0 J (6/5/2008)	4.78749 (4/7/1998)	(0 - 4.78749)/(23 - 9)		
-0.341964				
0.262364 J (11/20/2008)	4.78749 (4/7/1998)	(0.262364 - 4.78749)/(24 - 9)		
-0.301675				
0.262364 (6/11/2009)	4.78749 (4/7/1998)	(0.262364 - 4.78749)/(25 - 9)		
-0.28282				
-0.139262 J (6/30/2010)	4.78749 (4/7/1998)	(-0.139262 - 4.78749)/(26 - 9)		
-0.289809				
0.641854 (11/12/2010)	4.78749 (4/7/1998)	(0.641854 - 4.78749)/(27 - 9)		
-0.230313				
0.955511 (7/5/2011)	4.78749 (4/7/1998)	(0.955511 - 4.78749)/(28 - 9)		
-0.201683				
0.693147 (11/22/2011)	4.78749 (4/7/1998)	(0.693147 - 4.78749)/(29 - 9)		
-0.204717				
0.693147 (11/22/2011)	4.78749 (4/7/1998)	(0.693147 - 4.78749)/(29 - 9)		
-0.204717				
4.78749 (3/16/1999)	5.01064 (9/23/1998)	(4.78749 - 5.01064)/(11 - 10)		
-0.223144				
4.34899 (9/23/1999)	5.01064 (9/23/1998)	(4.34899 - 5.01064)/(12 - 10)		
-0.330824				
5.07517 (3/15/2000)	5.01064 (9/23/1998)	(5.07517 - 5.01064)/(13 - 10)		
0.0215128				
ND<0 (9/24/2003)	5.01064 (9/23/1998)	(0 - 5.01064)/(14 - 10)	-1.25266	
2.18605 (3/11/2004)	5.01064 (9/23/1998)	(2.18605 - 5.01064)/(15 - 10)		
-0.564917				
ND<0 (10/12/2004)	5.01064 (9/23/1998)	(0 - 5.01064)/(16 - 10)		
-0.835106				
0.828552 (4/1/2005)	5.01064 (9/23/1998)	(0.828552 - 5.01064)/(17 - 10)		
-0.59744				
1.89612 (10/25/2005)	5.01064 (9/23/1998)	(1.89612 - 5.01064)/(18 - 10)		
-0.389314				
0.797507 (4/29/2006)	5.01064 (9/23/1998)	(0.797507 - 5.01064)/(19 - 10)		
-0.468125				
1.26413 (11/18/2006)	5.01064 (9/23/1998)	(1.26413 - 5.01064)/(20 - 10)		
-0.374651				
0.470004 (5/23/2007)	5.01064 (9/23/1998)	(0.470004 - 5.01064)/(21 - 10)		
-0.412785				
1.43031 (11/28/2007)	5.01064 (9/23/1998)	(1.43031 - 5.01064)/(22 - 10)		
-0.29836				
ND<0 J (6/5/2008)	5.01064 (9/23/1998)	(0 - 5.01064)/(23 - 10)		
-0.385433				
0.262364 J (11/20/2008)	5.01064 (9/23/1998)	(0.262364 - 5.01064)/(24 - 10)		
-0.339162				
0.262364 (6/11/2009)	5.01064 (9/23/1998)	(0.262364 - 5.01064)/(25 - 10)		
-0.316551				
-0.139262 J (6/30/2010)	5.01064 (9/23/1998)	(-0.139262 - 5.01064)/(26 - 10)		
-0.321869				
0.641854 (11/12/2010)	5.01064 (9/23/1998)	(0.641854 - 5.01064)/(27 - 10)		
-0.256987				
0.955511 (7/5/2011)	5.01064 (9/23/1998)	(0.955511 - 5.01064)/(28 - 10)		
-0.225285				
0.693147 (11/22/2011)	5.01064 (9/23/1998)	(0.693147 - 5.01064)/(29 - 10)		
-0.227236				
0.693147 (11/22/2011)	5.01064 (9/23/1998)	(0.693147 - 5.01064)/(29 - 10)		
-0.227236				
4.34899 (9/23/1999)	4.78749 (3/16/1999)	(4.34899 - 4.78749)/(12 - 11)		
-0.438505				

5.07517 (3/15/2000)	4.78749 (3/16/1999)	(5.07517 - 4.78749)/(13 - 11)		
0.143841				
ND<0 (9/24/2003)	4.78749 (3/16/1999)	(0 - 4.78749)/(14 - 11)	-1.59583	
2.18605 (3/11/2004)	4.78749 (3/16/1999)	(2.18605 - 4.78749)/(15 - 11)		
-0.65036				
ND<0 (10/12/2004)	4.78749 (3/16/1999)	(0 - 4.78749)/(16 - 11)		
-0.957498				
0.828552 (4/1/2005)	4.78749 (3/16/1999)	(0.828552 - 4.78749)/(17 - 11)		
-0.659823				
1.89612 (10/25/2005)	4.78749 (3/16/1999)	(1.89612 - 4.78749)/(18 - 11)		
-0.413053				
0.797507 (4/29/2006)	4.78749 (3/16/1999)	(0.797507 - 4.78749)/(19 - 11)		
-0.498748				
1.26413 (11/18/2006)	4.78749 (3/16/1999)	(1.26413 - 4.78749)/(20 - 11)		
-0.391485				
0.470004 (5/23/2007)	4.78749 (3/16/1999)	(0.470004 - 4.78749)/(21 - 11)		
-0.431749				
1.43031 (11/28/2007)	4.78749 (3/16/1999)	(1.43031 - 4.78749)/(22 - 11)		
-0.305198				
ND<0 J (6/5/2008)	4.78749 (3/16/1999)	(0 - 4.78749)/(23 - 11)		
-0.398958				
0.262364 J (11/20/2008)	4.78749 (3/16/1999)	(0.262364 - 4.78749)/(24 - 11)		
-0.348087				
0.262364 (6/11/2009)	4.78749 (3/16/1999)	(0.262364 - 4.78749)/(25 - 11)		
-0.323223				
-0.139262 J (6/30/2010)	4.78749 (3/16/1999)	(-0.139262 - 4.78749)/(26 - 11)		
-0.32845				
0.641854 (11/12/2010)	4.78749 (3/16/1999)	(0.641854 - 4.78749)/(27 - 11)		
-0.259102				
0.955511 (7/5/2011)	4.78749 (3/16/1999)	(0.955511 - 4.78749)/(28 - 11)		
-0.225411				
0.693147 (11/22/2011)	4.78749 (3/16/1999)	(0.693147 - 4.78749)/(29 - 11)		
-0.227464				
0.693147 (11/22/2011)	4.78749 (3/16/1999)	(0.693147 - 4.78749)/(29 - 11)		
-0.227464				
5.07517 (3/15/2000)	4.34899 (9/23/1999)	(5.07517 - 4.34899)/(13 - 12)		
0.726187				
ND<0 (9/24/2003)	4.34899 (9/23/1999)	(0 - 4.34899)/(14 - 12)	-2.17449	
2.18605 (3/11/2004)	4.34899 (9/23/1999)	(2.18605 - 4.34899)/(15 - 12)		
-0.720979				
ND<0 (10/12/2004)	4.34899 (9/23/1999)	(0 - 4.34899)/(16 - 12)	-1.08725	
0.828552 (4/1/2005)	4.34899 (9/23/1999)	(0.828552 - 4.34899)/(17 - 12)		
-0.704087				
1.89612 (10/25/2005)	4.34899 (9/23/1999)	(1.89612 - 4.34899)/(18 - 12)		
-0.408811				
0.797507 (4/29/2006)	4.34899 (9/23/1999)	(0.797507 - 4.34899)/(19 - 12)		
-0.507354				
1.26413 (11/18/2006)	4.34899 (9/23/1999)	(1.26413 - 4.34899)/(20 - 12)		
-0.385608				
0.470004 (5/23/2007)	4.34899 (9/23/1999)	(0.470004 - 4.34899)/(21 - 12)		
-0.430998				
1.43031 (11/28/2007)	4.34899 (9/23/1999)	(1.43031 - 4.34899)/(22 - 12)		
-0.291868				
ND<0 J (6/5/2008)	4.34899 (9/23/1999)	(0 - 4.34899)/(23 - 12)		
-0.395362				
0.262364 J (11/20/2008)	4.34899 (9/23/1999)	(0.262364 - 4.34899)/(24 - 12)		
-0.340552				
0.262364 (6/11/2009)	4.34899 (9/23/1999)	(0.262364 - 4.34899)/(25 - 12)		
-0.314356				
-0.139262 J (6/30/2010)	4.34899 (9/23/1999)	(-0.139262 - 4.34899)/(26 - 12)		
-0.320589				

0.641854 (11/12/2010)	4.34899 (9/23/1999)	(0.641854 - 4.34899)/(27 - 12)		
-0.247142				
0.955511 (7/5/2011)	4.34899 (9/23/1999)	(0.955511 - 4.34899)/(28 - 12)		
-0.212092				
0.693147 (11/22/2011)	4.34899 (9/23/1999)	(0.693147 - 4.34899)/(29 - 12)		
-0.215049				
0.693147 (11/22/2011)	4.34899 (9/23/1999)	(0.693147 - 4.34899)/(29 - 12)		
-0.215049				
ND<0 (9/24/2003)	5.07517 (3/15/2000)	(0 - 5.07517)/(14 - 13)		-5.07517
2.18605 (3/11/2004)	5.07517 (3/15/2000)	(2.18605 - 5.07517)/(15 - 13)		
-1.44456				
ND<0 (10/12/2004)	5.07517 (3/15/2000)	(0 - 5.07517)/(16 - 13)		-1.69172
0.828552 (4/1/2005)	5.07517 (3/15/2000)	(0.828552 - 5.07517)/(17 - 13)		
-1.06166				
1.89612 (10/25/2005)	5.07517 (3/15/2000)	(1.89612 - 5.07517)/(18 - 13)		
-0.635811				
0.797507 (4/29/2006)	5.07517 (3/15/2000)	(0.797507 - 5.07517)/(19 - 13)		
-0.712944				
1.26413 (11/18/2006)	5.07517 (3/15/2000)	(1.26413 - 5.07517)/(20 - 13)		
-0.544435				
0.470004 (5/23/2007)	5.07517 (3/15/2000)	(0.470004 - 5.07517)/(21 - 13)		
-0.575646				
1.43031 (11/28/2007)	5.07517 (3/15/2000)	(1.43031 - 5.07517)/(22 - 13)		
-0.404985				
ND<0 J (6/5/2008)	5.07517 (3/15/2000)	(0 - 5.07517)/(23 - 13)		
-0.507517				
0.262364 J (11/20/2008)	5.07517 (3/15/2000)	(0.262364 - 5.07517)/(24 - 13)		
-0.437528				
0.262364 (6/11/2009)	5.07517 (3/15/2000)	(0.262364 - 5.07517)/(25 - 13)		
-0.401067				
-0.139262 J (6/30/2010)	5.07517 (3/15/2000)	(-0.139262 - 5.07517)/(26 - 13)		
-0.40111				
0.641854 (11/12/2010)	5.07517 (3/15/2000)	(0.641854 - 5.07517)/(27 - 13)		
-0.316666				
0.955511 (7/5/2011)	5.07517 (3/15/2000)	(0.955511 - 5.07517)/(28 - 13)		
-0.274644				
0.693147 (11/22/2011)	5.07517 (3/15/2000)	(0.693147 - 5.07517)/(29 - 13)		
-0.273877				
0.693147 (11/22/2011)	5.07517 (3/15/2000)	(0.693147 - 5.07517)/(29 - 13)		
-0.273877				
2.18605 (3/11/2004)	ND<0 (9/24/2003)	(2.18605 - 0)/(15 - 14)		2.18605
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
0.828552 (4/1/2005)	ND<0 (9/24/2003)	(0.828552 - 0)/(17 - 14)		
0.276184				
1.89612 (10/25/2005)	ND<0 (9/24/2003)	(1.89612 - 0)/(18 - 14)		0.47403
0.797507 (4/29/2006)	ND<0 (9/24/2003)	(0.797507 - 0)/(19 - 14)		
0.159501				
1.26413 (11/18/2006)	ND<0 (9/24/2003)	(1.26413 - 0)/(20 - 14)		
0.210688				
0.470004 (5/23/2007)	ND<0 (9/24/2003)	(0.470004 - 0)/(21 - 14)		
0.0671434				
1.43031 (11/28/2007)	ND<0 (9/24/2003)	(1.43031 - 0)/(22 - 14)		
0.178789				
ND<0 J (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0	
0.262364 J (11/20/2008)	ND<0 (9/24/2003)	(0.262364 - 0)/(24 - 14)		
0.0262364				
0.262364 (6/11/2009)	ND<0 (9/24/2003)	(0.262364 - 0)/(25 - 14)		
0.0238513				
-0.139262 J (6/30/2010)	ND<0 (9/24/2003)	(-0.139262 - 0)/(26 - 14)		
-0.0116052				

0.641854 (11/12/2010)	ND<0 (9/24/2003)	(0.641854 - 0)/(27 - 14)		
0.0493734				
0.955511 (7/5/2011)	ND<0 (9/24/2003)	(0.955511 - 0)/(28 - 14)		
0.0682508				
0.693147 (11/22/2011)	ND<0 (9/24/2003)	(0.693147 - 0)/(29 - 14)		
0.0462098				
0.693147 (11/22/2011)	ND<0 (9/24/2003)	(0.693147 - 0)/(29 - 14)		
0.0462098				
ND<0 (10/12/2004)	2.18605 (3/11/2004)	(0 - 2.18605)/(16 - 15)		-2.18605
0.828552 (4/1/2005)	2.18605 (3/11/2004)	(0.828552 - 2.18605)/(17 - 15)		
-0.67875				
1.89612 (10/25/2005)	2.18605 (3/11/2004)	(1.89612 - 2.18605)/(18 - 15)		
-0.0966439				
0.797507 (4/29/2006)	2.18605 (3/11/2004)	(0.797507 - 2.18605)/(19 - 15)		
-0.347136				
1.26413 (11/18/2006)	2.18605 (3/11/2004)	(1.26413 - 2.18605)/(20 - 15)		
-0.184385				
0.470004 (5/23/2007)	2.18605 (3/11/2004)	(0.470004 - 2.18605)/(21 - 15)		
-0.286008				
1.43031 (11/28/2007)	2.18605 (3/11/2004)	(1.43031 - 2.18605)/(22 - 15)		
-0.107963				
ND<0 J (6/5/2008)	2.18605 (3/11/2004)	(0 - 2.18605)/(23 - 15)		
-0.273256				
0.262364 J (11/20/2008)	2.18605 (3/11/2004)	(0.262364 - 2.18605)/(24 - 15)		
-0.213743				
0.262364 (6/11/2009)	2.18605 (3/11/2004)	(0.262364 - 2.18605)/(25 - 15)		
-0.192369				
-0.139262 J (6/30/2010)	2.18605 (3/11/2004)	(-0.139262 - 2.18605)/(26 - 15)		
-0.211392				
0.641854 (11/12/2010)	2.18605 (3/11/2004)	(0.641854 - 2.18605)/(27 - 15)		
-0.128683				
0.955511 (7/5/2011)	2.18605 (3/11/2004)	(0.955511 - 2.18605)/(28 - 15)		
-0.0946569				
0.693147 (11/22/2011)	2.18605 (3/11/2004)	(0.693147 - 2.18605)/(29 - 15)		
-0.106636				
0.693147 (11/22/2011)	2.18605 (3/11/2004)	(0.693147 - 2.18605)/(29 - 15)		
-0.106636				
0.828552 (4/1/2005)	ND<0 (10/12/2004)	(0.828552 - 0)/(17 - 16)		
0.828552				
1.89612 (10/25/2005)	ND<0 (10/12/2004)	(1.89612 - 0)/(18 - 16)		0.94806
0.797507 (4/29/2006)	ND<0 (10/12/2004)	(0.797507 - 0)/(19 - 16)		
0.265836				
1.26413 (11/18/2006)	ND<0 (10/12/2004)	(1.26413 - 0)/(20 - 16)		
0.316032				
0.470004 (5/23/2007)	ND<0 (10/12/2004)	(0.470004 - 0)/(21 - 16)		
0.0940007				
1.43031 (11/28/2007)	ND<0 (10/12/2004)	(1.43031 - 0)/(22 - 16)		
0.238385				
ND<0 J (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(23 - 16)	0	
0.262364 J (11/20/2008)	ND<0 (10/12/2004)	(0.262364 - 0)/(24 - 16)		
0.0327955				
0.262364 (6/11/2009)	ND<0 (10/12/2004)	(0.262364 - 0)/(25 - 16)		
0.0291516				
-0.139262 J (6/30/2010)	ND<0 (10/12/2004)	(-0.139262 - 0)/(26 - 16)		
-0.0139262				
0.641854 (11/12/2010)	ND<0 (10/12/2004)	(0.641854 - 0)/(27 - 16)		
0.0583504				
0.955511 (7/5/2011)	ND<0 (10/12/2004)	(0.955511 - 0)/(28 - 16)		
0.079626				

0.693147 (11/22/2011)	ND<0 (10/12/2004)	(0.693147 - 0)/(29 - 16)	
0.053319			
0.693147 (11/22/2011)	ND<0 (10/12/2004)	(0.693147 - 0)/(29 - 16)	
0.053319			
1.89612 (10/25/2005)	0.828552 (4/1/2005)	(1.89612 - 0.828552)/(18 - 17)	
1.06757			
0.797507 (4/29/2006)	0.828552 (4/1/2005)	(0.797507 - 0.828552)/(19 - 17)	
-0.0155223			
1.26413 (11/18/2006)	0.828552 (4/1/2005)	(1.26413 - 0.828552)/(20 - 17)	
0.145192			
0.470004 (5/23/2007)	0.828552 (4/1/2005)	(0.470004 - 0.828552)/(21 - 17)	
-0.089637			
1.43031 (11/28/2007)	0.828552 (4/1/2005)	(1.43031 - 0.828552)/(22 - 17)	
0.120352			
ND<0 J (6/5/2008)	0.828552 (4/1/2005)	(0 - 0.828552)/(23 - 17)	
-0.138092			
0.262364 J (11/20/2008)	0.828552 (4/1/2005)	(0.262364 - 0.828552)/(24 - 17)	
-0.0808839			
0.262364 (6/11/2009)	0.828552 (4/1/2005)	(0.262364 - 0.828552)/(25 - 17)	
-0.0707734			
-0.139262 J (6/30/2010)	0.828552 (4/1/2005)	(-0.139262 - 0.828552)/(26 - 17)	
-0.107535			
0.641854 (11/12/2010)	0.828552 (4/1/2005)	(0.641854 - 0.828552)/(27 - 17)	
-0.0186698			
0.955511 (7/5/2011)	0.828552 (4/1/2005)	(0.955511 - 0.828552)/(28 - 17)	
0.0115418			
0.693147 (11/22/2011)	0.828552 (4/1/2005)	(0.693147 - 0.828552)/(29 - 17)	
-0.0112837			
0.693147 (11/22/2011)	0.828552 (4/1/2005)	(0.693147 - 0.828552)/(29 - 17)	
-0.0112837			
0.797507 (4/29/2006)	1.89612 (10/25/2005)	(0.797507 - 1.89612)/(19 - 18)	
-1.09861			
1.26413 (11/18/2006)	1.89612 (10/25/2005)	(1.26413 - 1.89612)/(20 - 18)	
-0.315996			
0.470004 (5/23/2007)	1.89612 (10/25/2005)	(0.470004 - 1.89612)/(21 - 18)	
-0.475372			
1.43031 (11/28/2007)	1.89612 (10/25/2005)	(1.43031 - 1.89612)/(22 - 18)	
-0.116452			
ND<0 J (6/5/2008)	1.89612 (10/25/2005)	(0 - 1.89612)/(23 - 18)	
-0.379224			
0.262364 J (11/20/2008)	1.89612 (10/25/2005)	(0.262364 - 1.89612)/(24 - 18)	
-0.272293			
0.262364 (6/11/2009)	1.89612 (10/25/2005)	(0.262364 - 1.89612)/(25 - 18)	
-0.233394			
-0.139262 J (6/30/2010)	1.89612 (10/25/2005)	(-0.139262 - 1.89612)/(26 - 18)	
-0.254423			
0.641854 (11/12/2010)	1.89612 (10/25/2005)	(0.641854 - 1.89612)/(27 - 18)	
-0.139363			
0.955511 (7/5/2011)	1.89612 (10/25/2005)	(0.955511 - 1.89612)/(28 - 18)	
-0.0940608			
0.693147 (11/22/2011)	1.89612 (10/25/2005)	(0.693147 - 1.89612)/(29 - 18)	
-0.109361			
0.693147 (11/22/2011)	1.89612 (10/25/2005)	(0.693147 - 1.89612)/(29 - 18)	
-0.109361			
1.26413 (11/18/2006)	0.797507 (4/29/2006)	(1.26413 - 0.797507)/(20 - 19)	
0.46662			
0.470004 (5/23/2007)	0.797507 (4/29/2006)	(0.470004 - 0.797507)/(21 - 19)	
-0.163752			

1.43031 (11/28/2007)	0.797507 (4/29/2006)	(1.43031 - 0.797507)/(22 - 19)	
0.210935			
ND<0 J (6/5/2008)	0.797507 (4/29/2006)	(0 - 0.797507)/(23 - 19)	
-0.199377			
0.262364 J (11/20/2008)	0.797507 (4/29/2006)	(0.262364 - 0.797507)/(24 - 19)	
-0.107029			
0.262364 (6/11/2009)	0.797507 (4/29/2006)	(0.262364 - 0.797507)/(25 - 19)	
-0.0891905			
-0.139262 J (6/30/2010)	0.797507 (4/29/2006)	(-0.139262 - 0.797507)/(26 - 19)	
-0.133824			
0.641854 (11/12/2010)	0.797507 (4/29/2006)	(0.641854 - 0.797507)/(27 - 19)	
-0.0194567			
0.955511 (7/5/2011)	0.797507 (4/29/2006)	(0.955511 - 0.797507)/(28 - 19)	
0.017556			
0.693147 (11/22/2011)	0.797507 (4/29/2006)	(0.693147 - 0.797507)/(29 - 19)	
-0.010436			
0.693147 (11/22/2011)	0.797507 (4/29/2006)	(0.693147 - 0.797507)/(29 - 19)	
-0.010436			
0.470004 (5/23/2007)	1.26413 (11/18/2006)	(0.470004 - 1.26413)/(21 - 20)	
-0.794123			
1.43031 (11/28/2007)	1.26413 (11/18/2006)	(1.43031 - 1.26413)/(22 - 20)	
0.0830923			
ND<0 J (6/5/2008)	1.26413 (11/18/2006)	(0 - 1.26413)/(23 - 20)	
-0.421376			
0.262364 J (11/20/2008)	1.26413 (11/18/2006)	(0.262364 - 1.26413)/(24 - 20)	
-0.250441			
0.262364 (6/11/2009)	1.26413 (11/18/2006)	(0.262364 - 1.26413)/(25 - 20)	
-0.200352			
-0.139262 J (6/30/2010)	1.26413 (11/18/2006)	(-0.139262 - 1.26413)/(26 - 20)	
-0.233898			
0.641854 (11/12/2010)	1.26413 (11/18/2006)	(0.641854 - 1.26413)/(27 - 20)	
-0.0888961			
0.955511 (7/5/2011)	1.26413 (11/18/2006)	(0.955511 - 1.26413)/(28 - 20)	
-0.0385769			
0.693147 (11/22/2011)	1.26413 (11/18/2006)	(0.693147 - 1.26413)/(29 - 20)	
-0.0634422			
0.693147 (11/22/2011)	1.26413 (11/18/2006)	(0.693147 - 1.26413)/(29 - 20)	
-0.0634422			
1.43031 (11/28/2007)	0.470004 (5/23/2007)	(1.43031 - 0.470004)/(22 - 21)	
0.960308			
ND<0 J (6/5/2008)	0.470004 (5/23/2007)	(0 - 0.470004)/(23 - 21)	
-0.235002			
0.262364 J (11/20/2008)	0.470004 (5/23/2007)	(0.262364 - 0.470004)/(24 - 21)	
-0.0692131			
0.262364 (6/11/2009)	0.470004 (5/23/2007)	(0.262364 - 0.470004)/(25 - 21)	
-0.0519098			
-0.139262 J (6/30/2010)	0.470004 (5/23/2007)	(-0.139262 - 0.470004)/(26 - 21)	
-0.121853			
0.641854 (11/12/2010)	0.470004 (5/23/2007)	(0.641854 - 0.470004)/(27 - 21)	
0.0286417			
0.955511 (7/5/2011)	0.470004 (5/23/2007)	(0.955511 - 0.470004)/(28 - 21)	
0.0693583			
0.693147 (11/22/2011)	0.470004 (5/23/2007)	(0.693147 - 0.470004)/(29 - 21)	
0.0278929			
0.693147 (11/22/2011)	0.470004 (5/23/2007)	(0.693147 - 0.470004)/(29 - 21)	
0.0278929			
ND<0 J (6/5/2008)	1.43031 (11/28/2007)	(0 - 1.43031)/(23 - 22)	-1.43031
0.262364 J (11/20/2008)	1.43031 (11/28/2007)	(0.262364 - 1.43031)/(24 - 22)	
-0.583973			

0.262364	(6/11/2009)	1.43031 (11/28/2007)	(0.262364 - 1.43031)/(25 - 22)
-0.389316			
-0.139262 J	(6/30/2010)	1.43031 (11/28/2007)	(-0.139262 - 1.43031)/(26 - 22)
-0.392393			
0.641854	(11/12/2010)	1.43031 (11/28/2007)	(0.641854 - 1.43031)/(27 - 22)
-0.157691			
0.955511	(7/5/2011)	1.43031 (11/28/2007)	(0.955511 - 1.43031)/(28 - 22)
-0.0791333			
0.693147	(11/22/2011)	1.43031 (11/28/2007)	(0.693147 - 1.43031)/(29 - 22)
-0.105309			
0.693147	(11/22/2011)	1.43031 (11/28/2007)	(0.693147 - 1.43031)/(29 - 22)
-0.105309			
0.262364 J	(11/20/2008)	ND<0 J (6/5/2008)	(0.262364 - 0)/(24 - 23)
0.262364			
0.262364	(6/11/2009)	ND<0 J (6/5/2008)	(0.262364 - 0)/(25 - 23)
0.131182			
-0.139262 J	(6/30/2010)	ND<0 J (6/5/2008)	(-0.139262 - 0)/(26 - 23)
-0.0464207			
0.641854	(11/12/2010)	ND<0 J (6/5/2008)	(0.641854 - 0)/(27 - 23)
0.160463			
0.955511	(7/5/2011)	ND<0 J (6/5/2008)	(0.955511 - 0)/(28 - 23)
0.191102			
0.693147	(11/22/2011)	ND<0 J (6/5/2008)	(0.693147 - 0)/(29 - 23)
0.115525			
0.693147	(11/22/2011)	ND<0 J (6/5/2008)	(0.693147 - 0)/(29 - 23)
0.115525			
0.262364	(6/11/2009)	0.262364 J (11/20/2008)	(0.262364 - 0.262364)/(25 - 24)
0			
-0.139262 J	(6/30/2010)	0.262364 J (11/20/2008)	(-0.139262 - 0.262364)/(26 - 24)
-0.200813			
0.641854	(11/12/2010)	0.262364 J (11/20/2008)	(0.641854 - 0.262364)/(27 - 24)
0.126497			
0.955511	(7/5/2011)	0.262364 J (11/20/2008)	(0.955511 - 0.262364)/(28 - 24)
0.173287			
0.693147	(11/22/2011)	0.262364 J (11/20/2008)	(0.693147 - 0.262364)/(29 - 24)
0.0861566			
0.693147	(11/22/2011)	0.262364 J (11/20/2008)	(0.693147 - 0.262364)/(29 - 24)
0.0861566			
-0.139262 J	(6/30/2010)	0.262364 (6/11/2009)	(-0.139262 - 0.262364)/(26 - 25)
-0.401626			
0.641854	(11/12/2010)	0.262364 (6/11/2009)	(0.641854 - 0.262364)/(27 - 25)
0.189745			
0.955511	(7/5/2011)	0.262364 (6/11/2009)	(0.955511 - 0.262364)/(28 - 25)
0.231049			
0.693147	(11/22/2011)	0.262364 (6/11/2009)	(0.693147 - 0.262364)/(29 - 25)
0.107696			
0.693147	(11/22/2011)	0.262364 (6/11/2009)	(0.693147 - 0.262364)/(29 - 25)
0.107696			
0.641854	(11/12/2010)	-0.139262 J (6/30/2010)	(0.641854 - -0.139262)/(27 - 26)
0.781116			
0.955511	(7/5/2011)	-0.139262 J (6/30/2010)	(0.955511 - -0.139262)/(28 - 26)
0.547387			
0.693147	(11/22/2011)	-0.139262 J (6/30/2010)	(0.693147 - -0.139262)/(29 - 26)
0.27747			
0.693147	(11/22/2011)	-0.139262 J (6/30/2010)	(0.693147 - -0.139262)/(29 - 26)
0.27747			

0.955511	(7/5/2011)	0.641854	(11/12/2010)	(0.955511 - 0.641854)/(28 - 27)	0.313658
0.693147	(11/22/2011)	0.641854	(11/12/2010)	(0.693147 - 0.641854)/(29 - 27)	0.0256466
0.693147	(11/22/2011)	0.641854	(11/12/2010)	(0.693147 - 0.641854)/(29 - 27)	0.0256466
0.693147	(11/22/2011)	0.955511	(7/5/2011)	(0.693147 - 0.955511)/(29 - 28)	-0.262364
0.693147	(11/22/2011)	0.955511	(7/5/2011)	(0.693147 - 0.955511)/(29 - 28)	-0.262364
0.693147	(11/22/2011)	0.693147	(11/22/2011)	(0.693147 - 0.693147)/(29 - 29)	Same Date

Number of Q values = 434

Ordered Q Values

n	Q
1	-5.07517
2	-2.70805
3	-2.62351
4	-2.53897
5	-2.18605
6	-2.17449
7	-1.90126
8	-1.69172
9	-1.59583
10	-1.49787
11	-1.44456
12	-1.43031
13	-1.25266
14	-1.09861
15	-1.08725
16	-1.06166
17	-0.957498
18	-0.957498
19	-0.835106
20	-0.835106
21	-0.794383
22	-0.794123
23	-0.73611
24	-0.720979
25	-0.712944
26	-0.704349
27	-0.704087
28	-0.683927
29	-0.67875
30	-0.659823
31	-0.65036
32	-0.635811
33	-0.626329
34	-0.617854
35	-0.59744
36	-0.583973
37	-0.575646
38	-0.564917
39	-0.563479
40	-0.550046
41	-0.544435

42	-0.507517
43	-0.507354
44	-0.498748
45	-0.494867
46	-0.477002
47	-0.475372
48	-0.475315
49	-0.473213
50	-0.468125
51	-0.464676
52	-0.456758
53	-0.438505
54	-0.437528
55	-0.436931
56	-0.433573
57	-0.431749
58	-0.430998
59	-0.421829
60	-0.421376
61	-0.413053
62	-0.412785
63	-0.408811
64	-0.407413
65	-0.404985
66	-0.403617
67	-0.403512
68	-0.401626
69	-0.40111
70	-0.401067
71	-0.398998
72	-0.398958
73	-0.396931
74	-0.395362
75	-0.392393
76	-0.391485
77	-0.389316
78	-0.389314
79	-0.386595
80	-0.385608
81	-0.385433
82	-0.383193
83	-0.383012
84	-0.379224
85	-0.374651
86	-0.372099
87	-0.36362
88	-0.359791
89	-0.349279
90	-0.348087
91	-0.347543
92	-0.347136
93	-0.344319
94	-0.341964
95	-0.340552
96	-0.339162
97	-0.334042
98	-0.333142
99	-0.331458
100	-0.330824
101	-0.330504
102	-0.32845
103	-0.325015

104	-0.323223
105	-0.321869
106	-0.321264
107	-0.320589
108	-0.320306
109	-0.316666
110	-0.316551
111	-0.315996
112	-0.315605
113	-0.314356
114	-0.312209
115	-0.31219
116	-0.312077
117	-0.311666
118	-0.311556
119	-0.311452
120	-0.305198
121	-0.301675
122	-0.299997
123	-0.298468
124	-0.29836
125	-0.296767
126	-0.294351
127	-0.291868
128	-0.289809
129	-0.288703
130	-0.288604
131	-0.286105
132	-0.286008
133	-0.28282
134	-0.282759
135	-0.282433
136	-0.27931
137	-0.278095
138	-0.275462
139	-0.275358
140	-0.274644
141	-0.273877
142	-0.273877
143	-0.273256
144	-0.272293
145	-0.271609
146	-0.270805
147	-0.270595
148	-0.26539
149	-0.26278
150	-0.262364
151	-0.262364
152	-0.262351
153	-0.259102
154	-0.258245
155	-0.256987
156	-0.255737
157	-0.255081
158	-0.254423
159	-0.250441
160	-0.247337
161	-0.247142
162	-0.246648
163	-0.245941
164	-0.24346
165	-0.242339

166	-0.237979
167	-0.237759
168	-0.237365
169	-0.236583
170	-0.235002
171	-0.234288
172	-0.234186
173	-0.233898
174	-0.233394
175	-0.230313
176	-0.229936
177	-0.227464
178	-0.227464
179	-0.227236
180	-0.227236
181	-0.226575
182	-0.226495
183	-0.225671
184	-0.225411
185	-0.225285
186	-0.223394
187	-0.223144
188	-0.223144
189	-0.221252
190	-0.221252
191	-0.219294
192	-0.215049
193	-0.215049
194	-0.214854
195	-0.214854
196	-0.2143
197	-0.213743
198	-0.213674
199	-0.212694
200	-0.212092
201	-0.211392
202	-0.205595
203	-0.205595
204	-0.204717
205	-0.204717
206	-0.202756
207	-0.202477
208	-0.201683
209	-0.20088
210	-0.200813
211	-0.200352
212	-0.199377
213	-0.196296
214	-0.193297
215	-0.192369
216	-0.191882
217	-0.185579
218	-0.185579
219	-0.184385
220	-0.183349
221	-0.182626
222	-0.175149
223	-0.175149
224	-0.171661
225	-0.16946
226	-0.165412
227	-0.163752

228	-0.157691
229	-0.156039
230	-0.146168
231	-0.144577
232	-0.142529
233	-0.139363
234	-0.138092
235	-0.13548
236	-0.133838
237	-0.133824
238	-0.132243
239	-0.13165
240	-0.130899
241	-0.129423
242	-0.128683
243	-0.12737
244	-0.123722
245	-0.123348
246	-0.122284
247	-0.121853
248	-0.119274
249	-0.116612
250	-0.116461
251	-0.116452
252	-0.115525
253	-0.111753
254	-0.109361
255	-0.109361
256	-0.107963
257	-0.107535
258	-0.107029
259	-0.106636
260	-0.106636
261	-0.105309
262	-0.105309
263	-0.10181
264	-0.0997819
265	-0.0966439
266	-0.0946569
267	-0.0940608
268	-0.0902452
269	-0.0898346
270	-0.089637
271	-0.0891905
272	-0.0888961
273	-0.088561
274	-0.0884375
275	-0.0866434
276	-0.080918
277	-0.0808839
278	-0.0805961
279	-0.0805961
280	-0.0804033
281	-0.0804033
282	-0.0799451
283	-0.0791333
284	-0.0787963
285	-0.0765887
286	-0.0743812
287	-0.074108
288	-0.073664
289	-0.0730224

290	-0.0721013
291	-0.0709855
292	-0.0707734
293	-0.0692131
294	-0.0634422
295	-0.0634422
296	-0.0616659
297	-0.0579951
298	-0.0574415
299	-0.0571462
300	-0.0541706
301	-0.0519098
302	-0.0474544
303	-0.0472778
304	-0.0464207
305	-0.0385769
306	-0.0337698
307	-0.0286202
308	-0.0194567
309	-0.0186698
310	-0.0172482
311	-0.017185
312	-0.0155223
313	-0.0139262
314	-0.0116052
315	-0.0112837
316	-0.0112837
317	-0.010436
318	-0.010436
319	-0.00663153
320	0
321	0
322	0
323	0
324	0
325	0
326	0
327	0
328	0
329	0.0115418
330	0.0129077
331	0.0131182
332	0.0138086
333	0.017556
334	0.0215128
335	0.0238513
336	0.0256466
337	0.0256466
338	0.0262364
339	0.0278929
340	0.0278929
341	0.0286417
342	0.0288811
343	0.0288811
344	0.0291516
345	0.0291752
346	0.0293752
347	0.0327955
348	0.041544
349	0.0462098
350	0.0462098
351	0.0493734

352	0.053319
353	0.053319
354	0.0569648
355	0.0583504
356	0.0671434
357	0.0682508
358	0.069046
359	0.0693583
360	0.0719205
361	0.0784144
362	0.079626
363	0.0830923
364	0.084136
365	0.0842751
366	0.0861566
367	0.0861566
368	0.0940007
369	0.107696
370	0.107696
371	0.115525
372	0.115525
373	0.120352
374	0.126497
375	0.127686
376	0.129255
377	0.131182
378	0.143841
379	0.145192
380	0.145855
381	0.159501
382	0.160463
383	0.173287
384	0.177561
385	0.178789
386	0.184305
387	0.189745
388	0.191102
389	0.205117
390	0.210688
391	0.210935
392	0.218605
393	0.223144
394	0.229577
395	0.230382
396	0.231049
397	0.238385
398	0.262364
399	0.263014
400	0.265836
401	0.276184
402	0.27747
403	0.27747
404	0.295171
405	0.297063
406	0.313658
407	0.316032
408	0.383764
409	0.415888
410	0.43604
411	0.46662
412	0.47403
413	0.53807

414	0.547387
415	0.575646
416	0.621284
417	0.634397
418	0.726187
419	0.781116
420	0.797915
421	0.828552
422	0.94806
423	0.950877
424	0.960308
425	1.00213
426	1.06757
427	1.15129
428	1.19687
429	1.46337
430	1.67021
431	2.18605
432	2.75934
433	2.78034
434	5.63479

Sen's Estimator (Median Q) is -0.185579

Tied Group	Value	Members
1	0	4
2	5.01064	2
3	4.78749	2
4	0.262364	2
5	0.693147	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 228
B = 18
C = 24
D = 0
E = 20
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3128.02
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9945
M1 = (434 - 91.9945)/2.0 = 171.003
M2 = (434 + 91.9945)/2.0 + 1 = 263.997
Lower limit is -0.234288 = Q(171)
Upper limit is -0.0997819 = Q(264)
-0.0997819 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Vanadium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 180
Percent Non-Detects: 75%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	17 (89.4737%)	3/16/1999	ND<20	ND<20
			9/23/1999	11 J	11 J
			3/15/2000	22	22
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	ND<20	ND<20
			11/28/2007	ND<20	ND<20
			6/5/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<1.4	ND<1.4
			11/16/2009	ND<1.4	ND<1.4
			6/30/2010	ND<1.4	ND<1.4
			11/12/2010	ND<1.4 U	ND<1.4 U
			7/5/2011	ND<1.4 U	ND<1.4 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-9	31	26 (83.871%)	7/20/1995	ND<20	ND<20
			8/24/1995	ND<20	ND<20
			9/28/1995	ND<20	ND<20
			10/26/1995	ND<20	ND<20
			11/19/1996	ND<20	ND<20
			12/19/1996	ND<20	ND<20
			3/24/1997	52	52
			9/24/1997	ND<20	ND<20
			4/7/1998	ND<20	ND<20
			9/23/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/15/2000	42	42
			9/24/2003	ND<20	ND<20
			3/11/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/25/2005	ND<20	ND<20
			4/29/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			5/23/2007	3.07 J	3.07 J
			11/28/2007	7 J	7 J
			6/5/2008	ND<20	ND<20
			11/20/2008	25	25

			6/11/2009	ND<1.4	ND<1.4	
			11/16/2009	ND<1.4	ND<1.4	
			6/30/2010	ND<1.4	ND<1.4	
			11/12/2010	ND<1.4 U		ND<1.4 U
			7/5/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U		ND<1.4 U
			11/22/2011	ND<1.4 U		ND<1.4 U
MW-7	30	13 (43.3333%)	7/20/1995		4 J	4 J
			8/24/1995	ND<20	ND<20	
			9/28/1995	274	274	
			10/26/1995	122	122	
			11/19/1996	ND<20	ND<20	
			12/19/1996	178	178	
			3/24/1997	120	120	
			9/24/1997	76	76	
			4/7/1998	160	160	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	27	27	
			3/15/2000	62	62	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	8.33	8.33	
			11/28/2007	ND<20	ND<20	
			6/5/2008	2.5 J	2.5 J	
			11/20/2008	16 J	16 J	
			6/11/2009	4.3 J	4.3 J	
			11/16/2009	ND<1.4	ND<1.4	
			6/30/2010	4.7 J H	4.7 J H	
			11/12/2010	1.9 J	1.9 J	
			7/5/2011	2.1 J	2.1 J	
			11/22/2011	2.8 J	2.8 J	
MW-8	29	15 (51.7241%)	7/20/1995		ND<20	ND<20
			8/24/1995	ND<20	ND<20	
			9/28/1995	245	245	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	164	164	
			3/24/1997	44	44	
			9/24/1997	ND<20	ND<20	
			4/7/1998	44	44	
			9/23/1998	110	110	
			3/16/1999	ND<20	ND<20	
			9/23/1999	6 J	6 J	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	4.47 J	4.47 J	
			5/23/2007	12	12	
			11/28/2007	21.2	21.2	
			6/5/2008	2.94 J	2.94 J	

			11/20/2008	9 J	9 J	
			6/11/2009	1.4 J	1.4 J	
			6/30/2010	ND<1.4	ND<1.4	
			11/12/2010	1.9 J	1.9 J	
			7/5/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	2 J	2 J	
MW-12BR		20	19 (95%)	3/16/1999	ND<20	ND<20
			9/23/1999	22	22	
			3/15/2000	ND<20	ND<20	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	ND<20	ND<20	
			11/28/2007	ND<20	ND<20	
			6/5/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4	ND<1.4	
			11/16/2009	ND<1.4	ND<1.4	
			6/30/2010	ND<1.4	ND<1.4	
			11/12/2010	ND<1.4 U	ND<1.4 U	
			7/5/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U	ND<1.4 U	
MW-10	30	17 (56.6667%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	
			10/26/1995	ND<20	ND<20	
			11/19/1996	ND<20	ND<20	
			12/19/1996	52	52	
			3/24/1997	ND<20	ND<20	
			9/24/1997	50	50	
			4/7/1998	73	73	
			9/23/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	6 J	6 J	
			3/15/2000	41	41	
			9/24/2003	ND<20	ND<20	
			3/11/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/25/2005	ND<20	ND<20	
			4/29/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			5/23/2007	3.77 J	3.77 J	
			11/28/2007	9 J	9 J	
			6/5/2008	ND<20	ND<20	
			11/20/2008	39	39	
			6/11/2009	1.9 J	1.9 J	
			11/16/2009	1.5 J	1.5 J	
			6/30/2010	1.5 J H	1.5 J H	
			11/12/2010	1.6 J	1.6 J	
			7/5/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	1.5 J	1.5 J	
MW-6	30	29 (96.6667%)	7/20/1995	ND<20	ND<20	
			8/24/1995	ND<20	ND<20	
			9/28/1995	ND<20	ND<20	

		10/26/1995	ND<20	ND<20	
		11/19/1996	ND<20	ND<20	
		12/19/1996	ND<20	ND<20	
		3/24/1997	ND<20	ND<20	
		9/24/1997	ND<20	ND<20	
		4/7/1998	ND<20	ND<20	
		9/23/1998	ND<20	ND<20	
		3/16/1999	ND<20	ND<20	
		9/23/1999	ND<20	ND<20	
		3/15/2000	64	64	
		9/24/2003	ND<20	ND<20	
		3/11/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	
		4/1/2005	ND<20	ND<20	
		10/25/2005	ND<20	ND<20	
		4/29/2006	ND<20	ND<20	
		11/18/2006	ND<20	ND<20	
		5/23/2007	ND<20	ND<20	
		11/28/2007	ND<20	ND<20	
		6/5/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<1.4	ND<1.4	
		11/16/2009	ND<1.4	ND<1.4	
		6/30/2010	ND<1.4	ND<1.4	
		11/12/2010	ND<1.4 U	ND<1.4 U	
		7/5/2011	ND<1.4 U	ND<1.4 U	
		11/22/2011	ND<1.4 U	ND<1.4 U	
MW-11R	31	29 (93.5484%)	7/20/1995	ND<20	ND<20
		8/24/1995	ND<20	ND<20	
		9/28/1995	ND<20	ND<20	
		10/26/1995	ND<20	ND<20	
		11/19/1996	ND<20	ND<20	
		12/19/1996	ND<20	ND<20	
		3/24/1997	ND<20	ND<20	
		9/24/1997	ND<20	ND<20	
		4/7/1998	ND<20	ND<20	
		9/23/1998	ND<20	ND<20	
		3/16/1999	ND<20	ND<20	
		9/23/1999	9 J	9 J	
		3/15/2000	ND<20	ND<20	
		9/24/2003	ND<20	ND<20	
		3/11/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	
		4/1/2005	ND<20	ND<20	
		10/25/2005	ND<20	ND<20	
		4/29/2006	ND<20	ND<20	
		11/18/2006	ND<20	ND<20	
		5/23/2007	5.32	5.32	
		11/28/2007	ND<20	ND<20	
		6/5/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<1.4	ND<1.4	
		11/16/2009	ND<1.4	ND<1.4	
		6/30/2010	ND<1.4	ND<1.4	
		11/12/2010	ND<1.4 U	ND<1.4 U	
		7/5/2011	ND<1.4 U	ND<1.4 U	
		11/22/2011	ND<1.4 U	ND<1.4 U	
		11/22/2011	ND<1.4 U	ND<1.4 U	
MW-12AR	20	15 (75%)	3/16/1999	ND<20	ND<20
		9/23/1999	ND<20	ND<20	

3/15/2000	270	270	
9/24/2003	43	43	
3/11/2004	96	96	
10/12/2004	ND<20	ND<20	
4/1/2005 ND<20	ND<20		
10/25/2005	ND<20	ND<20	
4/29/2006	ND<20	ND<20	
11/18/2006	ND<20	ND<20	
5/23/2007	ND<20	ND<20	
11/28/2007	ND<20	ND<20	
6/5/2008 ND<20	ND<20		
11/20/2008	ND<20	ND<20	
6/11/2009	ND<1.4	ND<1.4	
11/16/2009	ND<1.4	ND<1.4	
6/30/2010	ND<1.4	ND<1.4	
11/12/2010	1.8 J	1.8 J	
7/5/2011 1.5 J	1.5 J		
11/22/2011	ND<1.4 U		ND<1.4 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Vanadium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.7	-2.65209	7.03356	-1.85646
2	0.7	-2.40892	12.8365	-3.54271
3	0.7	-2.25713	17.9311	-5.1227
4	0.7	-2.14441	22.5296	-6.62378
5	0.7	-2.05375	26.7475	-8.06141
6	0.7	-1.97737	30.6575	-9.44556
7	0.7	-1.8957	34.2511	-10.7726
8	0.7	-1.83843	37.6309	-12.0594
9	0.7	-1.78661	40.8229	-13.3101
10	0.7	-1.7392	43.8477	-14.5275
11	0.7	-1.6954	46.7221	-15.7143
12	0.7	-1.65463	49.4599	-16.8725
13	0.7	-1.61644	52.0728	-18.004
14	0.7	-1.57179	54.5433	-19.1043
15	0.7	-1.5382	56.9093	-20.181
16	0.7	-1.50626	59.1782	-21.2354
17	0.7	-1.47579	61.3561	-22.2685
18	0.7	-1.44663	63.4489	-23.2811
19	0.7	-1.41865	65.4614	-24.2742
20	0.7	-1.39175	67.3984	-25.2484
21	0.7	-1.35946	69.2465	-26.2
22	0.7	-1.33462	71.0278	-27.1343
23	0.7	-1.31058	72.7454	-28.0517
24	0.7	-1.28727	74.4024	-28.9527
25	0.7	-1.26464	76.0018	-29.838
26	0.7	-1.24264	77.5459	-30.7078
27	0.7	-1.21596	79.0245	-31.559
28	0.7	-1.19522	80.453	-32.3957
29	0.7	-1.17499	81.8336	-33.2182
30	0.7	-1.15522	83.1682	-34.0268
31	0.7	-1.1359	84.4584	-34.8219
32	0.7	-1.11699	85.7061	-35.6038
33	0.7	-1.09847	86.9127	-36.3728
34	0.7	-1.07584	88.0701	-37.1259
35	0.7	-1.05812	89.1898	-37.8665
36	0.7	-1.04073	90.2729	-38.595
37	0.7	-1.02365	91.3208	-39.3116
38	0.7	-1.00687	92.3345	-40.0164
39	0.7	-0.990356	93.3153	-40.7097
40	1.4	-0.974114	94.2642	-42.0734
41	1.5	-0.954165	95.1747	-43.5047
42	1.5	-0.938476	96.0554	-44.9124
43	1.5	-0.923014	96.9074	-46.2969
44	1.5	-0.907769	97.7314	-47.6586
45	1.6	-0.892733	98.5284	-49.0869
46	1.8	-0.877897	99.2991	-50.6671
47	1.9	-0.859618	100.038	-52.3004
48	1.9	-0.845198	100.752	-53.9063
49	1.9	-0.830953	101.443	-55.4851
50	2	-0.816874	102.11	-57.1189
51	2.1	-0.802956	102.755	-58.8051

52	2.5	-0.789191	103.378	-60.778
53	2.8	-0.775574	103.979	-62.9496
54	2.94	-0.758753	104.555	-65.1804
55	3.07	-0.745449	105.111	-67.4689
56	3.77	-0.732275	105.647	-70.2296
57	4	-0.719228	106.164	-73.1065
58	4.3	-0.706302	106.663	-76.1436
59	4.47	-0.693493	107.144	-79.2435
60	4.7	-0.680797	107.607	-82.4433
61	5.32	-0.665079	108.05	-85.9815
62	6	-0.652622	108.476	-89.8972
63	6	-0.640266	108.886	-93.7388
64	7	-0.628006	109.28	-98.1348
65	8.33	-0.615839	109.659	-103.265
66	9	-0.603765	110.024	-108.699
67	9	-0.588793	110.37	-113.998
68	9	-0.576911	110.703	-119.19
69	10	-0.565108	111.023	-124.841
70	10	-0.553384	111.329	-130.375
71	10	-0.541736	111.622	-135.792
72	10	-0.530162	111.903	-141.094
73	10	-0.518658	112.172	-146.28
74	10	-0.504372	112.427	-151.324
75	10	-0.493018	112.67	-156.254
76	10	-0.481728	112.902	-161.072
77	10	-0.470498	113.123	-165.777
78	10	-0.459327	113.334	-170.37
79	10	-0.448213	113.535	-174.852
80	10	-0.437153	113.726	-179.224
81	10	-0.423405	113.906	-183.458
82	10	-0.412463	114.076	-187.582
83	10	-0.401571	114.237	-191.598
84	10	-0.390726	114.39	-195.505
85	10	-0.379927	114.534	-199.304
86	10	-0.369171	114.67	-202.996
87	10	-0.358459	114.799	-206.581
88	10	-0.345126	114.918	-210.032
89	10	-0.334503	115.03	-213.377
90	10	-0.323919	115.135	-216.616
91	10	-0.31337	115.233	-219.75
92	10	-0.302855	115.325	-222.778
93	10	-0.292375	115.41	-225.702
94	10	-0.279319	115.488	-228.495
95	10	-0.268908	115.56	-231.185
96	10	-0.258527	115.627	-233.77
97	10	-0.248174	115.689	-236.252
98	10	-0.237847	115.745	-238.63
99	10	-0.227545	115.797	-240.905
100	10	-0.217267	115.844	-243.078
101	10	-0.204452	115.886	-245.123
102	10	-0.194225	115.924	-247.065
103	10	-0.184017	115.958	-248.905
104	10	-0.173829	115.988	-250.643
105	10	-0.163659	116.015	-252.28
106	10	-0.153505	116.038	-253.815
107	10	-0.143367	116.059	-255.249
108	10	-0.130716	116.076	-256.556
109	10	-0.12061	116.091	-257.762
110	10	-0.110516	116.103	-258.867
111	10	-0.100433	116.113	-259.871
112	10	-0.0903606	116.121	-260.775
113	10	-0.0802981	116.127	-261.578

114	10	-0.0677301	116.132	-262.255
115	10	-0.0576847	116.135	-262.832
116	10	-0.0476439	116.138	-263.309
117	10	-0.0376076	116.139	-263.685
118	10	-0.0275759	116.14	-263.96
119	10	-0.0175476	116.14	-264.136
120	10	-0.00751925	116.14	-264.211
121	10	0.00751925	116.14	-264.136
122	10	0.0175476	116.141	-263.96
123	10	0.0275759	116.141	-263.685
124	10	0.0376076	116.143	-263.309
125	10	0.0476439	116.145	-262.832
126	10	0.0576847	116.148	-262.255
127	10	0.0677301	116.153	-261.578
128	10	0.0802981	116.159	-260.775
129	10	0.0903606	116.167	-259.871
130	10	0.100433	116.178	-258.867
131	10	0.110516	116.19	-257.762
132	10	0.12061	116.204	-256.556
133	10	0.130716	116.221	-255.249
134	10	0.143367	116.242	-253.815
135	10	0.153505	116.266	-252.28
136	10	0.163659	116.292	-250.643
137	10	0.173829	116.323	-248.905
138	10	0.184017	116.356	-247.065
139	10	0.194225	116.394	-245.123
140	10	0.204452	116.436	-243.078
141	10	0.217267	116.483	-240.905
142	10	0.227545	116.535	-238.63
143	10	0.237847	116.591	-236.252
144	10	0.248174	116.653	-233.77
145	10	0.258527	116.72	-231.185
146	10	0.268908	116.792	-228.495
147	10	0.279319	116.87	-225.702
148	10	0.292375	116.956	-222.778
149	10	0.302855	117.047	-219.75
150	10	0.31337	117.146	-216.616
151	10	0.323919	117.251	-213.377
152	10	0.334503	117.362	-210.032
153	10	0.345126	117.482	-206.581
154	10	0.358459	117.61	-202.996
155	10	0.369171	117.746	-199.304
156	10	0.379927	117.891	-195.505
157	10	0.390726	118.043	-191.598
158	10	0.401571	118.205	-187.582
159	10	0.412463	118.375	-183.458
160	10	0.423405	118.554	-179.224
161	10	0.437153	118.745	-174.852
162	10	0.448213	118.946	-170.37
163	10	0.459327	119.157	-165.777
164	10	0.470498	119.378	-161.072
165	10	0.481728	119.61	-156.254
166	10	0.493018	119.853	-151.324
167	10	0.504372	120.108	-146.28
168	10	0.518658	120.377	-141.094
169	10	0.530162	120.658	-135.792
170	10	0.541736	120.951	-130.375
171	10	0.553384	121.258	-124.841
172	10	0.565108	121.577	-119.19
173	10	0.576911	121.91	-113.421
174	10	0.588793	122.257	-107.533
175	10	0.603765	122.621	-101.495

176	10	0.615839		123	-95.3369
177	10	0.628006		123.395	-89.0569
178	10	0.640266		123.805	-82.6542
179	10	0.652622		124.231	-76.128
180	10	0.665079		124.673	-69.4772
181	10	0.680797		125.136	-62.6692
182	10	0.693493		125.617	-55.7343
183	10	0.706302		126.116	-48.6713
184	10	0.719228		126.633	-41.479
185	10	0.732275		127.17	-34.1562
186	10	0.745449		127.725	-26.7017
187	10	0.758753		128.301	-19.1142
188	10	0.775574		128.903	-11.3585
189	10	0.789191		129.525	-3.46657
190	10	0.802956		130.17	4.563
191	10	0.816874		130.837	12.7317
192	10	0.830953		131.528	21.0413
193	10	0.845198		132.242	29.4932
194	10	0.859618		132.981	38.0894
195	10	0.877897		133.752	46.8684
196	10	0.892733		134.549	55.7957
197	10	0.907769		135.373	64.8734
198	10	0.923014		136.225	74.1036
199	10	0.938476		137.106	83.4883
200	10	0.954165		138.016	93.03
201	10	0.974114		138.965	102.771
202	10	0.990356		139.946	112.675
203	10	1.00687	140.96	122.743	
204	10	1.02365	142.007	132.98	
205	10	1.04073	143.091	143.387	
206	10	1.05812	144.21	153.968	
207	10	1.07584	145.368	164.727	
208	10	1.09847	146.574	175.711	
209	10	1.11699	147.822	186.881	
210	11	1.1359	149.112	199.376	
211	12	1.15522	150.447	213.239	
212	16	1.17499	151.827	232.039	
213	21.2	1.19522	153.256	257.377	
214	22	1.21596	154.734	284.128	
215	22	1.24264	156.279	311.467	
216	25	1.26464	157.878	343.083	
217	27	1.28727	159.535	377.839	
218	39	1.31058	161.253	428.952	
219	41	1.33462	163.034	483.671	
220	42	1.35946	164.882	540.769	
221	43	1.39175	166.819	600.614	
222	44	1.41865	168.831	663.034	
223	44	1.44663	170.924	726.686	
224	50	1.47579	173.102	800.476	
225	52	1.50626	175.371	878.801	
226	52	1.5382	177.737	958.788	
227	62	1.57179	180.208	1056.24	
228	64	1.61644	182.82	1159.69	
229	73	1.65463	185.558	1280.48	
230	76	1.6954	188.433	1409.33	
231	96	1.7392	191.457	1576.29	
232	110	1.78661	194.649	1772.82	
233	120	1.83843	198.029	1993.43	
234	122	1.8957	201.623	2224.7	
235	160	1.97737	205.533	2541.08	
236	164	2.05375	209.751	2877.9	
237	178	2.14441	214.349	3259.6	

238	245	2.25713	219.444	3812.6
239	270	2.40892	225.247	4463.01
240	274	2.65209	232.28	5189.68

Data Set Standard Deviation = 37.0161
Numerator = 2.69328e+007
Denominator = 7.60661e+007
W Statistic = 0.354071 = 2.69328e+007 / 7.60661e+007

5% Critical value of 0.976 exceeds 0.354071
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.354071
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Vanadium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.601383
0.601383 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.7	0.00414938	-2.65209	40.2483	344.01	
2	0.7	0.00829876	-2.40892	40.2483	332.136	
3	0.7	0.0124481	-2.25713	40.2483	324.723	
4	0.7	0.0165975	-2.14441	40.2483	319.219	
5	0.7	0.0207469	-2.05375	40.2483	314.791	
6	0.7	0.0248963	-1.97737	40.2483	311.062	
7	0.7	0.0290456	-1.8957	40.2483	307.073	
8	0.7	0.033195	-1.83843	40.2483	304.276	
9	0.7	0.0373444	-1.78661	40.2483	301.746	
10	0.7	0.0414938	-1.7392	40.2483	299.431	
11	0.7	0.0456432	-1.6954	40.2483	297.292	
12	0.7	0.0497925	-1.65463	40.2483	295.301	
13	0.7	0.0539419	-1.61644	40.2483	293.436	
14	0.7	0.0580913	-1.57179	40.2483	291.256	
15	0.7	0.0622407	-1.5382	40.2483	289.615	
16	0.7	0.06639	-1.50626	40.2483	288.056	
17	0.7	0.0705394	-1.47579	40.2483	286.568	
18	0.7	0.0746888	-1.44663	40.2483	285.144	
19	0.7	0.0788382	-1.41865	40.2483	283.778	
20	0.7	0.0829876	-1.39175	40.2483	282.464	
21	0.7	0.0871369	-1.35946	40.2483	280.887	
22	0.7	0.0912863	-1.33462	40.2483	279.674	
23	0.7	0.0954357	-1.31058	40.2483	278.5	
24	0.7	0.0995851	-1.28727	40.2483	277.362	
25	0.7	0.103734	-1.26464	40.2483	276.257	
26	0.7	0.107884	-1.24264	40.2483	275.182	
27	0.7	0.112033	-1.21596	40.2483	273.879	
28	0.7	0.116183	-1.19522	40.2483	272.867	
29	0.7	0.120332	-1.17499	40.2483	271.879	
30	0.7	0.124481	-1.15522	40.2483	270.913	
31	0.7	0.128631	-1.1359	40.2483	269.97	
32	0.7	0.13278	-1.11699	40.2483	269.046	
33	0.7	0.136929	-1.09847	40.2483	268.142	
34	0.7	0.141079	-1.07584	40.2483	267.037	
35	0.7	0.145228	-1.05812	40.2483	266.172	
36	0.7	0.149378	-1.04073	40.2483	265.322	
37	0.7	0.153527	-1.02365	40.2483	264.488	
38	0.7	0.157676	-1.00687	40.2483	263.669	
39	0.7	0.161826	-0.990356	40.2483	262.862	
40	1.4	0.165975	-0.974114	41.4967	262.069	
41	1.5	0.170124	-0.954165	41.675	261.095	
42	1.5	0.174274	-0.938476	41.675	260.329	
43	1.5	0.178423	-0.923014	41.675	259.574	
44	1.5	0.182573	-0.907769	41.675	258.829	
45	1.6	0.186722	-0.892733	41.8533	258.095	
46	1.8	0.190871	-0.877897	42.21	257.371	
47	1.9	0.195021	-0.859618	42.3883	256.478	
48	1.9	0.19917	-0.845198	42.3883	255.774	

49	1.9	0.20332	-0.830953	42.3883	255.078	
50	2	0.207469	-0.816874	42.5667	254.391	
51	2.1	0.211618	-0.802956	42.745	253.711	
52	2.5	0.215768	-0.789191	43.4583	253.039	
53	2.8	0.219917	-0.775574	43.9933	252.374	
54	2.94	0.224066	-0.758753	44.243	251.552	
55	3.07	0.228216	-0.745449	44.4748	250.903	
56	3.77	0.232365	-0.732275	45.7232	250.259	
57	4	0.236515	-0.719228	46.1333	249.622	
58	4.3	0.240664	-0.706302	46.6683	248.991	
59	4.47	0.244813	-0.693493	46.9715	248.366	
60	4.7	0.248963	-0.680797	47.3817	247.746	
61	5.32	0.253112	-0.665079	48.4873	246.978	
62	6	0.257261	-0.652622	49.7	246.37	
63	6	0.261411	-0.640266	49.7	245.766	
64	7	0.26556	-0.628006	51.4833	245.168	
65	8.33	0.26971	-0.615839	53.8552	244.573	
66	9	0.273859	-0.603765	55.05	243.984	
67	9	0.278008	-0.588793	55.05	243.253	
68	9	0.282158	-0.576911	55.05	242.672	
69	10	0.286307	-0.565108	56.8333	242.096	
70	10	0.290456	-0.553384	56.8333	241.524	
71	10	0.294606	-0.541736	56.8333	240.955	
72	10	0.298755	-0.530162	56.8333	240.39	
73	10	0.302905	-0.518658	56.8333	239.828	
74	10	0.307054	-0.504372	56.8333	239.13	
75	10	0.311203	-0.493018	56.8333	238.576	
76	10	0.315353	-0.481728	56.8333	238.024	
77	10	0.319502	-0.470498	56.8333	237.476	
78	10	0.323651	-0.459327	56.8333	236.93	
79	10	0.327801	-0.448213	56.8333	236.388	
80	10	0.33195	-0.437153	56.8333	235.848	
81	10	0.3361	-0.423405	56.8333	235.176	
82	10	0.340249	-0.412463	56.8333	234.642	
83	10	0.344398	-0.401571	56.8333	234.11	
84	10	0.348548	-0.390726	56.8333	233.58	
85	10	0.352697	-0.379927	56.8333	233.053	
86	10	0.356846	-0.369171	56.8333	232.528	
87	10	0.360996	-0.358459	56.8333	232.005	
88	10	0.365145	-0.345126	56.8333	231.354	
89	10	0.369295	-0.334503	56.8333	230.835	
90	10	0.373444	-0.323919	56.8333	230.318	
91	10	0.377593	-0.31337	56.8333	229.803	
92	10	0.381743	-0.302855	56.8333	229.289	
93	10	0.385892	-0.292375	56.8333	228.778	
94	10	0.390041	-0.279319	56.8333	228.14	
95	10	0.394191	-0.268908	56.8333	227.632	
96	10	0.39834	-0.258527	56.8333	227.125	
97	10	0.40249	-0.248174	56.8333	226.619	
98	10	0.406639	-0.237847	56.8333	226.115	
99	10	0.410788	-0.227545	56.8333	225.612	
100	10	0.414938	-0.217267	56.8333	225.11	
101	10	0.419087	-0.204452	56.8333	224.484	
102	10	0.423237	-0.194225	56.8333	223.985	
103	10	0.427386	-0.184017	56.8333	223.486	
104	10	0.431535	-0.173829	56.8333	222.989	
105	10	0.435685	-0.163659	56.8333	222.492	
106	10	0.439834	-0.153505	56.8333	221.996	
107	10	0.443983	-0.143367	56.8333	221.501	
108	10	0.448133	-0.130716	56.8333	220.883	
109	10	0.452282	-0.12061	56.8333	220.39	
110	10	0.456432	-0.110516	56.8333	219.897	

111	10	0.460581	-0.100433	56.8333	219.404
112	10	0.46473	-0.0903606	56.8333	218.913
113	10	0.46888	-0.0802981	56.8333	218.421
114	10	0.473029	-0.0677301	56.8333	217.807
115	10	0.477178	-0.0576847	56.8333	217.317
116	10	0.481328	-0.0476439	56.8333	216.827
117	10	0.485477	-0.0376076	56.8333	216.337
118	10	0.489627	-0.0275759	56.8333	215.847
119	10	0.493776	-0.0175476	56.8333	215.357
120	10	0.497925	-0.00751925	56.8333	214.867
121	10	0.502075	0.00751925	56.8333	214.133
122	10	0.506224	0.0175476	56.8333	213.643
123	10	0.510373	0.0275759	56.8333	213.153
124	10	0.514523	0.0376076	56.8333	212.663
125	10	0.518672	0.0476439	56.8333	212.173
126	10	0.522822	0.0576847	56.8333	211.683
127	10	0.526971	0.0677301	56.8333	211.193
128	10	0.53112	0.0802981	56.8333	210.579
129	10	0.53527	0.0903606	56.8333	210.087
130	10	0.539419	0.100433	56.8333	209.596
131	10	0.543568	0.110516	56.8333	209.103
132	10	0.547718	0.12061	56.8333	208.61
133	10	0.551867	0.130716	56.8333	208.117
134	10	0.556017	0.143367	56.8333	207.499
135	10	0.560166	0.153505	56.8333	207.004
136	10	0.564315	0.163659	56.8333	206.508
137	10	0.568465	0.173829	56.8333	206.011
138	10	0.572614	0.184017	56.8333	205.514
139	10	0.576763	0.194225	56.8333	205.015
140	10	0.580913	0.204452	56.8333	204.516
141	10	0.585062	0.217267	56.8333	203.89
142	10	0.589212	0.227545	56.8333	203.388
143	10	0.593361	0.237847	56.8333	202.885
144	10	0.59751	0.248174	56.8333	202.381
145	10	0.60166	0.258527	56.8333	201.875
146	10	0.605809	0.268908	56.8333	201.368
147	10	0.609959	0.279319	56.8333	200.86
148	10	0.614108	0.292375	56.8333	200.222
149	10	0.618257	0.302855	56.8333	199.711
150	10	0.622407	0.31337	56.8333	199.197
151	10	0.626556	0.323919	56.8333	198.682
152	10	0.630705	0.334503	56.8333	198.165
153	10	0.634855	0.345126	56.8333	197.646
154	10	0.639004	0.358459	56.8333	196.995
155	10	0.643154	0.369171	56.8333	196.472
156	10	0.647303	0.379927	56.8333	195.947
157	10	0.651452	0.390726	56.8333	195.42
158	10	0.655602	0.401571	56.8333	194.89
159	10	0.659751	0.412463	56.8333	194.358
160	10	0.6639	0.423405	56.8333	193.824
161	10	0.66805	0.437153	56.8333	193.152
162	10	0.672199	0.448213	56.8333	192.612
163	10	0.676349	0.459327	56.8333	192.07
164	10	0.680498	0.470498	56.8333	191.524
165	10	0.684647	0.481728	56.8333	190.976
166	10	0.688797	0.493018	56.8333	190.424
167	10	0.692946	0.504372	56.8333	189.87
168	10	0.697095	0.518658	56.8333	189.172
169	10	0.701245	0.530162	56.8333	188.61
170	10	0.705394	0.541736	56.8333	188.045
171	10	0.709544	0.553384	56.8333	187.476
172	10	0.713693	0.565108	56.8333	186.904

173	10	0.717842	0.576911		56.8333	186.328
174	10	0.721992	0.588793		56.8333	185.747
175	10	0.726141	0.603765		56.8333	185.016
176	10	0.73029	0.615839	56.8333	184.427	
177	10	0.73444	0.628006	56.8333	183.832	
178	10	0.738589	0.640266		56.8333	183.234
179	10	0.742739	0.652622		56.8333	182.63
180	10	0.746888	0.665079		56.8333	182.022
181	10	0.751037	0.680797		56.8333	181.254
182	10	0.755187	0.693493		56.8333	180.634
183	10	0.759336	0.706302		56.8333	180.009
184	10	0.763485	0.719228		56.8333	179.378
185	10	0.767635	0.732275		56.8333	178.741
186	10	0.771784	0.745449		56.8333	178.097
187	10	0.775934	0.758753		56.8333	177.448
188	10	0.780083	0.775574		56.8333	176.626
189	10	0.784232	0.789191		56.8333	175.961
190	10	0.788382	0.802956		56.8333	175.289
191	10	0.792531	0.816874		56.8333	174.609
192	10	0.79668	0.830953	56.8333	173.922	
193	10	0.80083	0.845198	56.8333	173.226	
194	10	0.804979	0.859618		56.8333	172.522
195	10	0.809129	0.877897		56.8333	171.629
196	10	0.813278	0.892733		56.8333	170.905
197	10	0.817427	0.907769		56.8333	170.171
198	10	0.821577	0.923014		56.8333	169.426
199	10	0.825726	0.938476		56.8333	168.671
200	10	0.829876	0.954165		56.8333	167.905
201	10	0.834025	0.974114		56.8333	166.931
202	10	0.838174	0.990356		56.8333	166.138
203	10	0.842324	1.00687	56.8333	165.331	
204	10	0.846473	1.02365	56.8333	164.512	
205	10	0.850622	1.04073	56.8333	163.678	
206	10	0.854772	1.05812	56.8333	162.828	
207	10	0.858921	1.07584	56.8333	161.963	
208	10	0.863071	1.09847	56.8333	160.858	
209	10	0.86722	1.11699	56.8333	159.954	
210	11	0.871369	1.1359	58.6167	159.03	
211	12	0.875519	1.15522	60.4	158.087	
212	16	0.879668	1.17499	67.5333	157.121	
213	21.2	0.883817	1.19522	76.8067	156.133	
214	22	0.887967	1.21596	78.2333	155.121	
215	22	0.892116	1.24264	78.2333	153.818	
216	25	0.896266	1.26464	83.5833	152.743	
217	27	0.900415	1.28727	87.15	151.638	
218	39	0.904564	1.31058	108.55	150.5	
219	41	0.908714	1.33462	112.117	149.326	
220	42	0.912863	1.35946	113.9	148.113	
221	43	0.917012	1.39175	115.683	146.536	
222	44	0.921162	1.41865	117.467	145.222	
223	44	0.925311	1.44663	117.467	143.856	
224	50	0.929461	1.47579	128.167	142.432	
225	52	0.93361	1.50626	131.733	140.944	
226	52	0.937759	1.5382	131.733	139.385	
227	62	0.941909	1.57179	149.567	137.744	
228	64	0.946058	1.61644	153.133	135.564	
229	73	0.950207	1.65463	169.183	133.699	
230	76	0.954357	1.6954	174.533	131.708	
231	96	0.958506	1.7392	210.2	129.569	
232	110	0.962656	1.78661	235.167	127.254	
233	120	0.966805	1.83843	253	124.724	
234	122	0.970954	1.8957	256.567	121.927	

235	160	0.975104	1.97737	324.333	117.938
236	164	0.979253	2.05375	331.467	114.209
237	178	0.983402	2.14441	356.433	109.781
238	245	0.987552	2.25713	475.917	104.277
239	270	0.991701	2.40892	520.5	96.8642
240	274	0.995851	2.65209	527.633	84.9898

Shapiro-Francia Test of Normality

Parameter: Vanadium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-0.356675	-2.65209	7.03356	0.945933
2	-0.356675	-2.40892	12.8365	1.80514
3	-0.356675	-2.25713	17.9311	2.6102
4	-0.356675	-2.14441	22.5296	3.37505
5	-0.356675	-2.05375	26.7475	4.10757
6	-0.356675	-1.97737	30.6575	4.81285
7	-0.356675	-1.8957	34.2511	5.489
8	-0.356675	-1.83843	37.6309	6.14472
9	-0.356675	-1.78661	40.8229	6.78196
10	-0.356675	-1.7392	43.8477	7.40229
11	-0.356675	-1.6954	46.7221	8.00699
12	-0.356675	-1.65463	49.4599	8.59716
13	-0.356675	-1.61644	52.0728	9.1737
14	-0.356675	-1.57179	54.5433	9.73432
15	-0.356675	-1.5382	56.9093	10.283
16	-0.356675	-1.50626	59.1782	10.8202
17	-0.356675	-1.47579	61.3561	11.3466
18	-0.356675	-1.44663	63.4489	11.8626
19	-0.356675	-1.41865	65.4614	12.3686
20	-0.356675	-1.39175	67.3984	12.865
21	-0.356675	-1.35946	69.2465	13.3498
22	-0.356675	-1.33462	71.0278	13.8259
23	-0.356675	-1.31058	72.7454	14.2933
24	-0.356675	-1.28727	74.4024	14.7525
25	-0.356675	-1.26464	76.0018	15.2035
26	-0.356675	-1.24264	77.5459	15.6467
27	-0.356675	-1.21596	79.0245	16.0804
28	-0.356675	-1.19522	80.453	16.5067
29	-0.356675	-1.17499	81.8336	16.9258
30	-0.356675	-1.15522	83.1682	17.3379
31	-0.356675	-1.1359	84.4584	17.743
32	-0.356675	-1.11699	85.7061	18.1414
33	-0.356675	-1.09847	86.9127	18.5332
34	-0.356675	-1.07584	88.0701	18.9169
35	-0.356675	-1.05812	89.1898	19.2943
36	-0.356675	-1.04073	90.2729	19.6656
37	-0.356675	-1.02365	91.3208	20.0307
38	-0.356675	-1.00687	92.3345	20.3898
39	-0.356675	-0.990356	93.3153	20.743
40	0.336472	-0.974114	94.2642	20.4153
41	0.405465	-0.954165	95.1747	20.0284
42	0.405465	-0.938476	96.0554	19.6479
43	0.405465	-0.923014	96.9074	19.2736
44	0.405465	-0.907769	97.7314	18.9055
45	0.470004	-0.892733	98.5284	18.486
46	0.587787	-0.877897	99.2991	17.9699
47	0.641854	-0.859618	100.038	17.4182
48	0.641854	-0.845198	100.752	16.8757
49	0.641854	-0.830953	101.443	16.3423
50	0.693147	-0.816874	102.11	15.7761
51	0.741937	-0.802956	102.755	15.1804

52	0.916291	-0.789191	103.378	14.4573
53	1.02962	-0.775574	103.979	13.6587
54	1.07841	-0.758753	104.555	12.8405
55	1.12168	-0.745449	105.111	12.0043
56	1.32708	-0.732275	105.647	11.0325
57	1.38629	-0.719228	106.164	10.0355
58	1.45862	-0.706302	106.663	9.00524
59	1.49739	-0.693493	107.144	7.96682
60	1.54756	-0.680797	107.607	6.91324
61	1.67147	-0.665079	108.05	5.80158
62	1.79176	-0.652622	108.476	4.63224
63	1.79176	-0.640266	108.886	3.48503
64	1.94591	-0.628006	109.28	2.26299
65	2.11986	-0.615839	109.659	0.957495
66	2.19722	-0.603765	110.024	-0.369112
67	2.19722	-0.588793	110.37	-1.66282
68	2.19722	-0.576911	110.703	-2.93042
69	2.30259	-0.565108	111.023	-4.23163
70	2.30259	-0.553384	111.329	-5.50585
71	2.30259	-0.541736	111.622	-6.75324
72	2.30259	-0.530162	111.903	-7.97398
73	2.30259	-0.518658	112.172	-9.16824
74	2.30259	-0.504372	112.427	-10.3296
75	2.30259	-0.493018	112.67	-11.4648
76	2.30259	-0.481728	112.902	-12.574
77	2.30259	-0.470498	113.123	-13.6574
78	2.30259	-0.459327	113.334	-14.715
79	2.30259	-0.448213	113.535	-15.7471
80	2.30259	-0.437153	113.726	-16.7537
81	2.30259	-0.423405	113.906	-17.7286
82	2.30259	-0.412463	114.076	-18.6783
83	2.30259	-0.401571	114.237	-19.603
84	2.30259	-0.390726	114.39	-20.5026
85	2.30259	-0.379927	114.534	-21.3775
86	2.30259	-0.369171	114.67	-22.2275
87	2.30259	-0.358459	114.799	-23.0529
88	2.30259	-0.345126	114.918	-23.8476
89	2.30259	-0.334503	115.03	-24.6178
90	2.30259	-0.323919	115.135	-25.3636
91	2.30259	-0.31337	115.233	-26.0852
92	2.30259	-0.302855	115.325	-26.7826
93	2.30259	-0.292375	115.41	-27.4558
94	2.30259	-0.279319	115.488	-28.0989
95	2.30259	-0.268908	115.56	-28.7181
96	2.30259	-0.258527	115.627	-29.3134
97	2.30259	-0.248174	115.689	-29.8848
98	2.30259	-0.237847	115.745	-30.4325
99	2.30259	-0.227545	115.797	-30.9564
100	2.30259	-0.217267	115.844	-31.4567
101	2.30259	-0.204452	115.886	-31.9275
102	2.30259	-0.194225	115.924	-32.3747
103	2.30259	-0.184017	115.958	-32.7984
104	2.30259	-0.173829	115.988	-33.1987
105	2.30259	-0.163659	116.015	-33.5755
106	2.30259	-0.153505	116.038	-33.929
107	2.30259	-0.143367	116.059	-34.2591
108	2.30259	-0.130716	116.076	-34.5601
109	2.30259	-0.12061	116.091	-34.8378
110	2.30259	-0.110516	116.103	-35.0923
111	2.30259	-0.100433	116.113	-35.3235
112	2.30259	-0.0903606	116.121	-35.5316
113	2.30259	-0.0802981	116.127	-35.7165

114	2.30259	-0.0677301	116.132	-35.8724
115	2.30259	-0.0576847	116.135	-36.0052
116	2.30259	-0.0476439	116.138	-36.115
117	2.30259	-0.0376076	116.139	-36.2015
118	2.30259	-0.0275759	116.14	-36.265
119	2.30259	-0.0175476	116.14	-36.3054
120	2.30259	-0.00751925	116.14	-36.3228
121	2.30259	0.00751925	116.14	-36.3054
122	2.30259	0.0175476	116.141	-36.265
123	2.30259	0.0275759	116.141	-36.2015
124	2.30259	0.0376076	116.143	-36.115
125	2.30259	0.0476439	116.145	-36.0052
126	2.30259	0.0576847	116.148	-35.8724
127	2.30259	0.0677301	116.153	-35.7165
128	2.30259	0.0802981	116.159	-35.5316
129	2.30259	0.0903606	116.167	-35.3235
130	2.30259	0.100433	116.178	-35.0923
131	2.30259	0.110516	116.19	-34.8378
132	2.30259	0.12061	116.204	-34.5601
133	2.30259	0.130716	116.221	-34.2591
134	2.30259	0.143367	116.242	-33.929
135	2.30259	0.153505	116.266	-33.5755
136	2.30259	0.163659	116.292	-33.1987
137	2.30259	0.173829	116.323	-32.7984
138	2.30259	0.184017	116.356	-32.3747
139	2.30259	0.194225	116.394	-31.9275
140	2.30259	0.204452	116.436	-31.4567
141	2.30259	0.217267	116.483	-30.9564
142	2.30259	0.227545	116.535	-30.4325
143	2.30259	0.237847	116.591	-29.8848
144	2.30259	0.248174	116.653	-29.3134
145	2.30259	0.258527	116.72	-28.7181
146	2.30259	0.268908	116.792	-28.0989
147	2.30259	0.279319	116.87	-27.4558
148	2.30259	0.292375	116.956	-26.7826
149	2.30259	0.302855	117.047	-26.0852
150	2.30259	0.31337	117.146	-25.3636
151	2.30259	0.323919	117.251	-24.6178
152	2.30259	0.334503	117.362	-23.8476
153	2.30259	0.345126	117.482	-23.0529
154	2.30259	0.358459	117.61	-22.2275
155	2.30259	0.369171	117.746	-21.3775
156	2.30259	0.379927	117.891	-20.5026
157	2.30259	0.390726	118.043	-19.603
158	2.30259	0.401571	118.205	-18.6783
159	2.30259	0.412463	118.375	-17.7286
160	2.30259	0.423405	118.554	-16.7537
161	2.30259	0.437153	118.745	-15.7471
162	2.30259	0.448213	118.946	-14.715
163	2.30259	0.459327	119.157	-13.6574
164	2.30259	0.470498	119.378	-12.574
165	2.30259	0.481728	119.61	-11.4648
166	2.30259	0.493018	119.853	-10.3296
167	2.30259	0.504372	120.108	-9.16824
168	2.30259	0.518658	120.377	-7.97398
169	2.30259	0.530162	120.658	-6.75324
170	2.30259	0.541736	120.951	-5.50585
171	2.30259	0.553384	121.258	-4.23163
172	2.30259	0.565108	121.577	-2.93042
173	2.30259	0.576911	121.91	-1.60204
174	2.30259	0.588793	122.257	-0.246292
175	2.30259	0.603765	122.621	1.14393

176	2.30259	0.615839		123	2.56195
177	2.30259	0.628006		123.395	4.00799
178	2.30259	0.640266		123.805	5.48225
179	2.30259	0.652622		124.231	6.98497
180	2.30259	0.665079		124.673	8.51637
181	2.30259	0.680797		125.136	10.084
182	2.30259	0.693493		125.617	11.6808
183	2.30259	0.706302		126.116	13.3071
184	2.30259	0.719228		126.633	14.9632
185	2.30259	0.732275		127.17	16.6493
186	2.30259	0.745449		127.725	18.3658
187	2.30259	0.758753		128.301	20.1129
188	2.30259	0.775574		128.903	21.8987
189	2.30259	0.789191		129.525	23.7159
190	2.30259	0.802956		130.17	25.5648
191	2.30259	0.816874		130.837	27.4457
192	2.30259	0.830953		131.528	29.359
193	2.30259	0.845198		132.242	31.3052
194	2.30259	0.859618		132.981	33.2845
195	2.30259	0.877897		133.752	35.3059
196	2.30259	0.892733		134.549	37.3615
197	2.30259	0.907769		135.373	39.4517
198	2.30259	0.923014		136.225	41.5771
199	2.30259	0.938476		137.106	43.738
200	2.30259	0.954165		138.016	45.935
201	2.30259	0.974114		138.965	48.178
202	2.30259	0.990356		139.946	50.4584
203	2.30259	1.00687	140.96	52.7768	
204	2.30259	1.02365	142.007	55.1338	
205	2.30259	1.04073	143.091	57.5302	
206	2.30259	1.05812	144.21	59.9666	
207	2.30259	1.07584	145.368	62.4438	
208	2.30259	1.09847	146.574	64.9731	
209	2.30259	1.11699	147.822	67.5451	
210	2.3979	1.1359	149.112	70.2689	
211	2.48491	1.15522	150.447	73.1395	
212	2.77259	1.17499	151.827	76.3972	
213	3.054	1.19522	153.256	80.0474	
214	3.09104	1.21596	154.734	83.806	
215	3.09104	1.24264	156.279	87.6471	
216	3.21888	1.26464	157.878	91.7178	
217	3.29584	1.28727	159.535	95.9604	
218	3.66356	1.31058	161.253	100.762	
219	3.71357	1.33462	163.034	105.718	
220	3.73767	1.35946	164.882	110.799	
221	3.7612	1.39175	166.819	116.034	
222	3.78419	1.41865	168.831	121.402	
223	3.78419	1.44663	170.924	126.877	
224	3.91202	1.47579	173.102	132.65	
225	3.95124	1.50626	175.371	138.602	
226	3.95124	1.5382	177.737	144.679	
227	4.12713	1.57179	180.208	151.166	
228	4.15888	1.61644	182.82	157.889	
229	4.29046	1.65463	185.558	164.988	
230	4.33073	1.6954	188.433	172.33	
231	4.56435	1.7392	191.457	180.269	
232	4.70048	1.78661	194.649	188.667	
233	4.78749	1.83843	198.029	197.468	
234	4.80402	1.8957	201.623	206.575	
235	5.07517	1.97737	205.533	216.611	
236	5.09987	2.05375	209.751	227.084	
237	5.18178	2.14441	214.349	238.196	

238	5.50126	2.25713	219.444	250.613
239	5.59842	2.40892	225.247	264.099
240	5.61313	2.65209	232.28	278.986

Data Set Standard Deviation = 1.31734
Numerator = 77833.2
Denominator = 96339.7
W Statistic = 0.807904 = 77833.2 / 96339.7

5% Critical value of 0.976 exceeds 0.807904
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.807904
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Vanadium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.89881
0.89881 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.356675	0.0041493 8	-2.65209	88.1684	344.01
2	-0.356675	0.0082987 6	-2.40892	88.1684	332.136
3	-0.356675	0.0124481	-2.25713	88.1684	324.723
4	-0.356675	0.0165975	-2.14441	88.1684	319.219
5	-0.356675	0.0207469	-2.05375	88.1684	314.791
6	-0.356675	0.0248963	-1.97737	88.1684	311.062
7	-0.356675	0.0290456	-1.8957	88.1684	307.073
8	-0.356675	0.033195	-1.83843	88.1684	304.276
9	-0.356675	0.0373444	-1.78661	88.1684	301.746
10	-0.356675	0.0414938	-1.7392	88.1684	299.431
11	-0.356675	0.0456432	-1.6954	88.1684	297.292
12	-0.356675	0.0497925	-1.65463	88.1684	295.301
13	-0.356675	0.0539419	-1.61644	88.1684	293.436
14	-0.356675	0.0580913	-1.57179	88.1684	291.256
15	-0.356675	0.0622407	-1.5382	88.1684	289.615
16	-0.356675	0.06639	-1.50626	88.1684	288.056
17	-0.356675	0.0705394	-1.47579	88.1684	286.568
18	-0.356675	0.0746888	-1.44663	88.1684	285.144
19	-0.356675	0.0788382	-1.41865	88.1684	283.778
20	-0.356675	0.0829876	-1.39175	88.1684	282.464
21	-0.356675	0.0871369	-1.35946	88.1684	280.887
22	-0.356675	0.0912863	-1.33462	88.1684	279.674
23	-0.356675	0.0954357	-1.31058	88.1684	278.5
24	-0.356675	0.0995851	-1.28727	88.1684	277.362
25	-0.356675	0.103734	-1.26464	88.1684	276.257
26	-0.356675	0.107884	-1.24264	88.1684	275.182
27	-0.356675	0.112033	-1.21596	88.1684	273.879
28	-0.356675	0.116183	-1.19522	88.1684	272.867
29	-0.356675	0.120332	-1.17499	88.1684	271.879
30	-0.356675	0.124481	-1.15522	88.1684	270.913
31	-0.356675	0.128631	-1.1359	88.1684	269.97
32	-0.356675	0.13278	-1.11699	88.1684	269.046
33	-0.356675	0.136929	-1.09847	88.1684	268.142
34	-0.356675	0.141079	-1.07584	88.1684	267.037
35	-0.356675	0.145228	-1.05812	88.1684	266.172
36	-0.356675	0.149378	-1.04073	88.1684	265.322
37	-0.356675	0.153527	-1.02365	88.1684	264.488
38	-0.356675	0.157676	-1.00687	88.1684	263.669
39	-0.356675	0.161826	-0.990356	88.1684	262.862
40	0.336472	0.165975	-0.974114	141.145	262.069
41	0.405465	0.170124	-0.954165	146.418	261.095
42	0.405465	0.174274	-0.938476	146.418	260.329
43	0.405465	0.178423	-0.923014	146.418	259.574
44	0.405465	0.182573	-0.907769	146.418	258.829
45	0.470004	0.186722	-0.892733	151.35	258.095
46	0.587787	0.190871	-0.877897	160.352	257.371
47	0.641854	0.195021	-0.859618	164.485	256.478
48	0.641854	0.19917	-0.845198	164.485	255.774

49	0.641854	0.20332	-0.830953	164.485	255.078	
50	0.693147	0.207469	-0.816874	168.405	254.391	
51	0.741937	0.211618	-0.802956	172.134	253.711	
52	0.916291	0.215768	-0.789191	185.459	253.039	
53	1.02962	0.219917	-0.775574	194.121	252.374	
54	1.07841	0.224066	-0.758753	197.85	251.552	
55	1.12168	0.228216	-0.745449	201.157	250.903	
56	1.32708	0.232365	-0.732275	216.855	250.259	
57	1.38629	0.236515	-0.719228	221.381	249.622	
58	1.45862	0.240664	-0.706302	226.908	248.991	
59	1.49739	0.244813	-0.693493	229.872	248.366	
60	1.54756	0.248963	-0.680797	233.707	247.746	
61	1.67147	0.253112	-0.665079	243.177	246.978	
62	1.79176	0.257261	-0.652622	252.37	246.37	
63	1.79176	0.261411	-0.640266	252.37	245.766	
64	1.94591	0.26556	-0.628006	264.152	245.168	
65	2.11986	0.26971	-0.615839	277.447	244.573	
66	2.19722	0.273859	-0.603765	283.359	243.984	
67	2.19722	0.278008	-0.588793	283.359	243.253	
68	2.19722	0.282158	-0.576911	283.359	242.672	
69	2.30259	0.286307	-0.565108	291.412	242.096	
70	2.30259	0.290456	-0.553384	291.412	241.524	
71	2.30259	0.294606	-0.541736	291.412	240.955	
72	2.30259	0.298755	-0.530162	291.412	240.39	
73	2.30259	0.302905	-0.518658	291.412	239.828	
74	2.30259	0.307054	-0.504372	291.412	239.13	
75	2.30259	0.311203	-0.493018	291.412	238.576	
76	2.30259	0.315353	-0.481728	291.412	238.024	
77	2.30259	0.319502	-0.470498	291.412	237.476	
78	2.30259	0.323651	-0.459327	291.412	236.93	
79	2.30259	0.327801	-0.448213	291.412	236.388	
80	2.30259	0.33195	-0.437153	291.412	235.848	
81	2.30259	0.3361	-0.423405	291.412	235.176	
82	2.30259	0.340249	-0.412463	291.412	234.642	
83	2.30259	0.344398	-0.401571	291.412	234.11	
84	2.30259	0.348548	-0.390726	291.412	233.58	
85	2.30259	0.352697	-0.379927	291.412	233.053	
86	2.30259	0.356846	-0.369171	291.412	232.528	
87	2.30259	0.360996	-0.358459	291.412	232.005	
88	2.30259	0.365145	-0.345126	291.412	231.354	
89	2.30259	0.369295	-0.334503	291.412	230.835	
90	2.30259	0.373444	-0.323919	291.412	230.318	
91	2.30259	0.377593	-0.31337	291.412	229.803	
92	2.30259	0.381743	-0.302855	291.412	229.289	
93	2.30259	0.385892	-0.292375	291.412	228.778	
94	2.30259	0.390041	-0.279319	291.412	228.14	
95	2.30259	0.394191	-0.268908	291.412	227.632	
96	2.30259	0.39834	-0.258527	291.412	227.125	
97	2.30259	0.40249	-0.248174	291.412	226.619	
98	2.30259	0.406639	-0.237847	291.412	226.115	
99	2.30259	0.410788	-0.227545	291.412	225.612	
100	2.30259	0.414938	-0.217267	291.412	225.11	
101	2.30259	0.419087	-0.204452	291.412	224.484	
102	2.30259	0.423237	-0.194225	291.412	223.985	
103	2.30259	0.427386	-0.184017	291.412	223.486	
104	2.30259	0.431535	-0.173829	291.412	222.989	
105	2.30259	0.435685	-0.163659	291.412	222.492	
106	2.30259	0.439834	-0.153505	291.412	221.996	
107	2.30259	0.443983	-0.143367	291.412	221.501	
108	2.30259	0.448133	-0.130716	291.412	220.883	
109	2.30259	0.452282	-0.12061	291.412	220.39	
110	2.30259	0.456432	-0.110516	291.412	219.897	

111	2.30259	0.460581	-0.100433	291.412	219.404
112	2.30259	0.46473	-0.0903606	291.412	218.913
113	2.30259	0.46888	-0.0802981	291.412	218.421
114	2.30259	0.473029	-0.0677301	291.412	217.807
115	2.30259	0.477178	-0.0576847	291.412	217.317
116	2.30259	0.481328	-0.0476439	291.412	216.827
117	2.30259	0.485477	-0.0376076	291.412	216.337
118	2.30259	0.489627	-0.0275759	291.412	215.847
119	2.30259	0.493776	-0.0175476	291.412	215.357
120	2.30259	0.497925	-0.00751925	291.412	214.867
121	2.30259	0.502075	0.00751925	291.412	214.133
122	2.30259	0.506224	0.0175476	291.412	213.643
123	2.30259	0.510373	0.0275759	291.412	213.153
124	2.30259	0.514523	0.0376076	291.412	212.663
125	2.30259	0.518672	0.0476439	291.412	212.173
126	2.30259	0.522822	0.0576847	291.412	211.683
127	2.30259	0.526971	0.0677301	291.412	211.193
128	2.30259	0.53112	0.0802981	291.412	210.579
129	2.30259	0.53527	0.0903606	291.412	210.087
130	2.30259	0.539419	0.100433	291.412	209.596
131	2.30259	0.543568	0.110516	291.412	209.103
132	2.30259	0.547718	0.12061	291.412	208.61
133	2.30259	0.551867	0.130716	291.412	208.117
134	2.30259	0.556017	0.143367	291.412	207.499
135	2.30259	0.560166	0.153505	291.412	207.004
136	2.30259	0.564315	0.163659	291.412	206.508
137	2.30259	0.568465	0.173829	291.412	206.011
138	2.30259	0.572614	0.184017	291.412	205.514
139	2.30259	0.576763	0.194225	291.412	205.015
140	2.30259	0.580913	0.204452	291.412	204.516
141	2.30259	0.585062	0.217267	291.412	203.89
142	2.30259	0.589212	0.227545	291.412	203.388
143	2.30259	0.593361	0.237847	291.412	202.885
144	2.30259	0.59751	0.248174	291.412	202.381
145	2.30259	0.60166	0.258527	291.412	201.875
146	2.30259	0.605809	0.268908	291.412	201.368
147	2.30259	0.609959	0.279319	291.412	200.86
148	2.30259	0.614108	0.292375	291.412	200.222
149	2.30259	0.618257	0.302855	291.412	199.711
150	2.30259	0.622407	0.31337	291.412	199.197
151	2.30259	0.626556	0.323919	291.412	198.682
152	2.30259	0.630705	0.334503	291.412	198.165
153	2.30259	0.634855	0.345126	291.412	197.646
154	2.30259	0.639004	0.358459	291.412	196.995
155	2.30259	0.643154	0.369171	291.412	196.472
156	2.30259	0.647303	0.379927	291.412	195.947
157	2.30259	0.651452	0.390726	291.412	195.42
158	2.30259	0.655602	0.401571	291.412	194.89
159	2.30259	0.659751	0.412463	291.412	194.358
160	2.30259	0.6639	0.423405	291.412	193.824
161	2.30259	0.66805	0.437153	291.412	193.152
162	2.30259	0.672199	0.448213	291.412	192.612
163	2.30259	0.676349	0.459327	291.412	192.07
164	2.30259	0.680498	0.470498	291.412	191.524
165	2.30259	0.684647	0.481728	291.412	190.976
166	2.30259	0.688797	0.493018	291.412	190.424
167	2.30259	0.692946	0.504372	291.412	189.87
168	2.30259	0.697095	0.518658	291.412	189.172
169	2.30259	0.701245	0.530162	291.412	188.61
170	2.30259	0.705394	0.541736	291.412	188.045
171	2.30259	0.709544	0.553384	291.412	187.476
172	2.30259	0.713693	0.565108	291.412	186.904

173	2.30259	0.717842	0.576911	291.412	186.328
174	2.30259	0.721992	0.588793	291.412	185.747
175	2.30259	0.726141	0.603765	291.412	185.016
176	2.30259	0.73029	0.615839	291.412	184.427
177	2.30259	0.73444	0.628006	291.412	183.832
178	2.30259	0.738589	0.640266	291.412	183.234
179	2.30259	0.742739	0.652622	291.412	182.63
180	2.30259	0.746888	0.665079	291.412	182.022
181	2.30259	0.751037	0.680797	291.412	181.254
182	2.30259	0.755187	0.693493	291.412	180.634
183	2.30259	0.759336	0.706302	291.412	180.009
184	2.30259	0.763485	0.719228	291.412	179.378
185	2.30259	0.767635	0.732275	291.412	178.741
186	2.30259	0.771784	0.745449	291.412	178.097
187	2.30259	0.775934	0.758753	291.412	177.448
188	2.30259	0.780083	0.775574	291.412	176.626
189	2.30259	0.784232	0.789191	291.412	175.961
190	2.30259	0.788382	0.802956	291.412	175.289
191	2.30259	0.792531	0.816874	291.412	174.609
192	2.30259	0.79668	0.830953	291.412	173.922
193	2.30259	0.80083	0.845198	291.412	173.226
194	2.30259	0.804979	0.859618	291.412	172.522
195	2.30259	0.809129	0.877897	291.412	171.629
196	2.30259	0.813278	0.892733	291.412	170.905
197	2.30259	0.817427	0.907769	291.412	170.171
198	2.30259	0.821577	0.923014	291.412	169.426
199	2.30259	0.825726	0.938476	291.412	168.671
200	2.30259	0.829876	0.954165	291.412	167.905
201	2.30259	0.834025	0.974114	291.412	166.931
202	2.30259	0.838174	0.990356	291.412	166.138
203	2.30259	0.842324	1.00687	291.412	165.331
204	2.30259	0.846473	1.02365	291.412	164.512
205	2.30259	0.850622	1.04073	291.412	163.678
206	2.30259	0.854772	1.05812	291.412	162.828
207	2.30259	0.858921	1.07584	291.412	161.963
208	2.30259	0.863071	1.09847	291.412	160.858
209	2.30259	0.86722	1.11699	291.412	159.954
210	2.3979	0.871369	1.1359	298.696	159.03
211	2.48491	0.875519	1.15522	305.346	158.087
212	2.77259	0.879668	1.17499	327.334	157.121
213	3.054	0.883817	1.19522	348.842	156.133
214	3.09104	0.887967	1.21596	351.673	155.121
215	3.09104	0.892116	1.24264	351.673	153.818
216	3.21888	0.896266	1.26464	361.443	152.743
217	3.29584	0.900415	1.28727	367.325	151.638
218	3.66356	0.904564	1.31058	395.429	150.5
219	3.71357	0.908714	1.33462	399.252	149.326
220	3.73767	0.912863	1.35946	401.093	148.113
221	3.7612	0.917012	1.39175	402.892	146.536
222	3.78419	0.921162	1.41865	404.649	145.222
223	3.78419	0.925311	1.44663	404.649	143.856
224	3.91202	0.929461	1.47579	414.419	142.432
225	3.95124	0.93361	1.50626	417.416	140.944
226	3.95124	0.937759	1.5382	417.416	139.385
227	4.12713	0.941909	1.57179	430.86	137.744
228	4.15888	0.946058	1.61644	433.286	135.564
229	4.29046	0.950207	1.65463	443.342	133.699
230	4.33073	0.954357	1.6954	446.42	131.708
231	4.56435	0.958506	1.7392	464.275	129.569
232	4.70048	0.962656	1.78661	474.68	127.254
233	4.78749	0.966805	1.83843	481.33	124.724
234	4.80402	0.970954	1.8957	482.593	121.927

235	5.07517	0.975104	1.97737	503.317	117.938
236	5.09987	0.979253	2.05375	505.204	114.209
237	5.18178	0.983402	2.14441	511.465	109.781
238	5.50126	0.987552	2.25713	535.882	104.277
239	5.59842	0.991701	2.40892	543.308	96.8642
240	5.61313	0.995851	2.65209	544.432	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Vanadium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<2.30259	90.5
	9/23/1999	2.3979 J	210
	3/15/2000	3.09104	214
	9/24/2003	ND<2.30259	90.5
	3/11/2004	ND<2.30259	90.5
	10/12/2004	ND<2.30259	90.5
	4/1/2005	ND<2.30259	90.5
	10/25/2005	ND<2.30259	90.5
	4/29/2006	ND<2.30259	90.5
	11/18/2006	ND<2.30259	90.5
	5/23/2007	ND<2.30259	90.5
	11/28/2007	ND<2.30259	90.5
	6/5/2008	ND<2.30259	90.5
	11/20/2008	ND<2.30259	90.5
	6/11/2009	ND<-0.356675	90.5
	11/16/2009	ND<-0.356675	90.5
	6/30/2010	ND<-0.356675	90.5
	11/12/2010	ND<-0.356675 U	90.5
	7/5/2011	ND<-0.356675 U	90.5

Rank Sum = 1962.5
Rank Mean = 103.289

Background Rank Sum = 1962.5
Background Rank Mean = 103.289

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<2.30259	90.5
	8/24/1995	ND<2.30259	90.5
	9/28/1995	ND<2.30259	90.5
	10/26/1995	ND<2.30259	90.5
	11/19/1996	ND<2.30259	90.5
	12/19/1996	ND<2.30259	90.5
	3/24/1997	3.95124	225
	9/24/1997	ND<2.30259	90.5
	4/7/1998	ND<2.30259	90.5
	9/23/1998	ND<2.30259	90.5
	3/16/1999	ND<2.30259	90.5
	9/23/1999	ND<2.30259	90.5
	3/15/2000	3.73767	220
	9/24/2003	ND<2.30259	90.5
	3/11/2004	ND<2.30259	90.5
	10/12/2004	ND<2.30259	90.5
	4/1/2005	ND<2.30259	90.5
	10/25/2005	ND<2.30259	90.5
	4/29/2006	ND<2.30259	90.5
	11/18/2006	ND<2.30259	90.5
	5/23/2007	1.12168 J	196

	11/28/2007	1.94591	J	205
	6/5/2008	ND<2.30259		90.5
	11/20/2008	3.21888		216
	6/11/2009	ND<-0.356675		90.5
	11/16/2009	ND<-0.356675		90.5
	6/30/2010	ND<-0.356675		90.5
	11/12/2010	ND<-0.356675	U	90.5
	7/5/2011	ND<-0.356675	U	90.5
	11/22/2011	ND<-0.356675	U	90.5
	11/22/2011	ND<-0.356675	U	90.5

Rank Sum = 3415
Rank Mean = 110.161

MW-7	7/20/1995	1.38629	J	198
	8/24/1995	ND<2.30259		90.5
	9/28/1995	5.61313		240
	10/26/1995	4.80402		234
	11/19/1996	ND<2.30259		90.5
	12/19/1996	5.18178		237
	3/24/1997	4.78749		233
	9/24/1997	4.33073		230
	4/7/1998	5.07517		235
	9/23/1998	ND<2.30259		90.5
	3/16/1999	ND<2.30259		90.5
	9/23/1999	3.29584		217
	3/15/2000	4.12713		227
	9/24/2003	ND<2.30259		90.5
	3/11/2004	ND<2.30259		90.5
	10/12/2004	ND<2.30259		90.5
	4/1/2005	ND<2.30259		90.5
	10/25/2005	ND<2.30259		90.5
	4/29/2006	ND<2.30259		90.5
	11/18/2006	ND<2.30259		90.5
	5/23/2007	2.11986		206
	11/28/2007	ND<2.30259		90.5
	6/5/2008	0.916291	J	193
	11/20/2008	2.77259	J	212
	6/11/2009	1.45862	J	199
	11/16/2009	ND<-0.356675		90.5
	6/30/2010	1.54756	J H	201
	11/12/2010	0.641854	J	188
	7/5/2011	0.741937	J	192
	11/22/2011	1.02962	J	194

Rank Sum = 4812.5
Rank Mean = 160.417

MW-8	7/20/1995	ND<2.30259		90.5
	8/24/1995	ND<2.30259		90.5
	9/28/1995	5.50126		238
	10/26/1995	ND<2.30259		90.5
	11/19/1996	ND<2.30259		90.5
	12/19/1996	5.09987		236
	3/24/1997	3.78419		222
	9/24/1997	ND<2.30259		90.5
	4/7/1998	3.78419		223
	9/23/1998	4.70048		232
	3/16/1999	ND<2.30259		90.5
	9/23/1999	1.79176	J	203
	3/15/2000	ND<2.30259		90.5
	9/24/2003	ND<2.30259		90.5
	3/11/2004	ND<2.30259		90.5
	10/12/2004	ND<2.30259		90.5

	4/1/2005	ND<2.30259		90.5
	10/25/2005	ND<2.30259		90.5
	4/29/2006	ND<2.30259		90.5
	11/18/2006	1.49739	J	200
	5/23/2007	2.48491		211
	11/28/2007	3.054		213
	6/5/2008	1.07841	J	195
	11/20/2008	2.19722	J	207
	6/11/2009	0.336472	J	181
	6/30/2010	ND<-0.356675		90.5
	11/12/2010	0.641854	J	189
	7/5/2011	ND<-0.356675	U	90.5
	11/22/2011	0.693147	J	191

Rank Sum = 4298.5
Rank Mean = 148.224

MW-12BR	3/16/1999	ND<2.30259		90.5
	9/23/1999	3.09104		215
	3/15/2000	ND<2.30259		90.5
	9/24/2003	ND<2.30259		90.5
	3/11/2004	ND<2.30259		90.5
	10/12/2004	ND<2.30259		90.5
	4/1/2005	ND<2.30259		90.5
	10/25/2005	ND<2.30259		90.5
	4/29/2006	ND<2.30259		90.5
	11/18/2006	ND<2.30259		90.5
	5/23/2007	ND<2.30259		90.5
	11/28/2007	ND<2.30259		90.5
	6/5/2008	ND<2.30259		90.5
	11/20/2008	ND<2.30259		90.5
	6/11/2009	ND<-0.356675		90.5
	11/16/2009	ND<-0.356675		90.5
	6/30/2010	ND<-0.356675		90.5
	11/12/2010	ND<-0.356675	U	90.5
	7/5/2011	ND<-0.356675	U	90.5
	11/22/2011	ND<-0.356675	U	90.5

Rank Sum = 1934.5
Rank Mean = 96.725

MW-10	7/20/1995	ND<2.30259		90.5
	8/24/1995	ND<2.30259		90.5
	9/28/1995	ND<2.30259		90.5
	10/26/1995	ND<2.30259		90.5
	11/19/1996	ND<2.30259		90.5
	12/19/1996	3.95124		226
	3/24/1997	ND<2.30259		90.5
	9/24/1997	3.91202		224
	4/7/1998	4.29046		229
	9/23/1998	ND<2.30259		90.5
	3/16/1999	ND<2.30259		90.5
	9/23/1999	1.79176	J	204
	3/15/2000	3.71357		219
	9/24/2003	ND<2.30259		90.5
	3/11/2004	ND<2.30259		90.5
	10/12/2004	ND<2.30259		90.5
	4/1/2005	ND<2.30259		90.5
	10/25/2005	ND<2.30259		90.5
	4/29/2006	ND<2.30259		90.5
	11/18/2006	ND<2.30259		90.5
	5/23/2007	1.32708	J	197
	11/28/2007	2.19722	J	208
	6/5/2008	ND<2.30259		90.5

	11/20/2008	3.66356	218
	6/11/2009	0.641854 J	190
	11/16/2009	0.405465 J	182
	6/30/2010	0.405465 J H	183
	11/12/2010	0.470004 J	186
	7/5/2011	ND<-0.356675 U	90.5
	11/22/2011	0.405465 J	184

Rank Sum = 4188.5
Rank Mean = 139.617

MW-6	7/20/1995	ND<2.30259	90.5
	8/24/1995	ND<2.30259	90.5
	9/28/1995	ND<2.30259	90.5
	10/26/1995	ND<2.30259	90.5
	11/19/1996	ND<2.30259	90.5
	12/19/1996	ND<2.30259	90.5
	3/24/1997	ND<2.30259	90.5
	9/24/1997	ND<2.30259	90.5
	4/7/1998	ND<2.30259	90.5
	9/23/1998	ND<2.30259	90.5
	3/16/1999	ND<2.30259	90.5
	9/23/1999	ND<2.30259	90.5
	3/15/2000	4.15888	228
	9/24/2003	ND<2.30259	90.5
	3/11/2004	ND<2.30259	90.5
	10/12/2004	ND<2.30259	90.5
	4/1/2005	ND<2.30259	90.5
	10/25/2005	ND<2.30259	90.5
	4/29/2006	ND<2.30259	90.5
	11/18/2006	ND<2.30259	90.5
	5/23/2007	ND<2.30259	90.5
	11/28/2007	ND<2.30259	90.5
	6/5/2008	ND<2.30259	90.5
	11/20/2008	ND<2.30259	90.5
	6/11/2009	ND<-0.356675	90.5
	11/16/2009	ND<-0.356675	90.5
	6/30/2010	ND<-0.356675	90.5
	11/12/2010	ND<-0.356675 U	90.5
	7/5/2011	ND<-0.356675 U	90.5
	11/22/2011	ND<-0.356675 U	90.5

Rank Sum = 2852.5
Rank Mean = 95.0833

MW-11R	7/20/1995	ND<2.30259	90.5
	8/24/1995	ND<2.30259	90.5
	9/28/1995	ND<2.30259	90.5
	10/26/1995	ND<2.30259	90.5
	11/19/1996	ND<2.30259	90.5
	12/19/1996	ND<2.30259	90.5
	3/24/1997	ND<2.30259	90.5
	9/24/1997	ND<2.30259	90.5
	4/7/1998	ND<2.30259	90.5
	9/23/1998	ND<2.30259	90.5
	3/16/1999	ND<2.30259	90.5
	9/23/1999	2.19722 J	209
	3/15/2000	ND<2.30259	90.5
	9/24/2003	ND<2.30259	90.5
	3/11/2004	ND<2.30259	90.5
	10/12/2004	ND<2.30259	90.5
	4/1/2005	ND<2.30259	90.5
	10/25/2005	ND<2.30259	90.5
	4/29/2006	ND<2.30259	90.5

	11/18/2006	ND<2.30259		90.5
	5/23/2007	1.67147		202
	11/28/2007	ND<2.30259		90.5
	6/5/2008	ND<2.30259		90.5
	11/20/2008	ND<2.30259		90.5
	6/11/2009	ND<-0.356675		90.5
	11/16/2009	ND<-0.356675		90.5
	6/30/2010	ND<-0.356675		90.5
	11/12/2010	ND<-0.356675	U	90.5
	7/5/2011	ND<-0.356675	U	90.5
	11/22/2011	ND<-0.356675	U	90.5
	11/22/2011	ND<-0.356675	U	90.5

Rank Sum = 3035.5
Rank Mean = 97.9194

MW-12A	R	3/16/1999	ND<2.30259	90.5
	9/23/1999	ND<2.30259		90.5
	3/15/2000	5.59842		239
	9/24/2003	3.7612	221	
	3/11/2004	4.56435		231
	10/12/2004	ND<2.30259		90.5
	4/1/2005	ND<2.30259		90.5
	10/25/2005	ND<2.30259		90.5
	4/29/2006	ND<2.30259		90.5
	11/18/2006	ND<2.30259		90.5
	5/23/2007	ND<2.30259		90.5
	11/28/2007	ND<2.30259		90.5
	6/5/2008	ND<2.30259		90.5
	11/20/2008	ND<2.30259		90.5
	6/11/2009	ND<-0.356675		90.5
	11/16/2009	ND<-0.356675		90.5
	6/30/2010	ND<-0.356675		90.5
	11/12/2010	0.587787	J	187
	7/5/2011	0.405465	J	185
	11/22/2011	ND<-0.356675	U	90.5

Rank Sum = 2420.5
Rank Mean = 121.025

Calculation Results:

Kruskal-Wallis H Statistic = 28.3179
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 48.9819
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
28.3179 > 15.5073 indicating a significant group difference at 5% significance level
48.9819 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 103.289

Well	Mean Rank	Dif from Bkg	Critical Value
MW-9	**110.161**	**6.87182**	**47.057**
MW-7	**160.417**	**57.1272**	**47.3541**
MW-8	**148.224**	**44.9347**	**47.6696**
MW-12BR	**96.725**	**-6.56447**	**51.7413**
MW-10	**139.617**	**36.3272**	**47.3541**
MW-6	**95.0833**	**-8.20614**	**47.3541**
MW-11R	**97.9194**	**-5.37012**	**47.057**
MW-12AR	**121.025**	**17.7355**	**51.7413**

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 103.289

Well	Mean Rank		Dif from Bkg	Critical Value
MW-9	**110.161**	**6.87182**	**50.8152**	
MW-7	**160.417**	**57.1272**	**51.136**	
MW-8	**148.224**	**44.9347**	**51.4767**	
MW-12BR		**96.725**	**-6.56447**	**55.8736**
MW-10	**139.617**	**36.3272**	**51.136**	
MW-6	**95.0833**	**-8.20614**	**51.136**	
MW-11R	**97.9194**	**-5.37012**	**50.8152**	
MW-12AR		**121.025**	**17.7355**	**55.8736**

Shewhart-CUSUM Control Chart

Parameter: Vanadium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 3.5984
Baseline Std Dev = 1.80396
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean	
3/24/1997	4.78749	0	0.659155	
3/24/1997	4.78749	0	0.659155	
9/24/1997	4.33073	0	0.405958	
9/24/1997	4.33073	0	0.405958	
4/7/1998	5.07517	0	0.818627	
4/7/1998	5.07517	0	0.818627	
9/23/1998	2.30259	0	-0.718315	
9/23/1998	2.30259	0	-0.718315	
3/16/1999	2.30259	0	-0.718315	
3/16/1999	2.30259	0	-0.718315	
9/23/1999	3.29584	0	-0.167721	
9/23/1999	3.29584	0	-0.167721	
3/15/2000	4.12713	0	0.293096	
3/15/2000	4.12713	0	0.293096	
9/24/2003	2.30259	0	-0.718315	
9/24/2003	2.30259	0	-0.718315	
3/11/2004	2.30259	0	-0.718315	
3/11/2004	2.30259	0	-0.718315	
10/12/2004	2.30259	0	-0.718315	
10/12/2004	2.30259	0	-0.718315	
4/1/2005	2.30259	0	-0.718315	
4/1/2005	2.30259	0	-0.718315	
10/25/2005	2.30259	0	-0.718315	
10/25/2005	2.30259	0	-0.718315	
4/29/2006	2.30259	0	-0.718315	
4/29/2006	2.30259	0	-0.718315	
11/18/2006	2.30259	0	-0.718315	
11/18/2006	2.30259	0	-0.718315	
5/23/2007	2.11986	0	-0.819604	
5/23/2007	2.11986	0	-0.819604	
11/28/2007	2.30259	0	-0.718315	
11/28/2007	2.30259	0	-0.718315	
6/5/2008	0.916291	0	-1.48679	
6/5/2008	0.916291	0	-1.48679	
11/20/2008	2.77259	0	-0.457776	
11/20/2008	2.77259	0	-0.457776	
6/11/2009	1.45862	0	-1.18616	
6/11/2009	1.45862	0	-1.18616	
11/16/2009	-0.356675	0	-2.19243	
11/16/2009	-0.356675	0	-2.19243	
6/30/2010	1.54756	0	-1.13685	
6/30/2010	1.54756	0	-1.13685	
11/12/2010	0.641854	0	-1.63892	
11/12/2010	0.641854	0	-1.63892	
7/5/2011	0.741937	0	-1.58344	

7/5/2011	0.741937	0	-1.58344
11/22/2011	1.02962	0	-1.42396
11/22/2011	1.02962	0	-1.42396

Sen's Slope Analysis
Parameter: Vanadium
Location: MW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<2.30259	(8/24/1995)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(2 - 1)
0.916291			
5.61313	(9/28/1995)	1.38629 J (7/20/1995)	(5.61313 - 1.38629)/(3 - 1) 2.11342
4.80402	(10/26/1995)	1.38629 J (7/20/1995)	(4.80402 - 1.38629)/(4 - 1) 1.13924
ND<2.30259	(11/19/1996)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(5 - 1)
0.229073			
5.18178	(12/19/1996)	1.38629 J (7/20/1995)	(5.18178 - 1.38629)/(6 - 1)
0.759098			
4.78749	(3/24/1997)	1.38629 J (7/20/1995)	(4.78749 - 1.38629)/(7 - 1)
0.566866			
4.33073	(9/24/1997)	1.38629 J (7/20/1995)	(4.33073 - 1.38629)/(8 - 1)
0.420634			
5.07517	(4/7/1998)	1.38629 J (7/20/1995)	(5.07517 - 1.38629)/(9 - 1) 0.46111
ND<2.30259	(9/23/1998)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(10 - 1)
0.10181			
ND<2.30259	(3/16/1999)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(11 - 1)
0.0916291			
3.29584	(9/23/1999)	1.38629 J (7/20/1995)	(3.29584 - 1.38629)/(12 - 1)
0.173595			
4.12713	(3/15/2000)	1.38629 J (7/20/1995)	(4.12713 - 1.38629)/(13 - 1)
0.228403			
ND<2.30259	(9/24/2003)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(14 - 1)
0.0704839			
ND<2.30259	(3/11/2004)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(15 - 1)
0.0654493			
ND<2.30259	(10/12/2004)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(16 - 1)
0.061086			
ND<2.30259	(4/1/2005)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(17 - 1)
0.0572682			
ND<2.30259	(10/25/2005)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(18 - 1)
0.0538995			
ND<2.30259	(4/29/2006)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(19 - 1)
0.050905			
ND<2.30259	(11/18/2006)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(20 - 1)
0.0482258			
2.11986	(5/23/2007)	1.38629 J (7/20/1995)	(2.11986 - 1.38629)/(21 - 1)
0.0366785			
ND<2.30259	(11/28/2007)	1.38629 J (7/20/1995)	(2.30259 - 1.38629)/(22 - 1)
0.0436329			
0.916291 J	(6/5/2008)	1.38629 J (7/20/1995)	(0.916291 - 1.38629)/(23 - 1)
-0.0213638			
2.77259 J	(11/20/2008)	1.38629 J (7/20/1995)	(2.77259 - 1.38629)/(24 - 1)
0.0602737			
1.45862 J	(6/11/2009)	1.38629 J (7/20/1995)	(1.45862 - 1.38629)/(25 - 1)
0.00301336			
ND<-0.356675	(11/16/2009)	1.38629 J (7/20/1995)	(-0.356675 - 1.38629)/(26 - 1)
-0.0697188			
1.54756 J H	(6/30/2010)	1.38629 J (7/20/1995)	(1.54756 - 1.38629)/(27 - 1)
0.00620262			
0.641854 J	(11/12/2010)	1.38629 J (7/20/1995)	(0.641854 - 1.38629)/(28 - 1)
-0.0275719			

0.741937 J (7/5/2011) 1.38629 J (7/20/1995) (0.741937 - 1.38629)/(29 - 1)
-0.0230128
1.02962 J (11/22/2011) 1.38629 J (7/20/1995) (1.02962 - 1.38629)/(30 - 1)
-0.0122991

5.61313 (9/28/1995) ND<2.30259 (8/24/1995) (5.61313 - 2.30259)/(3 - 2) 3.31054
4.80402 (10/26/1995) ND<2.30259 (8/24/1995) (4.80402 - 2.30259)/(4 - 2) 1.25072
ND<2.30259 (11/19/1996) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(5 - 2)
0
5.18178 (12/19/1996) ND<2.30259 (8/24/1995) (5.18178 - 2.30259)/(6 - 2) 0.7198
4.78749 (3/24/1997) ND<2.30259 (8/24/1995) (4.78749 - 2.30259)/(7 - 2)
0.496981
4.33073 (9/24/1997) ND<2.30259 (8/24/1995) (4.33073 - 2.30259)/(8 - 2)
0.338025
5.07517 (4/7/1998) ND<2.30259 (8/24/1995) (5.07517 - 2.30259)/(9 - 2)
0.396084
ND<2.30259 (9/23/1998) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(10 - 2)
0
ND<2.30259 (3/16/1999) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(11 - 2)
0
3.29584 (9/23/1999) ND<2.30259 (8/24/1995) (3.29584 - 2.30259)/(12 - 2)
0.0993252
4.12713 (3/15/2000) ND<2.30259 (8/24/1995) (4.12713 - 2.30259)/(13 - 2)
0.165868
ND<2.30259 (9/24/2003) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(14 - 2)
0
ND<2.30259 (3/11/2004) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(15 - 2)
0
ND<2.30259 (10/12/2004) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(16 - 2)
0
ND<2.30259 (4/1/2005) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(17 - 2)
0
ND<2.30259 (10/25/2005) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(18 - 2)
0
ND<2.30259 (4/29/2006) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(19 - 2)
0
ND<2.30259 (11/18/2006) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(20 - 2)
0
2.11986 (5/23/2007) ND<2.30259 (8/24/1995) (2.11986 - 2.30259)/(21 - 2)
-0.00961693
ND<2.30259 (11/28/2007) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(22 - 2)
0
0.916291 J (6/5/2008) ND<2.30259 (8/24/1995) (0.916291 - 2.30259)/(23 - 2)
-0.066014
2.77259 J (11/20/2008) ND<2.30259 (8/24/1995) (2.77259 - 2.30259)/(24 - 2)
0.0213638
1.45862 J (6/11/2009) ND<2.30259 (8/24/1995) (1.45862 - 2.30259)/(25 - 2)
-0.0366944
ND<-0.356675 (11/16/2009) ND<2.30259 (8/24/1995) (-0.356675 - 2.30259)/(26 - 2)
-0.110803
1.54756 J H (6/30/2010) ND<2.30259 (8/24/1995) (1.54756 - 2.30259)/(27 - 2)
-0.0302009
0.641854 J (11/12/2010) ND<2.30259 (8/24/1995) (0.641854 - 2.30259)/(28 - 2)
-0.0638743
0.741937 J (7/5/2011) ND<2.30259 (8/24/1995) (0.741937 - 2.30259)/(29 - 2)
-0.0578018
1.02962 J (11/22/2011) ND<2.30259 (8/24/1995) (1.02962 - 2.30259)/(30 - 2)
-0.0454631

4.80402 (10/26/1995) 5.61313 (9/28/1995) (4.80402 - 5.61313)/(4 - 3)
-0.809107

ND<2.30259 (11/19/1996) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(5 - 3)
-1.65527
5.18178 (12/19/1996) 5.61313 (9/28/1995) (5.18178 - 5.61313)/(6 - 3)
-0.143782
4.78749 (3/24/1997) 5.61313 (9/28/1995) (4.78749 - 5.61313)/(7 - 3)
-0.206409
4.33073 (9/24/1997) 5.61313 (9/28/1995) (4.33073 - 5.61313)/(8 - 3)
-0.256479
5.07517 (4/7/1998) 5.61313 (9/28/1995) (5.07517 - 5.61313)/(9 - 3)
-0.089659
ND<2.30259 (9/23/1998) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(10 - 3)
-0.472935
ND<2.30259 (3/16/1999) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(11 - 3)
-0.413818
3.29584 (9/23/1999) 5.61313 (9/28/1995) (3.29584 - 5.61313)/(12 - 3)
-0.257477
4.12713 (3/15/2000) 5.61313 (9/28/1995) (4.12713 - 5.61313)/(13 - 3)
-0.148599
ND<2.30259 (9/24/2003) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(14 - 3)
-0.300958
ND<2.30259 (3/11/2004) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(15 - 3)
-0.275879
ND<2.30259 (10/12/2004) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(16 - 3)
-0.254657
ND<2.30259 (4/1/2005) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(17 - 3)
-0.236467
ND<2.30259 (10/25/2005) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(18 - 3)
-0.220703
ND<2.30259 (4/29/2006) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(19 - 3)
-0.206909
ND<2.30259 (11/18/2006) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(20 - 3)
-0.194738
2.11986 (5/23/2007) 5.61313 (9/28/1995) (2.11986 - 5.61313)/(21 - 3)
-0.19407
ND<2.30259 (11/28/2007) 5.61313 (9/28/1995) (2.30259 - 5.61313)/(22 - 3)
-0.174239
0.916291 J (6/5/2008) 5.61313 (9/28/1995) (0.916291 - 5.61313)/(23 - 3)
-0.234842
2.77259 J (11/20/2008) 5.61313 (9/28/1995) (2.77259 - 5.61313)/(24 - 3)
-0.135264
1.45862 J (6/11/2009) 5.61313 (9/28/1995) (1.45862 - 5.61313)/(25 - 3)
-0.188842
ND<-0.356675 (11/16/2009) 5.61313 (9/28/1995) (-0.356675 - 5.61313)/(26 - 3)
-0.259557
1.54756 J H (6/30/2010) 5.61313 (9/28/1995) (1.54756 - 5.61313)/(27 - 3)
-0.169399
0.641854 J (11/12/2010) 5.61313 (9/28/1995) (0.641854 - 5.61313)/(28 - 3)
-0.198851
0.741937 J (7/5/2011) 5.61313 (9/28/1995) (0.741937 - 5.61313)/(29 - 3)
-0.187353
1.02962 J (11/22/2011) 5.61313 (9/28/1995) (1.02962 - 5.61313)/(30 - 3)
-0.16976

ND<2.30259 (11/19/1996) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(5 - 4)
-2.50144
5.18178 (12/19/1996) 4.80402 (10/26/1995) (5.18178 - 4.80402)/(6 - 4)
0.188881
4.78749 (3/24/1997) 4.80402 (10/26/1995) (4.78749 - 4.80402)/(7 - 4)
-0.00550977
4.33073 (9/24/1997) 4.80402 (10/26/1995) (4.33073 - 4.80402)/(8 - 4)
-0.118322

5.07517 (4/7/1998) 4.80402 (10/26/1995) (5.07517 - 4.80402)/(9 - 4)
0.0542306
ND<2.30259 (9/23/1998) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(10 - 4)
-0.416906
ND<2.30259 (3/16/1999) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(11 - 4)
-0.357348
3.29584 (9/23/1999) 4.80402 (10/26/1995) (3.29584 - 4.80402)/(12 - 4)
-0.188523
4.12713 (3/15/2000) 4.80402 (10/26/1995) (4.12713 - 4.80402)/(13 - 4)
-0.0752096
ND<2.30259 (9/24/2003) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(14 - 4)
-0.250144
ND<2.30259 (3/11/2004) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(15 - 4)
-0.227403
ND<2.30259 (10/12/2004) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(16 - 4)
-0.208453
ND<2.30259 (4/1/2005) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(17 - 4)
-0.192418
ND<2.30259 (10/25/2005) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(18 - 4)
-0.178674
ND<2.30259 (4/29/2006) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(19 - 4)
-0.166762
ND<2.30259 (11/18/2006) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(20 - 4)
-0.15634
2.11986 (5/23/2007) 4.80402 (10/26/1995) (2.11986 - 4.80402)/(21 - 4)
-0.157892
ND<2.30259 (11/28/2007) 4.80402 (10/26/1995) (2.30259 - 4.80402)/(22 - 4)
-0.138969
0.916291 J (6/5/2008) 4.80402 (10/26/1995) (0.916291 - 4.80402)/(23 - 4)
-0.204617
2.77259 J (11/20/2008) 4.80402 (10/26/1995) (2.77259 - 4.80402)/(24 - 4)
-0.101572
1.45862 J (6/11/2009) 4.80402 (10/26/1995) (1.45862 - 4.80402)/(25 - 4)
-0.159305
ND<-0.356675 (11/16/2009) 4.80402 (10/26/1995) (-0.356675 - 4.80402)/(26 - 4)
-0.234577
1.54756 J H (6/30/2010) 4.80402 (10/26/1995) (1.54756 - 4.80402)/(27 - 4)
-0.141585
0.641854 J (11/12/2010) 4.80402 (10/26/1995) (0.641854 - 4.80402)/(28 - 4)
-0.173424
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1.45862 J (6/11/2009) 3.29584 (9/23/1999) (1.45862 - 3.29584)/(25 - 12)
-0.141325
ND<-0.356675 (11/16/2009) 3.29584 (9/23/1999) (-0.356675 - 3.29584)/(26 - 12)
-0.260894
1.54756 J H (6/30/2010) 3.29584 (9/23/1999) (1.54756 - 3.29584)/(27 - 12)
-0.116552
0.641854 J (11/12/2010) 3.29584 (9/23/1999) (0.641854 - 3.29584)/(28 - 12)
-0.165874
0.741937 J (7/5/2011) 3.29584 (9/23/1999) (0.741937 - 3.29584)/(29 - 12)
-0.150229
1.02962 J (11/22/2011) 3.29584 (9/23/1999) (1.02962 - 3.29584)/(30 - 12)
-0.125901

ND<2.30259 (9/24/2003) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(14 - 13)
-1.82455
ND<2.30259 (3/11/2004) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(15 - 13)
-0.912275
ND<2.30259 (10/12/2004) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(16 - 13)
-0.608183
ND<2.30259 (4/1/2005) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(17 - 13)
-0.456137
ND<2.30259 (10/25/2005) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(18 - 13)
-0.36491
ND<2.30259 (4/29/2006) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(19 - 13)
-0.304092
ND<2.30259 (11/18/2006) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(20 - 13)
-0.26065
2.11986 (5/23/2007) 4.12713 (3/15/2000) (2.11986 - 4.12713)/(21 - 13)
-0.250909
ND<2.30259 (11/28/2007) 4.12713 (3/15/2000) (2.30259 - 4.12713)/(22 - 13)
-0.202728
0.916291 J (6/5/2008) 4.12713 (3/15/2000) (0.916291 - 4.12713)/(23 - 13)
-0.321084
2.77259 J (11/20/2008) 4.12713 (3/15/2000) (2.77259 - 4.12713)/(24 - 13)
-0.123141
1.45862 J (6/11/2009) 4.12713 (3/15/2000) (1.45862 - 4.12713)/(25 - 13)
-0.222377
ND<-0.356675 (11/16/2009) 4.12713 (3/15/2000) (-0.356675 - 4.12713)/(26 - 13)
-0.344908
1.54756 J H (6/30/2010) 4.12713 (3/15/2000) (1.54756 - 4.12713)/(27 - 13)
-0.184255
0.641854 J (11/12/2010) 4.12713 (3/15/2000) (0.641854 - 4.12713)/(28 - 13)
-0.232352
0.741937 J (7/5/2011) 4.12713 (3/15/2000) (0.741937 - 4.12713)/(29 - 13)
-0.211575

1.02962 J (11/22/2011) 4.12713 (3/15/2000) (1.02962 - 4.12713)/(30 - 13)
-0.182207

ND<2.30259 (3/11/2004) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(15 - 14)
0
ND<2.30259 (10/12/2004) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(16 - 14)
0
ND<2.30259 (4/1/2005) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(17 - 14)
0
ND<2.30259 (10/25/2005) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(18 - 14)
0
ND<2.30259 (4/29/2006) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(19 - 14)
0
ND<2.30259 (11/18/2006) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(20 - 14)
0
2.11986 (5/23/2007) ND<2.30259 (9/24/2003) (2.11986 - 2.30259)/(21 - 14)
-0.0261031
ND<2.30259 (11/28/2007) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(22 - 14)
0
0.916291 J (6/5/2008) ND<2.30259 (9/24/2003) (0.916291 - 2.30259)/(23 - 14)
-0.154033
2.77259 J (11/20/2008) ND<2.30259 (9/24/2003) (2.77259 - 2.30259)/(24 - 14)
0.0470004
1.45862 J (6/11/2009) ND<2.30259 (9/24/2003) (1.45862 - 2.30259)/(25 - 14)
-0.0767246
ND<-0.356675 (11/16/2009) ND<2.30259 (9/24/2003) (-0.356675 - 2.30259)/(26 - 14)
-0.221605
1.54756 J H (6/30/2010) ND<2.30259 (9/24/2003) (1.54756 - 2.30259)/(27 - 14)
-0.0580787
0.641854 J (11/12/2010) ND<2.30259 (9/24/2003) (0.641854 - 2.30259)/(28 - 14)
-0.118624
0.741937 J (7/5/2011) ND<2.30259 (9/24/2003) (0.741937 - 2.30259)/(29 - 14)
-0.104043
1.02962 J (11/22/2011) ND<2.30259 (9/24/2003) (1.02962 - 2.30259)/(30 - 14)
-0.0795604

ND<2.30259 (10/12/2004) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(16 - 15)
0
ND<2.30259 (4/1/2005) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(17 - 15)
0
ND<2.30259 (10/25/2005) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(18 - 15)
0
ND<2.30259 (4/29/2006) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(19 - 15)
0
ND<2.30259 (11/18/2006) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(20 - 15)
0
2.11986 (5/23/2007) ND<2.30259 (3/11/2004) (2.11986 - 2.30259)/(21 - 15)
-0.0304536
ND<2.30259 (11/28/2007) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(22 - 15)
0
0.916291 J (6/5/2008) ND<2.30259 (3/11/2004) (0.916291 - 2.30259)/(23 - 15)
-0.173287
2.77259 J (11/20/2008) ND<2.30259 (3/11/2004) (2.77259 - 2.30259)/(24 - 15)
0.0522226
1.45862 J (6/11/2009) ND<2.30259 (3/11/2004) (1.45862 - 2.30259)/(25 - 15)
-0.084397
ND<-0.356675 (11/16/2009) ND<2.30259 (3/11/2004) (-0.356675 - 2.30259)/(26 - 15)
-0.241751
1.54756 J H (6/30/2010) ND<2.30259 (3/11/2004) (1.54756 - 2.30259)/(27 - 15)
-0.0629185
0.641854 J (11/12/2010) ND<2.30259 (3/11/2004) (0.641854 - 2.30259)/(28 - 15)
-0.127749

0.741937 J (7/5/2011) ND<2.30259 (3/11/2004) (0.741937 - 2.30259)/(29 - 15)
-0.111475
1.02962 J (11/22/2011) ND<2.30259 (3/11/2004) (1.02962 - 2.30259)/(30 - 15)
-0.0848644

ND<2.30259 (4/1/2005) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(17 - 16)
0
ND<2.30259 (10/25/2005) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(18 -
16) 0
ND<2.30259 (4/29/2006) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(19 - 16)
0
ND<2.30259 (11/18/2006) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(20 -
16) 0
2.11986 (5/23/2007) ND<2.30259 (10/12/2004) (2.11986 - 2.30259)/(21 - 16)
-0.0365443
ND<2.30259 (11/28/2007) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(22 -
16) 0
0.916291 J (6/5/2008) ND<2.30259 (10/12/2004) (0.916291 - 2.30259)/(23 - 16)
-0.198042
2.77259 J (11/20/2008) ND<2.30259 (10/12/2004) (2.77259 - 2.30259)/(24 - 16)
0.0587505
1.45862 J (6/11/2009) ND<2.30259 (10/12/2004) (1.45862 - 2.30259)/(25 - 16)
-0.0937745
ND<-0.356675 (11/16/2009) ND<2.30259 (10/12/2004) (-0.356675 - 2.30259)/(26
- 16) -0.265926
1.54756 J H (6/30/2010) ND<2.30259 (10/12/2004) (1.54756 - 2.30259)/(27 - 16)
-0.0686384
0.641854 J (11/12/2010) ND<2.30259 (10/12/2004) (0.641854 - 2.30259)/(28 - 16)
-0.138394
0.741937 J (7/5/2011) ND<2.30259 (10/12/2004) (0.741937 - 2.30259)/(29 - 16)
-0.12005
1.02962 J (11/22/2011) ND<2.30259 (10/12/2004) (1.02962 - 2.30259)/(30 - 16)
-0.0909261

ND<2.30259 (10/25/2005) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(18 - 17)
0
ND<2.30259 (4/29/2006) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(19 - 17)
0
ND<2.30259 (11/18/2006) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(20 - 17)
0
2.11986 (5/23/2007) ND<2.30259 (4/1/2005) (2.11986 - 2.30259)/(21 - 17)
-0.0456804
ND<2.30259 (11/28/2007) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(22 - 17)
0
0.916291 J (6/5/2008) ND<2.30259 (4/1/2005) (0.916291 - 2.30259)/(23 - 17)
-0.231049
2.77259 J (11/20/2008) ND<2.30259 (4/1/2005) (2.77259 - 2.30259)/(24 - 17)
0.0671434
1.45862 J (6/11/2009) ND<2.30259 (4/1/2005) (1.45862 - 2.30259)/(25 - 17)
-0.105496
ND<-0.356675 (11/16/2009) ND<2.30259 (4/1/2005) (-0.356675 - 2.30259)/(26 - 17)
-0.295473
1.54756 J H (6/30/2010) ND<2.30259 (4/1/2005) (1.54756 - 2.30259)/(27 - 17)
-0.0755023
0.641854 J (11/12/2010) ND<2.30259 (4/1/2005) (0.641854 - 2.30259)/(28 - 17)
-0.150976
0.741937 J (7/5/2011) ND<2.30259 (4/1/2005) (0.741937 - 2.30259)/(29 - 17)
-0.130054
1.02962 J (11/22/2011) ND<2.30259 (4/1/2005) (1.02962 - 2.30259)/(30 - 17)
-0.0979204

ND<2.30259 (4/29/2006) ND<2.30259 (10/25/2005) (2.30259 - 2.30259)/(19 - 18)
0
ND<2.30259 (11/18/2006) ND<2.30259 (10/25/2005) (2.30259 - 2.30259)/(20 -
18) 0
2.11986 (5/23/2007) ND<2.30259 (10/25/2005) (2.11986 - 2.30259)/(21 - 18)
-0.0609072
ND<2.30259 (11/28/2007) ND<2.30259 (10/25/2005) (2.30259 - 2.30259)/(22 -
18) 0
0.916291 J (6/5/2008) ND<2.30259 (10/25/2005) (0.916291 - 2.30259)/(23 - 18)
-0.277259
2.77259 J (11/20/2008) ND<2.30259 (10/25/2005) (2.77259 - 2.30259)/(24 - 18)
0.0783339
1.45862 J (6/11/2009) ND<2.30259 (10/25/2005) (1.45862 - 2.30259)/(25 - 18)
-0.120567
ND<-0.356675 (11/16/2009) ND<2.30259 (10/25/2005) (-0.356675 - 2.30259)/(26
- 18) -0.332408
1.54756 J H (6/30/2010) ND<2.30259 (10/25/2005) (1.54756 - 2.30259)/(27 - 18)
-0.0838914
0.641854 J (11/12/2010) ND<2.30259 (10/25/2005) (0.641854 - 2.30259)/(28 - 18)
-0.166073
0.741937 J (7/5/2011) ND<2.30259 (10/25/2005) (0.741937 - 2.30259)/(29 - 18)
-0.141877
1.02962 J (11/22/2011) ND<2.30259 (10/25/2005) (1.02962 - 2.30259)/(30 - 18)
-0.10608

ND<2.30259 (11/18/2006) ND<2.30259 (4/29/2006) (2.30259 - 2.30259)/(20 - 19)
0
2.11986 (5/23/2007) ND<2.30259 (4/29/2006) (2.11986 - 2.30259)/(21 - 19)
-0.0913608
ND<2.30259 (11/28/2007) ND<2.30259 (4/29/2006) (2.30259 - 2.30259)/(22 - 19)
0
0.916291 J (6/5/2008) ND<2.30259 (4/29/2006) (0.916291 - 2.30259)/(23 - 19)
-0.346574
2.77259 J (11/20/2008) ND<2.30259 (4/29/2006) (2.77259 - 2.30259)/(24 - 19)
0.0940007
1.45862 J (6/11/2009) ND<2.30259 (4/29/2006) (1.45862 - 2.30259)/(25 - 19)
-0.140662
ND<-0.356675 (11/16/2009) ND<2.30259 (4/29/2006) (-0.356675 - 2.30259)/(26 - 19)
-0.379894
1.54756 J H (6/30/2010) ND<2.30259 (4/29/2006) (1.54756 - 2.30259)/(27 - 19)
-0.0943778
0.641854 J (11/12/2010) ND<2.30259 (4/29/2006) (0.641854 - 2.30259)/(28 - 19)
-0.184526
0.741937 J (7/5/2011) ND<2.30259 (4/29/2006) (0.741937 - 2.30259)/(29 - 19)
-0.156065
1.02962 J (11/22/2011) ND<2.30259 (4/29/2006) (1.02962 - 2.30259)/(30 - 19)
-0.115724

2.11986 (5/23/2007) ND<2.30259 (11/18/2006) (2.11986 - 2.30259)/(21 - 20)
-0.182722
ND<2.30259 (11/28/2007) ND<2.30259 (11/18/2006) (2.30259 - 2.30259)/(22 -
20) 0
0.916291 J (6/5/2008) ND<2.30259 (11/18/2006) (0.916291 - 2.30259)/(23 - 20)
-0.462098
2.77259 J (11/20/2008) ND<2.30259 (11/18/2006) (2.77259 - 2.30259)/(24 - 20)
0.117501
1.45862 J (6/11/2009) ND<2.30259 (11/18/2006) (1.45862 - 2.30259)/(25 - 20)
-0.168794
ND<-0.356675 (11/16/2009) ND<2.30259 (11/18/2006) (-0.356675 - 2.30259)/(26
- 20) -0.44321
1.54756 J H (6/30/2010) ND<2.30259 (11/18/2006) (1.54756 - 2.30259)/(27 - 20)
-0.10786

0.641854 J (11/12/2010) ND<2.30259 (11/18/2006) (0.641854 - 2.30259)/(28 - 20)
-0.207591
0.741937 J (7/5/2011) ND<2.30259 (11/18/2006) (0.741937 - 2.30259)/(29 - 20)
-0.173405
1.02962 J (11/22/2011) ND<2.30259 (11/18/2006) (1.02962 - 2.30259)/(30 - 20)
-0.127297

ND<2.30259 (11/28/2007) 2.11986 (5/23/2007) (2.30259 - 2.11986)/(22 - 21)
0.182722
0.916291 J (6/5/2008) 2.11986 (5/23/2007) (0.916291 - 2.11986)/(23 - 21)
-0.601786
2.77259 J (11/20/2008) 2.11986 (5/23/2007) (2.77259 - 2.11986)/(24 - 21)
0.217575
1.45862 J (6/11/2009) 2.11986 (5/23/2007) (1.45862 - 2.11986)/(25 - 21)
-0.165312
ND<-0.356675 (11/16/2009) 2.11986 (5/23/2007) (-0.356675 - 2.11986)/(26 - 21)
-0.495308
1.54756 J H (6/30/2010) 2.11986 (5/23/2007) (1.54756 - 2.11986)/(27 - 21)
-0.0953835
0.641854 J (11/12/2010) 2.11986 (5/23/2007) (0.641854 - 2.11986)/(28 - 21)
-0.211144
0.741937 J (7/5/2011) 2.11986 (5/23/2007) (0.741937 - 2.11986)/(29 - 21)
-0.172241
1.02962 J (11/22/2011) 2.11986 (5/23/2007) (1.02962 - 2.11986)/(30 - 21)
-0.121138

0.916291 J (6/5/2008) ND<2.30259 (11/28/2007) (0.916291 - 2.30259)/(23 - 22)
-1.38629
2.77259 J (11/20/2008) ND<2.30259 (11/28/2007) (2.77259 - 2.30259)/(24 - 22)
0.235002
1.45862 J (6/11/2009) ND<2.30259 (11/28/2007) (1.45862 - 2.30259)/(25 - 22)
-0.281323
ND<-0.356675 (11/16/2009) ND<2.30259 (11/28/2007) (-0.356675 - 2.30259)/(26
- 22) -0.664815
1.54756 J H (6/30/2010) ND<2.30259 (11/28/2007) (1.54756 - 2.30259)/(27 - 22)
-0.151005
0.641854 J (11/12/2010) ND<2.30259 (11/28/2007) (0.641854 - 2.30259)/(28 - 22)
-0.276789
0.741937 J (7/5/2011) ND<2.30259 (11/28/2007) (0.741937 - 2.30259)/(29 - 22)
-0.22295
1.02962 J (11/22/2011) ND<2.30259 (11/28/2007) (1.02962 - 2.30259)/(30 - 22)
-0.159121

2.77259 J (11/20/2008) 0.916291 J (6/5/2008) (2.77259 - 0.916291)/(24 - 23)
1.8563
1.45862 J (6/11/2009) 0.916291 J (6/5/2008) (1.45862 - 0.916291)/(25 - 23)
0.271162
ND<-0.356675 (11/16/2009) 0.916291 J (6/5/2008) (-0.356675 - 0.916291)/(26 - 23)
-0.424322
1.54756 J H (6/30/2010) 0.916291 J (6/5/2008) (1.54756 - 0.916291)/(27 - 23)
0.157818
0.641854 J (11/12/2010) 0.916291 J (6/5/2008) (0.641854 - 0.916291)/(28 - 23)
-0.0548874
0.741937 J (7/5/2011) 0.916291 J (6/5/2008) (0.741937 - 0.916291)/(29 - 23)
-0.0290589
1.02962 J (11/22/2011) 0.916291 J (6/5/2008) (1.02962 - 0.916291)/(30 - 23)
0.0161898

1.45862 J (6/11/2009) 2.77259 J (11/20/2008) (1.45862 - 2.77259)/(25 - 24)
-1.31397
ND<-0.356675 (11/16/2009) 2.77259 J (11/20/2008) (-0.356675 - 2.77259)/(26 - 24)
-1.56463

1.54756 J H (6/30/2010)	2.77259 J (11/20/2008)	(1.54756 - 2.77259)/(27 - 24)	-0.408342
0.641854 J (11/12/2010)	2.77259 J (11/20/2008)	(0.641854 - 2.77259)/(28 - 24)	-0.532684
0.741937 J (7/5/2011)	2.77259 J (11/20/2008)	(0.741937 - 2.77259)/(29 - 24)	-0.40613
1.02962 J (11/22/2011)	2.77259 J (11/20/2008)	(1.02962 - 2.77259)/(30 - 24)	-0.290495
ND<-0.356675 (11/16/2009)	1.45862 J (6/11/2009)	(-0.356675 - 1.45862)/(26 - 25)	-1.81529
1.54756 J H (6/30/2010)	1.45862 J (6/11/2009)	(1.54756 - 1.45862)/(27 - 25)	0.0444737
0.641854 J (11/12/2010)	1.45862 J (6/11/2009)	(0.641854 - 1.45862)/(28 - 25)	-0.272254
0.741937 J (7/5/2011)	1.45862 J (6/11/2009)	(0.741937 - 1.45862)/(29 - 25)	-0.179169
1.02962 J (11/22/2011)	1.45862 J (6/11/2009)	(1.02962 - 1.45862)/(30 - 25)	-0.0857991
1.54756 J H (6/30/2010)	ND<-0.356675 (11/16/2009)	(1.54756 - -0.356675)/(27 - 26)	1.90424
0.641854 J (11/12/2010)	ND<-0.356675 (11/16/2009)	(0.641854 - -0.356675)/(28 - 26)	0.499264
0.741937 J (7/5/2011)	ND<-0.356675 (11/16/2009)	(0.741937 - -0.356675)/(29 - 26)	0.366204
1.02962 J (11/22/2011)	ND<-0.356675 (11/16/2009)	(1.02962 - -0.356675)/(30 - 26)	0.346574
0.641854 J (11/12/2010)	1.54756 J H (6/30/2010)	(0.641854 - 1.54756)/(28 - 27)	-0.905709
0.741937 J (7/5/2011)	1.54756 J H (6/30/2010)	(0.741937 - 1.54756)/(29 - 27)	-0.402813
1.02962 J (11/22/2011)	1.54756 J H (6/30/2010)	(1.02962 - 1.54756)/(30 - 27)	-0.172648
0.741937 J (7/5/2011)	0.641854 J (11/12/2010)	(0.741937 - 0.641854)/(29 - 28)	0.100083
1.02962 J (11/22/2011)	0.641854 J (11/12/2010)	(1.02962 - 0.641854)/(30 - 28)	0.193883
1.02962 J (11/22/2011)	0.741937 J (7/5/2011)	(1.02962 - 0.741937)/(30 - 29)	0.287682

Number of Q values = 435

Ordered Q Values

n	Q
1	-2.77259
2	-2.50144
3	-1.82455
4	-1.81529
5	-1.65527
6	-1.56463
7	-1.38629
8	-1.38629
9	-1.31397
10	-1.01407
11	-0.912275
12	-0.905709

13	-0.828302
14	-0.809107
15	-0.7198
16	-0.676049
17	-0.664815
18	-0.621227
19	-0.608183
20	-0.601786
21	-0.593112
22	-0.57584
23	-0.554518
24	-0.532684
25	-0.496626
26	-0.495308
27	-0.472935
28	-0.462098
29	-0.462098
30	-0.456758
31	-0.456137
32	-0.44321
33	-0.425525
34	-0.424322
35	-0.416906
36	-0.413818
37	-0.408342
38	-0.40613
39	-0.402813
40	-0.396084
41	-0.394292
42	-0.379894
43	-0.36491
44	-0.3599
45	-0.357348
46	-0.354987
47	-0.346574
48	-0.346574
49	-0.344908
50	-0.338025
51	-0.332408
52	-0.331084
53	-0.321084
54	-0.319911
55	-0.319521
56	-0.314324
57	-0.310613
58	-0.308065
59	-0.304092
60	-0.300958
61	-0.298331
62	-0.297063
63	-0.295473
64	-0.290495
65	-0.289735
66	-0.28792
67	-0.281323
68	-0.277259
69	-0.277259
70	-0.276923
71	-0.276789
72	-0.276101
73	-0.275879
74	-0.272254

75	-0.270746
76	-0.265926
77	-0.261745
78	-0.260894
79	-0.26065
80	-0.260412
81	-0.259557
82	-0.258724
83	-0.257477
84	-0.256479
85	-0.254657
86	-0.253519
87	-0.252054
88	-0.250911
89	-0.250909
90	-0.250144
91	-0.248491
92	-0.248313
93	-0.246276
94	-0.24195
95	-0.241751
96	-0.239933
97	-0.23701
98	-0.236467
99	-0.234842
100	-0.234577
101	-0.233333
102	-0.232352
103	-0.231049
104	-0.22763
105	-0.227403
106	-0.226035
107	-0.225901
108	-0.22535
109	-0.22295
110	-0.222377
111	-0.221605
112	-0.221477
113	-0.220703
114	-0.216662
115	-0.216322
116	-0.213276
117	-0.211575
118	-0.211144
119	-0.208453
120	-0.207591
121	-0.207076
122	-0.206909
123	-0.206409
124	-0.20636
125	-0.205657
126	-0.204617
127	-0.204128
128	-0.202815
129	-0.202728
130	-0.198851
131	-0.19865
132	-0.198042
133	-0.197411
134	-0.195978
135	-0.195956
136	-0.194738

137	-0.19407
138	-0.193037
139	-0.192645
140	-0.192418
141	-0.191147
142	-0.190545
143	-0.188842
144	-0.188523
145	-0.187353
146	-0.184938
147	-0.184526
148	-0.184444
149	-0.184377
150	-0.184255
151	-0.183889
152	-0.182722
153	-0.182207
154	-0.17995
155	-0.179169
156	-0.178674
157	-0.177284
158	-0.174239
159	-0.173424
160	-0.173405
161	-0.173287
162	-0.173058
163	-0.173007
164	-0.172648
165	-0.172241
166	-0.170895
167	-0.170067
168	-0.16976
169	-0.169399
170	-0.169012
171	-0.168948
172	-0.168794
173	-0.166762
174	-0.166204
175	-0.166073
176	-0.165874
177	-0.16566
178	-0.165542
179	-0.165312
180	-0.163386
181	-0.162483
182	-0.161996
183	-0.159305
184	-0.159121
185	-0.157892
186	-0.15634
187	-0.156065
188	-0.154033
189	-0.153506
190	-0.151005
191	-0.150976
192	-0.150664
193	-0.150229
194	-0.150051
195	-0.148599
196	-0.146483
197	-0.145169
198	-0.144868

199	-0.143782
200	-0.141893
201	-0.141877
202	-0.141585
203	-0.141325
204	-0.140662
205	-0.138969
206	-0.138394
207	-0.135264
208	-0.133844
209	-0.130664
210	-0.130054
211	-0.127749
212	-0.127297
213	-0.126631
214	-0.125901
215	-0.124156
216	-0.123141
217	-0.121138
218	-0.120567
219	-0.12005
220	-0.118624
221	-0.118524
222	-0.118322
223	-0.116552
224	-0.115724
225	-0.115525
226	-0.111475
227	-0.110803
228	-0.11006
229	-0.10786
230	-0.106638
231	-0.10608
232	-0.105496
233	-0.104043
234	-0.101572
235	-0.0993252
236	-0.0979204
237	-0.0976901
238	-0.097384
239	-0.0953835
240	-0.0943778
241	-0.0937745
242	-0.0922628
243	-0.0913608
244	-0.0909261
245	-0.089659
246	-0.0867027
247	-0.0857991
248	-0.0848644
249	-0.084397
250	-0.0838914
251	-0.0821394
252	-0.0795604
253	-0.0770164
254	-0.0767246
255	-0.0755023
256	-0.0752096
257	-0.0722057
258	-0.0697188
259	-0.0686384
260	-0.0669982

261	-0.066014
262	-0.065027
263	-0.0638743
264	-0.0636483
265	-0.0629185
266	-0.0609072
267	-0.0602836
268	-0.0580787
269	-0.0578018
270	-0.0562647
271	-0.0548874
272	-0.0509186
273	-0.0471889
274	-0.0456804
275	-0.0454631
276	-0.0444131
277	-0.043604
278	-0.0421985
279	-0.0407198
280	-0.0366944
281	-0.0365443
282	-0.0355366
283	-0.0343192
284	-0.0304536
285	-0.0302009
286	-0.0290589
287	-0.0275719
288	-0.0261031
289	-0.0230128
290	-0.0213638
291	-0.0182722
292	-0.0166111
293	-0.0122991
294	-0.0114201
295	-0.00961693
296	-0.00550977
297	0
298	0
299	0
300	0
301	0
302	0
303	0
304	0
305	0
306	0
307	0
308	0
309	0
310	0
311	0
312	0
313	0
314	0
315	0
316	0
317	0
318	0
319	0
320	0
321	0
322	0

323	0
324	0
325	0
326	0
327	0
328	0
329	0
330	0
331	0
332	0
333	0
334	0
335	0
336	0
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0
347	0
348	0
349	0
350	0
351	0
352	0
353	0
354	0
355	0
356	0
357	0
358	0
359	0
360	0
361	0
362	0
363	0.00301336
364	0.00620262
365	0.0161898
366	0.0213638
367	0.024737
368	0.0335717
369	0.0361541
370	0.0366785
371	0.0436329
372	0.0444737
373	0.0470004
374	0.0482258
375	0.050905
376	0.0522226
377	0.0538995
378	0.0542306
379	0.0572682
380	0.0587505
381	0.0602737
382	0.061086
383	0.0654493
384	0.0671434

385	0.0704839
386	0.0783339
387	0.0916291
388	0.0940007
389	0.0993252
390	0.100083
391	0.10181
392	0.117501
393	0.141893
394	0.143841
395	0.157818
396	0.165868
397	0.173595
398	0.182722
399	0.188881
400	0.193883
401	0.217575
402	0.228069
403	0.228403
404	0.229073
405	0.235002
406	0.271162
407	0.287682
408	0.338025
409	0.346574
410	0.366204
411	0.396084
412	0.420634
413	0.46111
414	0.496626
415	0.496981
416	0.499264
417	0.566866
418	0.608183
419	0.676049
420	0.693147
421	0.7198
422	0.74444
423	0.759098
424	0.831298
425	0.912275
426	0.916291
427	0.993252
428	1.13924
429	1.24245
430	1.25072
431	1.8563
432	1.90424
433	2.11342
434	2.8792
435	3.31054

Sen's Estimator (Median Q) is -0.120567

Tied Group	Value	Members
1	2.30259	12

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1

11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1
6/5/2008	1	
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		1

There are 0 time periods with multiple data

A = 3828
B = 0
C = 1320
D = 0
E = 132
F = 0
a = 56550
b = 219240
c = 1740
Group Variance = 2929
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 89.0198
M1 = (435 - 89.0198)/2.0 = 172.99
M2 = (435 + 89.0198)/2.0 + 1 = 263.01
Lower limit is -0.166762 = Q(173)
Upper limit is -0.0638743 = Q(263)
-0.0638743 < 0 indicating a downward trend in data.

Concentrations (ppb)
Parameter: Vinyl Chloride
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 246
Total Non-Detect: 154
Percent Non-Detects: 62.6016%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/25/2005	ND<2	ND<2
			4/29/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			5/23/2007	ND<2	ND<2
			11/28/2007	ND<2	ND<2
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.18	ND<0.18
			11/16/2009	ND<0.18	ND<0.18
			6/30/2010	ND<0.18	ND<0.18
			11/12/2010	ND<0.18 U	ND<0.18 U
			7/5/2011	ND<0.18 U	ND<0.18 U

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	31	14 (45.1613%)	7/20/1995	ND<2	ND<2
			8/24/1995	3	3
			9/28/1995	4	4
			10/26/1995	5	5
			11/19/1996	ND<2	ND<2
			12/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			9/24/1997	ND<2	ND<2
			4/7/1998	ND<2	ND<2
			9/23/1998	ND<2	ND<2
			3/16/1999	3.6	3.6
			9/23/1999	ND<2	ND<2
			3/15/2000	ND<2	ND<2
			9/24/2003	ND<2	ND<2
			3/11/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	1.91 J	1.91 J
			10/25/2005	2.48	2.48
			4/29/2006	2.8	2.8
			11/18/2006	1.7 J	1.7 J
			5/23/2007	ND<2	ND<2
			11/28/2007	2.59	2.59
			6/5/2008	1.65 J	1.65 J
			11/20/2008	1.58 J	1.58 J

			6/11/2009	1.3	1.3	
			11/16/2009	1.5	1.5	
			6/30/2010	ND<0.18		ND<0.18
			11/12/2010	1.6	1.6	
			7/5/2011	2.4	2.4	
			11/22/2011	2.2	2.2	
			11/22/2011	2.2	2.2	
MW-7	31	20 (64.5161%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	0.7 J	0.7 J	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	0.52 J	0.52 J	
			10/25/2005	0.36 J	0.36 J	
			4/29/2006	0.64 J	0.64 J	
			11/18/2006	0.35 J	0.35 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	0.47 J	0.47 J	
			11/20/2008	0.58 J	0.58 J	
			6/11/2009	ND<0.18		ND<0.18
			11/16/2009	ND<0.18		ND<0.18
			6/30/2010	ND<0.18		ND<0.18
			11/12/2010	0.29 J	0.29 J	
			7/5/2011	0.58 J	0.58 J	
			11/22/2011	0.44 J	0.44 J	
			11/22/2011	0.44 J	0.44 J	
MW-12AR		21	14 (66.6667%)	3/16/1999		ND<2 ND<2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	2.08	2.08	
			4/29/2006	2.44	2.44	
			11/18/2006	1.17 J	1.17 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.97 J	0.97 J	
			6/5/2008	0.8 J	0.8 J	
			11/20/2008	0.52 J	0.52 J	
			6/11/2009	ND<0.18		ND<0.18
			11/16/2009	ND<0.18		ND<0.18
			6/30/2010	ND<0.18		ND<0.18
			11/12/2010	0.58 J	0.58 J	
			7/5/2011	ND<0.18 U	ND<0.18 U	
			11/22/2011	ND<0.18 U		ND<0.18 U
			11/22/2011	ND<0.18 U		ND<0.18 U

MW-9	31	13 (41.9355%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	0.8 J	0.8 J	
			10/26/1995	0.9 J	0.9 J	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	
			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	2.7	2.7	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	37	37	
			10/12/2004	ND<2	ND<2	
			4/1/2005	2.81	2.81	
			10/25/2005	1.45 J	1.45 J	
			4/29/2006	0.69 J	0.69 J	
			11/18/2006	0.73 J	0.73 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	1.71 J	1.71 J	
			6/5/2008	1.6 J	1.6 J	
			11/20/2008	1.41 J	1.41 J	
			6/11/2009	2	2	
			11/16/2009	1.2	1.2	
			6/30/2010	2.1	2.1	
			11/12/2010	1.9	1.9	
			7/5/2011	0.9 J M	0.9 J M	
			11/22/2011	0.94 J	0.94 J	
			11/22/2011	0.94 J	0.94 J	
MW-12BR		21	19 (90.4762%)	3/16/1999	7.2	7.2
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	5.41	5.41	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.18	ND<0.18	
			11/16/2009	ND<0.18	ND<0.18	
			6/30/2010	ND<0.18	ND<0.18	
			11/12/2010	ND<0.18 U	ND<0.18 U	
			7/5/2011	ND<0.18 U	ND<0.18 U	
			11/22/2011	ND<0.18 U	ND<0.18 U	
			11/22/2011	ND<0.18 U	ND<0.18 U	
MW-6	31	31 (100%)	7/20/1995	ND<2	ND<2	
			8/24/1995	ND<2	ND<2	
			9/28/1995	ND<2	ND<2	
			10/26/1995	ND<2	ND<2	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			9/24/1997	ND<2	ND<2	

			4/7/1998	ND<2	ND<2	
			9/23/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	ND<2	ND<2	
			3/11/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/25/2005	ND<2	ND<2	
			4/29/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	ND<2	ND<2	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.18		ND<0.18
			11/16/2009	ND<0.18		ND<0.18
			6/30/2010	ND<0.18		ND<0.18
			11/12/2010	ND<0.18 U		ND<0.18 U
			7/5/2011	ND<0.18 U	ND<0.18 U	
			11/22/2011	ND<0.18 U		ND<0.18 U
			11/22/2011	ND<0.18 U		ND<0.18 U
MW-8	30	2 (6.66667%)	7/20/1995		2.4	2.4
			8/24/1995	46	46	
			9/28/1995	36	36	
			10/26/1995	4	4	
			11/19/1996	ND<2	ND<2	
			12/19/1996	46	46	
			3/24/1997	48	48	
			9/24/1997	25	25	
			4/7/1998	39	39	
			9/23/1998	16	16	
			3/16/1999	13.7	13.7	
			9/23/1999	15.2	15.2	
			3/15/2000	ND<2	ND<2	
			9/24/2003	230	230	
			3/11/2004	78	78	
			10/12/2004	130	130	
			4/1/2005	59	59	
			10/25/2005	54.2	54.2	
			4/29/2006	24.6	24.6	
			11/18/2006	36.6	36.6	
			5/23/2007	19	19	
			11/28/2007	33.2	33.2	
			6/5/2008	21.8	21.8	
			11/20/2008	10.1	10.1	
			6/11/2009	12	12	
			6/30/2010	10	10	
			11/12/2010	10	10	
			7/5/2011	17	17	
			11/22/2011	13	13	
			11/22/2011	13	13	
MW-11R	31	22 (70.9677%)	7/20/1995		ND<2	ND<2
			8/24/1995	1.9 J	1.9 J	
			9/28/1995	0.8 J	0.8 J	
			10/26/1995	4	4	
			11/19/1996	ND<2	ND<2	
			12/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	

9/24/1997	ND<2	ND<2	
4/7/1998	ND<2	ND<2	
9/23/1998	ND<2	ND<2	
3/16/1999	2.6	2.6	
9/23/1999	ND<2	ND<2	
3/15/2000	ND<2	ND<2	
9/24/2003	ND<2	ND<2	
3/11/2004	ND<2	ND<2	
10/12/2004	ND<2	ND<2	
4/1/2005	3.57	3.57	
10/25/2005	0.9 J	0.9 J	
4/29/2006	0.78 J	0.78 J	
11/18/2006	0.8 J	0.8 J	
5/23/2007	ND<2	ND<2	
11/28/2007	0.48 J	0.48 J	
6/5/2008	ND<2	ND<2	
11/20/2008	ND<2	ND<2	
6/11/2009	ND<0.18		ND<0.18
11/16/2009	ND<0.18		ND<0.18
6/30/2010	ND<0.18		ND<0.18
11/12/2010	ND<0.18 U		ND<0.18 U
7/5/2011	ND<0.18 U	ND<0.18 U	
11/22/2011	ND<0.18 U		ND<0.18 U
11/22/2011	ND<0.18 U		ND<0.18 U

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Vinyl Chloride

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.09	-2.65209	7.03356	-0.238688
2	0.09	-2.40892	12.8365	-0.455491
3	0.09	-2.25713	17.9311	-0.658633
4	0.09	-2.14441	22.5296	-0.851629
5	0.09	-2.05375	26.7475	-1.03647
6	0.09	-1.97737	30.6575	-1.21443
7	0.09	-1.91103	34.3095	-1.38642
8	0.09	-1.85218	37.7401	-1.55312
9	0.09	-1.79912	40.9769	-1.71504
10	0.09	-1.75069	44.0418	-1.8726
11	0.09	-1.70604	46.9524	-2.02614
12	0.09	-1.66456	49.7231	-2.17596
13	0.09	-1.62576	52.3662	-2.32227
14	0.09	-1.58927	54.892	-2.46531
15	0.09	-1.55477	57.3093	-2.60524
16	0.09	-1.52203	59.6259	-2.74222
17	0.09	-1.49085	61.8486	-2.8764
18	0.09	-1.46106	63.9833	-3.00789
19	0.09	-1.4325	66.0353	-3.13682
20	0.09	-1.40507	68.0096	-3.26327
21	0.09	-1.3722	69.8925	-3.38677
22	0.09	-1.34694	71.7067	-3.508
23	0.09	-1.32251	73.4558	-3.62702
24	0.09	-1.29884	75.1427	-3.74392
25	0.09	-1.27588	76.7706	-3.85875
26	0.09	-1.25357	78.342	-3.97157
27	0.09	-1.23187	79.8595	-4.08244
28	0.09	-1.21073	81.3254	-4.1914
29	0.09	-1.19012	82.7418	-4.29851
30	0.09	-1.17	84.1107	-4.40381
31	0.09	-1.15035	85.434	-4.50734
32	0.09	-1.13113	86.7134	-4.60915
33	0.09	-1.11232	87.9507	-4.70925
34	0.09	-1.0939	89.1473	-4.80771
35	0.09	-1.07584	90.3047	-4.90453
36	0.09	-1.05812	91.4243	-4.99976
37	0.29	-1.04073	92.5075	-5.30157
38	0.35	-1.02365	93.5553	-5.65985
39	0.36	-1.00687	94.5691	-6.02232
40	0.44	-0.990356	95.5499	-6.45808
41	0.44	-0.974114	96.4988	-6.88669
42	0.47	-0.954165	97.4092	-7.33515
43	0.48	-0.938476	98.29	-7.78562
44	0.52	-0.923014	99.1419	-8.26558
45	0.52	-0.907769	99.966	-8.73762
46	0.58	-0.892733	100.763	-9.25541
47	0.58	-0.877897	101.534	-9.76459
48	0.58	-0.863249	102.279	-10.2653
49	0.64	-0.848786	102.999	-10.8085
50	0.69	-0.834498	103.696	-11.3843
51	0.7	-0.820379	104.369	-11.9586

52	0.73	-0.806422	105.019	-12.5473
53	0.78	-0.792618	105.647	-13.1655
54	0.8	-0.778966	106.254	-13.7887
55	0.8	-0.765456	106.84	-14.401
56	0.8	-0.752084	107.406	-15.0027
57	0.8	-0.738846	107.951	-15.5938
58	0.9	-0.725736	108.478	-16.2469
59	0.9	-0.712751	108.986	-16.8884
60	0.9	-0.699883	109.476	-17.5183
61	0.94	-0.687131	109.948	-18.1642
62	0.94	-0.671346	110.399	-18.7953
63	0.97	-0.658838	110.833	-19.4344
64	1	-0.646431	111.251	-20.0808
65	1	-0.634124	111.653	-20.7149
66	1	-0.621911	112.04	-21.3368
67	1	-0.609791	112.412	-21.9466
68	1	-0.597761	112.769	-22.5444
69	1	-0.585815	113.112	-23.1302
70	1	-0.573953	113.441	-23.7041
71	1	-0.56217	113.758	-24.2663
72	1	-0.550465	114.061	-24.8168
73	1	-0.538836	114.351	-25.3556
74	1	-0.52728	114.629	-25.8829
75	1	-0.515791	114.895	-26.3987
76	1	-0.504372	115.149	-26.903
77	1	-0.493018	115.392	-27.3961
78	1	-0.481728	115.624	-27.8778
79	1	-0.470498	115.846	-28.3483
80	1	-0.459327	116.057	-28.8076
81	1	-0.448213	116.258	-29.2558
82	1	-0.437153	116.449	-29.693
83	1	-0.423405	116.628	-30.1164
84	1	-0.412463	116.798	-30.5289
85	1	-0.401571	116.959	-30.9304
86	1	-0.390726	117.112	-31.3211
87	1	-0.379927	117.256	-31.7011
88	1	-0.369171	117.393	-32.0702
89	1	-0.358459	117.521	-32.4287
90	1	-0.347787	117.642	-32.7765
91	1	-0.337155	117.756	-33.1136
92	1	-0.326561	117.863	-33.4402
93	1	-0.316004	117.962	-33.7562
94	1	-0.305481	118.056	-34.0617
95	1	-0.294992	118.143	-34.3567
96	1	-0.284535	118.224	-34.6412
97	1	-0.27411	118.299	-34.9153
98	1	-0.263715	118.368	-35.179
99	1	-0.253347	118.433	-35.4324
100	1	-0.243007	118.492	-35.6754
101	1	-0.232693	118.546	-35.9081
102	1	-0.222403	118.595	-36.1305
103	1	-0.209575	118.639	-36.3401
104	1	-0.199336	118.679	-36.5394
105	1	-0.189118	118.715	-36.7285
106	1	-0.17892	118.747	-36.9074
107	1	-0.168741	118.775	-37.0762
108	1	-0.158579	118.8	-37.2348
109	1	-0.148434	118.822	-37.3832
110	1	-0.138305	118.841	-37.5215
111	1	-0.128189	118.858	-37.6497
112	1	-0.118085	118.872	-37.7678
113	1	-0.107995	118.883	-37.8758

114	1	-0.0979139	118.893	-37.9737
115	1	-0.0878447	118.901	-38.0615
116	1	-0.0777834	118.907	-38.1393
117	1	-0.0677301	118.911	-38.207
118	1	-0.0576847	118.915	-38.2647
119	1	-0.0476439	118.917	-38.3124
120	1	-0.0376076	118.918	-38.35
121	1	-0.0275759	118.919	-38.3776
122	1	-0.0175476	118.919	-38.3951
123	1	-0.00751925	118.92	-38.4026
124	1	0.00751925	118.92	-38.3951
125	1	0.0175476	118.92	-38.3776
126	1	0.0275759	118.921	-38.35
127	1	0.0376076	118.922	-38.3124
128	1	0.0476439	118.924	-38.2647
129	1	0.0576847	118.928	-38.207
130	1	0.0677301	118.932	-38.1393
131	1	0.0777834	118.938	-38.0615
132	1	0.0878447	118.946	-37.9737
133	1	0.0979139	118.956	-37.8758
134	1	0.107995	118.967	-37.7678
135	1	0.118085	118.981	-37.6497
136	1	0.128189	118.998	-37.5215
137	1	0.138305	119.017	-37.3832
138	1	0.148434	119.039	-37.2348
139	1	0.158579	119.064	-37.0762
140	1	0.168741	119.092	-36.9074
141	1	0.17892	119.124	-36.7285
142	1	0.189118	119.16	-36.5394
143	1	0.199336	119.2	-36.3401
144	1	0.209575	119.244	-36.1305
145	1	0.222403	119.293	-35.9081
146	1	0.232693	119.347	-35.6754
147	1	0.243007	119.407	-35.4324
148	1	0.253347	119.471	-35.179
149	1	0.263715	119.54	-34.9153
150	1	0.27411	119.615	-34.6412
151	1	0.284535	119.696	-34.3567
152	1	0.294992	119.783	-34.0617
153	1	0.305481	119.877	-33.7562
154	1	0.316004	119.977	-33.4402
155	1	0.326561	120.083	-33.1136
156	1	0.337155	120.197	-32.7765
157	1	0.347787	120.318	-32.4287
158	1	0.358459	120.446	-32.0702
159	1	0.369171	120.583	-31.7011
160	1	0.379927	120.727	-31.3211
161	1	0.390726	120.88	-30.9304
162	1	0.401571	121.041	-30.5289
163	1	0.412463	121.211	-30.1164
164	1	0.423405	121.39	-29.693
165	1	0.437153	121.581	-29.2558
166	1	0.448213	121.782	-28.8076
167	1	0.459327	121.993	-28.3483
168	1	0.470498	122.215	-27.8778
169	1	0.481728	122.447	-27.3961
170	1	0.493018	122.69	-26.903
171	1	0.504372	122.944	-26.3987
172	1	0.515791	123.21	-25.8829
173	1	0.52728	123.488	-25.3556
174	1	0.538836	123.779	-24.8168
175	1	0.550465	124.082	-24.2663

176	1	0.56217	124.398	-23.7041	
177	1	0.573953		124.727	-23.1302
178	1	0.585815		125.07	-22.5444
179	1	0.597761		125.428	-21.9466
180	1	0.609791		125.799	-21.3368
181	1	0.621911		126.186	-20.7149
182	1.17	0.634124		126.588	-19.973
183	1.2	0.646431		127.006	-19.1973
184	1.3	0.658838		127.44	-18.3408
185	1.41	0.671346		127.891	-17.3942
186	1.45	0.687131		128.363	-16.3978
187	1.5	0.699883		128.853	-15.348
188	1.58	0.712751		129.361	-14.2219
189	1.6	0.725736		129.888	-13.0607
190	1.6	0.738846		130.433	-11.8785
191	1.65	0.752084		130.999	-10.6376
192	1.7	0.765456		131.585	-9.33632
193	1.71	0.778966		132.192	-8.00429
194	1.9	0.792618		132.82	-6.49831
195	1.9	0.806422		133.47	-4.96611
196	1.91	0.820379		134.143	-3.39919
197	2	0.834498		134.84	-1.73019
198	2.08	0.848786		135.56	0.0352814
199	2.1	0.863249		136.305	1.8481
200	2.2	0.877897		137.076	3.77948
201	2.2	0.892733		137.873	5.74349
202	2.4	0.907769		138.697	7.92213
203	2.4	0.923014		139.549	10.1374
204	2.44	0.938476		140.43	12.4272
205	2.48	0.954165		141.34	14.7936
206	2.59	0.974114		142.289	17.3165
207	2.6	0.990356		143.27	19.8915
208	2.7	1.00687	144.284	22.61	
209	2.8	1.02365	145.332	25.4762	
210	2.81	1.04073	146.415	28.4007	
211	3	1.05812	147.534	31.575	
212	3.57	1.07584	148.692	35.4158	
213	3.6	1.0939	149.888	39.3538	
214	4	1.11232	151.126	43.8031	
215	4	1.13113	152.405	48.3276	
216	4	1.15035	153.728	52.929	
217	5	1.17	155.097	58.779	
218	5.41	1.19012	156.514	65.2176	
219	7.2	1.21073	157.98	73.9348	
220	10	1.23187	159.497	86.2535	
221	10	1.25357	161.068	98.7891	
222	10.1	1.27588	162.696	111.675	
223	12	1.29884	164.383	127.261	
224	13	1.32251	166.132	144.454	
225	13	1.34694	167.947	161.964	
226	13.7	1.3722	169.83	180.763	
227	15.2	1.40507	171.804	202.121	
228	16	1.4325	173.856	225.041	
229	17	1.46106	175.991	249.879	
230	19	1.49085	178.213	278.205	
231	21.8	1.52203	180.53	311.385	
232	24.6	1.55477	182.947	349.633	
233	25	1.58927	185.473	389.364	
234	33.2	1.62576	188.116	443.34	
235	36	1.66456	190.887	503.264	
236	36.6	1.70604	193.797	565.705	
237	37	1.75069	196.862	630.48	

238	39	1.79912	200.099	700.646
239	46	1.85218	203.53	785.846
240	46	1.91103	207.182	873.754
241	48	1.97737	211.092	968.667
242	54.2	2.05375	215.309	1079.98
243	59	2.14441	219.908	1206.5
244	78	2.25713	225.003	1382.56
245	130	2.40892	230.806	1695.72
246	230	2.65209	237.839	2305.7

Data Set Standard Deviation = 19.4342
Numerator = 5.31624e+006
Denominator = 2.20081e+007
W Statistic = 0.241558 = 5.31624e+006 / 2.20081e+007

5% Critical value of 0.976 exceeds 0.241558
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.241558
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Vinyl Chloride

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.501846
0.501846 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.09	0.00404858	-2.65209	39.1605	344.01	
2	0.09	0.00809717	-2.40892	39.1605	332.136	
3	0.09	0.0121457	-2.25713	39.1605	324.723	
4	0.09	0.0161943	-2.14441	39.1605	319.219	
5	0.09	0.0202429	-2.05375	39.1605	314.791	
6	0.09	0.0242915	-1.97737	39.1605	311.062	
7	0.09	0.0283401	-1.91103	39.1605	307.822	
8	0.09	0.0323887	-1.85218	39.1605	304.948	
9	0.09	0.0364372	-1.79912	39.1605	302.357	
10	0.09	0.0404858	-1.75069	39.1605	299.992	
11	0.09	0.0445344	-1.70604	39.1605	297.812	
12	0.09	0.048583	-1.66456	39.1605	295.786	
13	0.09	0.0526316	-1.62576	39.1605	293.891	
14	0.09	0.0566802	-1.58927	39.1605	292.109	
15	0.09	0.0607287	-1.55477	39.1605	290.425	
16	0.09	0.0647773	-1.52203	39.1605	288.826	
17	0.09	0.0688259	-1.49085	39.1605	287.303	
18	0.09	0.0728745	-1.46106	39.1605	285.848	
19	0.09	0.0769231	-1.4325	39.1605	284.454	
20	0.09	0.0809717	-1.40507	39.1605	283.114	
21	0.09	0.0850202	-1.3722	39.1605	281.509	
22	0.09	0.0890688	-1.34694	39.1605	280.276	
23	0.09	0.0931174	-1.32251	39.1605	279.082	
24	0.09	0.097166	-1.29884	39.1605	277.926	
25	0.09	0.101215	-1.27588	39.1605	276.805	
26	0.09	0.105263	-1.25357	39.1605	275.716	
27	0.09	0.109312	-1.23187	39.1605	274.656	
28	0.09	0.11336	-1.21073	39.1605	273.624	
29	0.09	0.117409	-1.19012	39.1605	272.617	
30	0.09	0.121457	-1.17	39.1605	271.635	
31	0.09	0.125506	-1.15035	39.1605	270.675	
32	0.09	0.129555	-1.13113	39.1605	269.737	
33	0.09	0.133603	-1.11232	39.1605	268.818	
34	0.09	0.137652	-1.0939	39.1605	267.919	
35	0.09	0.1417	-1.07584	39.1605	267.037	
36	0.09	0.145749	-1.05812	39.1605	266.172	
37	0.29	0.149798	-1.04073	39.5172	265.322	
38	0.35	0.153846	-1.02365	39.6242	264.488	
39	0.36	0.157895	-1.00687	39.642	263.669	
40	0.44	0.161943	-0.990356	39.7847	262.862	
41	0.44	0.165992	-0.974114	39.7847	262.069	
42	0.47	0.17004	-0.954165	39.8382	261.095	
43	0.48	0.174089	-0.938476	39.856	260.329	
44	0.52	0.178138	-0.923014	39.9273	259.574	
45	0.52	0.182186	-0.907769	39.9273	258.829	
46	0.58	0.186235	-0.892733	40.0343	258.095	
47	0.58	0.190283	-0.877897	40.0343	257.371	
48	0.58	0.194332	-0.863249	40.0343	256.655	

49	0.64	0.198381	-0.848786	40.1413	255.949
50	0.69	0.202429	-0.834498	40.2305	255.251
51	0.7	0.206478	-0.820379	40.2483	254.562
52	0.73	0.210526	-0.806422	40.3018	253.88
53	0.78	0.214575	-0.792618	40.391	253.206
54	0.8	0.218623	-0.778966	40.4267	252.54
55	0.8	0.222672	-0.765456	40.4267	251.88
56	0.8	0.226721	-0.752084	40.4267	251.227
57	0.8	0.230769	-0.738846	40.4267	250.58
58	0.9	0.234818	-0.725736	40.605	249.94
59	0.9	0.238866	-0.712751	40.605	249.306
60	0.9	0.242915	-0.699883	40.605	248.678
61	0.94	0.246964	-0.687131	40.6763	248.055
62	0.94	0.251012	-0.671346	40.6763	247.284
63	0.97	0.255061	-0.658838	40.7298	246.673
64	1	0.259109	-0.646431	40.7833	246.067
65	1	0.263158	-0.634124	40.7833	245.466
66	1	0.267206	-0.621911	40.7833	244.87
67	1	0.271255	-0.609791	40.7833	244.278
68	1	0.275304	-0.597761	40.7833	243.691
69	1	0.279352	-0.585815	40.7833	243.107
70	1	0.283401	-0.573953	40.7833	242.528
71	1	0.287449	-0.56217	40.7833	241.953
72	1	0.291498	-0.550465	40.7833	241.381
73	1	0.295547	-0.538836	40.7833	240.813
74	1	0.299595	-0.52728	40.7833	240.249
75	1	0.303644	-0.515791	40.7833	239.688
76	1	0.307692	-0.504372	40.7833	239.13
77	1	0.311741	-0.493018	40.7833	238.576
78	1	0.315789	-0.481728	40.7833	238.024
79	1	0.319838	-0.470498	40.7833	237.476
80	1	0.323887	-0.459327	40.7833	236.93
81	1	0.327935	-0.448213	40.7833	236.388
82	1	0.331984	-0.437153	40.7833	235.848
83	1	0.336032	-0.423405	40.7833	235.176
84	1	0.340081	-0.412463	40.7833	234.642
85	1	0.34413	-0.401571	40.7833	234.11
86	1	0.348178	-0.390726	40.7833	233.58
87	1	0.352227	-0.379927	40.7833	233.053
88	1	0.356275	-0.369171	40.7833	232.528
89	1	0.360324	-0.358459	40.7833	232.005
90	1	0.364372	-0.347787	40.7833	231.484
91	1	0.368421	-0.337155	40.7833	230.964
92	1	0.37247	-0.326561	40.7833	230.447
93	1	0.376518	-0.316004	40.7833	229.932
94	1	0.380567	-0.305481	40.7833	229.418
95	1	0.384615	-0.294992	40.7833	228.905
96	1	0.388664	-0.284535	40.7833	228.395
97	1	0.392713	-0.27411	40.7833	227.886
98	1	0.396761	-0.263715	40.7833	227.378
99	1	0.40081	-0.253347	40.7833	226.872
100	1	0.404858	-0.243007	40.7833	226.367
101	1	0.408907	-0.232693	40.7833	225.863
102	1	0.412955	-0.222403	40.7833	225.361
103	1	0.417004	-0.209575	40.7833	224.734
104	1	0.421053	-0.199336	40.7833	224.234
105	1	0.425101	-0.189118	40.7833	223.735
106	1	0.42915	-0.17892	40.7833	223.237
107	1	0.433198	-0.168741	40.7833	222.74
108	1	0.437247	-0.158579	40.7833	222.244
109	1	0.441296	-0.148434	40.7833	221.749
110	1	0.445344	-0.138305	40.7833	221.254

111	1	0.449393	-0.128189	40.7833	220.76
112	1	0.453441	-0.118085	40.7833	220.267
113	1	0.45749	-0.107995	40.7833	219.774
114	1	0.461538	-0.0979139	40.7833	219.281
115	1	0.465587	-0.0878447	40.7833	218.79
116	1	0.469636	-0.0777834	40.7833	218.298
117	1	0.473684	-0.0677301	40.7833	217.807
118	1	0.477733	-0.0576847	40.7833	217.317
119	1	0.481781	-0.0476439	40.7833	216.827
120	1	0.48583	-0.0376076	40.7833	216.337
121	1	0.489879	-0.0275759	40.7833	215.847
122	1	0.493927	-0.0175476	40.7833	215.357
123	1	0.497976	-0.00751925	40.7833	214.867
124	1	0.502024	0.00751925	40.7833	214.133
125	1	0.506073	0.0175476	40.7833	213.643
126	1	0.510121	0.0275759	40.7833	213.153
127	1	0.51417	0.0376076	40.7833	212.663
128	1	0.518219	0.0476439	40.7833	212.173
129	1	0.522267	0.0576847	40.7833	211.683
130	1	0.526316	0.0677301	40.7833	211.193
131	1	0.530364	0.0777834	40.7833	210.702
132	1	0.534413	0.0878447	40.7833	210.21
133	1	0.538462	0.0979139	40.7833	209.719
134	1	0.54251	0.107995	40.7833	209.226
135	1	0.546559	0.118085	40.7833	208.733
136	1	0.550607	0.128189	40.7833	208.24
137	1	0.554656	0.138305	40.7833	207.746
138	1	0.558704	0.148434	40.7833	207.251
139	1	0.562753	0.158579	40.7833	206.756
140	1	0.566802	0.168741	40.7833	206.26
141	1	0.57085	0.17892	40.7833	205.763
142	1	0.574899	0.189118	40.7833	205.265
143	1	0.578947	0.199336	40.7833	204.766
144	1	0.582996	0.209575	40.7833	204.266
145	1	0.587045	0.222403	40.7833	203.639
146	1	0.591093	0.232693	40.7833	203.137
147	1	0.595142	0.243007	40.7833	202.633
148	1	0.59919	0.253347	40.7833	202.128
149	1	0.603239	0.263715	40.7833	201.622
150	1	0.607287	0.27411	40.7833	201.114
151	1	0.611336	0.284535	40.7833	200.605
152	1	0.615385	0.294992	40.7833	200.095
153	1	0.619433	0.305481	40.7833	199.582
154	1	0.623482	0.316004	40.7833	199.068
155	1	0.62753	0.326561	40.7833	198.553
156	1	0.631579	0.337155	40.7833	198.036
157	1	0.635628	0.347787	40.7833	197.516
158	1	0.639676	0.358459	40.7833	196.995
159	1	0.643725	0.369171	40.7833	196.472
160	1	0.647773	0.379927	40.7833	195.947
161	1	0.651822	0.390726	40.7833	195.42
162	1	0.65587	0.401571	40.7833	194.89
163	1	0.659919	0.412463	40.7833	194.358
164	1	0.663968	0.423405	40.7833	193.824
165	1	0.668016	0.437153	40.7833	193.152
166	1	0.672065	0.448213	40.7833	192.612
167	1	0.676113	0.459327	40.7833	192.07
168	1	0.680162	0.470498	40.7833	191.524
169	1	0.684211	0.481728	40.7833	190.976
170	1	0.688259	0.493018	40.7833	190.424
171	1	0.692308	0.504372	40.7833	189.87
172	1	0.696356	0.515791	40.7833	189.312

173	1	0.700405		0.52728	40.7833	188.751
174	1	0.704453		0.538836		40.7833 188.187
175	1	0.708502		0.550465		40.7833 187.619
176	1	0.712551		0.56217	40.7833	187.047
177	1	0.716599		0.573953		40.7833 186.472
178	1	0.720648		0.585815		40.7833 185.893
179	1	0.724696		0.597761		40.7833 185.309
180	1	0.728745		0.609791		40.7833 184.722
181	1	0.732794		0.621911		40.7833 184.13
182	1.17	0.736842		0.634124		41.0865 183.534
183	1.2	0.740891		0.646431		41.14 182.933
184	1.3	0.744939		0.658838		41.3183 182.327
185	1.41	0.748988		0.671346		41.5145 181.716
186	1.45	0.753036		0.687131		41.5858 180.945
187	1.5	0.757085		0.699883		41.675 180.322
188	1.58	0.761134		0.712751		41.8177 179.694
189	1.6	0.765182		0.725736		41.8533 179.06
190	1.6	0.769231		0.738846		41.8533 178.42
191	1.65	0.773279		0.752084		41.9425 177.773
192	1.7	0.777328		0.765456		42.0317 177.12
193	1.71	0.781377		0.778966		42.0495 176.46
194	1.9	0.785425		0.792618		42.3883 175.794
195	1.9	0.789474		0.806422		42.3883 175.12
196	1.91	0.793522		0.820379		42.4062 174.438
197	2	0.797571		0.834498		42.5667 173.749
198	2.08	0.801619		0.848786		42.7093 173.051
199	2.1	0.805668		0.863249		42.745 172.345
200	2.2	0.809717		0.877897		42.9233 171.629
201	2.2	0.813765		0.892733		42.9233 170.905
202	2.4	0.817814		0.907769		43.28 170.171
203	2.4	0.821862		0.923014		43.28 169.426
204	2.44	0.825911		0.938476		43.3513 168.671
205	2.48	0.82996	0.954165		43.4227	167.905
206	2.59	0.834008		0.974114		43.6188 166.931
207	2.6	0.838057		0.990356		43.6367 166.138
208	2.7	0.842105		1.00687	43.815	165.331
209	2.8	0.846154		1.02365	43.9933	164.512
210	2.81	0.850202		1.04073	44.0112	163.678
211	3	0.854251		1.05812	44.35	162.828
212	3.57	0.8583	1.07584	45.3665	161.963	
213	3.6	0.862348		1.0939	45.42	161.081
214	4	0.866397		1.11232	46.1333	160.182
215	4	0.870445		1.13113	46.1333	159.263
216	4	0.874494		1.15035	46.1333	158.325
217	5	0.878543		1.17	47.9167	157.365
218	5.41	0.882591		1.19012	48.6478	156.383
219	7.2	0.88664	1.21073	51.84	155.376	
220	10	0.890688		1.23187	56.8333	154.344
221	10	0.894737		1.25357	56.8333	153.284
222	10.1	0.898785		1.27588	57.0117	152.195
223	12	0.902834		1.29884	60.4	151.074
224	13	0.906883		1.32251	62.1833	149.918
225	13	0.910931		1.34694	62.1833	148.724
226	13.7	0.91498	1.3722	63.4317	147.491	
227	15.2	0.919028		1.40507	66.1067	145.886
228	16	0.923077		1.4325	67.5333	144.546
229	17	0.927126		1.46106	69.3167	143.152
230	19	0.931174		1.49085	72.8833	141.697
231	21.8	0.935223		1.52203	77.8767	140.174
232	24.6	0.939271		1.55477	82.87	138.575
233	25	0.94332	1.58927	83.5833	136.891	
234	33.2	0.947368		1.62576	98.2067	135.109

235	36	0.951417	1.66456	103.2	133.214
236	36.6	0.955466	1.70604	104.27	131.188
237	37	0.959514	1.75069	104.983	129.008
238	39	0.963563	1.79912	108.55	126.643
239	46	0.967611	1.85218	121.033	124.052
240	46	0.97166	1.91103	121.033	121.178
241	48	0.975709	1.97737	124.6	117.938
242	54.2	0.979757	2.05375	135.657	114.209
243	59	0.983806	2.14441	144.217	109.781
244	78	0.987854	2.25713	178.1	104.277
245	130	0.991903	2.40892	270.833	96.8642
246	230	0.995951	2.65209	449.167	84.9898

Shapiro-Francia Test of Normality

Parameter: Vinyl Chloride

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 246

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.40795	-2.65209	7.03356	6.38608
2	-2.40795	-2.40892	12.8365	12.1866
3	-2.40795	-2.25713	17.9311	17.6217
4	-2.40795	-2.14441	22.5296	22.7853
5	-2.40795	-2.05375	26.7475	27.7306
6	-2.40795	-1.97737	30.6575	32.492
7	-2.40795	-1.91103	34.3095	37.0937
8	-2.40795	-1.85218	37.7401	41.5536
9	-2.40795	-1.79912	40.9769	45.8858
10	-2.40795	-1.75069	44.0418	50.1013
11	-2.40795	-1.70604	46.9524	54.2094
12	-2.40795	-1.66456	49.7231	58.2176
13	-2.40795	-1.62576	52.3662	62.1323
14	-2.40795	-1.58927	54.892	65.9592
15	-2.40795	-1.55477	57.3093	69.703
16	-2.40795	-1.52203	59.6259	73.368
17	-2.40795	-1.49085	61.8486	76.9579
18	-2.40795	-1.46106	63.9833	80.476
19	-2.40795	-1.4325	66.0353	83.9254
20	-2.40795	-1.40507	68.0096	87.3088
21	-2.40795	-1.3722	69.8925	90.6129
22	-2.40795	-1.34694	71.7067	93.8563
23	-2.40795	-1.32251	73.4558	97.0408
24	-2.40795	-1.29884	75.1427	100.168
25	-2.40795	-1.27588	76.7706	103.241
26	-2.40795	-1.25357	78.342	106.259
27	-2.40795	-1.23187	79.8595	109.225
28	-2.40795	-1.21073	81.3254	112.141
29	-2.40795	-1.19012	82.7418	115.006
30	-2.40795	-1.17	84.1107	117.824
31	-2.40795	-1.15035	85.434	120.594
32	-2.40795	-1.13113	86.7134	123.317
33	-2.40795	-1.11232	87.9507	125.996
34	-2.40795	-1.0939	89.1473	128.63
35	-2.40795	-1.07584	90.3047	131.22
36	-2.40795	-1.05812	91.4243	133.768
37	-1.23787	-1.04073	92.5075	135.057
38	-1.04982	-1.02365	93.5553	136.131
39	-1.02165	-1.00687	94.5691	137.16
40	-0.820981	-0.990356	95.5499	137.973
41	-0.820981	-0.974114	96.4988	138.773
42	-0.755023	-0.954165	97.4092	139.493
43	-0.733969	-0.938476	98.29	140.182
44	-0.653926	-0.923014	99.1419	140.786
45	-0.653926	-0.907769	99.966	141.379
46	-0.544727	-0.892733	100.763	141.866
47	-0.544727	-0.877897	101.534	142.344
48	-0.544727	-0.863249	102.279	142.814
49	-0.446287	-0.848786	102.999	143.193
50	-0.371064	-0.834498	103.696	143.502
51	-0.356675	-0.820379	104.369	143.795

52	-0.314711	-0.806422	105.019	144.049
53	-0.248461	-0.792618	105.647	144.246
54	-0.223144	-0.778966	106.254	144.42
55	-0.223144	-0.765456	106.84	144.59
56	-0.223144	-0.752084	107.406	144.758
57	-0.223144	-0.738846	107.951	144.923
58	-0.105361	-0.725736	108.478	145
59	-0.105361	-0.712751	108.986	145.075
60	-0.105361	-0.699883	109.476	145.148
61	-0.0618754	-0.687131	109.948	145.191
62	-0.0618754	-0.671346	110.399	145.232
63	-0.0304592	-0.658838	110.833	145.252
64	0	-0.646431	111.251	145.252
65	0	-0.634124	111.653	145.252
66	0	-0.621911	112.04	145.252
67	0	-0.609791	112.412	145.252
68	0	-0.597761	112.769	145.252
69	0	-0.585815	113.112	145.252
70	0	-0.573953	113.441	145.252
71	0	-0.56217	113.758	145.252
72	0	-0.550465	114.061	145.252
73	0	-0.538836	114.351	145.252
74	0	-0.52728	114.629	145.252
75	0	-0.515791	114.895	145.252
76	0	-0.504372	115.149	145.252
77	0	-0.493018	115.392	145.252
78	0	-0.481728	115.624	145.252
79	0	-0.470498	115.846	145.252
80	0	-0.459327	116.057	145.252
81	0	-0.448213	116.258	145.252
82	0	-0.437153	116.449	145.252
83	0	-0.423405	116.628	145.252
84	0	-0.412463	116.798	145.252
85	0	-0.401571	116.959	145.252
86	0	-0.390726	117.112	145.252
87	0	-0.379927	117.256	145.252
88	0	-0.369171	117.393	145.252
89	0	-0.358459	117.521	145.252
90	0	-0.347787	117.642	145.252
91	0	-0.337155	117.756	145.252
92	0	-0.326561	117.863	145.252
93	0	-0.316004	117.962	145.252
94	0	-0.305481	118.056	145.252
95	0	-0.294992	118.143	145.252
96	0	-0.284535	118.224	145.252
97	0	-0.27411	118.299	145.252
98	0	-0.263715	118.368	145.252
99	0	-0.253347	118.433	145.252
100	0	-0.243007	118.492	145.252
101	0	-0.232693	118.546	145.252
102	0	-0.222403	118.595	145.252
103	0	-0.209575	118.639	145.252
104	0	-0.199336	118.679	145.252
105	0	-0.189118	118.715	145.252
106	0	-0.17892	118.747	145.252
107	0	-0.168741	118.775	145.252
108	0	-0.158579	118.8	145.252
109	0	-0.148434	118.822	145.252
110	0	-0.138305	118.841	145.252
111	0	-0.128189	118.858	145.252
112	0	-0.118085	118.872	145.252
113	0	-0.107995	118.883	145.252

114	0	-0.0979139	118.893	145.252
115	0	-0.0878447	118.901	145.252
116	0	-0.0777834	118.907	145.252
117	0	-0.0677301	118.911	145.252
118	0	-0.0576847	118.915	145.252
119	0	-0.0476439	118.917	145.252
120	0	-0.0376076	118.918	145.252
121	0	-0.0275759	118.919	145.252
122	0	-0.0175476	118.919	145.252
123	0	-0.00751925	118.92	145.252
124	0	0.00751925	118.92	145.252
125	0	0.0175476	118.92	145.252
126	0	0.0275759	118.921	145.252
127	0	0.0376076	118.922	145.252
128	0	0.0476439	118.924	145.252
129	0	0.0576847	118.928	145.252
130	0	0.0677301	118.932	145.252
131	0	0.0777834	118.938	145.252
132	0	0.0878447	118.946	145.252
133	0	0.0979139	118.956	145.252
134	0	0.107995	118.967	145.252
135	0	0.118085	118.981	145.252
136	0	0.128189	118.998	145.252
137	0	0.138305	119.017	145.252
138	0	0.148434	119.039	145.252
139	0	0.158579	119.064	145.252
140	0	0.168741	119.092	145.252
141	0	0.17892	119.124	145.252
142	0	0.189118	119.16	145.252
143	0	0.199336	119.2	145.252
144	0	0.209575	119.244	145.252
145	0	0.222403	119.293	145.252
146	0	0.232693	119.347	145.252
147	0	0.243007	119.407	145.252
148	0	0.253347	119.471	145.252
149	0	0.263715	119.54	145.252
150	0	0.27411	119.615	145.252
151	0	0.284535	119.696	145.252
152	0	0.294992	119.783	145.252
153	0	0.305481	119.877	145.252
154	0	0.316004	119.977	145.252
155	0	0.326561	120.083	145.252
156	0	0.337155	120.197	145.252
157	0	0.347787	120.318	145.252
158	0	0.358459	120.446	145.252
159	0	0.369171	120.583	145.252
160	0	0.379927	120.727	145.252
161	0	0.390726	120.88	145.252
162	0	0.401571	121.041	145.252
163	0	0.412463	121.211	145.252
164	0	0.423405	121.39	145.252
165	0	0.437153	121.581	145.252
166	0	0.448213	121.782	145.252
167	0	0.459327	121.993	145.252
168	0	0.470498	122.215	145.252
169	0	0.481728	122.447	145.252
170	0	0.493018	122.69	145.252
171	0	0.504372	122.944	145.252
172	0	0.515791	123.21	145.252
173	0	0.52728	123.488	145.252
174	0	0.538836	123.779	145.252
175	0	0.550465	124.082	145.252

176	0	0.56217	124.398	145.252		
177	0	0.573953		124.727	145.252	
178	0	0.585815		125.07	145.252	
179	0	0.597761		125.428	145.252	
180	0	0.609791		125.799	145.252	
181	0	0.621911		126.186	145.252	
182	0.157004		0.634124		126.588	145.352
183	0.182322		0.646431		127.006	145.47
184	0.262364		0.658838		127.44	145.643
185	0.34359	0.671346		127.891	145.873	
186	0.371564		0.687131		128.363	146.129
187	0.405465		0.699883		128.853	146.413
188	0.457425		0.712751		129.361	146.739
189	0.470004		0.725736		129.888	147.08
190	0.470004		0.738846		130.433	147.427
191	0.500775		0.752084		130.999	147.804
192	0.530628		0.765456		131.585	148.21
193	0.536493		0.778966		132.192	148.628
194	0.641854		0.792618		132.82	149.136
195	0.641854		0.806422		133.47	149.654
196	0.647103		0.820379		134.143	150.185
197	0.693147		0.834498		134.84	150.763
198	0.732368		0.848786		135.56	151.385
199	0.741937		0.863249		136.305	152.025
200	0.788457		0.877897		137.076	152.718
201	0.788457		0.892733		137.873	153.421
202	0.875469		0.907769		138.697	154.216
203	0.875469		0.923014		139.549	155.024
204	0.891998		0.938476		140.43	155.861
205	0.908259		0.954165		141.34	156.728
206	0.951658		0.974114		142.289	157.655
207	0.955511		0.990356		143.27	158.601
208	0.993252		1.00687	144.284	159.601	
209	1.02962	1.02365	145.332	160.655		
210	1.03318	1.04073	146.415	161.731		
211	1.09861	1.05812	147.534	162.893		
212	1.27257	1.07584	148.692	164.262		
213	1.28093	1.0939	149.888	165.663		
214	1.38629	1.11232	151.126	167.205		
215	1.38629	1.13113	152.405	168.773		
216	1.38629	1.15035	153.728	170.368		
217	1.60944	1.17	155.097	172.251		
218	1.68825	1.19012	156.514	174.26		
219	1.97408	1.21073	157.98	176.65		
220	2.30259	1.23187	159.497	179.487		
221	2.30259	1.25357	161.068	182.373		
222	2.31254	1.27588	162.696	185.324		
223	2.48491	1.29884	164.383	188.551		
224	2.56495	1.32251	166.132	191.944		
225	2.56495	1.34694	167.947	195.398		
226	2.6174	1.3722	169.83	198.99		
227	2.7213	1.40507	171.804	202.814		
228	2.77259	1.4325	173.856	206.785		
229	2.83321	1.46106	175.991	210.925		
230	2.94444	1.49085	178.213	215.315		
231	3.08191	1.52203	180.53	220.005		
232	3.20275	1.55477	182.947	224.985		
233	3.21888	1.58927	185.473	230.101		
234	3.50255	1.62576	188.116	235.795		
235	3.58352	1.66456	190.887	241.76		
236	3.60005	1.70604	193.797	247.902		
237	3.61092	1.75069	196.862	254.223		

238	3.66356	1.79912	200.099	260.814
239	3.82864	1.85218	203.53	267.906
240	3.82864	1.91103	207.182	275.222
241	3.8712	1.97737	211.092	282.877
242	3.99268	2.05375	215.309	291.077
243	4.07754	2.14441	219.908	299.821
244	4.35671	2.25713	225.003	309.655
245	4.86753	2.40892	230.806	321.38
246	5.43808	2.65209	237.839	335.803

Data Set Standard Deviation = 1.52096
Numerator = 112763
Denominator = 134798
W Statistic = 0.836537 = 112763 / 134798

5% Critical value of 0.976 exceeds 0.836537
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.836537
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Vinyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.915229
0.915229 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.40795	0.00404858	-2.65209	74.1943	344.01
2	-2.40795	0.00809717	-2.40892	74.1943	332.136
3	-2.40795	0.0121457	-2.25713	74.1943	324.723
4	-2.40795	0.0161943	-2.14441	74.1943	319.219
5	-2.40795	0.0202429	-2.05375	74.1943	314.791
6	-2.40795	0.0242915	-1.97737	74.1943	311.062
7	-2.40795	0.0283401	-1.91103	74.1943	307.822
8	-2.40795	0.0323887	-1.85218	74.1943	304.948
9	-2.40795	0.0364372	-1.79912	74.1943	302.357
10	-2.40795	0.0404858	-1.75069	74.1943	299.992
11	-2.40795	0.0445344	-1.70604	74.1943	297.812
12	-2.40795	0.048583	-1.66456	74.1943	295.786
13	-2.40795	0.0526316	-1.62576	74.1943	293.891
14	-2.40795	0.0566802	-1.58927	74.1943	292.109
15	-2.40795	0.0607287	-1.55477	74.1943	290.425
16	-2.40795	0.0647773	-1.52203	74.1943	288.826
17	-2.40795	0.0688259	-1.49085	74.1943	287.303
18	-2.40795	0.0728745	-1.46106	74.1943	285.848
19	-2.40795	0.0769231	-1.4325	74.1943	284.454
20	-2.40795	0.0809717	-1.40507	74.1943	283.114
21	-2.40795	0.0850202	-1.3722	74.1943	281.509
22	-2.40795	0.0890688	-1.34694	74.1943	280.276
23	-2.40795	0.0931174	-1.32251	74.1943	279.082
24	-2.40795	0.097166	-1.29884	74.1943	277.926
25	-2.40795	0.101215	-1.27588	74.1943	276.805
26	-2.40795	0.105263	-1.25357	74.1943	275.716
27	-2.40795	0.109312	-1.23187	74.1943	274.656
28	-2.40795	0.11336	-1.21073	74.1943	273.624
29	-2.40795	0.117409	-1.19012	74.1943	272.617
30	-2.40795	0.121457	-1.17	74.1943	271.635
31	-2.40795	0.125506	-1.15035	74.1943	270.675
32	-2.40795	0.129555	-1.13113	74.1943	269.737
33	-2.40795	0.133603	-1.11232	74.1943	268.818
34	-2.40795	0.137652	-1.0939	74.1943	267.919
35	-2.40795	0.1417	-1.07584	74.1943	267.037
36	-2.40795	0.145749	-1.05812	74.1943	266.172
37	-1.23787	0.149798	-1.04073	143.749	265.322
38	-1.04982	0.153846	-1.02365	154.927	264.488
39	-1.02165	0.157895	-1.00687	156.602	263.669
40	-0.820981	0.161943	-0.990356	168.531	262.862
41	-0.820981	0.165992	-0.974114	168.531	262.069
42	-0.755023	0.17004	-0.954165	172.451	261.095
43	-0.733969	0.174089	-0.938476	173.703	260.329
44	-0.653926	0.178138	-0.923014	178.461	259.574
45	-0.653926	0.182186	-0.907769	178.461	258.829
46	-0.544727	0.186235	-0.892733	184.952	258.095
47	-0.544727	0.190283	-0.877897	184.952	257.371
48	-0.544727	0.194332	-0.863249	184.952	256.655

49	-0.446287	0.198381	-0.848786	190.804	255.949
50	-0.371064	0.202429	-0.834498	195.276	255.251
51	-0.356675	0.206478	-0.820379	196.131	254.562
52	-0.314711	0.210526	-0.806422	198.626	253.88
53	-0.248461	0.214575	-0.792618	202.564	253.206
54	-0.223144	0.218623	-0.778966	204.069	252.54
55	-0.223144	0.222672	-0.765456	204.069	251.88
56	-0.223144	0.226721	-0.752084	204.069	251.227
57	-0.223144	0.230769	-0.738846	204.069	250.58
58	-0.105361	0.234818	-0.725736	211.07	249.94
59	-0.105361	0.238866	-0.712751	211.07	249.306
60	-0.105361	0.242915	-0.699883	211.07	248.678
61	-0.0618754	0.246964	-0.687131	213.655	248.055
62	-0.0618754	0.251012	-0.671346	213.655	247.284
63	-0.0304592	0.255061	-0.658838	215.523	246.673
64	0	0.259109	-0.646431	217.333	246.067
65	0	0.263158	-0.634124	217.333	245.466
66	0	0.267206	-0.621911	217.333	244.87
67	0	0.271255	-0.609791	217.333	244.278
68	0	0.275304	-0.597761	217.333	243.691
69	0	0.279352	-0.585815	217.333	243.107
70	0	0.283401	-0.573953	217.333	242.528
71	0	0.287449	-0.56217	217.333	241.953
72	0	0.291498	-0.550465	217.333	241.381
73	0	0.295547	-0.538836	217.333	240.813
74	0	0.299595	-0.52728	217.333	240.249
75	0	0.303644	-0.515791	217.333	239.688
76	0	0.307692	-0.504372	217.333	239.13
77	0	0.311741	-0.493018	217.333	238.576
78	0	0.315789	-0.481728	217.333	238.024
79	0	0.319838	-0.470498	217.333	237.476
80	0	0.323887	-0.459327	217.333	236.93
81	0	0.327935	-0.448213	217.333	236.388
82	0	0.331984	-0.437153	217.333	235.848
83	0	0.336032	-0.423405	217.333	235.176
84	0	0.340081	-0.412463	217.333	234.642
85	0	0.34413	-0.401571	217.333	234.11
86	0	0.348178	-0.390726	217.333	233.58
87	0	0.352227	-0.379927	217.333	233.053
88	0	0.356275	-0.369171	217.333	232.528
89	0	0.360324	-0.358459	217.333	232.005
90	0	0.364372	-0.347787	217.333	231.484
91	0	0.368421	-0.337155	217.333	230.964
92	0	0.37247	-0.326561	217.333	230.447
93	0	0.376518	-0.316004	217.333	229.932
94	0	0.380567	-0.305481	217.333	229.418
95	0	0.384615	-0.294992	217.333	228.905
96	0	0.388664	-0.284535	217.333	228.395
97	0	0.392713	-0.27411	217.333	227.886
98	0	0.396761	-0.263715	217.333	227.378
99	0	0.40081	-0.253347	217.333	226.872
100	0	0.404858	-0.243007	217.333	226.367
101	0	0.408907	-0.232693	217.333	225.863
102	0	0.412955	-0.222403	217.333	225.361
103	0	0.417004	-0.209575	217.333	224.734
104	0	0.421053	-0.199336	217.333	224.234
105	0	0.425101	-0.189118	217.333	223.735
106	0	0.42915	-0.17892	217.333	223.237
107	0	0.433198	-0.168741	217.333	222.74
108	0	0.437247	-0.158579	217.333	222.244
109	0	0.441296	-0.148434	217.333	221.749
110	0	0.445344	-0.138305	217.333	221.254

111	0	0.449393	-0.128189	217.333	220.76
112	0	0.453441	-0.118085	217.333	220.267
113	0	0.45749	-0.107995	217.333	219.774
114	0	0.461538	-0.0979139	217.333	219.281
115	0	0.465587	-0.0878447	217.333	218.79
116	0	0.469636	-0.0777834	217.333	218.298
117	0	0.473684	-0.0677301	217.333	217.807
118	0	0.477733	-0.0576847	217.333	217.317
119	0	0.481781	-0.0476439	217.333	216.827
120	0	0.48583	-0.0376076	217.333	216.337
121	0	0.489879	-0.0275759	217.333	215.847
122	0	0.493927	-0.0175476	217.333	215.357
123	0	0.497976	-0.00751925	217.333	214.867
124	0	0.502024	0.00751925	217.333	214.133
125	0	0.506073	0.0175476	217.333	213.643
126	0	0.510121	0.0275759	217.333	213.153
127	0	0.51417	0.0376076	217.333	212.663
128	0	0.518219	0.0476439	217.333	212.173
129	0	0.522267	0.0576847	217.333	211.683
130	0	0.526316	0.0677301	217.333	211.193
131	0	0.530364	0.0777834	217.333	210.702
132	0	0.534413	0.0878447	217.333	210.21
133	0	0.538462	0.0979139	217.333	209.719
134	0	0.54251	0.107995	217.333	209.226
135	0	0.546559	0.118085	217.333	208.733
136	0	0.550607	0.128189	217.333	208.24
137	0	0.554656	0.138305	217.333	207.746
138	0	0.558704	0.148434	217.333	207.251
139	0	0.562753	0.158579	217.333	206.756
140	0	0.566802	0.168741	217.333	206.26
141	0	0.57085	0.17892	217.333	205.763
142	0	0.574899	0.189118	217.333	205.265
143	0	0.578947	0.199336	217.333	204.766
144	0	0.582996	0.209575	217.333	204.266
145	0	0.587045	0.222403	217.333	203.639
146	0	0.591093	0.232693	217.333	203.137
147	0	0.595142	0.243007	217.333	202.633
148	0	0.59919	0.253347	217.333	202.128
149	0	0.603239	0.263715	217.333	201.622
150	0	0.607287	0.27411	217.333	201.114
151	0	0.611336	0.284535	217.333	200.605
152	0	0.615385	0.294992	217.333	200.095
153	0	0.619433	0.305481	217.333	199.582
154	0	0.623482	0.316004	217.333	199.068
155	0	0.62753	0.326561	217.333	198.553
156	0	0.631579	0.337155	217.333	198.036
157	0	0.635628	0.347787	217.333	197.516
158	0	0.639676	0.358459	217.333	196.995
159	0	0.643725	0.369171	217.333	196.472
160	0	0.647773	0.379927	217.333	195.947
161	0	0.651822	0.390726	217.333	195.42
162	0	0.65587	0.401571	217.333	194.89
163	0	0.659919	0.412463	217.333	194.358
164	0	0.663968	0.423405	217.333	193.824
165	0	0.668016	0.437153	217.333	193.152
166	0	0.672065	0.448213	217.333	192.612
167	0	0.676113	0.459327	217.333	192.07
168	0	0.680162	0.470498	217.333	191.524
169	0	0.684211	0.481728	217.333	190.976
170	0	0.688259	0.493018	217.333	190.424
171	0	0.692308	0.504372	217.333	189.87
172	0	0.696356	0.515791	217.333	189.312

173	0	0.700405	0.52728	217.333	188.751		
174	0	0.704453	0.538836	217.333	188.187		
175	0	0.708502	0.550465	217.333	187.619		
176	0	0.712551	0.56217	217.333	187.047		
177	0	0.716599	0.573953	217.333	186.472		
178	0	0.720648	0.585815	217.333	185.893		
179	0	0.724696	0.597761	217.333	185.309		
180	0	0.728745	0.609791	217.333	184.722		
181	0	0.732794	0.621911	217.333	184.13		
182	0.157004	0.736842	0.634124	226.666	183.534		
183	0.182322	0.740891	0.646431	228.171	182.933		
184	0.262364	0.744939	0.658838	232.929	182.327		
185	0.34359	0.748988	0.671346	237.758	181.716		
186	0.371564	0.753036	0.687131	239.421	180.945		
187	0.405465	0.757085	0.699883	241.436	180.322		
188	0.457425	0.761134	0.712751	244.525	179.694		
189	0.470004	0.765182	0.725736	245.272	179.06		
190	0.470004	0.769231	0.738846	245.272	178.42		
191	0.500775	0.773279	0.752084	247.102	177.773		
192	0.530628	0.777328	0.765456	248.876	177.12		
193	0.536493	0.781377	0.778966	249.225	176.46		
194	0.641854	0.785425	0.792618	255.488	175.794		
195	0.641854	0.789474	0.806422	255.488	175.12		
196	0.647103	0.793522	0.820379	255.8	174.438		
197	0.693147	0.797571	0.834498	258.537	173.749		
198	0.732368	0.801619	0.848786	260.869	173.051		
199	0.741937	0.805668	0.863249	261.437	172.345		
200	0.788457	0.809717	0.877897	264.203	171.629		
201	0.788457	0.813765	0.892733	264.203	170.905		
202	0.875469	0.817814	0.907769	269.375	170.171		
203	0.875469	0.821862	0.923014	269.375	169.426		
204	0.891998	0.825911	0.938476	270.358	168.671		
205	0.908259	0.82996	0.954165	271.324	167.905		
206	0.951658	0.834008	0.974114	273.904	166.931		
207	0.955511	0.838057	0.990356	274.133	166.138		
208	0.993252	0.842105	1.00687	276.377	165.331		
209	1.02962	0.846154	1.02365	278.538	164.512		
210	1.03318	0.850202	1.04073	278.75	163.678		
211	1.09861	0.854251	1.05812	282.64	162.828		
212	1.27257	0.8583	1.07584	292.98	161.963		
213	1.28093	0.862348	1.0939	293.478	161.081		
214	1.38629	0.866397	1.11232	299.741	160.182		
215	1.38629	0.870445	1.13113	299.741	159.263		
216	1.38629	0.874494	1.15035	299.741	158.325		
217	1.60944	0.878543	1.17	313.005	157.365		
218	1.68825	0.882591	1.19012	317.69	156.383		
219	1.97408	0.88664	1.21073	334.681	155.376		
220	2.30259	0.890688	1.23187	354.209	154.344		
221	2.30259	0.894737	1.25357	354.209	153.284		
222	2.31254	0.898785	1.27588	354.801	152.195		
223	2.48491	0.902834	1.29884	365.047	151.074		
224	2.56495	0.906883	1.32251	369.805	149.918		
225	2.56495	0.910931	1.34694	369.805	148.724		
226	2.6174	0.91498	1.3722	372.923	147.491		
227	2.7213	0.919028	1.40507	379.099	145.886		
228	2.77259	0.923077	1.4325	382.148	144.546		
229	2.83321	0.927126	1.46106	385.752	143.152		
230	2.94444	0.931174	1.49085	392.364	141.697		
231	3.08191	0.935223	1.52203	400.536	140.174		
232	3.20275	0.939271	1.55477	407.719	138.575		
233	3.21888	0.94332	1.58927	408.678	136.891		
234	3.50255	0.947368	1.62576	425.54	135.109		

235	3.58352	0.951417		1.66456	430.354	133.214
236	3.60005	0.955466		1.70604	431.336	131.188
237	3.61092	0.959514		1.75069	431.982	129.008
238	3.66356	0.963563		1.79912	435.112	126.643
239	3.82864	0.967611		1.85218	444.925	124.052
240	3.82864	0.97166	1.91103	444.925	121.178	
241	3.8712	0.975709		1.97737	447.455	117.938
242	3.99268	0.979757		2.05375	454.676	114.209
243	4.07754	0.983806		2.14441	459.72	109.781
244	4.35671	0.987854		2.25713	476.315	104.277
245	4.86753	0.991903		2.40892	506.681	96.8642
246	5.43808	0.995951		2.65209	540.597	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Vinyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank	
MW-13	3/16/1999	ND<0	77.5	
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	ND<0	77.5	
	10/25/2005	ND<0	77.5	
	4/29/2006	ND<0	77.5	
	11/18/2006	ND<0	77.5	
	5/23/2007	ND<0	77.5	
	11/28/2007	ND<0	77.5	
	6/5/2008	ND<0	77.5	
	11/20/2008	ND<0	77.5	
	6/11/2009	ND<-2.40795		77.5
	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	ND<-2.40795 U		77.5
	7/5/2011	ND<-2.40795 U	77.5	

Rank Sum = 1472.5
Rank Mean = 77.5

Background Rank Sum = 1472.5
Background Rank Mean = 77.5

Compliance Locations

Loc. ID	Date	Value	Rank	
MW-10	7/20/1995	ND<0	77.5	
	8/24/1995	1.09861		211
	9/28/1995	1.38629		214
	10/26/1995	1.60944		217
	11/19/1996	ND<0	77.5	
	12/19/1996	ND<0	77.5	
	3/24/1997	ND<0	77.5	
	9/24/1997	ND<0	77.5	
	4/7/1998	ND<0	77.5	
	9/23/1998	ND<0	77.5	
	3/16/1999	1.28093		213
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	0.647103 J	196	
	10/25/2005	0.908259		205
	4/29/2006	1.02962		209
	11/18/2006	0.530628 J		192
	5/23/2007	ND<0	77.5	

	11/28/2007	0.951658		206
	6/5/2008	0.500775	J	191
	11/20/2008	0.457425	J	188
	6/11/2009	0.262364		184
	11/16/2009	0.405465		187
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	0.470004		189
	7/5/2011	0.875469		202
	11/22/2011	0.788457		200
	11/22/2011	0.788457		201

Rank Sum = 4490
Rank Mean = 144.839

MW-7	7/20/1995	ND<0	77.5	
	8/24/1995	ND<0	77.5	
	9/28/1995	-0.356675	J	169
	10/26/1995	ND<0	77.5	
	11/19/1996	ND<0	77.5	
	12/19/1996	ND<0	77.5	
	3/24/1997	ND<0	77.5	
	9/24/1997	ND<0	77.5	
	4/7/1998	ND<0	77.5	
	9/23/1998	ND<0	77.5	
	3/16/1999	ND<0	77.5	
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	-0.653926	J	162
	10/25/2005	-1.02165	J	157
	4/29/2006	-0.446287	J	167
	11/18/2006	-1.04982	J	156
	5/23/2007	ND<0	77.5	
	11/28/2007	ND<0	77.5	
	6/5/2008	-0.755023	J	160
	11/20/2008	-0.544727	J	164
	6/11/2009	ND<-2.40795		77.5
	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	-1.23787	J	155
	7/5/2011	-0.544727	J	165
	11/22/2011	-0.820981	J	158
	11/22/2011	-0.820981	J	159

Rank Sum = 3322
Rank Mean = 107.161

MW-12A	R	3/16/1999	ND<0	77.5
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	ND<0	77.5	
	10/25/2005	0.732368		198
	4/29/2006	0.891998		204
	11/18/2006	0.157004	J	182
	5/23/2007	ND<0	77.5	
	11/28/2007	-0.030459	2 J	181
	6/5/2008	-0.223144	J	172
	11/20/2008	-0.653926	J	163
	6/11/2009	ND<-2.40795		77.5

	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	-0.544727 J		166
	7/5/2011	ND<-2.40795 U	77.5	
	11/22/2011	ND<-2.40795 U		77.5
	11/22/2011	ND<-2.40795 U		77.5

Rank Sum = 2351
Rank Mean = 111.952

MW-9	7/20/1995	ND<0	77.5	
	8/24/1995	ND<0	77.5	
	9/28/1995	-0.223144 J		173
	10/26/1995	-0.105361 J		176
	11/19/1996	ND<0	77.5	
	12/19/1996	ND<0	77.5	
	3/24/1997	ND<0	77.5	
	9/24/1997	ND<0	77.5	
	4/7/1998	ND<0	77.5	
	9/23/1998	ND<0	77.5	
	3/16/1999	0.993252		208
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	3.61092		237
	10/12/2004	ND<0	77.5	
	4/1/2005	1.03318	210	
	10/25/2005	0.371564 J		186
	4/29/2006	-0.371064 J		168
	11/18/2006	-0.314711 J		170
	5/23/2007	ND<0	77.5	
	11/28/2007	0.536493 J		193
	6/5/2008	0.470004 J	190	
	11/20/2008	0.34359 J		185
	6/11/2009	0.693147		197
	11/16/2009	0.182322		183
	6/30/2010	0.741937		199
	11/12/2010	0.641854		194
	7/5/2011	-0.105361 J M	177	
	11/22/2011	-0.0618754 J		179
	11/22/2011	-0.0618754 J		180

Rank Sum = 4412.5
Rank Mean = 142.339

MW-12BR	3/16/1999	1.97408		219
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	1.68825	218	
	10/25/2005	ND<0	77.5	
	4/29/2006	ND<0	77.5	
	11/18/2006	ND<0	77.5	
	5/23/2007	ND<0	77.5	
	11/28/2007	ND<0	77.5	
	6/5/2008	ND<0	77.5	
	11/20/2008	ND<0	77.5	
	6/11/2009	ND<-2.40795		77.5
	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	ND<-2.40795 U		77.5
	7/5/2011	ND<-2.40795 U	77.5	

	11/22/2011	ND<-2.40795	U	77.5
	11/22/2011	ND<-2.40795	U	77.5

Rank Sum = 1909.5
Rank Mean = 90.9286

MW-6	7/20/1995	ND<0	77.5	
	8/24/1995	ND<0	77.5	
	9/28/1995	ND<0	77.5	
	10/26/1995	ND<0	77.5	
	11/19/1996	ND<0	77.5	
	12/19/1996	ND<0	77.5	
	3/24/1997	ND<0	77.5	
	9/24/1997	ND<0	77.5	
	4/7/1998	ND<0	77.5	
	9/23/1998	ND<0	77.5	
	3/16/1999	ND<0	77.5	
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	ND<0	77.5	
	10/25/2005	ND<0	77.5	
	4/29/2006	ND<0	77.5	
	11/18/2006	ND<0	77.5	
	5/23/2007	ND<0	77.5	
	11/28/2007	ND<0	77.5	
	6/5/2008	ND<0	77.5	
	11/20/2008	ND<0	77.5	
	6/11/2009	ND<-2.40795		77.5
	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	ND<-2.40795	U	77.5
	7/5/2011	ND<-2.40795	U	77.5
	11/22/2011	ND<-2.40795	U	77.5
	11/22/2011	ND<-2.40795	U	77.5

Rank Sum = 2402.5
Rank Mean = 77.5

MW-8	7/20/1995	0.875469		203
	8/24/1995	3.82864		239
	9/28/1995	3.58352		235
	10/26/1995	1.38629		215
	11/19/1996	ND<0	77.5	
	12/19/1996	3.82864		240
	3/24/1997	3.8712	241	
	9/24/1997	3.21888		233
	4/7/1998	3.66356	238	
	9/23/1998	2.77259		228
	3/16/1999	2.6174	226	
	9/23/1999	2.7213	227	
	3/15/2000	ND<0	77.5	
	9/24/2003	5.43808		246
	3/11/2004	4.35671		244
	10/12/2004	4.86753		245
	4/1/2005	4.07754	243	
	10/25/2005	3.99268		242
	4/29/2006	3.20275		232
	11/18/2006	3.60005		236
	5/23/2007	2.94444		230
	11/28/2007	3.50255		234
	6/5/2008	3.08191	231	

	11/20/2008	2.31254		222
	6/11/2009	2.48491		223
	6/30/2010	2.30259		220
	11/12/2010	2.30259		221
	7/5/2011	2.83321	229	
	11/22/2011	2.56495		224
	11/22/2011	2.56495		225

Rank Sum = 6627
Rank Mean = 220.9

MW-11R	7/20/1995	ND<0	77.5	
	8/24/1995	0.641854	J	195
	9/28/1995	-0.223144	J	174
	10/26/1995	1.38629		216
	11/19/1996	ND<0	77.5	
	12/19/1996	ND<0	77.5	
	3/24/1997	ND<0	77.5	
	9/24/1997	ND<0	77.5	
	4/7/1998	ND<0	77.5	
	9/23/1998	ND<0	77.5	
	3/16/1999	0.955511		207
	9/23/1999	ND<0	77.5	
	3/15/2000	ND<0	77.5	
	9/24/2003	ND<0	77.5	
	3/11/2004	ND<0	77.5	
	10/12/2004	ND<0	77.5	
	4/1/2005	1.27257	212	
	10/25/2005	-0.105361	J	178
	4/29/2006	-0.248461	J	171
	11/18/2006	-0.223144	J	175
	5/23/2007	ND<0	77.5	
	11/28/2007	-0.733969	J	161
	6/5/2008	ND<0	77.5	
	11/20/2008	ND<0	77.5	
	6/11/2009	ND<-2.40795		77.5
	11/16/2009	ND<-2.40795		77.5
	6/30/2010	ND<-2.40795		77.5
	11/12/2010	ND<-2.40795	U	77.5
	7/5/2011	ND<-2.40795	U	77.5
	11/22/2011	ND<-2.40795	U	77.5
	11/22/2011	ND<-2.40795	U	77.5

Rank Sum = 3394
Rank Mean = 109.484

Calculation Results:

Kruskal-Wallis H Statistic = 89.8519
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 119.061
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
89.8519 > 15.5073 indicating a significant group difference at 5% significance level
119.061 > 15.5073 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 77.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-10	**144.839**	**67.3387**	**48.231**	
MW-7	**107.161**	**29.6613**	**48.231**	
MW-12AR		**111.952**	**34.4524**	**52.4134**
MW-9	**142.339**	**64.8387**	**48.231**	

MW-12BR		90.9286	13.4286	52.4134
MW-6	77.5	0	48.231	
MW-8	220.9	143.4	48.5355	
MW-11R	109.484	31.9839	48.231	

Individual Well Comparisons at Groupwise 5% Significance Level (0.625% Significance Level per comparison)

0.625% Z score is 2.51213

Mean background rank is 77.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	144.839	67.3387	52.0829
MW-7	107.161	29.6613	52.0829
MW-12AR		111.952	34.4524	56.5994
MW-9	142.339	64.8387	52.0829
MW-12BR		90.9286	13.4286	56.5994
MW-6	77.5	0	52.0829
MW-8	220.9	143.4	52.4118
MW-11R	109.484	31.9839	52.0829

Shewhart-CUSUM Control Chart

Parameter: Vinyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 0.682391
Baseline Std Dev = 0.764867
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
3/24/1997	0	0	-0.892169
3/24/1997	0	0	-0.892169
9/24/1997	0	0	-0.892169
9/24/1997	0	0	-0.892169
4/7/1998	0	0	-0.892169
4/7/1998	0	0	-0.892169
9/23/1998	0	0	-0.892169
9/23/1998	0	0	-0.892169
3/16/1999	1.280933	0	0.782545
3/16/1999	1.280933	0	0.782545
9/23/1999	0	0	-0.892169
9/23/1999	0	0	-0.892169
3/15/2000	0	0	-0.892169
3/15/2000	0	0	-0.892169
9/24/2003	0	0	-0.892169
9/24/2003	0	0	-0.892169
3/11/2004	0	0	-0.892169
3/11/2004	0	0	-0.892169
10/12/2004	0	0	-0.892169
10/12/2004	0	0	-0.892169
4/1/2005	0.647103	0	-0.0461355
4/1/2005	0.647103	0	-0.0461355
10/25/2005	0.908259	0	0.295303
10/25/2005	0.908259	0	0.295303
4/29/2006	1.029620	0.453973	
4/29/2006	1.029620	0.453973	
11/18/2006	0.530628	0	-0.198417
11/18/2006	0.530628	0	-0.198417
5/23/2007	0	0	-0.892169
5/23/2007	0	0	-0.892169
11/28/2007	0.951658	0	0.352044
11/28/2007	0.951658	0	0.352044
6/5/2008	0.500775	0	-0.237447
6/5/2008	0.500775	0	-0.237447
11/20/2008	0.457425	0	-0.294124
11/20/2008	0.457425	0	-0.294124
6/11/2009	0.262364	0	-0.54915
6/11/2009	0.262364	0	-0.54915
11/16/2009	0.405465	0	-0.362057
11/16/2009	0.405465	0	-0.362057
6/30/2010	-2.407950	-4.04036	
6/30/2010	-2.407950	-4.04036	
11/12/2010	0.470004	0	-0.277678
11/12/2010	0.470004	0	-0.277678
7/5/2011	0.875469	0	0.252433

7/5/2011	0.875469	0	0.252433	
11/22/2011	0.788457	0	0.196114	
11/22/2011	0.788457	0	0.196114	

Shewhart-CUSUM Control Chart

Parameter: Vinyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = -0.0547507
Baseline Std Dev = 0.092637
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	0	0	0.591024	
3/24/1997	0	0	0.591024	
9/24/1997	0	0	0.591024	
9/24/1997	0	0	0.591024	
4/7/1998	0	0	0.591024	
4/7/1998	0	0	0.591024	
9/23/1998	0	0	0.591024	
9/23/1998	0	0	0.591024	
3/16/1999	0.993252		10.313	11.313
3/16/1999	0.993252		10.313	11.313
9/23/1999	0	9.90403	0.591024	
9/23/1999	0	9.90403	0.591024	
3/15/2000	0	9.49505	0.591024	
3/15/2000	0	9.49505	0.591024	
9/24/2003	0	9.08607	0.591024	
9/24/2003	0	9.08607	0.591024	
3/11/2004	3.61092	47.6563	39.5702	
3/11/2004	3.61092	47.6563	39.5702	
10/12/2004	0	47.2473	0.591024	
10/12/2004	0	47.2473	0.591024	
4/1/2005	1.03318	57.9914	11.7441	
4/1/2005	1.03318	57.9914	11.7441	
10/25/2005	0.371564		61.5934	4.60199
10/25/2005	0.371564		61.5934	4.60199
4/29/2006	-0.371064		57.1789	-3.41454
4/29/2006	-0.371064		57.1789	-3.41454
11/18/2006	-0.314711		53.3726	-2.80622
11/18/2006	-0.314711		53.3726	-2.80622
5/23/2007	0	52.9637	0.591024	
5/23/2007	0	52.9637	0.591024	
11/28/2007	0.536493		58.346	6.38238
11/28/2007	0.536493		58.346	6.38238
6/5/2008	0.470004	63.0107	5.66463	
6/5/2008	0.470004	63.0107	5.66463	
11/20/2008	0.34359	66.3107	4.30001	
11/20/2008	0.34359	66.3107	4.30001	
6/11/2009	0.693147		73.3841	8.07343
6/11/2009	0.693147		73.3841	8.07343
11/16/2009	0.182322		74.9433	2.55915
11/16/2009	0.182322		74.9433	2.55915
6/30/2010	0.741937		82.5434	8.60011
6/30/2010	0.741937		82.5434	8.60011
11/12/2010	0.641854		89.0631	7.51972
11/12/2010	0.641854		89.0631	7.51972
7/5/2011	-0.105361	87.5168	-0.546324	

7/5/2011	-0.105361	87.5168	-0.546324	
11/22/2011	-0.0618754	86.408	-0.108767	
11/22/2011	-0.0618754	86.408	-0.108767	

Shewhart-CUSUM Control Chart

Parameter: Vinyl Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.25043
Baseline Std Dev = 1.70061
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum		Std Mean
3/24/1997	3.8712	0	0.953056	
3/24/1997	3.8712	0	0.953056	
9/24/1997	3.21888	0	0.569472	
9/24/1997	3.21888	0	0.569472	
4/7/1998	3.66356	0	0.830959	
4/7/1998	3.66356	0	0.830959	
9/23/1998	2.77259	0	0.307044	
9/23/1998	2.77259	0	0.307044	
3/16/1999	2.6174	0	0.215787	
3/16/1999	2.6174	0	0.215787	
9/23/1999	2.7213	0	0.276882	
9/23/1999	2.7213	0	0.276882	
3/15/2000	0	0	-1.32331	
3/15/2000	0	0	-1.32331	
9/24/2003	5.43808	0.874421		1.87442
9/24/2003	5.43808	0.874421		1.87442
3/11/2004	4.35671	1.11297	1.23855	
3/11/2004	4.35671	1.11297	1.23855	
10/12/2004	4.86753	1.65189	1.53893	
10/12/2004	4.86753	1.65189	1.53893	
4/1/2005	4.07754	1.72628	1.07439	
4/1/2005	4.07754	1.72628	1.07439	
10/25/2005	3.99268	1.75077	1.02449	
10/25/2005	3.99268	1.75077	1.02449	
4/29/2006	3.20275	1.31076	0.559988	
4/29/2006	3.20275	1.31076	0.559988	
11/18/2006	3.60005	1.10437	0.793611	
11/18/2006	3.60005	1.10437	0.793611	
5/23/2007	2.94444	0.512466		0.408096
5/23/2007	2.94444	0.512466		0.408096
11/28/2007	3.50255	0.248746		0.73628
11/28/2007	3.50255	0.248746		0.73628
6/5/2008	3.08191	0	0.488933	
6/5/2008	3.08191	0	0.488933	
11/20/2008	2.31254	0	0.0365211	
11/20/2008	2.31254	0	0.0365211	
6/11/2009	2.48491	0	0.13788	
6/11/2009	2.48491	0	0.13788	
6/30/2010	2.30259	0	0.03067	
6/30/2010	2.30259	0	0.03067	
11/12/2010	2.30259	0	0.03067	
11/12/2010	2.30259	0	0.03067	
7/5/2011	2.83321	0	0.342693	
7/5/2011	2.83321	0	0.342693	
11/22/2011	2.56495	0	0.261554	

11/22/2011	2.56495	0	0.261554

Sen's Slope Analysis
Parameter: Vinyl Chloride
Location: MW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
1.09861 (8/24/1995)	ND<0 (7/20/1995)	(1.09861 - 0)/(2 - 1)		1.09861
1.38629 (9/28/1995)	ND<0 (7/20/1995)	(1.38629 - 0)/(3 - 1)		
0.693147				
1.60944 (10/26/1995)	ND<0 (7/20/1995)	(1.60944 - 0)/(4 - 1)		
0.536479				
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0	
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0	
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0	
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0	
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0	
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0	
1.28093 (3/16/1999)	ND<0 (7/20/1995)	(1.28093 - 0)/(11 - 1)		
0.128093				
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0	
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0	
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0	
ND<0 (3/11/2004)	ND<0 (7/20/1995)	(0 - 0)/(15 - 1)	0	
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0	
0.647103 J (4/1/2005)	ND<0 (7/20/1995)	(0.647103 - 0)/(17 - 1)		
0.040444				
0.908259 (10/25/2005)	ND<0 (7/20/1995)	(0.908259 - 0)/(18 - 1)		
0.053427				
1.02962 (4/29/2006)	ND<0 (7/20/1995)	(1.02962 - 0)/(19 - 1)		
0.0572011				
0.530628 J (11/18/2006)	ND<0 (7/20/1995)	(0.530628 - 0)/(20 - 1)		
0.0279278				
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0	
0.951658 (11/28/2007)	ND<0 (7/20/1995)	(0.951658 - 0)/(22 - 1)		
0.045317				
0.500775 J (6/5/2008)	ND<0 (7/20/1995)	(0.500775 - 0)/(23 - 1)		
0.0227625				
0.457425 J (11/20/2008)	ND<0 (7/20/1995)	(0.457425 - 0)/(24 - 1)		
0.019888				
0.262364 (6/11/2009)	ND<0 (7/20/1995)	(0.262364 - 0)/(25 - 1)		
0.0109318				
0.405465 (11/16/2009)	ND<0 (7/20/1995)	(0.405465 - 0)/(26 - 1)		
0.0162186				
ND<-2.40795 (6/30/2010)	ND<0 (7/20/1995)	(-2.40795 - 0)/(27 - 1)		
-0.0926133				
0.470004 (11/12/2010)	ND<0 (7/20/1995)	(0.470004 - 0)/(28 - 1)		
0.0174075				
0.875469 (7/5/2011)	ND<0 (7/20/1995)	(0.875469 - 0)/(29 - 1)		
0.0312667				
0.788457 (11/22/2011)	ND<0 (7/20/1995)	(0.788457 - 0)/(30 - 1)		
0.0271882				
0.788457 (11/22/2011)	ND<0 (7/20/1995)	(0.788457 - 0)/(30 - 1)		
0.0271882				
1.38629 (9/28/1995)	1.09861 (8/24/1995)	(1.38629 - 1.09861)/(3 - 2)		
0.287682				

1.60944 (10/26/1995)	1.09861	(8/24/1995)	(1.60944 - 1.09861)/(4 - 2)
0.255413			
ND<0 (11/19/1996)	1.09861	(8/24/1995)	(0 - 1.09861)/(5 - 2)
-0.366204			
ND<0 (12/19/1996)	1.09861	(8/24/1995)	(0 - 1.09861)/(6 - 2)
-0.274653			
ND<0 (3/24/1997)	1.09861	(8/24/1995)	(0 - 1.09861)/(7 - 2)
-0.219722			
ND<0 (9/24/1997)	1.09861	(8/24/1995)	(0 - 1.09861)/(8 - 2)
-0.183102			
ND<0 (4/7/1998)	1.09861	(8/24/1995)	(0 - 1.09861)/(9 - 2)
-0.156945			
ND<0 (9/23/1998)	1.09861	(8/24/1995)	(0 - 1.09861)/(10 - 2)
-0.137327			
1.28093 (3/16/1999)	1.09861	(8/24/1995)	(1.28093 - 1.09861)/(11 - 2)
0.020258			
ND<0 (9/23/1999)	1.09861	(8/24/1995)	(0 - 1.09861)/(12 - 2)
-0.109861			
ND<0 (3/15/2000)	1.09861	(8/24/1995)	(0 - 1.09861)/(13 - 2)
-0.0998738			
ND<0 (9/24/2003)	1.09861	(8/24/1995)	(0 - 1.09861)/(14 - 2)
-0.091551			
ND<0 (3/11/2004)	1.09861	(8/24/1995)	(0 - 1.09861)/(15 - 2)
-0.0845086			
ND<0 (10/12/2004)	1.09861	(8/24/1995)	(0 - 1.09861)/(16 - 2)
-0.0784723			
0.647103 J (4/1/2005)	1.09861	(8/24/1995)	(0.647103 - 1.09861)/(17 - 2)
-0.0301006			
0.908259 (10/25/2005)	1.09861	(8/24/1995)	(0.908259 - 1.09861)/(18 - 2)
-0.0118971			
1.02962 (4/29/2006)	1.09861	(8/24/1995)	(1.02962 - 1.09861)/(19 - 2)
-0.0040584			
0.530628 J (11/18/2006)	1.09861	(8/24/1995)	(0.530628 - 1.09861)/(20 - 2)
-0.0315547			
ND<0 (5/23/2007)	1.09861	(8/24/1995)	(0 - 1.09861)/(21 - 2)
-0.0578217			
0.951658 (11/28/2007)	1.09861	(8/24/1995)	(0.951658 - 1.09861)/(22 - 2)
-0.00734772			
0.500775 J (6/5/2008)	1.09861	(8/24/1995)	(0.500775 - 1.09861)/(23 - 2)
-0.0284684			
0.457425 J (11/20/2008)	1.09861	(8/24/1995)	(0.457425 - 1.09861)/(24 - 2)
-0.0291449			
0.262364 (6/11/2009)	1.09861	(8/24/1995)	(0.262364 - 1.09861)/(25 - 2)
-0.0363586			
0.405465 (11/16/2009)	1.09861	(8/24/1995)	(0.405465 - 1.09861)/(26 - 2)
-0.0288811			
ND<-2.40795 (6/30/2010)	1.09861	(8/24/1995)	(-2.40795 - 1.09861)/(27 - 2)
-0.140262			
0.470004 (11/12/2010)	1.09861	(8/24/1995)	(0.470004 - 1.09861)/(28 - 2)
-0.0241773			
0.875469 (7/5/2011)	1.09861	(8/24/1995)	(0.875469 - 1.09861)/(29 - 2)
-0.00826458			
0.788457 (11/22/2011)	1.09861	(8/24/1995)	(0.788457 - 1.09861)/(30 - 2)
-0.011077			
0.788457 (11/22/2011)	1.09861	(8/24/1995)	(0.788457 - 1.09861)/(30 - 2)
-0.011077			
1.60944 (10/26/1995)	1.38629	(9/28/1995)	(1.60944 - 1.38629)/(4 - 3)
0.223144			
ND<0 (11/19/1996)	1.38629	(9/28/1995)	(0 - 1.38629)/(5 - 3)
-0.693147			

ND<0 (12/19/1996)	1.38629	(9/28/1995)	(0 - 1.38629)/(6 - 3)	
-0.462098				
ND<0 (3/24/1997)	1.38629	(9/28/1995)	(0 - 1.38629)/(7 - 3)	
-0.346574				
ND<0 (9/24/1997)	1.38629	(9/28/1995)	(0 - 1.38629)/(8 - 3)	
-0.277259				
ND<0 (4/7/1998)	1.38629	(9/28/1995)	(0 - 1.38629)/(9 - 3)	
-0.231049				
ND<0 (9/23/1998)	1.38629	(9/28/1995)	(0 - 1.38629)/(10 - 3)	
-0.198042				
1.28093 (3/16/1999)	1.38629	(9/28/1995)	(1.28093 - 1.38629)/(11 - 3)	
-0.0131701				
ND<0 (9/23/1999)	1.38629	(9/28/1995)	(0 - 1.38629)/(12 - 3)	
-0.154033				
ND<0 (3/15/2000)	1.38629	(9/28/1995)	(0 - 1.38629)/(13 - 3)	
-0.138629				
ND<0 (9/24/2003)	1.38629	(9/28/1995)	(0 - 1.38629)/(14 - 3)	
-0.126027				
ND<0 (3/11/2004)	1.38629	(9/28/1995)	(0 - 1.38629)/(15 - 3)	
-0.115525				
ND<0 (10/12/2004)	1.38629	(9/28/1995)	(0 - 1.38629)/(16 - 3)	
-0.106638				
0.647103 J (4/1/2005)	1.38629	(9/28/1995)	(0.647103 - 1.38629)/(17 - 3)	
-0.0527994				
0.908259 (10/25/2005)	1.38629	(9/28/1995)	(0.908259 - 1.38629)/(18 - 3)	
-0.0318691				
1.02962 (4/29/2006)	1.38629	(9/28/1995)	(1.02962 - 1.38629)/(19 - 3)	
-0.0222922				
0.530628 J (11/18/2006)	1.38629	(9/28/1995)	(0.530628 - 1.38629)/(20 - 3)	
-0.0503333				
ND<0 (5/23/2007)	1.38629	(9/28/1995)	(0 - 1.38629)/(21 - 3)	
-0.0770164				
0.951658 (11/28/2007)	1.38629	(9/28/1995)	(0.951658 - 1.38629)/(22 - 3)	
-0.0228756				
0.500775 J (6/5/2008)	1.38629	(9/28/1995)	(0.500775 - 1.38629)/(23 - 3)	
-0.044276				
0.457425 J (11/20/2008)	1.38629	(9/28/1995)	(0.457425 - 1.38629)/(24 - 3)	
-0.0442319				
0.262364 (6/11/2009)	1.38629	(9/28/1995)	(0.262364 - 1.38629)/(25 - 3)	
-0.0510877				
0.405465 (11/16/2009)	1.38629	(9/28/1995)	(0.405465 - 1.38629)/(26 - 3)	
-0.0426448				
ND<-2.40795 (6/30/2010)	1.38629	(9/28/1995)	(-2.40795 - 1.38629)/(27 - 3)	
-0.158093				
0.470004 (11/12/2010)	1.38629	(9/28/1995)	(0.470004 - 1.38629)/(28 - 3)	
-0.0366516				
0.875469 (7/5/2011)	1.38629	(9/28/1995)	(0.875469 - 1.38629)/(29 - 3)	
-0.0196471				
0.788457 (11/22/2011)	1.38629	(9/28/1995)	(0.788457 - 1.38629)/(30 - 3)	
-0.0221421				
0.788457 (11/22/2011)	1.38629	(9/28/1995)	(0.788457 - 1.38629)/(30 - 3)	
-0.0221421				
ND<0 (11/19/1996)	1.60944	(10/26/1995)	(0 - 1.60944)/(5 - 4)	-1.60944
ND<0 (12/19/1996)	1.60944	(10/26/1995)	(0 - 1.60944)/(6 - 4)	
-0.804719				
ND<0 (3/24/1997)	1.60944	(10/26/1995)	(0 - 1.60944)/(7 - 4)	
-0.536479				
ND<0 (9/24/1997)	1.60944	(10/26/1995)	(0 - 1.60944)/(8 - 4)	
-0.402359				
ND<0 (4/7/1998)	1.60944	(10/26/1995)	(0 - 1.60944)/(9 - 4)	
-0.321888				

ND<0 (9/23/1998)	1.60944 (10/26/1995)	(0 - 1.60944)/(10 - 4)	-0.26824
1.28093 (3/16/1999)	1.60944 (10/26/1995)	(1.28093 - 1.60944)/(11 - 4)	
-0.0469292			
ND<0 (9/23/1999)	1.60944 (10/26/1995)	(0 - 1.60944)/(12 - 4)	-0.20118
ND<0 (3/15/2000)	1.60944 (10/26/1995)	(0 - 1.60944)/(13 - 4)	
-0.178826			
ND<0 (9/24/2003)	1.60944 (10/26/1995)	(0 - 1.60944)/(14 - 4)	
-0.160944			
ND<0 (3/11/2004)	1.60944 (10/26/1995)	(0 - 1.60944)/(15 - 4)	
-0.146313			
ND<0 (10/12/2004)	1.60944 (10/26/1995)	(0 - 1.60944)/(16 - 4)	-0.13412
0.647103 J (4/1/2005)	1.60944 (10/26/1995)	(0.647103 - 1.60944)/(17 - 4)	
-0.0740257			
0.908259 (10/25/2005)	1.60944 (10/26/1995)	(0.908259 - 1.60944)/(18 - 4)	
-0.0500842			
1.02962 (4/29/2006)	1.60944 (10/26/1995)	(1.02962 - 1.60944)/(19 - 4)	
-0.0386546			
0.530628 J (11/18/2006)	1.60944 (10/26/1995)	(0.530628 - 1.60944)/(20 - 4)	
-0.0674256			
ND<0 (5/23/2007)	1.60944 (10/26/1995)	(0 - 1.60944)/(21 - 4)	
-0.0946728			
0.951658 (11/28/2007)	1.60944 (10/26/1995)	(0.951658 - 1.60944)/(22 - 4)	
-0.0365433			
0.500775 J (6/5/2008)	1.60944 (10/26/1995)	(0.500775 - 1.60944)/(23 - 4)	
-0.0583507			
0.457425 J (11/20/2008)	1.60944 (10/26/1995)	(0.457425 - 1.60944)/(24 - 4)	
-0.0576007			
0.262364 (6/11/2009)	1.60944 (10/26/1995)	(0.262364 - 1.60944)/(25 - 4)	
-0.0641464			
0.405465 (11/16/2009)	1.60944 (10/26/1995)	(0.405465 - 1.60944)/(26 - 4)	
-0.054726			
ND<-2.40795 (6/30/2010)	1.60944 (10/26/1995)	(-2.40795 - 1.60944)/(27 - 4)	
-0.174669			
0.470004 (11/12/2010)	1.60944 (10/26/1995)	(0.470004 - 1.60944)/(28 - 4)	
-0.0474764			
0.875469 (7/5/2011)	1.60944 (10/26/1995)	(0.875469 - 1.60944)/(29 - 4)	
-0.0293588			
0.788457 (11/22/2011)	1.60944 (10/26/1995)	(0.788457 - 1.60944)/(30 - 4)	
-0.0315762			
0.788457 (11/22/2011)	1.60944 (10/26/1995)	(0.788457 - 1.60944)/(30 - 4)	
-0.0315762			

ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
1.28093 (3/16/1999)	ND<0 (11/19/1996)	(1.28093 - 0)/(11 - 5)	
0.213489			
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
ND<0 (3/11/2004)	ND<0 (11/19/1996)	(0 - 0)/(15 - 5)	0
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
0.647103 J (4/1/2005)	ND<0 (11/19/1996)	(0.647103 - 0)/(17 - 5)	
0.0539253			
0.908259 (10/25/2005)	ND<0 (11/19/1996)	(0.908259 - 0)/(18 - 5)	
0.069866			
1.02962 (4/29/2006)	ND<0 (11/19/1996)	(1.02962 - 0)/(19 - 5)	
0.0735442			
0.530628 J (11/18/2006)	ND<0 (11/19/1996)	(0.530628 - 0)/(20 - 5)	
0.0353752			

ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
0.951658 (11/28/2007)	ND<0 (11/19/1996)	(0.951658 - 0)/(22 - 5)	
0.0559799			
0.500775 J (6/5/2008)	ND<0 (11/19/1996)	(0.500775 - 0)/(23 - 5)	
0.0278208			
0.457425 J (11/20/2008)	ND<0 (11/19/1996)	(0.457425 - 0)/(24 - 5)	
0.024075			
0.262364 (6/11/2009)	ND<0 (11/19/1996)	(0.262364 - 0)/(25 - 5)	
0.0131182			
0.405465 (11/16/2009)	ND<0 (11/19/1996)	(0.405465 - 0)/(26 - 5)	
0.0193079			
ND<-2.40795 (6/30/2010)	ND<0 (11/19/1996)	(-2.40795 - 0)/(27 - 5)	
-0.109452			
0.470004 (11/12/2010)	ND<0 (11/19/1996)	(0.470004 - 0)/(28 - 5)	
0.0204349			
0.875469 (7/5/2011)	ND<0 (11/19/1996)	(0.875469 - 0)/(29 - 5)	
0.0364779			
0.788457 (11/22/2011)	ND<0 (11/19/1996)	(0.788457 - 0)/(30 - 5)	
0.0315383			
0.788457 (11/22/2011)	ND<0 (11/19/1996)	(0.788457 - 0)/(30 - 5)	
0.0315383			
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0
1.28093 (3/16/1999)	ND<0 (12/19/1996)	(1.28093 - 0)/(11 - 6)	
0.256187			
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0
ND<0 (3/11/2004)	ND<0 (12/19/1996)	(0 - 0)/(15 - 6)	0
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0
0.647103 J (4/1/2005)	ND<0 (12/19/1996)	(0.647103 - 0)/(17 - 6)	
0.0588276			
0.908259 (10/25/2005)	ND<0 (12/19/1996)	(0.908259 - 0)/(18 - 6)	
0.0756882			
1.02962 (4/29/2006)	ND<0 (12/19/1996)	(1.02962 - 0)/(19 - 6)	
0.0792015			
0.530628 J (11/18/2006)	ND<0 (12/19/1996)	(0.530628 - 0)/(20 - 6)	
0.037902			
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0
0.951658 (11/28/2007)	ND<0 (12/19/1996)	(0.951658 - 0)/(22 - 6)	
0.0594786			
0.500775 J (6/5/2008)	ND<0 (12/19/1996)	(0.500775 - 0)/(23 - 6)	
0.0294574			
0.457425 J (11/20/2008)	ND<0 (12/19/1996)	(0.457425 - 0)/(24 - 6)	
0.0254125			
0.262364 (6/11/2009)	ND<0 (12/19/1996)	(0.262364 - 0)/(25 - 6)	
0.0138086			
0.405465 (11/16/2009)	ND<0 (12/19/1996)	(0.405465 - 0)/(26 - 6)	
0.0202733			
ND<-2.40795 (6/30/2010)	ND<0 (12/19/1996)	(-2.40795 - 0)/(27 - 6)	
-0.114664			
0.470004 (11/12/2010)	ND<0 (12/19/1996)	(0.470004 - 0)/(28 - 6)	
0.0213638			
0.875469 (7/5/2011)	ND<0 (12/19/1996)	(0.875469 - 0)/(29 - 6)	
0.0380639			
0.788457 (11/22/2011)	ND<0 (12/19/1996)	(0.788457 - 0)/(30 - 6)	
0.0328524			
0.788457 (11/22/2011)	ND<0 (12/19/1996)	(0.788457 - 0)/(30 - 6)	
0.0328524			

ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0
1.28093 (3/16/1999) 0.320233	ND<0 (3/24/1997)	(1.28093 - 0)/(11 - 7)	
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
ND<0 (3/11/2004)	ND<0 (3/24/1997)	(0 - 0)/(15 - 7)	0
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
0.647103 J (4/1/2005) 0.0647103	ND<0 (3/24/1997)	(0.647103 - 0)/(17 - 7)	
0.908259 (10/25/2005) 0.082569	ND<0 (3/24/1997)	(0.908259 - 0)/(18 - 7)	
1.02962 (4/29/2006) 0.0858016	ND<0 (3/24/1997)	(1.02962 - 0)/(19 - 7)	
0.530628 J (11/18/2006) 0.0408176	ND<0 (3/24/1997)	(0.530628 - 0)/(20 - 7)	
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
0.951658 (11/28/2007) 0.0634439	ND<0 (3/24/1997)	(0.951658 - 0)/(22 - 7)	
0.500775 J (6/5/2008) 0.0312985	ND<0 (3/24/1997)	(0.500775 - 0)/(23 - 7)	
0.457425 J (11/20/2008) 0.0269073	ND<0 (3/24/1997)	(0.457425 - 0)/(24 - 7)	
0.262364 (6/11/2009) 0.0145758	ND<0 (3/24/1997)	(0.262364 - 0)/(25 - 7)	
0.405465 (11/16/2009) 0.0213403	ND<0 (3/24/1997)	(0.405465 - 0)/(26 - 7)	
ND<-2.40795 (6/30/2010) -0.120397	ND<0 (3/24/1997)	(-2.40795 - 0)/(27 - 7)	
0.470004 (11/12/2010) 0.0223811	ND<0 (3/24/1997)	(0.470004 - 0)/(28 - 7)	
0.875469 (7/5/2011) 0.039794	ND<0 (3/24/1997)	(0.875469 - 0)/(29 - 7)	
0.788457 (11/22/2011) 0.0342808	ND<0 (3/24/1997)	(0.788457 - 0)/(30 - 7)	
0.788457 (11/22/2011) 0.0342808	ND<0 (3/24/1997)	(0.788457 - 0)/(30 - 7)	
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
1.28093 (3/16/1999) 0.426978	ND<0 (9/24/1997)	(1.28093 - 0)/(11 - 8)	
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
ND<0 (3/11/2004)	ND<0 (9/24/1997)	(0 - 0)/(15 - 8)	0
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0
0.647103 J (4/1/2005) 0.0719004	ND<0 (9/24/1997)	(0.647103 - 0)/(17 - 8)	
0.908259 (10/25/2005) 0.0908259	ND<0 (9/24/1997)	(0.908259 - 0)/(18 - 8)	
1.02962 (4/29/2006) 0.0936018	ND<0 (9/24/1997)	(1.02962 - 0)/(19 - 8)	
0.530628 J (11/18/2006) 0.044219	ND<0 (9/24/1997)	(0.530628 - 0)/(20 - 8)	
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0
0.951658 (11/28/2007) 0.0679756	ND<0 (9/24/1997)	(0.951658 - 0)/(22 - 8)	

0.500775 J (6/5/2008)	ND<0 (9/24/1997)	(0.500775 - 0)/(23 - 8)		
0.033385				
0.457425 J (11/20/2008)	ND<0 (9/24/1997)	(0.457425 - 0)/(24 - 8)		
0.0285891				
0.262364 (6/11/2009)	ND<0 (9/24/1997)	(0.262364 - 0)/(25 - 8)		
0.0154332				
0.405465 (11/16/2009)	ND<0 (9/24/1997)	(0.405465 - 0)/(26 - 8)		
0.0225258				
ND<-2.40795 (6/30/2010)	ND<0 (9/24/1997)	(-2.40795 - 0)/(27 - 8)		
-0.126734				
0.470004 (11/12/2010)	ND<0 (9/24/1997)	(0.470004 - 0)/(28 - 8)		
0.0235002				
0.875469 (7/5/2011)	ND<0 (9/24/1997)	(0.875469 - 0)/(29 - 8)		
0.041689				
0.788457 (11/22/2011)	ND<0 (9/24/1997)	(0.788457 - 0)/(30 - 8)		
0.035839				
0.788457 (11/22/2011)	ND<0 (9/24/1997)	(0.788457 - 0)/(30 - 8)		
0.035839				
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0	
1.28093 (3/16/1999)	ND<0 (4/7/1998)	(1.28093 - 0)/(11 - 9)		
0.640467				
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0	
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
ND<0 (3/11/2004)	ND<0 (4/7/1998)	(0 - 0)/(15 - 9)	0	
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
0.647103 J (4/1/2005)	ND<0 (4/7/1998)	(0.647103 - 0)/(17 - 9)		
0.0808879				
0.908259 (10/25/2005)	ND<0 (4/7/1998)	(0.908259 - 0)/(18 - 9)		
0.100918				
1.02962 (4/29/2006)	ND<0 (4/7/1998)	(1.02962 - 0)/(19 - 9)		
0.102962				
0.530628 J (11/18/2006)	ND<0 (4/7/1998)	(0.530628 - 0)/(20 - 9)		
0.0482389				
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0	
0.951658 (11/28/2007)	ND<0 (4/7/1998)	(0.951658 - 0)/(22 - 9)		
0.0732045				
0.500775 J (6/5/2008)	ND<0 (4/7/1998)	(0.500775 - 0)/(23 - 9)		
0.0357697				
0.457425 J (11/20/2008)	ND<0 (4/7/1998)	(0.457425 - 0)/(24 - 9)		
0.030495				
0.262364 (6/11/2009)	ND<0 (4/7/1998)	(0.262364 - 0)/(25 - 9)		
0.0163978				
0.405465 (11/16/2009)	ND<0 (4/7/1998)	(0.405465 - 0)/(26 - 9)		
0.0238509				
ND<-2.40795 (6/30/2010)	ND<0 (4/7/1998)	(-2.40795 - 0)/(27 - 9)		
-0.133775				
0.470004 (11/12/2010)	ND<0 (4/7/1998)	(0.470004 - 0)/(28 - 9)		
0.024737				
0.875469 (7/5/2011)	ND<0 (4/7/1998)	(0.875469 - 0)/(29 - 9)		
0.0437734				
0.788457 (11/22/2011)	ND<0 (4/7/1998)	(0.788457 - 0)/(30 - 9)		
0.0375456				
0.788457 (11/22/2011)	ND<0 (4/7/1998)	(0.788457 - 0)/(30 - 9)		
0.0375456				
1.28093 (3/16/1999)	ND<0 (9/23/1998)	(1.28093 - 0)/(11 - 10)		1.28093
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0	
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1998)	(0 - 0)/(15 - 10)	0	

ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
0.647103 J (4/1/2005)	ND<0 (9/23/1998)	(0.647103 - 0)/(17 - 10)		
0.0924433				
0.908259 (10/25/2005)	ND<0 (9/23/1998)	(0.908259 - 0)/(18 - 10)		
0.113532				
1.02962 (4/29/2006)	ND<0 (9/23/1998)	(1.02962 - 0)/(19 - 10)		
0.114402				
0.530628 J (11/18/2006)	ND<0 (9/23/1998)	(0.530628 - 0)/(20 - 10)		
0.0530628				
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0	
0.951658 (11/28/2007)	ND<0 (9/23/1998)	(0.951658 - 0)/(22 - 10)		
0.0793048				
0.500775 J (6/5/2008)	ND<0 (9/23/1998)	(0.500775 - 0)/(23 - 10)		
0.0385212				
0.457425 J (11/20/2008)	ND<0 (9/23/1998)	(0.457425 - 0)/(24 - 10)		
0.0326732				
0.262364 (6/11/2009)	ND<0 (9/23/1998)	(0.262364 - 0)/(25 - 10)		
0.017491				
0.405465 (11/16/2009)	ND<0 (9/23/1998)	(0.405465 - 0)/(26 - 10)		
0.0253416				
ND<-2.40795 (6/30/2010)	ND<0 (9/23/1998)	(-2.40795 - 0)/(27 - 10)		
-0.141644				
0.470004 (11/12/2010)	ND<0 (9/23/1998)	(0.470004 - 0)/(28 - 10)		
0.0261113				
0.875469 (7/5/2011)	ND<0 (9/23/1998)	(0.875469 - 0)/(29 - 10)		
0.0460773				
0.788457 (11/22/2011)	ND<0 (9/23/1998)	(0.788457 - 0)/(30 - 10)		
0.0394229				
0.788457 (11/22/2011)	ND<0 (9/23/1998)	(0.788457 - 0)/(30 - 10)		
0.0394229				

ND<0 (9/23/1999)	1.28093 (3/16/1999)	(0 - 1.28093)/(12 - 11)	-1.28093
ND<0 (3/15/2000)	1.28093 (3/16/1999)	(0 - 1.28093)/(13 - 11)	
-0.640467			
ND<0 (9/24/2003)	1.28093 (3/16/1999)	(0 - 1.28093)/(14 - 11)	
-0.426978			
ND<0 (3/11/2004)	1.28093 (3/16/1999)	(0 - 1.28093)/(15 - 11)	
-0.320233			
ND<0 (10/12/2004)	1.28093 (3/16/1999)	(0 - 1.28093)/(16 - 11)	
-0.256187			
0.647103 J (4/1/2005)	1.28093 (3/16/1999)	(0.647103 - 1.28093)/(17 - 11)	
-0.105638			
0.908259 (10/25/2005)	1.28093 (3/16/1999)	(0.908259 - 1.28093)/(18 - 11)	
-0.0532393			
1.02962 (4/29/2006)	1.28093 (3/16/1999)	(1.02962 - 1.28093)/(19 - 11)	
-0.0314143			
0.530628 J (11/18/2006)	1.28093 (3/16/1999)	(0.530628 - 1.28093)/(20 - 11)	
-0.0833673			
ND<0 (5/23/2007)	1.28093 (3/16/1999)	(0 - 1.28093)/(21 - 11)	
-0.128093			
0.951658 (11/28/2007)	1.28093 (3/16/1999)	(0.951658 - 1.28093)/(22 - 11)	
-0.0299342			
0.500775 J (6/5/2008)	1.28093 (3/16/1999)	(0.500775 - 1.28093)/(23 - 11)	
-0.0650132			
0.457425 J (11/20/2008)	1.28093 (3/16/1999)	(0.457425 - 1.28093)/(24 - 11)	
-0.0633468			
0.262364 (6/11/2009)	1.28093 (3/16/1999)	(0.262364 - 1.28093)/(25 - 11)	
-0.072755			
0.405465 (11/16/2009)	1.28093 (3/16/1999)	(0.405465 - 1.28093)/(26 - 11)	
-0.0583646			
ND<-2.40795 (6/30/2010)	1.28093 (3/16/1999)	(-2.40795 - 1.28093)/(27 - 11)	
-0.230555			

0.470004 (11/12/2010)	1.28093 (3/16/1999)	(0.470004 - 1.28093)/(28 - 11)		
-0.0477018				
0.875469 (7/5/2011)	1.28093 (3/16/1999)	(0.875469 - 1.28093)/(29 - 11)		
-0.0225258				
0.788457 (11/22/2011)	1.28093 (3/16/1999)	(0.788457 - 1.28093)/(30 - 11)		
-0.0259198				
0.788457 (11/22/2011)	1.28093 (3/16/1999)	(0.788457 - 1.28093)/(30 - 11)		
-0.0259198				
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
ND<0 (3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(15 - 12)	0	
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
0.647103 J (4/1/2005)	ND<0 (9/23/1999)	(0.647103 - 0)/(17 - 12)		
0.129421				
0.908259 (10/25/2005)	ND<0 (9/23/1999)	(0.908259 - 0)/(18 - 12)		
0.151376				
1.02962 (4/29/2006)	ND<0 (9/23/1999)	(1.02962 - 0)/(19 - 12)		
0.147088				
0.530628 J (11/18/2006)	ND<0 (9/23/1999)	(0.530628 - 0)/(20 - 12)		
0.0663285				
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0	
0.951658 (11/28/2007)	ND<0 (9/23/1999)	(0.951658 - 0)/(22 - 12)		
0.0951658				
0.500775 J (6/5/2008)	ND<0 (9/23/1999)	(0.500775 - 0)/(23 - 12)		
0.045525				
0.457425 J (11/20/2008)	ND<0 (9/23/1999)	(0.457425 - 0)/(24 - 12)		
0.0381187				
0.262364 (6/11/2009)	ND<0 (9/23/1999)	(0.262364 - 0)/(25 - 12)		
0.0201819				
0.405465 (11/16/2009)	ND<0 (9/23/1999)	(0.405465 - 0)/(26 - 12)		
0.0289618				
ND<-2.40795 (6/30/2010)	ND<0 (9/23/1999)	(-2.40795 - 0)/(27 - 12)		-0.16053
0.470004 (11/12/2010)	ND<0 (9/23/1999)	(0.470004 - 0)/(28 - 12)		
0.0293752				
0.875469 (7/5/2011)	ND<0 (9/23/1999)	(0.875469 - 0)/(29 - 12)		
0.0514982				
0.788457 (11/22/2011)	ND<0 (9/23/1999)	(0.788457 - 0)/(30 - 12)		
0.0438032				
0.788457 (11/22/2011)	ND<0 (9/23/1999)	(0.788457 - 0)/(30 - 12)		
0.0438032				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
ND<0 (3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(15 - 13)	0	
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
0.647103 J (4/1/2005)	ND<0 (3/15/2000)	(0.647103 - 0)/(17 - 13)		
0.161776				
0.908259 (10/25/2005)	ND<0 (3/15/2000)	(0.908259 - 0)/(18 - 13)		
0.181652				
1.02962 (4/29/2006)	ND<0 (3/15/2000)	(1.02962 - 0)/(19 - 13)		
0.171603				
0.530628 J (11/18/2006)	ND<0 (3/15/2000)	(0.530628 - 0)/(20 - 13)		
0.075804				
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
0.951658 (11/28/2007)	ND<0 (3/15/2000)	(0.951658 - 0)/(22 - 13)		0.10574
0.500775 J (6/5/2008)	ND<0 (3/15/2000)	(0.500775 - 0)/(23 - 13)		
0.0500775				
0.457425 J (11/20/2008)	ND<0 (3/15/2000)	(0.457425 - 0)/(24 - 13)		
0.0415841				
0.262364 (6/11/2009)	ND<0 (3/15/2000)	(0.262364 - 0)/(25 - 13)		
0.0218637				

0.405465 (11/16/2009)	ND<0 (3/15/2000)	(0.405465 - 0)/(26 - 13)	
0.0311896			
ND<-2.40795 (6/30/2010)	ND<0 (3/15/2000)	(-2.40795 - 0)/(27 - 13)	
-0.171996			
0.470004 (11/12/2010)	ND<0 (3/15/2000)	(0.470004 - 0)/(28 - 13)	
0.0313336			
0.875469 (7/5/2011)	ND<0 (3/15/2000)	(0.875469 - 0)/(29 - 13)	
0.0547168			
0.788457 (11/22/2011)	ND<0 (3/15/2000)	(0.788457 - 0)/(30 - 13)	
0.0463798			
0.788457 (11/22/2011)	ND<0 (3/15/2000)	(0.788457 - 0)/(30 - 13)	
0.0463798			
ND<0 (3/11/2004)	ND<0 (9/24/2003)	(0 - 0)/(15 - 14)	0
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0
0.647103 J (4/1/2005)	ND<0 (9/24/2003)	(0.647103 - 0)/(17 - 14)	
0.215701			
0.908259 (10/25/2005)	ND<0 (9/24/2003)	(0.908259 - 0)/(18 - 14)	
0.227065			
1.02962 (4/29/2006)	ND<0 (9/24/2003)	(1.02962 - 0)/(19 - 14)	
0.205924			
0.530628 J (11/18/2006)	ND<0 (9/24/2003)	(0.530628 - 0)/(20 - 14)	
0.088438			
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0
0.951658 (11/28/2007)	ND<0 (9/24/2003)	(0.951658 - 0)/(22 - 14)	
0.118957			
0.500775 J (6/5/2008)	ND<0 (9/24/2003)	(0.500775 - 0)/(23 - 14)	
0.0556417			
0.457425 J (11/20/2008)	ND<0 (9/24/2003)	(0.457425 - 0)/(24 - 14)	
0.0457425			
0.262364 (6/11/2009)	ND<0 (9/24/2003)	(0.262364 - 0)/(25 - 14)	
0.0238513			
0.405465 (11/16/2009)	ND<0 (9/24/2003)	(0.405465 - 0)/(26 - 14)	
0.0337888			
ND<-2.40795 (6/30/2010)	ND<0 (9/24/2003)	(-2.40795 - 0)/(27 - 14)	
-0.185227			
0.470004 (11/12/2010)	ND<0 (9/24/2003)	(0.470004 - 0)/(28 - 14)	
0.0335717			
0.875469 (7/5/2011)	ND<0 (9/24/2003)	(0.875469 - 0)/(29 - 14)	
0.0583646			
0.788457 (11/22/2011)	ND<0 (9/24/2003)	(0.788457 - 0)/(30 - 14)	
0.0492786			
0.788457 (11/22/2011)	ND<0 (9/24/2003)	(0.788457 - 0)/(30 - 14)	
0.0492786			
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0
0.647103 J (4/1/2005)	ND<0 (3/11/2004)	(0.647103 - 0)/(17 - 15)	
0.323552			
0.908259 (10/25/2005)	ND<0 (3/11/2004)	(0.908259 - 0)/(18 - 15)	
0.302753			
1.02962 (4/29/2006)	ND<0 (3/11/2004)	(1.02962 - 0)/(19 - 15)	
0.257405			
0.530628 J (11/18/2006)	ND<0 (3/11/2004)	(0.530628 - 0)/(20 - 15)	
0.106126			
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0
0.951658 (11/28/2007)	ND<0 (3/11/2004)	(0.951658 - 0)/(22 - 15)	
0.135951			
0.500775 J (6/5/2008)	ND<0 (3/11/2004)	(0.500775 - 0)/(23 - 15)	
0.0625969			
0.457425 J (11/20/2008)	ND<0 (3/11/2004)	(0.457425 - 0)/(24 - 15)	
0.050825			

0.262364 (6/11/2009)	ND<0 (3/11/2004)	(0.262364 - 0)/(25 - 15)		
0.0262364				
0.405465 (11/16/2009)	ND<0 (3/11/2004)	(0.405465 - 0)/(26 - 15)		
0.0368605				
ND<-2.40795 (6/30/2010)	ND<0 (3/11/2004)	(-2.40795 - 0)/(27 - 15)		
-0.200662				
0.470004 (11/12/2010)	ND<0 (3/11/2004)	(0.470004 - 0)/(28 - 15)		
0.0361541				
0.875469 (7/5/2011)	ND<0 (3/11/2004)	(0.875469 - 0)/(29 - 15)		
0.0625335				
0.788457 (11/22/2011)	ND<0 (3/11/2004)	(0.788457 - 0)/(30 - 15)		
0.0525638				
0.788457 (11/22/2011)	ND<0 (3/11/2004)	(0.788457 - 0)/(30 - 15)		
0.0525638				
0.647103 J (4/1/2005)	ND<0 (10/12/2004)	(0.647103 - 0)/(17 - 16)		
0.647103				
0.908259 (10/25/2005)	ND<0 (10/12/2004)	(0.908259 - 0)/(18 - 16)		
0.454129				
1.02962 (4/29/2006)	ND<0 (10/12/2004)	(1.02962 - 0)/(19 - 16)		
0.343206				
0.530628 J (11/18/2006)	ND<0 (10/12/2004)	(0.530628 - 0)/(20 - 16)		
0.132657				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
0.951658 (11/28/2007)	ND<0 (10/12/2004)	(0.951658 - 0)/(22 - 16)		0.15861
0.500775 J (6/5/2008)	ND<0 (10/12/2004)	(0.500775 - 0)/(23 - 16)		
0.0715393				
0.457425 J (11/20/2008)	ND<0 (10/12/2004)	(0.457425 - 0)/(24 - 16)		
0.0571781				
0.262364 (6/11/2009)	ND<0 (10/12/2004)	(0.262364 - 0)/(25 - 16)		
0.0291516				
0.405465 (11/16/2009)	ND<0 (10/12/2004)	(0.405465 - 0)/(26 - 16)		
0.0405465				
ND<-2.40795 (6/30/2010)	ND<0 (10/12/2004)	(-2.40795 - 0)/(27 - 16)		
-0.218904				
0.470004 (11/12/2010)	ND<0 (10/12/2004)	(0.470004 - 0)/(28 - 16)		
0.039167				
0.875469 (7/5/2011)	ND<0 (10/12/2004)	(0.875469 - 0)/(29 - 16)		
0.0673437				
0.788457 (11/22/2011)	ND<0 (10/12/2004)	(0.788457 - 0)/(30 - 16)		
0.0563184				
0.788457 (11/22/2011)	ND<0 (10/12/2004)	(0.788457 - 0)/(30 - 16)		
0.0563184				
0.908259 (10/25/2005)	0.647103 J (4/1/2005)	(0.908259 - 0.647103)/(18 - 17)		
0.261155				
1.02962 (4/29/2006)	0.647103 J (4/1/2005)	(1.02962 - 0.647103)/(19 - 17)		
0.191258				
0.530628 J (11/18/2006)	0.647103 J (4/1/2005)	(0.530628 - 0.647103)/(20 - 17)		
-0.038825				
ND<0 (5/23/2007)	0.647103 J (4/1/2005)	(0 - 0.647103)/(21 - 17)		
-0.161776				
0.951658 (11/28/2007)	0.647103 J (4/1/2005)	(0.951658 - 0.647103)/(22 - 17)		
0.0609109				
0.500775 J (6/5/2008)	0.647103 J (4/1/2005)	(0.500775 - 0.647103)/(23 - 17)		
-0.024388				
0.457425 J (11/20/2008)	0.647103 J (4/1/2005)	(0.457425 - 0.647103)/(24 - 17)		
-0.0270969				
0.262364 (6/11/2009)	0.647103 J (4/1/2005)	(0.262364 - 0.647103)/(25 - 17)		
-0.0480924				
0.405465 (11/16/2009)	0.647103 J (4/1/2005)	(0.405465 - 0.647103)/(26 - 17)		
-0.0268487				

ND<-2.40795 (6/30/2010)	0.647103 J (4/1/2005)	(-2.40795 - 0.647103)/(27 - 17)	
-0.305505			
0.470004 (11/12/2010)	0.647103 J (4/1/2005)	(0.470004 - 0.647103)/(28 - 17)	
-0.0161			
0.875469 (7/5/2011)	0.647103 J (4/1/2005)	(0.875469 - 0.647103)/(29 - 17)	
0.0190305			
0.788457 (11/22/2011)	0.647103 J (4/1/2005)	(0.788457 - 0.647103)/(30 - 17)	
0.0108734			
0.788457 (11/22/2011)	0.647103 J (4/1/2005)	(0.788457 - 0.647103)/(30 - 17)	
0.0108734			
1.02962 (4/29/2006)	0.908259 (10/25/2005)	(1.02962 - 0.908259)/(19 - 18)	
0.121361			
0.530628 J (11/18/2006)	0.908259 (10/25/2005)	(0.530628 - 0.908259)/(20 - 18)	
-0.188815			
ND<0 (5/23/2007)	0.908259 (10/25/2005)	(0 - 0.908259)/(21 - 18)	
-0.302753			
0.951658 (11/28/2007)	0.908259 (10/25/2005)	(0.951658 - 0.908259)/(22 - 18)	
0.0108498			
0.500775 J (6/5/2008)	0.908259 (10/25/2005)	(0.500775 - 0.908259)/(23 - 18)	
-0.0814967			
0.457425 J (11/20/2008)	0.908259 (10/25/2005)	(0.457425 - 0.908259)/(24 - 18)	
-0.075139			
0.262364 (6/11/2009)	0.908259 (10/25/2005)	(0.262364 - 0.908259)/(25 - 18)	
-0.0922706			
0.405465 (11/16/2009)	0.908259 (10/25/2005)	(0.405465 - 0.908259)/(26 - 18)	
-0.0628492			
ND<-2.40795 (6/30/2010)	0.908259 (10/25/2005)	(-2.40795 - 0.908259)/(27 - 18)	
-0.368467			
0.470004 (11/12/2010)	0.908259 (10/25/2005)	(0.470004 - 0.908259)/(28 - 18)	
-0.0438255			
0.875469 (7/5/2011)	0.908259 (10/25/2005)	(0.875469 - 0.908259)/(29 - 18)	
-0.00298089			
0.788457 (11/22/2011)	0.908259 (10/25/2005)	(0.788457 - 0.908259)/(30 - 18)	
-0.00998343			
0.788457 (11/22/2011)	0.908259 (10/25/2005)	(0.788457 - 0.908259)/(30 - 18)	
-0.00998343			
0.530628 J (11/18/2006)	1.02962 (4/29/2006)	(0.530628 - 1.02962)/(20 - 19)	
-0.498991			
ND<0 (5/23/2007)	1.02962 (4/29/2006)	(0 - 1.02962)/(21 - 19)	-0.51481
0.951658 (11/28/2007)	1.02962 (4/29/2006)	(0.951658 - 1.02962)/(22 - 19)	
-0.0259872			
0.500775 J (6/5/2008)	1.02962 (4/29/2006)	(0.500775 - 1.02962)/(23 - 19)	
-0.132211			
0.457425 J (11/20/2008)	1.02962 (4/29/2006)	(0.457425 - 1.02962)/(24 - 19)	
-0.114439			
0.262364 (6/11/2009)	1.02962 (4/29/2006)	(0.262364 - 1.02962)/(25 - 19)	
-0.127876			
0.405465 (11/16/2009)	1.02962 (4/29/2006)	(0.405465 - 1.02962)/(26 - 19)	
-0.0891649			
ND<-2.40795 (6/30/2010)	1.02962 (4/29/2006)	(-2.40795 - 1.02962)/(27 - 19)	
-0.429696			
0.470004 (11/12/2010)	1.02962 (4/29/2006)	(0.470004 - 1.02962)/(28 - 19)	
-0.0621795			
0.875469 (7/5/2011)	1.02962 (4/29/2006)	(0.875469 - 1.02962)/(29 - 19)	
-0.0154151			
0.788457 (11/22/2011)	1.02962 (4/29/2006)	(0.788457 - 1.02962)/(30 - 19)	
-0.0219238			
0.788457 (11/22/2011)	1.02962 (4/29/2006)	(0.788457 - 1.02962)/(30 - 19)	
-0.0219238			

ND<0 (5/23/2007)	0.530628 J (11/18/2006)	(0 - 0.530628)/(21 - 20)	-0.530628
0.951658 (11/28/2007)	0.530628 J (11/18/2006)	(0.951658 - 0.530628)/(22 - 20)	0.210515
0.500775 J (6/5/2008)	0.530628 J (11/18/2006)	(0.500775 - 0.530628)/(23 - 20)	-0.00995099
0.457425 J (11/20/2008)	0.530628 J (11/18/2006)	(0.457425 - 0.530628)/(24 - 20)	-0.0183009
0.262364 (6/11/2009)	0.530628 J (11/18/2006)	(0.262364 - 0.530628)/(25 - 20)	-0.0536528
0.405465 (11/16/2009)	0.530628 J (11/18/2006)	(0.405465 - 0.530628)/(26 - 20)	-0.0208605
ND<-2.40795 (6/30/2010)	0.530628 J (11/18/2006)	(-2.40795 - 0.530628)/(27 - 20)	-0.419796
0.470004 (11/12/2010)	0.530628 J (11/18/2006)	(0.470004 - 0.530628)/(28 - 20)	-0.00757808
0.875469 (7/5/2011)	0.530628 J (11/18/2006)	(0.875469 - 0.530628)/(29 - 20)	0.0383156
0.788457 (11/22/2011)	0.530628 J (11/18/2006)	(0.788457 - 0.530628)/(30 - 20)	0.0257829
0.788457 (11/22/2011)	0.530628 J (11/18/2006)	(0.788457 - 0.530628)/(30 - 20)	0.0257829
0.951658 (11/28/2007)	ND<0 (5/23/2007)	(0.951658 - 0)/(22 - 21)	0.951658
0.500775 J (6/5/2008)	ND<0 (5/23/2007)	(0.500775 - 0)/(23 - 21)	0.250388
0.457425 J (11/20/2008)	ND<0 (5/23/2007)	(0.457425 - 0)/(24 - 21)	0.152475
0.262364 (6/11/2009)	ND<0 (5/23/2007)	(0.262364 - 0)/(25 - 21)	0.0655911
0.405465 (11/16/2009)	ND<0 (5/23/2007)	(0.405465 - 0)/(26 - 21)	0.081093
ND<-2.40795 (6/30/2010)	ND<0 (5/23/2007)	(-2.40795 - 0)/(27 - 21)	-0.401324
0.470004 (11/12/2010)	ND<0 (5/23/2007)	(0.470004 - 0)/(28 - 21)	0.0671434
0.875469 (7/5/2011)	ND<0 (5/23/2007)	(0.875469 - 0)/(29 - 21)	0.109434
0.788457 (11/22/2011)	ND<0 (5/23/2007)	(0.788457 - 0)/(30 - 21)	0.0876064
0.788457 (11/22/2011)	ND<0 (5/23/2007)	(0.788457 - 0)/(30 - 21)	0.0876064
0.500775 J (6/5/2008)	0.951658 (11/28/2007)	(0.500775 - 0.951658)/(23 - 22)	-0.450883
0.457425 J (11/20/2008)	0.951658 (11/28/2007)	(0.457425 - 0.951658)/(24 - 22)	-0.247117
0.262364 (6/11/2009)	0.951658 (11/28/2007)	(0.262364 - 0.951658)/(25 - 22)	-0.229765
0.405465 (11/16/2009)	0.951658 (11/28/2007)	(0.405465 - 0.951658)/(26 - 22)	-0.136548
ND<-2.40795 (6/30/2010)	0.951658 (11/28/2007)	(-2.40795 - 0.951658)/(27 - 22)	-0.671921
0.470004 (11/12/2010)	0.951658 (11/28/2007)	(0.470004 - 0.951658)/(28 - 22)	-0.0802757
0.875469 (7/5/2011)	0.951658 (11/28/2007)	(0.875469 - 0.951658)/(29 - 22)	-0.0108842
0.788457 (11/22/2011)	0.951658 (11/28/2007)	(0.788457 - 0.951658)/(30 - 22)	-0.0204001
0.788457 (11/22/2011)	0.951658 (11/28/2007)	(0.788457 - 0.951658)/(30 - 22)	-0.0204001

0.457425 J (11/20/2008)	0.500775 J (6/5/2008)	(0.457425 - 0.500775)/(24 - 23)
-0.0433504		
0.262364 (6/11/2009)	0.500775 J (6/5/2008)	(0.262364 - 0.500775)/(25 - 23)
-0.119206		
0.405465 (11/16/2009)	0.500775 J (6/5/2008)	(0.405465 - 0.500775)/(26 - 23)
-0.0317701		
ND<-2.40795 (6/30/2010)	0.500775 J (6/5/2008)	(-2.40795 - 0.500775)/(27 - 23)
-0.72718		
0.470004 (11/12/2010)	0.500775 J (6/5/2008)	(0.470004 - 0.500775)/(28 - 23)
-0.00615433		
0.875469 (7/5/2011)	0.500775 J (6/5/2008)	(0.875469 - 0.500775)/(29 - 23)
0.0624489		
0.788457 (11/22/2011)	0.500775 J (6/5/2008)	(0.788457 - 0.500775)/(30 - 23)
0.0410974		
0.788457 (11/22/2011)	0.500775 J (6/5/2008)	(0.788457 - 0.500775)/(30 - 23)
0.0410974		
0.262364 (6/11/2009)	0.457425 J (11/20/2008)	(0.262364 - 0.457425)/(25 - 24)
-0.195061		
0.405465 (11/16/2009)	0.457425 J (11/20/2008)	(0.405465 - 0.457425)/(26 - 24)
-0.0259799		
ND<-2.40795 (6/30/2010)	0.457425 J (11/20/2008)	(-2.40795 - 0.457425)/(27 - 24)
-0.955123		
0.470004 (11/12/2010)	0.457425 J (11/20/2008)	(0.470004 - 0.457425)/(28 - 24)
0.0031447		
0.875469 (7/5/2011)	0.457425 J (11/20/2008)	(0.875469 - 0.457425)/(29 - 24)
0.0836088		
0.788457 (11/22/2011)	0.457425 J (11/20/2008)	(0.788457 - 0.457425)/(30 - 24)
0.0551721		
0.788457 (11/22/2011)	0.457425 J (11/20/2008)	(0.788457 - 0.457425)/(30 - 24)
0.0551721		
0.405465 (11/16/2009)	0.262364 (6/11/2009)	(0.405465 - 0.262364)/(26 - 25)
0.143101		
ND<-2.40795 (6/30/2010)	0.262364 (6/11/2009)	(-2.40795 - 0.262364)/(27 - 25)
-1.33515		
0.470004 (11/12/2010)	0.262364 (6/11/2009)	(0.470004 - 0.262364)/(28 - 25)
0.0692131		
0.875469 (7/5/2011)	0.262364 (6/11/2009)	(0.875469 - 0.262364)/(29 - 25)
0.153276		
0.788457 (11/22/2011)	0.262364 (6/11/2009)	(0.788457 - 0.262364)/(30 - 25)
0.105219		
0.788457 (11/22/2011)	0.262364 (6/11/2009)	(0.788457 - 0.262364)/(30 - 25)
0.105219		
ND<-2.40795 (6/30/2010)	0.405465 (11/16/2009)	(-2.40795 - 0.405465)/(27 - 26)
-2.81341		
0.470004 (11/12/2010)	0.405465 (11/16/2009)	(0.470004 - 0.405465)/(28 - 26)
0.0322693		
0.875469 (7/5/2011)	0.405465 (11/16/2009)	(0.875469 - 0.405465)/(29 - 26)
0.156668		
0.788457 (11/22/2011)	0.405465 (11/16/2009)	(0.788457 - 0.405465)/(30 - 26)
0.0957481		
0.788457 (11/22/2011)	0.405465 (11/16/2009)	(0.788457 - 0.405465)/(30 - 26)
0.0957481		
0.470004 (11/12/2010)	ND<-2.40795 (6/30/2010)	(0.470004 - -2.40795)/(28 - 27)
2.87795		
0.875469 (7/5/2011)	ND<-2.40795 (6/30/2010)	(0.875469 - -2.40795)/(29 - 27)
1.64171		

0.788457	(11/22/2011)	ND<-2.40795	(6/30/2010)	(0.788457 - -2.40795)/(30 - 27)	1.06547
0.788457	(11/22/2011)	ND<-2.40795	(6/30/2010)	(0.788457 - -2.40795)/(30 - 27)	1.06547
0.875469	(7/5/2011)	0.470004	(11/12/2010)	(0.875469 - 0.470004)/(29 - 28)	0.405465
0.788457	(11/22/2011)	0.470004	(11/12/2010)	(0.788457 - 0.470004)/(30 - 28)	0.159227
0.788457	(11/22/2011)	0.470004	(11/12/2010)	(0.788457 - 0.470004)/(30 - 28)	0.159227
0.788457	(11/22/2011)	0.875469	(7/5/2011)	(0.788457 - 0.875469)/(30 - 29)	-0.0870114
0.788457	(11/22/2011)	0.875469	(7/5/2011)	(0.788457 - 0.875469)/(30 - 29)	-0.0870114
0.788457	(11/22/2011)	0.788457	(11/22/2011)	(0.788457 - 0.788457)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-2.81341
2	-1.60944
3	-1.33515
4	-1.28093
5	-0.955123
6	-0.804719
7	-0.72718
8	-0.693147
9	-0.671921
10	-0.640467
11	-0.536479
12	-0.530628
13	-0.51481
14	-0.498991
15	-0.462098
16	-0.450883
17	-0.429696
18	-0.426978
19	-0.419796
20	-0.402359
21	-0.401324
22	-0.368467
23	-0.366204
24	-0.346574
25	-0.321888
26	-0.320233
27	-0.305505
28	-0.302753
29	-0.277259
30	-0.274653
31	-0.26824
32	-0.256187
33	-0.247117
34	-0.231049
35	-0.230555
36	-0.229765

37	-0.219722
38	-0.218904
39	-0.20118
40	-0.200662
41	-0.198042
42	-0.195061
43	-0.188815
44	-0.185227
45	-0.183102
46	-0.178826
47	-0.174669
48	-0.171996
49	-0.161776
50	-0.160944
51	-0.16053
52	-0.158093
53	-0.156945
54	-0.154033
55	-0.146313
56	-0.141644
57	-0.140262
58	-0.138629
59	-0.137327
60	-0.136548
61	-0.13412
62	-0.133775
63	-0.132211
64	-0.128093
65	-0.127876
66	-0.126734
67	-0.126027
68	-0.120397
69	-0.119206
70	-0.115525
71	-0.114664
72	-0.114439
73	-0.109861
74	-0.109452
75	-0.106638
76	-0.105638
77	-0.0998738
78	-0.0946728
79	-0.0926133
80	-0.0922706
81	-0.091551
82	-0.0891649
83	-0.0870114
84	-0.0870114
85	-0.0845086
86	-0.0833673
87	-0.0814967
88	-0.0802757
89	-0.0784723
90	-0.0770164
91	-0.075139
92	-0.0740257
93	-0.072755
94	-0.0674256
95	-0.0650132
96	-0.0641464
97	-0.0633468
98	-0.0628492

99	-0.0621795
100	-0.0583646
101	-0.0583507
102	-0.0578217
103	-0.0576007
104	-0.054726
105	-0.0536528
106	-0.0532393
107	-0.0527994
108	-0.0510877
109	-0.0503333
110	-0.0500842
111	-0.0480924
112	-0.0477018
113	-0.0474764
114	-0.0469292
115	-0.044276
116	-0.0442319
117	-0.0438255
118	-0.0433504
119	-0.0426448
120	-0.038825
121	-0.0386546
122	-0.0366516
123	-0.0365433
124	-0.0363586
125	-0.0318691
126	-0.0317701
127	-0.0315762
128	-0.0315762
129	-0.0315547
130	-0.0314143
131	-0.0301006
132	-0.0299342
133	-0.0293588
134	-0.0291449
135	-0.0288811
136	-0.0284684
137	-0.0270969
138	-0.0268487
139	-0.0259872
140	-0.0259799
141	-0.0259198
142	-0.0259198
143	-0.024388
144	-0.0241773
145	-0.0228756
146	-0.0225258
147	-0.0222922
148	-0.0221421
149	-0.0221421
150	-0.0219238
151	-0.0219238
152	-0.0208605
153	-0.0204001
154	-0.0204001
155	-0.0196471
156	-0.0183009
157	-0.0161
158	-0.0154151
159	-0.0131701
160	-0.0118971

161	-0.011077
162	-0.011077
163	-0.0108842
164	-0.00998343
165	-0.00998343
166	-0.00995099
167	-0.00826458
168	-0.00757808
169	-0.00734772
170	-0.00615433
171	-0.0040584
172	-0.00298089
173	0
174	0
175	0
176	0
177	0
178	0
179	0
180	0
181	0
182	0
183	0
184	0
185	0
186	0
187	0
188	0
189	0
190	0
191	0
192	0
193	0
194	0
195	0
196	0
197	0
198	0
199	0
200	0
201	0
202	0
203	0
204	0
205	0
206	0
207	0
208	0
209	0
210	0
211	0
212	0
213	0
214	0
215	0
216	0
217	0
218	0
219	0
220	0
221	0
222	0

223	0
224	0
225	0
226	0
227	0
228	0
229	0
230	0
231	0
232	0
233	0
234	0
235	0
236	0
237	0
238	0
239	0
240	0
241	0
242	0
243	0
244	0
245	0
246	0
247	0
248	0
249	0
250	0
251	0.0031447
252	0.0108498
253	0.0108734
254	0.0108734
255	0.0109318
256	0.0131182
257	0.0138086
258	0.0145758
259	0.0154332
260	0.0162186
261	0.0163978
262	0.0174075
263	0.017491
264	0.0190305
265	0.0193079
266	0.019888
267	0.0201819
268	0.020258
269	0.0202733
270	0.0204349
271	0.0213403
272	0.0213638
273	0.0218637
274	0.0223811
275	0.0225258
276	0.0227625
277	0.0235002
278	0.0238509
279	0.0238513
280	0.024075
281	0.024737
282	0.0253416
283	0.0254125
284	0.0257829

285	0.0257829
286	0.0261113
287	0.0262364
288	0.0269073
289	0.0271882
290	0.0271882
291	0.0278208
292	0.0279278
293	0.0285891
294	0.0289618
295	0.0291516
296	0.0293752
297	0.0294574
298	0.030495
299	0.0311896
300	0.0312667
301	0.0312985
302	0.0313336
303	0.0315383
304	0.0315383
305	0.0322693
306	0.0326732
307	0.0328524
308	0.0328524
309	0.033385
310	0.0335717
311	0.0337888
312	0.0342808
313	0.0342808
314	0.0353752
315	0.0357697
316	0.035839
317	0.035839
318	0.0361541
319	0.0364779
320	0.0368605
321	0.0375456
322	0.0375456
323	0.037902
324	0.0380639
325	0.0381187
326	0.0383156
327	0.0385212
328	0.039167
329	0.0394229
330	0.0394229
331	0.039794
332	0.040444
333	0.0405465
334	0.0408176
335	0.0410974
336	0.0410974
337	0.0415841
338	0.041689
339	0.0437734
340	0.0438032
341	0.0438032
342	0.044219
343	0.045317
344	0.045525
345	0.0457425
346	0.0460773

347	0.0463798
348	0.0463798
349	0.0482389
350	0.0492786
351	0.0492786
352	0.0500775
353	0.050825
354	0.0514982
355	0.0525638
356	0.0525638
357	0.0530628
358	0.053427
359	0.0539253
360	0.0547168
361	0.0551721
362	0.0551721
363	0.0556417
364	0.0559799
365	0.0563184
366	0.0563184
367	0.0571781
368	0.0572011
369	0.0583646
370	0.0588276
371	0.0594786
372	0.0609109
373	0.0624489
374	0.0625335
375	0.0625969
376	0.0634439
377	0.0647103
378	0.0655911
379	0.0663285
380	0.0671434
381	0.0673437
382	0.0679756
383	0.0692131
384	0.069866
385	0.0715393
386	0.0719004
387	0.0732045
388	0.0735442
389	0.0756882
390	0.075804
391	0.0792015
392	0.0793048
393	0.0808879
394	0.081093
395	0.082569
396	0.0836088
397	0.0858016
398	0.0876064
399	0.0876064
400	0.088438
401	0.0908259
402	0.0924433
403	0.0936018
404	0.0951658
405	0.0957481
406	0.0957481
407	0.100918
408	0.102962

409	0.105219
410	0.105219
411	0.10574
412	0.106126
413	0.109434
414	0.113532
415	0.114402
416	0.118957
417	0.121361
418	0.128093
419	0.129421
420	0.132657
421	0.135951
422	0.143101
423	0.147088
424	0.151376
425	0.152475
426	0.153276
427	0.156668
428	0.15861
429	0.159227
430	0.159227
431	0.161776
432	0.171603
433	0.181652
434	0.191258
435	0.205924
436	0.210515
437	0.213489
438	0.215701
439	0.223144
440	0.227065
441	0.250388
442	0.255413
443	0.256187
444	0.257405
445	0.261155
446	0.287682
447	0.302753
448	0.320233
449	0.323552
450	0.343206
451	0.405465
452	0.426978
453	0.454129
454	0.536479
455	0.640467
456	0.647103
457	0.693147
458	0.951658
459	1.06547
460	1.06547
461	1.09861
462	1.28093
463	1.64171
464	2.87795

Sen's Estimator (Median Q) is 0

Tied Group Value Members

1	0	13	
2	0.788457		2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 4854
B = 18
C = 1716
D = 0
E = 158
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3191.17
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.9185
M1 = (464 - 92.9185)/2.0 = 185.541
M2 = (464 + 92.9185)/2.0 + 1 = 279.459
Lower limit is 0 = Q(186)
Upper limit is 0.0238513 = Q(279)
0 < 0 < 0.0238513 indicating no trend in data.

Sen's Slope Analysis
Parameter: Vinyl Chloride
Location: MW-9
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q
ND<0 (8/24/1995)	ND<0 (7/20/1995)	(0 - 0)/(2 - 1)	0
-0.223144 J (9/28/1995)	ND<0 (7/20/1995)	(-0.223144 - 0)/(3 - 1)	-0.111572
-0.105361 J (10/26/1995)	ND<0 (7/20/1995)	(-0.105361 - 0)/(4 - 1)	-0.0351202
ND<0 (11/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(5 - 1)	0
ND<0 (12/19/1996)	ND<0 (7/20/1995)	(0 - 0)/(6 - 1)	0
ND<0 (3/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(7 - 1)	0
ND<0 (9/24/1997)	ND<0 (7/20/1995)	(0 - 0)/(8 - 1)	0
ND<0 (4/7/1998)	ND<0 (7/20/1995)	(0 - 0)/(9 - 1)	0
ND<0 (9/23/1998)	ND<0 (7/20/1995)	(0 - 0)/(10 - 1)	0
0.993252 (3/16/1999)	ND<0 (7/20/1995)	(0.993252 - 0)/(11 - 1)	0.0993252
ND<0 (9/23/1999)	ND<0 (7/20/1995)	(0 - 0)/(12 - 1)	0
ND<0 (3/15/2000)	ND<0 (7/20/1995)	(0 - 0)/(13 - 1)	0
ND<0 (9/24/2003)	ND<0 (7/20/1995)	(0 - 0)/(14 - 1)	0
3.61092 (3/11/2004)	ND<0 (7/20/1995)	(3.61092 - 0)/(15 - 1)	0.257923
ND<0 (10/12/2004)	ND<0 (7/20/1995)	(0 - 0)/(16 - 1)	0
1.03318 (4/1/2005)	ND<0 (7/20/1995)	(1.03318 - 0)/(17 - 1)	0.064574
0.371564 J (10/25/2005)	ND<0 (7/20/1995)	(0.371564 - 0)/(18 - 1)	0.0218567
-0.371064 J (4/29/2006)	ND<0 (7/20/1995)	(-0.371064 - 0)/(19 - 1)	-0.0206146
-0.314711 J (11/18/2006)	ND<0 (7/20/1995)	(-0.314711 - 0)/(20 - 1)	-0.0165637
ND<0 (5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1)	0
0.536493 J (11/28/2007)	ND<0 (7/20/1995)	(0.536493 - 0)/(22 - 1)	0.0255473
0.470004 J (6/5/2008)	ND<0 (7/20/1995)	(0.470004 - 0)/(23 - 1)	0.0213638
0.34359 J (11/20/2008)	ND<0 (7/20/1995)	(0.34359 - 0)/(24 - 1)	0.0149387
0.693147 (6/11/2009)	ND<0 (7/20/1995)	(0.693147 - 0)/(25 - 1)	0.0288811
0.182322 (11/16/2009)	ND<0 (7/20/1995)	(0.182322 - 0)/(26 - 1)	0.00729286
0.741937 (6/30/2010)	ND<0 (7/20/1995)	(0.741937 - 0)/(27 - 1)	0.0285361
0.641854 (11/12/2010)	ND<0 (7/20/1995)	(0.641854 - 0)/(28 - 1)	0.0237724
-0.105361 J M (7/5/2011)	ND<0 (7/20/1995)	(-0.105361 - 0)/(29 - 1)	-0.00376288
-0.0618754 J (11/22/2011)	ND<0 (7/20/1995)	(-0.0618754 - 0)/(30 - 1)	-0.00213363
-0.0618754 J (11/22/2011)	ND<0 (7/20/1995)	(-0.0618754 - 0)/(30 - 1)	-0.00213363
-0.223144 J (9/28/1995)	ND<0 (8/24/1995)	(-0.223144 - 0)/(3 - 2)	-0.223144

-0.105361 J (10/26/1995)	ND<0 (8/24/1995)	(-0.105361 - 0)/(4 - 2)	
-0.0526803			
ND<0 (11/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(5 - 2)	0
ND<0 (12/19/1996)	ND<0 (8/24/1995)	(0 - 0)/(6 - 2)	0
ND<0 (3/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(7 - 2)	0
ND<0 (9/24/1997)	ND<0 (8/24/1995)	(0 - 0)/(8 - 2)	0
ND<0 (4/7/1998)	ND<0 (8/24/1995)	(0 - 0)/(9 - 2)	0
ND<0 (9/23/1998)	ND<0 (8/24/1995)	(0 - 0)/(10 - 2)	0
0.993252 (3/16/1999)	ND<0 (8/24/1995)	(0.993252 - 0)/(11 - 2)	
0.110361			
ND<0 (9/23/1999)	ND<0 (8/24/1995)	(0 - 0)/(12 - 2)	0
ND<0 (3/15/2000)	ND<0 (8/24/1995)	(0 - 0)/(13 - 2)	0
ND<0 (9/24/2003)	ND<0 (8/24/1995)	(0 - 0)/(14 - 2)	0
3.61092 (3/11/2004)	ND<0 (8/24/1995)	(3.61092 - 0)/(15 - 2)	
0.277763			
ND<0 (10/12/2004)	ND<0 (8/24/1995)	(0 - 0)/(16 - 2)	0
1.03318 (4/1/2005)	ND<0 (8/24/1995)	(1.03318 - 0)/(17 - 2)	
0.068879			
0.371564 J (10/25/2005)	ND<0 (8/24/1995)	(0.371564 - 0)/(18 - 2)	
0.0232227			
-0.371064 J (4/29/2006)	ND<0 (8/24/1995)	(-0.371064 - 0)/(19 - 2)	
-0.0218273			
-0.314711 J (11/18/2006)	ND<0 (8/24/1995)	(-0.314711 - 0)/(20 - 2)	
-0.0174839			
ND<0 (5/23/2007)	ND<0 (8/24/1995)	(0 - 0)/(21 - 2)	0
0.536493 J (11/28/2007)	ND<0 (8/24/1995)	(0.536493 - 0)/(22 - 2)	
0.0268247			
0.470004 J (6/5/2008)	ND<0 (8/24/1995)	(0.470004 - 0)/(23 - 2)	
0.0223811			
0.34359 J (11/20/2008)	ND<0 (8/24/1995)	(0.34359 - 0)/(24 - 2)	
0.0156177			
0.693147 (6/11/2009)	ND<0 (8/24/1995)	(0.693147 - 0)/(25 - 2)	
0.0301368			
0.182322 (11/16/2009)	ND<0 (8/24/1995)	(0.182322 - 0)/(26 - 2)	
0.00759673			
0.741937 (6/30/2010)	ND<0 (8/24/1995)	(0.741937 - 0)/(27 - 2)	
0.0296775			
0.641854 (11/12/2010)	ND<0 (8/24/1995)	(0.641854 - 0)/(28 - 2)	
0.0246867			
-0.105361 J M (7/5/2011)	ND<0 (8/24/1995)	(-0.105361 - 0)/(29 - 2)	
-0.00390224			
-0.0618754 J (11/22/2011)	ND<0 (8/24/1995)	(-0.0618754 - 0)/(30 - 2)	
-0.00220984			
-0.0618754 J (11/22/2011)	ND<0 (8/24/1995)	(-0.0618754 - 0)/(30 - 2)	
-0.00220984			

-0.105361 J (10/26/1995)	-0.223144 J (9/28/1995)	(-0.105361 - -0.223144)/(4 - 3)
0.117783		
ND<0 (11/19/1996)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(5 - 3)
0.111572		
ND<0 (12/19/1996)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(6 - 3)
0.0743812		
ND<0 (3/24/1997)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(7 - 3)
0.0557859		
ND<0 (9/24/1997)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(8 - 3)
0.0446287		
ND<0 (4/7/1998)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(9 - 3)
0.0371906		
ND<0 (9/23/1998)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(10 - 3)
0.0318777		
0.993252 (3/16/1999)	-0.223144 J (9/28/1995)	(0.993252 - -0.223144)/(11 - 3)
0.152049		

ND<0 (9/23/1999)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(12 - 3)
0.0247937		
ND<0 (3/15/2000)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(13 - 3)
0.0223144		
ND<0 (9/24/2003)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(14 - 3)
0.0202858		
3.61092 (3/11/2004)	-0.223144 J (9/28/1995)	(3.61092 - -0.223144)/(15 - 3)
0.319505		
ND<0 (10/12/2004)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(16 - 3)
0.0171649		
1.03318 (4/1/2005)	-0.223144 J (9/28/1995)	(1.03318 - -0.223144)/(17 - 3)
0.0897377		
0.371564 J (10/25/2005)	-0.223144 J (9/28/1995)	(0.371564 - -0.223144)/(18 - 3)
0.0396471		
-0.371064 J (4/29/2006)	-0.223144 J (9/28/1995)	(-0.371064 - -0.223144)/(19 - 3)
-0.00924501		
-0.314711 J (11/18/2006)	-0.223144 J (9/28/1995)	(-0.314711 - -0.223144)/(20 - 3)
-0.00538631		
ND<0 (5/23/2007)	-0.223144 J (9/28/1995)	(0 - -0.223144)/(21 - 3)
0.0123969		
0.536493 J (11/28/2007)	-0.223144 J (9/28/1995)	(0.536493 - -0.223144)/(22 - 3)
0.0399809		
0.470004 J (6/5/2008)	-0.223144 J (9/28/1995)	(0.470004 - -0.223144)/(23 - 3)
0.0346574		
0.34359 J (11/20/2008)	-0.223144 J (9/28/1995)	(0.34359 - -0.223144)/(24 - 3)
0.0269873		
0.693147 (6/11/2009)	-0.223144 J (9/28/1995)	(0.693147 - -0.223144)/(25 - 3)
0.0416496		
0.182322 (11/16/2009)	-0.223144 J (9/28/1995)	(0.182322 - -0.223144)/(26 - 3)
0.0176289		
0.741937 (6/30/2010)	-0.223144 J (9/28/1995)	(0.741937 - -0.223144)/(27 - 3)
0.0402117		
0.641854 (11/12/2010)	-0.223144 J (9/28/1995)	(0.641854 - -0.223144)/(28 - 3)
0.0345999		
-0.105361 J M (7/5/2011)	-0.223144 J (9/28/1995)	(-0.105361 - -0.223144)/(29 - 3)
0.00453012		
-0.0618754 J (11/22/2011)	-0.223144 J (9/28/1995)	(-0.0618754 - -0.223144)/(30 - 3)
0.00597289		
-0.0618754 J (11/22/2011)	-0.223144 J (9/28/1995)	(-0.0618754 - -0.223144)/(30 - 3)
0.00597289		
ND<0 (11/19/1996)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(5 - 4)
0.105361		
ND<0 (12/19/1996)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(6 - 4)
0.0526803		
ND<0 (3/24/1997)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(7 - 4)
0.0351202		
ND<0 (9/24/1997)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(8 - 4)
0.0263401		
ND<0 (4/7/1998)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(9 - 4)
0.0210721		
ND<0 (9/23/1998)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(10 - 4)
0.0175601		
0.993252 (3/16/1999)	-0.105361 J (10/26/1995)	(0.993252 - -0.105361)/(11 - 4)
0.156945		
ND<0 (9/23/1999)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(12 - 4)
0.0131701		
ND<0 (3/15/2000)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(13 - 4)
0.0117067		
ND<0 (9/24/2003)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(14 - 4)
0.0105361		

3.61092 (3/11/2004)	-0.105361 J (10/26/1995)	(3.61092 - -0.105361)/(15 - 4)	
0.337843			
ND<0 (10/12/2004)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(16 - 4)	
0.00878004			
1.03318 (4/1/2005)	-0.105361 J (10/26/1995)	(1.03318 - -0.105361)/(17 - 4)	
0.0875804			
0.371564 J (10/25/2005)	-0.105361 J (10/26/1995)	(0.371564 - -0.105361)/(18 - 4)	
0.034066			
-0.371064 J (4/29/2006)	-0.105361 J (10/26/1995)	(-0.371064 - -0.105361)/(19 - 4)	
-0.0177135			
-0.314711 J (11/18/2006)	-0.105361 J (10/26/1995)	(-0.314711 - -0.105361)/(20 - 4)	
-0.0130844			
ND<0 (5/23/2007)	-0.105361 J (10/26/1995)	(0 - -0.105361)/(21 - 4)	
0.00619768			
0.536493 J (11/28/2007)	-0.105361 J (10/26/1995)	(0.536493 - -0.105361)/(22 - 4)	
0.0356585			
0.470004 J (6/5/2008)	-0.105361 J (10/26/1995)	(0.470004 - -0.105361)/(23 - 4)	
0.0302823			
0.34359 J (11/20/2008)	-0.105361 J (10/26/1995)	(0.34359 - -0.105361)/(24 - 4)	
0.0224475			
0.693147 (6/11/2009)	-0.105361 J (10/26/1995)	(0.693147 - -0.105361)/(25 - 4)	
0.0380242			
0.182322 (11/16/2009)	-0.105361 J (10/26/1995)	(0.182322 - -0.105361)/(26 - 4)	
0.0130765			
0.741937 (6/30/2010)	-0.105361 J (10/26/1995)	(0.741937 - -0.105361)/(27 - 4)	
0.036839			
0.641854 (11/12/2010)	-0.105361 J (10/26/1995)	(0.641854 - -0.105361)/(28 - 4)	
0.0311339			
-0.105361 J M (7/5/2011)	-0.105361 J (10/26/1995)	(-0.105361 - -0.105361)/(29 - 4)	
0			
-0.0618754 J (11/22/2011)	-0.105361 J (10/26/1995)	(-0.0618754 - -0.105361)/(30 - 4)	
0.0016725			
-0.0618754 J (11/22/2011)	-0.105361 J (10/26/1995)	(-0.0618754 - -0.105361)/(30 - 4)	
0.0016725			
ND<0 (12/19/1996)	ND<0 (11/19/1996)	(0 - 0)/(6 - 5)	0
ND<0 (3/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(7 - 5)	0
ND<0 (9/24/1997)	ND<0 (11/19/1996)	(0 - 0)/(8 - 5)	0
ND<0 (4/7/1998)	ND<0 (11/19/1996)	(0 - 0)/(9 - 5)	0
ND<0 (9/23/1998)	ND<0 (11/19/1996)	(0 - 0)/(10 - 5)	0
0.993252 (3/16/1999)	ND<0 (11/19/1996)	(0.993252 - 0)/(11 - 5)	
0.165542			
ND<0 (9/23/1999)	ND<0 (11/19/1996)	(0 - 0)/(12 - 5)	0
ND<0 (3/15/2000)	ND<0 (11/19/1996)	(0 - 0)/(13 - 5)	0
ND<0 (9/24/2003)	ND<0 (11/19/1996)	(0 - 0)/(14 - 5)	0
3.61092 (3/11/2004)	ND<0 (11/19/1996)	(3.61092 - 0)/(15 - 5)	
0.361092			
ND<0 (10/12/2004)	ND<0 (11/19/1996)	(0 - 0)/(16 - 5)	0
1.03318 (4/1/2005)	ND<0 (11/19/1996)	(1.03318 - 0)/(17 - 5)	
0.0860987			
0.371564 J (10/25/2005)	ND<0 (11/19/1996)	(0.371564 - 0)/(18 - 5)	
0.0285818			
-0.371064 J (4/29/2006)	ND<0 (11/19/1996)	(-0.371064 - 0)/(19 - 5)	
-0.0265045			
-0.314711 J (11/18/2006)	ND<0 (11/19/1996)	(-0.314711 - 0)/(20 - 5)	
-0.0209807			
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
0.536493 J (11/28/2007)	ND<0 (11/19/1996)	(0.536493 - 0)/(22 - 5)	
0.0315584			
0.470004 J (6/5/2008)	ND<0 (11/19/1996)	(0.470004 - 0)/(23 - 5)	
0.0261113			

0.34359 J (11/20/2008)	ND<0 (11/19/1996)	(0.34359 - 0)/(24 - 5)		
0.0180837				
0.693147 (6/11/2009)	ND<0 (11/19/1996)	(0.693147 - 0)/(25 - 5)		
0.0346574				
0.182322 (11/16/2009)	ND<0 (11/19/1996)	(0.182322 - 0)/(26 - 5)		
0.00868198				
0.741937 (6/30/2010)	ND<0 (11/19/1996)	(0.741937 - 0)/(27 - 5)		
0.0337244				
0.641854 (11/12/2010)	ND<0 (11/19/1996)	(0.641854 - 0)/(28 - 5)		
0.0279067				
-0.105361 J M (7/5/2011)	ND<0 (11/19/1996)	(-0.105361 - 0)/(29 - 5)		
-0.00439002				
-0.0618754 J (11/22/2011)	ND<0 (11/19/1996)	(-0.0618754 - 0)/(30 - 5)		
-0.00247502				
-0.0618754 J (11/22/2011)	ND<0 (11/19/1996)	(-0.0618754 - 0)/(30 - 5)		
-0.00247502				
ND<0 (3/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(7 - 6)	0	
ND<0 (9/24/1997)	ND<0 (12/19/1996)	(0 - 0)/(8 - 6)	0	
ND<0 (4/7/1998)	ND<0 (12/19/1996)	(0 - 0)/(9 - 6)	0	
ND<0 (9/23/1998)	ND<0 (12/19/1996)	(0 - 0)/(10 - 6)	0	
0.993252 (3/16/1999)	ND<0 (12/19/1996)	(0.993252 - 0)/(11 - 6)		0.19865
ND<0 (9/23/1999)	ND<0 (12/19/1996)	(0 - 0)/(12 - 6)	0	
ND<0 (3/15/2000)	ND<0 (12/19/1996)	(0 - 0)/(13 - 6)	0	
ND<0 (9/24/2003)	ND<0 (12/19/1996)	(0 - 0)/(14 - 6)	0	
3.61092 (3/11/2004)	ND<0 (12/19/1996)	(3.61092 - 0)/(15 - 6)		
0.401213				
ND<0 (10/12/2004)	ND<0 (12/19/1996)	(0 - 0)/(16 - 6)	0	
1.03318 (4/1/2005)	ND<0 (12/19/1996)	(1.03318 - 0)/(17 - 6)		
0.0939259				
0.371564 J (10/25/2005)	ND<0 (12/19/1996)	(0.371564 - 0)/(18 - 6)		
0.0309636				
-0.371064 J (4/29/2006)	ND<0 (12/19/1996)	(-0.371064 - 0)/(19 - 6)		
-0.0285434				
-0.314711 J (11/18/2006)	ND<0 (12/19/1996)	(-0.314711 - 0)/(20 - 6)		
-0.0224793				
ND<0 (5/23/2007)	ND<0 (12/19/1996)	(0 - 0)/(21 - 6)	0	
0.536493 J (11/28/2007)	ND<0 (12/19/1996)	(0.536493 - 0)/(22 - 6)		
0.0335308				
0.470004 J (6/5/2008)	ND<0 (12/19/1996)	(0.470004 - 0)/(23 - 6)		
0.0276473				
0.34359 J (11/20/2008)	ND<0 (12/19/1996)	(0.34359 - 0)/(24 - 6)		
0.0190883				
0.693147 (6/11/2009)	ND<0 (12/19/1996)	(0.693147 - 0)/(25 - 6)		
0.0364814				
0.182322 (11/16/2009)	ND<0 (12/19/1996)	(0.182322 - 0)/(26 - 6)		
0.00911608				
0.741937 (6/30/2010)	ND<0 (12/19/1996)	(0.741937 - 0)/(27 - 6)		
0.0353303				
0.641854 (11/12/2010)	ND<0 (12/19/1996)	(0.641854 - 0)/(28 - 6)		
0.0291752				
-0.105361 J M (7/5/2011)	ND<0 (12/19/1996)	(-0.105361 - 0)/(29 - 6)		
-0.00458089				
-0.0618754 J (11/22/2011)	ND<0 (12/19/1996)	(-0.0618754 - 0)/(30 - 6)		
-0.00257814				
-0.0618754 J (11/22/2011)	ND<0 (12/19/1996)	(-0.0618754 - 0)/(30 - 6)		
-0.00257814				
ND<0 (9/24/1997)	ND<0 (3/24/1997)	(0 - 0)/(8 - 7)	0	
ND<0 (4/7/1998)	ND<0 (3/24/1997)	(0 - 0)/(9 - 7)	0	
ND<0 (9/23/1998)	ND<0 (3/24/1997)	(0 - 0)/(10 - 7)	0	

0.993252 (3/16/1999)	ND<0 (3/24/1997)	(0.993252 - 0)/(11 - 7)	
0.248313			
ND<0 (9/23/1999)	ND<0 (3/24/1997)	(0 - 0)/(12 - 7)	0
ND<0 (3/15/2000)	ND<0 (3/24/1997)	(0 - 0)/(13 - 7)	0
ND<0 (9/24/2003)	ND<0 (3/24/1997)	(0 - 0)/(14 - 7)	0
3.61092 (3/11/2004)	ND<0 (3/24/1997)	(3.61092 - 0)/(15 - 7)	
0.451365			
ND<0 (10/12/2004)	ND<0 (3/24/1997)	(0 - 0)/(16 - 7)	0
1.03318 (4/1/2005)	ND<0 (3/24/1997)	(1.03318 - 0)/(17 - 7)	
0.103318			
0.371564 J (10/25/2005)	ND<0 (3/24/1997)	(0.371564 - 0)/(18 - 7)	
0.0337785			
-0.371064 J (4/29/2006)	ND<0 (3/24/1997)	(-0.371064 - 0)/(19 - 7)	
-0.030922			
-0.314711 J (11/18/2006)	ND<0 (3/24/1997)	(-0.314711 - 0)/(20 - 7)	
-0.0242085			
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
0.536493 J (11/28/2007)	ND<0 (3/24/1997)	(0.536493 - 0)/(22 - 7)	
0.0357662			
0.470004 J (6/5/2008)	ND<0 (3/24/1997)	(0.470004 - 0)/(23 - 7)	
0.0293752			
0.34359 J (11/20/2008)	ND<0 (3/24/1997)	(0.34359 - 0)/(24 - 7)	
0.0202112			
0.693147 (6/11/2009)	ND<0 (3/24/1997)	(0.693147 - 0)/(25 - 7)	
0.0385082			
0.182322 (11/16/2009)	ND<0 (3/24/1997)	(0.182322 - 0)/(26 - 7)	
0.00959587			
0.741937 (6/30/2010)	ND<0 (3/24/1997)	(0.741937 - 0)/(27 - 7)	
0.0370969			
0.641854 (11/12/2010)	ND<0 (3/24/1997)	(0.641854 - 0)/(28 - 7)	
0.0305645			
-0.105361 J M (7/5/2011)	ND<0 (3/24/1997)	(-0.105361 - 0)/(29 - 7)	
-0.00478911			
-0.0618754 J (11/22/2011)	ND<0 (3/24/1997)	(-0.0618754 - 0)/(30 - 7)	
-0.00269023			
-0.0618754 J (11/22/2011)	ND<0 (3/24/1997)	(-0.0618754 - 0)/(30 - 7)	
-0.00269023			
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0
ND<0 (9/23/1998)	ND<0 (9/24/1997)	(0 - 0)/(10 - 8)	0
0.993252 (3/16/1999)	ND<0 (9/24/1997)	(0.993252 - 0)/(11 - 8)	
0.331084			
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0
ND<0 (3/15/2000)	ND<0 (9/24/1997)	(0 - 0)/(13 - 8)	0
ND<0 (9/24/2003)	ND<0 (9/24/1997)	(0 - 0)/(14 - 8)	0
3.61092 (3/11/2004)	ND<0 (9/24/1997)	(3.61092 - 0)/(15 - 8)	
0.515845			
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0
1.03318 (4/1/2005)	ND<0 (9/24/1997)	(1.03318 - 0)/(17 - 8)	
0.114798			
0.371564 J (10/25/2005)	ND<0 (9/24/1997)	(0.371564 - 0)/(18 - 8)	
0.0371564			
-0.371064 J (4/29/2006)	ND<0 (9/24/1997)	(-0.371064 - 0)/(19 - 8)	
-0.0337331			
-0.314711 J (11/18/2006)	ND<0 (9/24/1997)	(-0.314711 - 0)/(20 - 8)	
-0.0262259			
ND<0 (5/23/2007)	ND<0 (9/24/1997)	(0 - 0)/(21 - 8)	0
0.536493 J (11/28/2007)	ND<0 (9/24/1997)	(0.536493 - 0)/(22 - 8)	
0.038321			
0.470004 J (6/5/2008)	ND<0 (9/24/1997)	(0.470004 - 0)/(23 - 8)	
0.0313336			

0.34359 J (11/20/2008)	ND<0 (9/24/1997)	(0.34359 - 0)/(24 - 8)		
0.0214744				
0.693147 (6/11/2009)	ND<0 (9/24/1997)	(0.693147 - 0)/(25 - 8)		
0.0407734				
0.182322 (11/16/2009)	ND<0 (9/24/1997)	(0.182322 - 0)/(26 - 8)		
0.010129				
0.741937 (6/30/2010)	ND<0 (9/24/1997)	(0.741937 - 0)/(27 - 8)		
0.0390493				
0.641854 (11/12/2010)	ND<0 (9/24/1997)	(0.641854 - 0)/(28 - 8)		
0.0320927				
-0.105361 J M (7/5/2011)	ND<0 (9/24/1997)	(-0.105361 - 0)/(29 - 8)		
-0.00501717				
-0.0618754 J (11/22/2011)	ND<0 (9/24/1997)	(-0.0618754 - 0)/(30 - 8)		
-0.00281252				
-0.0618754 J (11/22/2011)	ND<0 (9/24/1997)	(-0.0618754 - 0)/(30 - 8)		
-0.00281252				
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0	
0.993252 (3/16/1999)	ND<0 (4/7/1998)	(0.993252 - 0)/(11 - 9)		
0.496626				
ND<0 (9/23/1999)	ND<0 (4/7/1998)	(0 - 0)/(12 - 9)	0	
ND<0 (3/15/2000)	ND<0 (4/7/1998)	(0 - 0)/(13 - 9)	0	
ND<0 (9/24/2003)	ND<0 (4/7/1998)	(0 - 0)/(14 - 9)	0	
3.61092 (3/11/2004)	ND<0 (4/7/1998)	(3.61092 - 0)/(15 - 9)		0.60182
ND<0 (10/12/2004)	ND<0 (4/7/1998)	(0 - 0)/(16 - 9)	0	
1.03318 (4/1/2005)	ND<0 (4/7/1998)	(1.03318 - 0)/(17 - 9)		
0.129148				
0.371564 J (10/25/2005)	ND<0 (4/7/1998)	(0.371564 - 0)/(18 - 9)		
0.0412848				
-0.371064 J (4/29/2006)	ND<0 (4/7/1998)	(-0.371064 - 0)/(19 - 9)		
-0.0371064				
-0.314711 J (11/18/2006)	ND<0 (4/7/1998)	(-0.314711 - 0)/(20 - 9)		
-0.0286101				
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0	
0.536493 J (11/28/2007)	ND<0 (4/7/1998)	(0.536493 - 0)/(22 - 9)		
0.0412687				
0.470004 J (6/5/2008)	ND<0 (4/7/1998)	(0.470004 - 0)/(23 - 9)		
0.0335717				
0.34359 J (11/20/2008)	ND<0 (4/7/1998)	(0.34359 - 0)/(24 - 9)		
0.022906				
0.693147 (6/11/2009)	ND<0 (4/7/1998)	(0.693147 - 0)/(25 - 9)		
0.0433217				
0.182322 (11/16/2009)	ND<0 (4/7/1998)	(0.182322 - 0)/(26 - 9)		
0.0107248				
0.741937 (6/30/2010)	ND<0 (4/7/1998)	(0.741937 - 0)/(27 - 9)		
0.0412187				
0.641854 (11/12/2010)	ND<0 (4/7/1998)	(0.641854 - 0)/(28 - 9)		
0.0337818				
-0.105361 J M (7/5/2011)	ND<0 (4/7/1998)	(-0.105361 - 0)/(29 - 9)		
-0.00526803				
-0.0618754 J (11/22/2011)	ND<0 (4/7/1998)	(-0.0618754 - 0)/(30 - 9)		
-0.00294645				
-0.0618754 J (11/22/2011)	ND<0 (4/7/1998)	(-0.0618754 - 0)/(30 - 9)		
-0.00294645				
0.993252 (3/16/1999)	ND<0 (9/23/1998)	(0.993252 - 0)/(11 - 10)		
0.993252				
ND<0 (9/23/1999)	ND<0 (9/23/1998)	(0 - 0)/(12 - 10)	0	
ND<0 (3/15/2000)	ND<0 (9/23/1998)	(0 - 0)/(13 - 10)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1998)	(0 - 0)/(14 - 10)	0	
3.61092 (3/11/2004)	ND<0 (9/23/1998)	(3.61092 - 0)/(15 - 10)		
0.722184				

ND<0 (10/12/2004)	ND<0 (9/23/1998)	(0 - 0)/(16 - 10)	0	
1.03318 (4/1/2005)	ND<0 (9/23/1998)	(1.03318 - 0)/(17 - 10)		
0.147598				
0.371564 J (10/25/2005)	ND<0 (9/23/1998)	(0.371564 - 0)/(18 - 10)		
0.0464454				
-0.371064 J (4/29/2006)	ND<0 (9/23/1998)	(-0.371064 - 0)/(19 - 10)		
-0.0412293				
-0.314711 J (11/18/2006)	ND<0 (9/23/1998)	(-0.314711 - 0)/(20 - 10)		
-0.0314711				
ND<0 (5/23/2007)	ND<0 (9/23/1998)	(0 - 0)/(21 - 10)	0	
0.536493 J (11/28/2007)	ND<0 (9/23/1998)	(0.536493 - 0)/(22 - 10)		
0.0447078				
0.470004 J (6/5/2008)	ND<0 (9/23/1998)	(0.470004 - 0)/(23 - 10)		
0.0361541				
0.34359 J (11/20/2008)	ND<0 (9/23/1998)	(0.34359 - 0)/(24 - 10)		
0.0245421				
0.693147 (6/11/2009)	ND<0 (9/23/1998)	(0.693147 - 0)/(25 - 10)		
0.0462098				
0.182322 (11/16/2009)	ND<0 (9/23/1998)	(0.182322 - 0)/(26 - 10)		
0.0113951				
0.741937 (6/30/2010)	ND<0 (9/23/1998)	(0.741937 - 0)/(27 - 10)		
0.0436434				
0.641854 (11/12/2010)	ND<0 (9/23/1998)	(0.641854 - 0)/(28 - 10)		
0.0356585				
-0.105361 J M (7/5/2011)	ND<0 (9/23/1998)	(-0.105361 - 0)/(29 - 10)		
-0.00554529				
-0.0618754 J (11/22/2011)	ND<0 (9/23/1998)	(-0.0618754 - 0)/(30 - 10)		
-0.00309377				
-0.0618754 J (11/22/2011)	ND<0 (9/23/1998)	(-0.0618754 - 0)/(30 - 10)		
-0.00309377				

ND<0 (9/23/1999)	0.993252 (3/16/1999)	(0 - 0.993252)/(12 - 11)	
-0.993252			
ND<0 (3/15/2000)	0.993252 (3/16/1999)	(0 - 0.993252)/(13 - 11)	
-0.496626			
ND<0 (9/24/2003)	0.993252 (3/16/1999)	(0 - 0.993252)/(14 - 11)	
-0.331084			
3.61092 (3/11/2004)	0.993252 (3/16/1999)	(3.61092 - 0.993252)/(15 - 11)	
0.654417			
ND<0 (10/12/2004)	0.993252 (3/16/1999)	(0 - 0.993252)/(16 - 11)	-0.19865
1.03318 (4/1/2005)	0.993252 (3/16/1999)	(1.03318 - 0.993252)/(17 - 11)	
0.00665545			
0.371564 J (10/25/2005)	0.993252 (3/16/1999)	(0.371564 - 0.993252)/(18 - 11)	
-0.0888126			
-0.371064 J (4/29/2006)	0.993252 (3/16/1999)	(-0.371064 - 0.993252)/(19 - 11)	
-0.170539			
-0.314711 J (11/18/2006)	0.993252 (3/16/1999)	(-0.314711 - 0.993252)/(20 - 11)	
-0.145329			
ND<0 (5/23/2007)	0.993252 (3/16/1999)	(0 - 0.993252)/(21 - 11)	
-0.0993252			
0.536493 J (11/28/2007)	0.993252 (3/16/1999)	(0.536493 - 0.993252)/(22 - 11)	
-0.0415235			
0.470004 J (6/5/2008)	0.993252 (3/16/1999)	(0.470004 - 0.993252)/(23 - 11)	
-0.043604			
0.34359 J (11/20/2008)	0.993252 (3/16/1999)	(0.34359 - 0.993252)/(24 - 11)	
-0.049974			
0.693147 (6/11/2009)	0.993252 (3/16/1999)	(0.693147 - 0.993252)/(25 - 11)	
-0.021436			
0.182322 (11/16/2009)	0.993252 (3/16/1999)	(0.182322 - 0.993252)/(26 - 11)	
-0.054062			
0.741937 (6/30/2010)	0.993252 (3/16/1999)	(0.741937 - 0.993252)/(27 - 11)	
-0.0157072			

0.641854 (11/12/2010)	0.993252 (3/16/1999)	(0.641854 - 0.993252)/(28 - 11)		
-0.0206705				
-0.105361 J M (7/5/2011)	0.993252 (3/16/1999)	(-0.105361 - 0.993252)/(29 - 11)		
-0.061034				
-0.0618754 J (11/22/2011)	0.993252 (3/16/1999)	(-0.0618754 - 0.993252)/(30 - 11)		
-0.055533				
-0.0618754 J (11/22/2011)	0.993252 (3/16/1999)	(-0.0618754 - 0.993252)/(30 - 11)		
-0.055533				
ND<0 (3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(13 - 12)	0	
ND<0 (9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(14 - 12)	0	
3.61092 (3/11/2004)	ND<0 (9/23/1999)	(3.61092 - 0)/(15 - 12)		1.20364
ND<0 (10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(16 - 12)	0	
1.03318 (4/1/2005)	ND<0 (9/23/1999)	(1.03318 - 0)/(17 - 12)		
0.206637				
0.371564 J (10/25/2005)	ND<0 (9/23/1999)	(0.371564 - 0)/(18 - 12)		
0.0619273				
-0.371064 J (4/29/2006)	ND<0 (9/23/1999)	(-0.371064 - 0)/(19 - 12)		
-0.0530091				
-0.314711 J (11/18/2006)	ND<0 (9/23/1999)	(-0.314711 - 0)/(20 - 12)		
-0.0393388				
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0	
0.536493 J (11/28/2007)	ND<0 (9/23/1999)	(0.536493 - 0)/(22 - 12)		
0.0536493				
0.470004 J (6/5/2008)	ND<0 (9/23/1999)	(0.470004 - 0)/(23 - 12)		
0.0427276				
0.34359 J (11/20/2008)	ND<0 (9/23/1999)	(0.34359 - 0)/(24 - 12)		
0.0286325				
0.693147 (6/11/2009)	ND<0 (9/23/1999)	(0.693147 - 0)/(25 - 12)		
0.053319				
0.182322 (11/16/2009)	ND<0 (9/23/1999)	(0.182322 - 0)/(26 - 12)		
0.013023				
0.741937 (6/30/2010)	ND<0 (9/23/1999)	(0.741937 - 0)/(27 - 12)		
0.0494625				
0.641854 (11/12/2010)	ND<0 (9/23/1999)	(0.641854 - 0)/(28 - 12)		
0.0401159				
-0.105361 J M (7/5/2011)	ND<0 (9/23/1999)	(-0.105361 - 0)/(29 - 12)		
-0.00619768				
-0.0618754 J (11/22/2011)	ND<0 (9/23/1999)	(-0.0618754 - 0)/(30 - 12)		
-0.00343752				
-0.0618754 J (11/22/2011)	ND<0 (9/23/1999)	(-0.0618754 - 0)/(30 - 12)		
-0.00343752				
ND<0 (9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(14 - 13)	0	
3.61092 (3/11/2004)	ND<0 (3/15/2000)	(3.61092 - 0)/(15 - 13)		1.80546
ND<0 (10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(16 - 13)	0	
1.03318 (4/1/2005)	ND<0 (3/15/2000)	(1.03318 - 0)/(17 - 13)		
0.258296				
0.371564 J (10/25/2005)	ND<0 (3/15/2000)	(0.371564 - 0)/(18 - 13)		
0.0743127				
-0.371064 J (4/29/2006)	ND<0 (3/15/2000)	(-0.371064 - 0)/(19 - 13)		
-0.0618439				
-0.314711 J (11/18/2006)	ND<0 (3/15/2000)	(-0.314711 - 0)/(20 - 13)		
-0.0449587				
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0	
0.536493 J (11/28/2007)	ND<0 (3/15/2000)	(0.536493 - 0)/(22 - 13)		
0.0596104				
0.470004 J (6/5/2008)	ND<0 (3/15/2000)	(0.470004 - 0)/(23 - 13)		
0.0470004				
0.34359 J (11/20/2008)	ND<0 (3/15/2000)	(0.34359 - 0)/(24 - 13)		
0.0312354				

0.693147 (6/11/2009)	ND<0 (3/15/2000)	(0.693147 - 0)/(25 - 13)		
0.0577623				
0.182322 (11/16/2009)	ND<0 (3/15/2000)	(0.182322 - 0)/(26 - 13)		
0.0140247				
0.741937 (6/30/2010)	ND<0 (3/15/2000)	(0.741937 - 0)/(27 - 13)		
0.0529955				
0.641854 (11/12/2010)	ND<0 (3/15/2000)	(0.641854 - 0)/(28 - 13)		
0.0427903				
-0.105361 J M (7/5/2011)	ND<0 (3/15/2000)	(-0.105361 - 0)/(29 - 13)		
-0.00658503				
-0.0618754 J (11/22/2011)	ND<0 (3/15/2000)	(-0.0618754 - 0)/(30 - 13)		
-0.00363973				
-0.0618754 J (11/22/2011)	ND<0 (3/15/2000)	(-0.0618754 - 0)/(30 - 13)		
-0.00363973				
3.61092 (3/11/2004)	ND<0 (9/24/2003)	(3.61092 - 0)/(15 - 14)		3.61092
ND<0 (10/12/2004)	ND<0 (9/24/2003)	(0 - 0)/(16 - 14)	0	
1.03318 (4/1/2005)	ND<0 (9/24/2003)	(1.03318 - 0)/(17 - 14)		
0.344395				
0.371564 J (10/25/2005)	ND<0 (9/24/2003)	(0.371564 - 0)/(18 - 14)		
0.0928909				
-0.371064 J (4/29/2006)	ND<0 (9/24/2003)	(-0.371064 - 0)/(19 - 14)		
-0.0742127				
-0.314711 J (11/18/2006)	ND<0 (9/24/2003)	(-0.314711 - 0)/(20 - 14)		
-0.0524518				
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0	
0.536493 J (11/28/2007)	ND<0 (9/24/2003)	(0.536493 - 0)/(22 - 14)		
0.0670617				
0.470004 J (6/5/2008)	ND<0 (9/24/2003)	(0.470004 - 0)/(23 - 14)		
0.0522226				
0.34359 J (11/20/2008)	ND<0 (9/24/2003)	(0.34359 - 0)/(24 - 14)		
0.034359				
0.693147 (6/11/2009)	ND<0 (9/24/2003)	(0.693147 - 0)/(25 - 14)		
0.0630134				
0.182322 (11/16/2009)	ND<0 (9/24/2003)	(0.182322 - 0)/(26 - 14)		
0.0151935				
0.741937 (6/30/2010)	ND<0 (9/24/2003)	(0.741937 - 0)/(27 - 14)		
0.0570721				
0.641854 (11/12/2010)	ND<0 (9/24/2003)	(0.641854 - 0)/(28 - 14)		
0.0458467				
-0.105361 J M (7/5/2011)	ND<0 (9/24/2003)	(-0.105361 - 0)/(29 - 14)		
-0.00702403				
-0.0618754 J (11/22/2011)	ND<0 (9/24/2003)	(-0.0618754 - 0)/(30 - 14)		
-0.00386721				
-0.0618754 J (11/22/2011)	ND<0 (9/24/2003)	(-0.0618754 - 0)/(30 - 14)		
-0.00386721				
ND<0 (10/12/2004)	3.61092 (3/11/2004)	(0 - 3.61092)/(16 - 15)		-3.61092
1.03318 (4/1/2005)	3.61092 (3/11/2004)	(1.03318 - 3.61092)/(17 - 15)		
-1.28887				
0.371564 J (10/25/2005)	3.61092 (3/11/2004)	(0.371564 - 3.61092)/(18 - 15)		
-1.07978				
-0.371064 J (4/29/2006)	3.61092 (3/11/2004)	(-0.371064 - 3.61092)/(19 - 15)		
-0.995495				
-0.314711 J (11/18/2006)	3.61092 (3/11/2004)	(-0.314711 - 3.61092)/(20 - 15)		
-0.785126				
ND<0 (5/23/2007)	3.61092 (3/11/2004)	(0 - 3.61092)/(21 - 15)		-0.60182
0.536493 J (11/28/2007)	3.61092 (3/11/2004)	(0.536493 - 3.61092)/(22 - 15)		
-0.439204				
0.470004 J (6/5/2008)	3.61092 (3/11/2004)	(0.470004 - 3.61092)/(23 - 15)		
-0.392614				

0.34359 J (11/20/2008)	3.61092 (3/11/2004)	(0.34359 - 3.61092)/(24 - 15)		
-0.363036				
0.693147 (6/11/2009)	3.61092 (3/11/2004)	(0.693147 - 3.61092)/(25 - 15)		
-0.291777				
0.182322 (11/16/2009)	3.61092 (3/11/2004)	(0.182322 - 3.61092)/(26 - 15)		
-0.311691				
0.741937 (6/30/2010)	3.61092 (3/11/2004)	(0.741937 - 3.61092)/(27 - 15)		
-0.239082				
0.641854 (11/12/2010)	3.61092 (3/11/2004)	(0.641854 - 3.61092)/(28 - 15)		
-0.22839				
-0.105361 J M (7/5/2011)	3.61092 (3/11/2004)	(-0.105361 - 3.61092)/(29 - 15)		
-0.265448				
-0.0618754 J (11/22/2011)	3.61092 (3/11/2004)	(-0.0618754 - 3.61092)/(30 - 15)		
-0.244853				
-0.0618754 J (11/22/2011)	3.61092 (3/11/2004)	(-0.0618754 - 3.61092)/(30 - 15)		
-0.244853				
1.03318 (4/1/2005)	ND<0 (10/12/2004)	(1.03318 - 0)/(17 - 16)		1.03318
0.371564 J (10/25/2005)	ND<0 (10/12/2004)	(0.371564 - 0)/(18 - 16)		
0.185782				
-0.371064 J (4/29/2006)	ND<0 (10/12/2004)	(-0.371064 - 0)/(19 - 16)		
-0.123688				
-0.314711 J (11/18/2006)	ND<0 (10/12/2004)	(-0.314711 - 0)/(20 - 16)		
-0.0786777				
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0	
0.536493 J (11/28/2007)	ND<0 (10/12/2004)	(0.536493 - 0)/(22 - 16)		
0.0894156				
0.470004 J (6/5/2008)	ND<0 (10/12/2004)	(0.470004 - 0)/(23 - 16)		
0.0671434				
0.34359 J (11/20/2008)	ND<0 (10/12/2004)	(0.34359 - 0)/(24 - 16)		
0.0429487				
0.693147 (6/11/2009)	ND<0 (10/12/2004)	(0.693147 - 0)/(25 - 16)		
0.0770164				
0.182322 (11/16/2009)	ND<0 (10/12/2004)	(0.182322 - 0)/(26 - 16)		
0.0182322				
0.741937 (6/30/2010)	ND<0 (10/12/2004)	(0.741937 - 0)/(27 - 16)		
0.0674488				
0.641854 (11/12/2010)	ND<0 (10/12/2004)	(0.641854 - 0)/(28 - 16)		
0.0534878				
-0.105361 J M (7/5/2011)	ND<0 (10/12/2004)	(-0.105361 - 0)/(29 - 16)		
-0.00810466				
-0.0618754 J (11/22/2011)	ND<0 (10/12/2004)	(-0.0618754 - 0)/(30 - 16)		
-0.00441967				
-0.0618754 J (11/22/2011)	ND<0 (10/12/2004)	(-0.0618754 - 0)/(30 - 16)		
-0.00441967				
0.371564 J (10/25/2005)	1.03318 (4/1/2005)	(0.371564 - 1.03318)/(18 - 17)		
-0.661621				
-0.371064 J (4/29/2006)	1.03318 (4/1/2005)	(-0.371064 - 1.03318)/(19 - 17)		
-0.702124				
-0.314711 J (11/18/2006)	1.03318 (4/1/2005)	(-0.314711 - 1.03318)/(20 - 17)		
-0.449298				
ND<0 (5/23/2007)	1.03318 (4/1/2005)	(0 - 1.03318)/(21 - 17)		
-0.258296				
0.536493 J (11/28/2007)	1.03318 (4/1/2005)	(0.536493 - 1.03318)/(22 - 17)		
-0.0993382				
0.470004 J (6/5/2008)	1.03318 (4/1/2005)	(0.470004 - 1.03318)/(23 - 17)		
-0.0938635				
0.34359 J (11/20/2008)	1.03318 (4/1/2005)	(0.34359 - 1.03318)/(24 - 17)		
-0.0985135				
0.693147 (6/11/2009)	1.03318 (4/1/2005)	(0.693147 - 1.03318)/(25 - 17)		
-0.0425047				

0.182322 (11/16/2009)	1.03318 (4/1/2005)	(0.182322 - 1.03318)/(26 - 17)
-0.0945403		
0.741937 (6/30/2010)	1.03318 (4/1/2005)	(0.741937 - 1.03318)/(27 - 17)
-0.0291247		
0.641854 (11/12/2010)	1.03318 (4/1/2005)	(0.641854 - 1.03318)/(28 - 17)
-0.0355755		
-0.105361 J M (7/5/2011)	1.03318 (4/1/2005)	(-0.105361 - 1.03318)/(29 - 17)
-0.0948787		
-0.0618754 J (11/22/2011)	1.03318 (4/1/2005)	(-0.0618754 - 1.03318)/(30 - 17)
-0.0842354		
-0.0618754 J (11/22/2011)	1.03318 (4/1/2005)	(-0.0618754 - 1.03318)/(30 - 17)
-0.0842354		
-0.371064 J (4/29/2006)	0.371564 J (10/25/2005)	(-0.371064 - 0.371564)/(19 - 18)
-0.742627		
-0.314711 J (11/18/2006)	0.371564 J (10/25/2005)	(-0.314711 - 0.371564)/(20 - 18)
-0.343137		
ND<0 (5/23/2007)	0.371564 J (10/25/2005)	(0 - 0.371564)/(21 - 18)
-0.123855		
0.536493 J (11/28/2007)	0.371564 J (10/25/2005)	(0.536493 - 0.371564)/(22 - 18)
0.0412325		
0.470004 J (6/5/2008)	0.371564 J (10/25/2005)	(0.470004 - 0.371564)/(23 - 18)
0.019688		
0.34359 J (11/20/2008)	0.371564 J (10/25/2005)	(0.34359 - 0.371564)/(24 - 18)
-0.00466231		
0.693147 (6/11/2009)	0.371564 J (10/25/2005)	(0.693147 - 0.371564)/(25 - 18)
0.0459405		
0.182322 (11/16/2009)	0.371564 J (10/25/2005)	(0.182322 - 0.371564)/(26 - 18)
-0.0236552		
0.741937 (6/30/2010)	0.371564 J (10/25/2005)	(0.741937 - 0.371564)/(27 - 18)
0.0411526		
0.641854 (11/12/2010)	0.371564 J (10/25/2005)	(0.641854 - 0.371564)/(28 - 18)
0.027029		
-0.105361 J M (7/5/2011)	0.371564 J (10/25/2005)	(-0.105361 - 0.371564)/(29 - 18)
-0.0433567		
-0.0618754 J (11/22/2011)	0.371564 J (10/25/2005)	(-0.0618754 - 0.371564)/(30 - 18)
-0.0361199		
-0.0618754 J (11/22/2011)	0.371564 J (10/25/2005)	(-0.0618754 - 0.371564)/(30 - 18)
-0.0361199		
-0.314711 J (11/18/2006)	-0.371064 J (4/29/2006)	(-0.314711 - -0.371064)/(20 - 19)
0.0563529		
ND<0 (5/23/2007)	-0.371064 J (4/29/2006)	(0 - -0.371064)/(21 - 19)
0.185532		
0.536493 J (11/28/2007)	-0.371064 J (4/29/2006)	(0.536493 - -0.371064)/(22 - 19)
0.302519		
0.470004 J (6/5/2008)	-0.371064 J (4/29/2006)	(0.470004 - -0.371064)/(23 - 19)
0.210267		
0.34359 J (11/20/2008)	-0.371064 J (4/29/2006)	(0.34359 - -0.371064)/(24 - 19)
0.142931		
0.693147 (6/11/2009)	-0.371064 J (4/29/2006)	(0.693147 - -0.371064)/(25 - 19)
0.177368		
0.182322 (11/16/2009)	-0.371064 J (4/29/2006)	(0.182322 - -0.371064)/(26 - 19)
0.079055		
0.741937 (6/30/2010)	-0.371064 J (4/29/2006)	(0.741937 - -0.371064)/(27 - 19)
0.139125		
0.641854 (11/12/2010)	-0.371064 J (4/29/2006)	(0.641854 - -0.371064)/(28 - 19)
0.112546		
-0.105361 J M (7/5/2011)	-0.371064 J (4/29/2006)	(-0.105361 - -0.371064)/(29 - 19)
0.0265703		
-0.0618754 J (11/22/2011)	-0.371064 J (4/29/2006)	(-0.0618754 - -0.371064)/(30 - 19)
0.028108		

-0.0618754 J (11/22/2011)	-0.371064 J (4/29/2006)	(-0.0618754 - -0.371064)/(30 - 19)	
0.028108			
ND<0 (5/23/2007)	-0.314711 J (11/18/2006)	(0 - -0.314711)/(21 - 20)	
0.314711			
0.536493 J (11/28/2007)	-0.314711 J (11/18/2006)	(0.536493 - -0.314711)/(22 - 20)	
0.425602			
0.470004 J (6/5/2008)	-0.314711 J (11/18/2006)	(0.470004 - -0.314711)/(23 - 20)	
0.261571			
0.34359 J (11/20/2008)	-0.314711 J (11/18/2006)	(0.34359 - -0.314711)/(24 - 20)	
0.164575			
0.693147 (6/11/2009)	-0.314711 J (11/18/2006)	(0.693147 - -0.314711)/(25 - 20)	
0.201572			
0.182322 (11/16/2009)	-0.314711 J (11/18/2006)	(0.182322 - -0.314711)/(26 - 20)	
0.0828387			
0.741937 (6/30/2010)	-0.314711 J (11/18/2006)	(0.741937 - -0.314711)/(27 - 20)	
0.15095			
0.641854 (11/12/2010)	-0.314711 J (11/18/2006)	(0.641854 - -0.314711)/(28 - 20)	
0.119571			
-0.105361 J M (7/5/2011)	-0.314711 J (11/18/2006)	(-0.105361 - -0.314711)/(29 - 20)	
0.0232611			
-0.0618754 J (11/22/2011)	-0.314711 J (11/18/2006)	(-0.0618754 - -0.314711)/(30 - 20)	
0.0252835			
-0.0618754 J (11/22/2011)	-0.314711 J (11/18/2006)	(-0.0618754 - -0.314711)/(30 - 20)	
0.0252835			
0.536493 J (11/28/2007)	ND<0 (5/23/2007)	(0.536493 - 0)/(22 - 21)	
0.536493			
0.470004 J (6/5/2008)	ND<0 (5/23/2007)	(0.470004 - 0)/(23 - 21)	
0.235002			
0.34359 J (11/20/2008)	ND<0 (5/23/2007)	(0.34359 - 0)/(24 - 21)	0.11453
0.693147 (6/11/2009)	ND<0 (5/23/2007)	(0.693147 - 0)/(25 - 21)	
0.173287			
0.182322 (11/16/2009)	ND<0 (5/23/2007)	(0.182322 - 0)/(26 - 21)	
0.0364643			
0.741937 (6/30/2010)	ND<0 (5/23/2007)	(0.741937 - 0)/(27 - 21)	
0.123656			
0.641854 (11/12/2010)	ND<0 (5/23/2007)	(0.641854 - 0)/(28 - 21)	
0.0916934			
-0.105361 J M (7/5/2011)	ND<0 (5/23/2007)	(-0.105361 - 0)/(29 - 21)	
-0.0131701			
-0.0618754 J (11/22/2011)	ND<0 (5/23/2007)	(-0.0618754 - 0)/(30 - 21)	
-0.00687504			
-0.0618754 J (11/22/2011)	ND<0 (5/23/2007)	(-0.0618754 - 0)/(30 - 21)	
-0.00687504			
0.470004 J (6/5/2008)	0.536493 J (11/28/2007)	(0.470004 - 0.536493)/(23 - 22)	
-0.0664897			
0.34359 J (11/20/2008)	0.536493 J (11/28/2007)	(0.34359 - 0.536493)/(24 - 22)	
-0.0964518			
0.693147 (6/11/2009)	0.536493 J (11/28/2007)	(0.693147 - 0.536493)/(25 - 22)	
0.0522179			
0.182322 (11/16/2009)	0.536493 J (11/28/2007)	(0.182322 - 0.536493)/(26 - 22)	
-0.088543			
0.741937 (6/30/2010)	0.536493 J (11/28/2007)	(0.741937 - 0.536493)/(27 - 22)	
0.0410888			
0.641854 (11/12/2010)	0.536493 J (11/28/2007)	(0.641854 - 0.536493)/(28 - 22)	
0.0175601			
-0.105361 J M (7/5/2011)	0.536493 J (11/28/2007)	(-0.105361 - 0.536493)/(29 - 22)	
-0.0916934			
-0.0618754 J (11/22/2011)	0.536493 J (11/28/2007)	(-0.0618754 - 0.536493)/(30 - 22)	
-0.0747961			

-0.0618754 J (11/22/2011)	0.536493 J (11/28/2007)	(-0.0618754 - 0.536493)/(30 - 22)	-0.0747961
0.34359 J (11/20/2008)	0.470004 J (6/5/2008)	(0.34359 - 0.470004)/(24 - 23)	-0.126414
0.693147 (6/11/2009)	0.470004 J (6/5/2008)	(0.693147 - 0.470004)/(25 - 23)	0.111572
0.182322 (11/16/2009)	0.470004 J (6/5/2008)	(0.182322 - 0.470004)/(26 - 23)	-0.095894
0.741937 (6/30/2010)	0.470004 J (6/5/2008)	(0.741937 - 0.470004)/(27 - 23)	0.0679834
0.641854 (11/12/2010)	0.470004 J (6/5/2008)	(0.641854 - 0.470004)/(28 - 23)	0.0343701
-0.105361 J M (7/5/2011)	0.470004 J (6/5/2008)	(-0.105361 - 0.470004)/(29 - 23)	-0.095894
-0.0618754 J (11/22/2011)	0.470004 J (6/5/2008)	(-0.0618754 - 0.470004)/(30 - 23)	-0.0759827
-0.0618754 J (11/22/2011)	0.470004 J (6/5/2008)	(-0.0618754 - 0.470004)/(30 - 23)	-0.0759827
0.693147 (6/11/2009)	0.34359 J (11/20/2008)	(0.693147 - 0.34359)/(25 - 24)	0.349557
0.182322 (11/16/2009)	0.34359 J (11/20/2008)	(0.182322 - 0.34359)/(26 - 24)	-0.0806341
0.741937 (6/30/2010)	0.34359 J (11/20/2008)	(0.741937 - 0.34359)/(27 - 24)	0.132783
0.641854 (11/12/2010)	0.34359 J (11/20/2008)	(0.641854 - 0.34359)/(28 - 24)	0.074566
-0.105361 J M (7/5/2011)	0.34359 J (11/20/2008)	(-0.105361 - 0.34359)/(29 - 24)	-0.08979
-0.0618754 J (11/22/2011)	0.34359 J (11/20/2008)	(-0.0618754 - 0.34359)/(30 - 24)	-0.0675775
-0.0618754 J (11/22/2011)	0.34359 J (11/20/2008)	(-0.0618754 - 0.34359)/(30 - 24)	-0.0675775
0.182322 (11/16/2009)	0.693147 (6/11/2009)	(0.182322 - 0.693147)/(26 - 25)	-0.510826
0.741937 (6/30/2010)	0.693147 (6/11/2009)	(0.741937 - 0.693147)/(27 - 25)	0.0243951
0.641854 (11/12/2010)	0.693147 (6/11/2009)	(0.641854 - 0.693147)/(28 - 25)	-0.0170978
-0.105361 J M (7/5/2011)	0.693147 (6/11/2009)	(-0.105361 - 0.693147)/(29 - 25)	-0.199627
-0.0618754 J (11/22/2011)	0.693147 (6/11/2009)	(-0.0618754 - 0.693147)/(30 - 25)	-0.151005
-0.0618754 J (11/22/2011)	0.693147 (6/11/2009)	(-0.0618754 - 0.693147)/(30 - 25)	-0.151005
0.741937 (6/30/2010)	0.182322 (11/16/2009)	(0.741937 - 0.182322)/(27 - 26)	0.559616
0.641854 (11/12/2010)	0.182322 (11/16/2009)	(0.641854 - 0.182322)/(28 - 26)	0.229766
-0.105361 J M (7/5/2011)	0.182322 (11/16/2009)	(-0.105361 - 0.182322)/(29 - 26)	-0.095894
-0.0618754 J (11/22/2011)	0.182322 (11/16/2009)	(-0.0618754 - 0.182322)/(30 - 26)	-0.0610492
-0.0618754 J (11/22/2011)	0.182322 (11/16/2009)	(-0.0618754 - 0.182322)/(30 - 26)	-0.0610492
0.641854 (11/12/2010)	0.741937 (6/30/2010)	(0.641854 - 0.741937)/(28 - 27)	-0.100083

-0.105361 J M (7/5/2011)	0.741937 (6/30/2010)	(-0.105361 - 0.741937)/(29 - 27)	-0.423649
-0.0618754 J (11/22/2011)	0.741937 (6/30/2010)	(-0.0618754 - 0.741937)/(30 - 27)	-0.267938
-0.0618754 J (11/22/2011)	0.741937 (6/30/2010)	(-0.0618754 - 0.741937)/(30 - 27)	-0.267938
-0.105361 J M (7/5/2011)	0.641854 (11/12/2010)	(-0.105361 - 0.641854)/(29 - 28)	-0.747214
-0.0618754 J (11/22/2011)	0.641854 (11/12/2010)	(-0.0618754 - 0.641854)/(30 - 28)	-0.351865
-0.0618754 J (11/22/2011)	0.641854 (11/12/2010)	(-0.0618754 - 0.641854)/(30 - 28)	-0.351865
-0.0618754 J (11/22/2011)	-0.105361 J M (7/5/2011)	(-0.0618754 - -0.105361)/(30 - 29)	0.0434851
-0.0618754 J (11/22/2011)	-0.105361 J M (7/5/2011)	(-0.0618754 - -0.105361)/(30 - 29)	0.0434851
-0.0618754 J (11/22/2011)	-0.0618754 J (11/22/2011)	(-0.0618754 - -0.0618754)/(30 - 30)	Same Date

Number of Q values = 464

Ordered Q Values

n	Q
1	-3.61092
2	-1.28887
3	-1.07978
4	-0.995495
5	-0.993252
6	-0.785126
7	-0.747214
8	-0.742627
9	-0.702124
10	-0.661621
11	-0.60182
12	-0.510826
13	-0.496626
14	-0.449298
15	-0.439204
16	-0.423649
17	-0.392614
18	-0.363036
19	-0.351865
20	-0.351865
21	-0.343137
22	-0.331084
23	-0.311691
24	-0.291777
25	-0.267938
26	-0.267938
27	-0.265448
28	-0.258296
29	-0.244853
30	-0.244853
31	-0.239082
32	-0.22839
33	-0.223144
34	-0.199627

35	-0.19865
36	-0.170539
37	-0.151005
38	-0.151005
39	-0.145329
40	-0.126414
41	-0.123855
42	-0.123688
43	-0.111572
44	-0.100083
45	-0.0993382
46	-0.0993252
47	-0.0985135
48	-0.0964518
49	-0.095894
50	-0.095894
51	-0.095894
52	-0.0948787
53	-0.0945403
54	-0.0938635
55	-0.0916934
56	-0.08979
57	-0.0888126
58	-0.088543
59	-0.0842354
60	-0.0842354
61	-0.0806341
62	-0.0786777
63	-0.0759827
64	-0.0759827
65	-0.0747961
66	-0.0747961
67	-0.0742127
68	-0.0675775
69	-0.0675775
70	-0.0664897
71	-0.0618439
72	-0.0610492
73	-0.0610492
74	-0.061034
75	-0.055533
76	-0.055533
77	-0.054062
78	-0.0530091
79	-0.0526803
80	-0.0524518
81	-0.049974
82	-0.0449587
83	-0.043604
84	-0.0433567
85	-0.0425047
86	-0.0415235
87	-0.0412293
88	-0.0393388
89	-0.0371064
90	-0.0361199
91	-0.0361199
92	-0.0355755
93	-0.0351202
94	-0.0337331
95	-0.0314711
96	-0.030922

97	-0.0291247
98	-0.0286101
99	-0.0285434
100	-0.0265045
101	-0.0262259
102	-0.0242085
103	-0.0236552
104	-0.0224793
105	-0.0218273
106	-0.021436
107	-0.0209807
108	-0.0206705
109	-0.0206146
110	-0.0177135
111	-0.0174839
112	-0.0170978
113	-0.0165637
114	-0.0157072
115	-0.0131701
116	-0.0130844
117	-0.00924501
118	-0.00810466
119	-0.00702403
120	-0.00687504
121	-0.00687504
122	-0.00658503
123	-0.00619768
124	-0.00554529
125	-0.00538631
126	-0.00526803
127	-0.00501717
128	-0.00478911
129	-0.00466231
130	-0.00458089
131	-0.00441967
132	-0.00441967
133	-0.00439002
134	-0.00390224
135	-0.00386721
136	-0.00386721
137	-0.00376288
138	-0.00363973
139	-0.00363973
140	-0.00343752
141	-0.00343752
142	-0.00309377
143	-0.00309377
144	-0.00294645
145	-0.00294645
146	-0.00281252
147	-0.00281252
148	-0.00269023
149	-0.00269023
150	-0.00257814
151	-0.00257814
152	-0.00247502
153	-0.00247502
154	-0.00220984
155	-0.00220984
156	-0.00213363
157	-0.00213363
158	0

159	0
160	0
161	0
162	0
163	0
164	0
165	0
166	0
167	0
168	0
169	0
170	0
171	0
172	0
173	0
174	0
175	0
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200	0
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202	0
203	0
204	0
205	0
206	0
207	0
208	0
209	0
210	0
211	0
212	0
213	0
214	0
215	0
216	0
217	0
218	0
219	0
220	0

221	0
222	0
223	0
224	0
225	0
226	0
227	0
228	0
229	0
230	0
231	0
232	0
233	0
234	0
235	0
236	0
237	0.0016725
238	0.0016725
239	0.00453012
240	0.00597289
241	0.00597289
242	0.00619768
243	0.00665545
244	0.00729286
245	0.00759673
246	0.00868198
247	0.00878004
248	0.00911608
249	0.00959587
250	0.010129
251	0.0105361
252	0.0107248
253	0.0113951
254	0.0117067
255	0.0123969
256	0.013023
257	0.0130765
258	0.0131701
259	0.0140247
260	0.0149387
261	0.0151935
262	0.0156177
263	0.0171649
264	0.0175601
265	0.0175601
266	0.0176289
267	0.0180837
268	0.0182322
269	0.0190883
270	0.019688
271	0.0202112
272	0.0202858
273	0.0210721
274	0.0213638
275	0.0214744
276	0.0218567
277	0.0223144
278	0.0223811
279	0.0224475
280	0.022906
281	0.0232227
282	0.0232611

283	0.0237724
284	0.0243951
285	0.0245421
286	0.0246867
287	0.0247937
288	0.0252835
289	0.0252835
290	0.0255473
291	0.0261113
292	0.0263401
293	0.0265703
294	0.0268247
295	0.0269873
296	0.027029
297	0.0276473
298	0.0279067
299	0.028108
300	0.028108
301	0.0285361
302	0.0285818
303	0.0286325
304	0.0288811
305	0.0291752
306	0.0293752
307	0.0296775
308	0.0301368
309	0.0302823
310	0.0305645
311	0.0309636
312	0.0311339
313	0.0312354
314	0.0313336
315	0.0315584
316	0.0318777
317	0.0320927
318	0.0335308
319	0.0335717
320	0.0337244
321	0.0337785
322	0.0337818
323	0.034066
324	0.034359
325	0.0343701
326	0.0345999
327	0.0346574
328	0.0346574
329	0.0351202
330	0.0353303
331	0.0356585
332	0.0356585
333	0.0357662
334	0.0361541
335	0.0364643
336	0.0364814
337	0.036839
338	0.0370969
339	0.0371564
340	0.0371906
341	0.0380242
342	0.038321
343	0.0385082
344	0.0390493

345	0.0396471
346	0.0399809
347	0.0401159
348	0.0402117
349	0.0407734
350	0.0410888
351	0.0411526
352	0.0412187
353	0.0412325
354	0.0412687
355	0.0412848
356	0.0416496
357	0.0427276
358	0.0427903
359	0.0429487
360	0.0433217
361	0.0434851
362	0.0434851
363	0.0436434
364	0.0446287
365	0.0447078
366	0.0458467
367	0.0459405
368	0.0462098
369	0.0464454
370	0.0470004
371	0.0494625
372	0.0522179
373	0.0522226
374	0.0526803
375	0.0529955
376	0.053319
377	0.0534878
378	0.0536493
379	0.0557859
380	0.0563529
381	0.0570721
382	0.0577623
383	0.0596104
384	0.0619273
385	0.0630134
386	0.064574
387	0.0670617
388	0.0671434
389	0.0674488
390	0.0679834
391	0.068879
392	0.0743127
393	0.0743812
394	0.074566
395	0.0770164
396	0.079055
397	0.0828387
398	0.0860987
399	0.0875804
400	0.0894156
401	0.0897377
402	0.0916934
403	0.0928909
404	0.0939259
405	0.0993252
406	0.103318

407	0.105361
408	0.110361
409	0.111572
410	0.111572
411	0.112546
412	0.11453
413	0.114798
414	0.117783
415	0.119571
416	0.123656
417	0.129148
418	0.132783
419	0.139125
420	0.142931
421	0.147598
422	0.15095
423	0.152049
424	0.156945
425	0.164575
426	0.165542
427	0.173287
428	0.177368
429	0.185532
430	0.185782
431	0.19865
432	0.201572
433	0.206637
434	0.210267
435	0.229766
436	0.235002
437	0.248313
438	0.257923
439	0.258296
440	0.261571
441	0.277763
442	0.302519
443	0.314711
444	0.319505
445	0.331084
446	0.337843
447	0.344395
448	0.349557
449	0.361092
450	0.401213
451	0.425602
452	0.451365
453	0.496626
454	0.515845
455	0.536493
456	0.559616
457	0.60182
458	0.654417
459	0.722184
460	0.993252
461	1.03318
462	1.20364
463	1.80546
464	3.61092

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	13

2	-0.105361	2
3	-0.0618754	2

Time Period	Observations
7/20/1995	1
8/24/1995	1
9/28/1995	1
10/26/1995	1
11/19/1996	1
12/19/1996	1
3/24/1997	1
9/24/1997	1
4/7/1998	1
9/23/1998	1
3/16/1999	1
9/23/1999	1
3/15/2000	1
9/24/2003	1
3/11/2004	1
10/12/2004	1
4/1/2005	1
10/25/2005	1
4/29/2006	1
11/18/2006	1
5/23/2007	1
11/28/2007	1
6/5/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/12/2010	1
7/5/2011	1
11/22/2011	2

There are 1 time periods with multiple data

A = 4872
B = 18
C = 1716
D = 0
E = 160
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3190.17
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.9039
M1 = (464 - 92.9039)/2.0 = 185.548
M2 = (464 + 92.9039)/2.0 + 1 = 279.452
Lower limit is 0 = Q(186)
Upper limit is 0.0224475 = Q(279)
0 < 0 < 0.0224475 indicating no trend in data.

Sen's Slope Analysis
Parameter: Vinyl Chloride
Location: MW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

90% Confidence Level

Xj	Xk	(Xj - Xk)/(j-k)	Q	
3.82864	(8/24/1995)	0.875469	(7/20/1995)	(3.82864 - 0.875469)/(2 - 1)
2.95317				
3.58352	(9/28/1995)	0.875469	(7/20/1995)	(3.58352 - 0.875469)/(3 - 1)
1.35403				
1.38629	(10/26/1995)	0.875469	(7/20/1995)	(1.38629 - 0.875469)/(4 - 1)
0.170275				
ND<0	(11/19/1996)	0.875469	(7/20/1995)	(0 - 0.875469)/(5 - 1)
-0.218867				
3.82864	(12/19/1996)	0.875469	(7/20/1995)	(3.82864 - 0.875469)/(6 - 1)
0.590635				
3.8712	(3/24/1997)	0.875469	(7/20/1995)	(3.8712 - 0.875469)/(7 - 1)
0.499289				
3.21888	(9/24/1997)	0.875469	(7/20/1995)	(3.21888 - 0.875469)/(8 - 1)
0.334772				
3.66356	(4/7/1998)	0.875469	(7/20/1995)	(3.66356 - 0.875469)/(9 - 1)
0.348512				
2.77259	(9/23/1998)	0.875469	(7/20/1995)	(2.77259 - 0.875469)/(10 - 1)
0.210791				
2.6174	(3/16/1999)	0.875469	(7/20/1995)	(2.6174 - 0.875469)/(11 - 1)
0.174193				
2.7213	(9/23/1999)	0.875469	(7/20/1995)	(2.7213 - 0.875469)/(12 - 1)
0.167802				
ND<0	(3/15/2000)	0.875469	(7/20/1995)	(0 - 0.875469)/(13 - 1)
-0.0729557				
5.43808	(9/24/2003)	0.875469	(7/20/1995)	(5.43808 - 0.875469)/(14 - 1)
0.35097				
4.35671	(3/11/2004)	0.875469	(7/20/1995)	(4.35671 - 0.875469)/(15 - 1)
0.24866				
4.86753	(10/12/2004)	0.875469	(7/20/1995)	(4.86753 - 0.875469)/(16 - 1)
0.266138				
4.07754	(4/1/2005)	0.875469	(7/20/1995)	(4.07754 - 0.875469)/(17 - 1)
0.200129				
3.99268	(10/25/2005)	0.875469	(7/20/1995)	(3.99268 - 0.875469)/(18 - 1)
0.183365				
3.20275	(4/29/2006)	0.875469	(7/20/1995)	(3.20275 - 0.875469)/(19 - 1)
0.129293				
3.60005	(11/18/2006)	0.875469	(7/20/1995)	(3.60005 - 0.875469)/(20 - 1)
0.143399				
2.94444	(5/23/2007)	0.875469	(7/20/1995)	(2.94444 - 0.875469)/(21 - 1)
0.103449				
3.50255	(11/28/2007)	0.875469	(7/20/1995)	(3.50255 - 0.875469)/(22 - 1)
0.125099				
3.08191	(6/5/2008)	0.875469	(7/20/1995)	(3.08191 - 0.875469)/(23 - 1)
0.100293				
2.31254	(11/20/2008)	0.875469	(7/20/1995)	(2.31254 - 0.875469)/(24 - 1)
0.0624812				
2.48491	(6/11/2009)	0.875469	(7/20/1995)	(2.48491 - 0.875469)/(25 - 1)
0.0670599				
2.30259	(6/30/2010)	0.875469	(7/20/1995)	(2.30259 - 0.875469)/(26 - 1)
0.0570847				

2.30259	(11/12/2010)	0.875469	(7/20/1995)	(2.30259 - 0.875469)/(27 - 1)		
	0.0548891					
2.83321	(7/5/2011)	0.875469	(7/20/1995)	(2.83321 - 0.875469)/(28 - 1)		
	0.0725091					
2.56495	(11/22/2011)	0.875469	(7/20/1995)	(2.56495 - 0.875469)/(29 - 1)		
	0.0603386					
2.56495	(11/22/2011)	0.875469	(7/20/1995)	(2.56495 - 0.875469)/(29 - 1)		
	0.0603386					
3.58352	(9/28/1995)	3.82864	(8/24/1995)	(3.58352 - 3.82864)/(3 - 2)		
	-0.245122					
1.38629	(10/26/1995)	3.82864	(8/24/1995)	(1.38629 - 3.82864)/(4 - 2)		-1.22117
ND<0	(11/19/1996)	3.82864	(8/24/1995)	(0 - 3.82864)/(5 - 2)		-1.27621
3.82864	(12/19/1996)	3.82864	(8/24/1995)	(3.82864 - 3.82864)/(6 - 2)		0
3.8712	(3/24/1997)	3.82864	(8/24/1995)	(3.8712 - 3.82864)/(7 - 2)		
	0.00851192					
3.21888	(9/24/1997)	3.82864	(8/24/1995)	(3.21888 - 3.82864)/(8 - 2)		
	-0.101628					
3.66356	(4/7/1998)	3.82864	(8/24/1995)	(3.66356 - 3.82864)/(9 - 2)		
	-0.0235828					
2.77259	(9/23/1998)	3.82864	(8/24/1995)	(2.77259 - 3.82864)/(10 - 2)		
	-0.132007					
2.6174	(3/16/1999)	3.82864	(8/24/1995)	(2.6174 - 3.82864)/(11 - 2)		
	-0.134583					
2.7213	(9/23/1999)	3.82864	(8/24/1995)	(2.7213 - 3.82864)/(12 - 2)		
	-0.110735					
ND<0	(3/15/2000)	3.82864	(8/24/1995)	(0 - 3.82864)/(13 - 2)		
	-0.348058					
5.43808	(9/24/2003)	3.82864	(8/24/1995)	(5.43808 - 3.82864)/(14 - 2)		
	0.13412					
4.35671	(3/11/2004)	3.82864	(8/24/1995)	(4.35671 - 3.82864)/(15 - 2)		
	0.0406206					
4.86753	(10/12/2004)	3.82864	(8/24/1995)	(4.86753 - 3.82864)/(16 - 2)		
	0.0742066					
4.07754	(4/1/2005)	3.82864	(8/24/1995)	(4.07754 - 3.82864)/(17 - 2)		
	0.0165931					
3.99268	(10/25/2005)	3.82864	(8/24/1995)	(3.99268 - 3.82864)/(18 - 2)		
	0.0102525					
3.20275	(4/29/2006)	3.82864	(8/24/1995)	(3.20275 - 3.82864)/(19 - 2)		
	-0.0368174					
3.60005	(11/18/2006)	3.82864	(8/24/1995)	(3.60005 - 3.82864)/(20 - 2)		
	-0.0126996					
2.94444	(5/23/2007)	3.82864	(8/24/1995)	(2.94444 - 3.82864)/(21 - 2)		
	-0.046537					
3.50255	(11/28/2007)	3.82864	(8/24/1995)	(3.50255 - 3.82864)/(22 - 2)		
	-0.0163046					
3.08191	(6/5/2008)	3.82864	(8/24/1995)	(3.08191 - 3.82864)/(23 - 2)		
	-0.0355586					
2.31254	(11/20/2008)	3.82864	(8/24/1995)	(2.31254 - 3.82864)/(24 - 2)		
	-0.0689139					
2.48491	(6/11/2009)	3.82864	(8/24/1995)	(2.48491 - 3.82864)/(25 - 2)		
	-0.0584232					
2.30259	(6/30/2010)	3.82864	(8/24/1995)	(2.30259 - 3.82864)/(26 - 2)		
	-0.0635857					
2.30259	(11/12/2010)	3.82864	(8/24/1995)	(2.30259 - 3.82864)/(27 - 2)		
	-0.0610423					
2.83321	(7/5/2011)	3.82864	(8/24/1995)	(2.83321 - 3.82864)/(28 - 2)		
	-0.0382857					
2.56495	(11/22/2011)	3.82864	(8/24/1995)	(2.56495 - 3.82864)/(29 - 2)		
	-0.0468034					
2.56495	(11/22/2011)	3.82864	(8/24/1995)	(2.56495 - 3.82864)/(29 - 2)		
	-0.0468034					

1.38629	(10/26/1995)	3.58352	(9/28/1995)	(1.38629 - 3.58352)/(4 - 3)		-2.19722
ND<0	(11/19/1996)	3.58352	(9/28/1995)	(0 - 3.58352)/(5 - 3)		-1.79176
3.82864	(12/19/1996)	3.58352	(9/28/1995)	(3.82864 - 3.58352)/(6 - 3)		
	0.0817075					
3.8712	(3/24/1997)	3.58352	(9/28/1995)	(3.8712 - 3.58352)/(7 - 3)		
	0.0719205					
3.21888	(9/24/1997)	3.58352	(9/28/1995)	(3.21888 - 3.58352)/(8 - 3)		
	-0.0729286					
3.66356	(4/7/1998)	3.58352	(9/28/1995)	(3.66356 - 3.58352)/(9 - 3)		
	0.0133405					
2.77259	(9/23/1998)	3.58352	(9/28/1995)	(2.77259 - 3.58352)/(10 - 3)		
	-0.115847					
2.6174	(3/16/1999)	3.58352	(9/28/1995)	(2.6174 - 3.58352)/(11 - 3)		
	-0.120765					
2.7213	(9/23/1999)	3.58352	(9/28/1995)	(2.7213 - 3.58352)/(12 - 3)		
	-0.0958026					
ND<0	(3/15/2000)	3.58352	(9/28/1995)	(0 - 3.58352)/(13 - 3)		
	-0.358352					
5.43808	(9/24/2003)	3.58352	(9/28/1995)	(5.43808 - 3.58352)/(14 - 3)		
	0.168596					
4.35671	(3/11/2004)	3.58352	(9/28/1995)	(4.35671 - 3.58352)/(15 - 3)		
	0.0644325					
4.86753	(10/12/2004)	3.58352	(9/28/1995)	(4.86753 - 3.58352)/(16 - 3)		
	0.0987704					
4.07754	(4/1/2005)	3.58352	(9/28/1995)	(4.07754 - 3.58352)/(17 - 3)		
	0.035287					
3.99268	(10/25/2005)	3.58352	(9/28/1995)	(3.99268 - 3.58352)/(18 - 3)		
	0.0272775					
3.20275	(4/29/2006)	3.58352	(9/28/1995)	(3.20275 - 3.58352)/(19 - 3)		
	-0.0237983					
3.60005	(11/18/2006)	3.58352	(9/28/1995)	(3.60005 - 3.58352)/(20 - 3)		
	0.000972312					
2.94444	(5/23/2007)	3.58352	(9/28/1995)	(2.94444 - 3.58352)/(21 - 3)		
	-0.0355044					
3.50255	(11/28/2007)	3.58352	(9/28/1995)	(3.50255 - 3.58352)/(22 - 3)		
	-0.00426153					
3.08191	(6/5/2008)	3.58352	(9/28/1995)	(3.08191 - 3.58352)/(23 - 3)		
	-0.0250804					
2.31254	(11/20/2008)	3.58352	(9/28/1995)	(2.31254 - 3.58352)/(24 - 3)		
	-0.060523					
2.48491	(6/11/2009)	3.58352	(9/28/1995)	(2.48491 - 3.58352)/(25 - 3)		
	-0.0499369					
2.30259	(6/30/2010)	3.58352	(9/28/1995)	(2.30259 - 3.58352)/(26 - 3)		
	-0.0556928					
2.30259	(11/12/2010)	3.58352	(9/28/1995)	(2.30259 - 3.58352)/(27 - 3)		
	-0.0533722					
2.83321	(7/5/2011)	3.58352	(9/28/1995)	(2.83321 - 3.58352)/(28 - 3)		
	-0.0300122					
2.56495	(11/22/2011)	3.58352	(9/28/1995)	(2.56495 - 3.58352)/(29 - 3)		
	-0.0391758					
2.56495	(11/22/2011)	3.58352	(9/28/1995)	(2.56495 - 3.58352)/(29 - 3)		
	-0.0391758					
ND<0	(11/19/1996)	1.38629	(10/26/1995)	(0 - 1.38629)/(5 - 4)		-1.38629
3.82864	(12/19/1996)	1.38629	(10/26/1995)	(3.82864 - 1.38629)/(6 - 4)		1.22117
3.8712	(3/24/1997)	1.38629	(10/26/1995)	(3.8712 - 1.38629)/(7 - 4)		
	0.828302					
3.21888	(9/24/1997)	1.38629	(10/26/1995)	(3.21888 - 1.38629)/(8 - 4)		
	0.458145					
3.66356	(4/7/1998)	1.38629	(10/26/1995)	(3.66356 - 1.38629)/(9 - 4)		
	0.455453					

2.77259	(9/23/1998)	1.38629	(10/26/1995)	(2.77259 - 1.38629)/(10 - 4)		
0.231049						
2.6174	(3/16/1999)	1.38629	(10/26/1995)	(2.6174 - 1.38629)/(11 - 4)		
0.175872						
2.7213	(9/23/1999)	1.38629	(10/26/1995)	(2.7213 - 1.38629)/(12 - 4)		
0.166875						
ND<0	(3/15/2000)	1.38629	(10/26/1995)	(0 - 1.38629)/(13 - 4)		
-0.154033						
5.43808	(9/24/2003)	1.38629	(10/26/1995)	(5.43808 - 1.38629)/(14 - 4)		
0.405178						
4.35671	(3/11/2004)	1.38629	(10/26/1995)	(4.35671 - 1.38629)/(15 - 4)		
0.270038						
4.86753	(10/12/2004)	1.38629	(10/26/1995)	(4.86753 - 1.38629)/(16 - 4)		
0.290103						
4.07754	(4/1/2005)	1.38629	(10/26/1995)	(4.07754 - 1.38629)/(17 - 4)		
0.207019						
3.99268	(10/25/2005)	1.38629	(10/26/1995)	(3.99268 - 1.38629)/(18 - 4)		
0.18617						
3.20275	(4/29/2006)	1.38629	(10/26/1995)	(3.20275 - 1.38629)/(19 - 4)		
0.121097						
3.60005	(11/18/2006)	1.38629	(10/26/1995)	(3.60005 - 1.38629)/(20 - 4)		
0.13836						
2.94444	(5/23/2007)	1.38629	(10/26/1995)	(2.94444 - 1.38629)/(21 - 4)		
0.0916556						
3.50255	(11/28/2007)	1.38629	(10/26/1995)	(3.50255 - 1.38629)/(22 - 4)		
0.11757						
3.08191	(6/5/2008)	1.38629	(10/26/1995)	(3.08191 - 1.38629)/(23 - 4)		
0.0892429						
2.31254	(11/20/2008)	1.38629	(10/26/1995)	(2.31254 - 1.38629)/(24 - 4)		
0.0463121						
2.48491	(6/11/2009)	1.38629	(10/26/1995)	(2.48491 - 1.38629)/(25 - 4)		
0.0523149						
2.30259	(6/30/2010)	1.38629	(10/26/1995)	(2.30259 - 1.38629)/(26 - 4)		
0.0416496						
2.30259	(11/12/2010)	1.38629	(10/26/1995)	(2.30259 - 1.38629)/(27 - 4)		
0.0398387						
2.83321	(7/5/2011)	1.38629	(10/26/1995)	(2.83321 - 1.38629)/(28 - 4)		
0.0602883						
2.56495	(11/22/2011)	1.38629	(10/26/1995)	(2.56495 - 1.38629)/(29 - 4)		
0.0471462						
2.56495	(11/22/2011)	1.38629	(10/26/1995)	(2.56495 - 1.38629)/(29 - 4)		
0.0471462						
3.82864	(12/19/1996)	ND<0	(11/19/1996)	(3.82864 - 0)/(6 - 5)		3.82864
3.8712	(3/24/1997)	ND<0	(11/19/1996)	(3.8712 - 0)/(7 - 5)		1.9356
3.21888	(9/24/1997)	ND<0	(11/19/1996)	(3.21888 - 0)/(8 - 5)		1.07296
3.66356	(4/7/1998)	ND<0	(11/19/1996)	(3.66356 - 0)/(9 - 5)		0.91589
2.77259	(9/23/1998)	ND<0	(11/19/1996)	(2.77259 - 0)/(10 - 5)		
0.554518						
2.6174	(3/16/1999)	ND<0	(11/19/1996)	(2.6174 - 0)/(11 - 5)		
0.436233						
2.7213	(9/23/1999)	ND<0	(11/19/1996)	(2.7213 - 0)/(12 - 5)		
0.388756						
ND<0	(3/15/2000)	ND<0	(11/19/1996)	(0 - 0)/(13 - 5)	0	
5.43808	(9/24/2003)	ND<0	(11/19/1996)	(5.43808 - 0)/(14 - 5)		
0.604231						
4.35671	(3/11/2004)	ND<0	(11/19/1996)	(4.35671 - 0)/(15 - 5)		
0.435671						
4.86753	(10/12/2004)	ND<0	(11/19/1996)	(4.86753 - 0)/(16 - 5)		
0.442503						
4.07754	(4/1/2005)	ND<0	(11/19/1996)	(4.07754 - 0)/(17 - 5)		
0.339795						

3.99268	(10/25/2005)	ND<0	(11/19/1996)	(3.99268 - 0)/(18 - 5)
0.307129				
3.20275	(4/29/2006)	ND<0	(11/19/1996)	(3.20275 - 0)/(19 - 5)
0.228768				
3.60005	(11/18/2006)	ND<0	(11/19/1996)	(3.60005 - 0)/(20 - 5)
0.240003				
2.94444	(5/23/2007)	ND<0	(11/19/1996)	(2.94444 - 0)/(21 - 5)
0.184027				
3.50255	(11/28/2007)	ND<0	(11/19/1996)	(3.50255 - 0)/(22 - 5)
0.206032				
3.08191	(6/5/2008)	ND<0	(11/19/1996)	(3.08191 - 0)/(23 - 5)
0.171217				
2.31254	(11/20/2008)	ND<0	(11/19/1996)	(2.31254 - 0)/(24 - 5)
0.121712				
2.48491	(6/11/2009)	ND<0	(11/19/1996)	(2.48491 - 0)/(25 - 5)
0.124245				
2.30259	(6/30/2010)	ND<0	(11/19/1996)	(2.30259 - 0)/(26 - 5)
0.109647				
2.30259	(11/12/2010)	ND<0	(11/19/1996)	(2.30259 - 0)/(27 - 5)
0.104663				
2.83321	(7/5/2011)	ND<0	(11/19/1996)	(2.83321 - 0)/(28 - 5)
0.123183				
2.56495	(11/22/2011)	ND<0	(11/19/1996)	(2.56495 - 0)/(29 - 5)
0.106873				
2.56495	(11/22/2011)	ND<0	(11/19/1996)	(2.56495 - 0)/(29 - 5)
0.106873				
3.8712	(3/24/1997)	3.82864	(12/19/1996)	(3.8712 - 3.82864)/(7 - 6)
0.0425596				
3.21888	(9/24/1997)	3.82864	(12/19/1996)	(3.21888 - 3.82864)/(8 - 6)
-0.304883				
3.66356	(4/7/1998)	3.82864	(12/19/1996)	(3.66356 - 3.82864)/(9 - 6)
-0.0550266				
2.77259	(9/23/1998)	3.82864	(12/19/1996)	(2.77259 - 3.82864)/(10 - 6)
-0.264013				
2.6174	(3/16/1999)	3.82864	(12/19/1996)	(2.6174 - 3.82864)/(11 - 6)
-0.242249				
2.7213	(9/23/1999)	3.82864	(12/19/1996)	(2.7213 - 3.82864)/(12 - 6)
-0.184558				
ND<0	(3/15/2000)	3.82864	(12/19/1996)	(0 - 3.82864)/(13 - 6)
-0.546949				
5.43808	(9/24/2003)	3.82864	(12/19/1996)	(5.43808 - 3.82864)/(14 - 6)
0.20118				
4.35671	(3/11/2004)	3.82864	(12/19/1996)	(4.35671 - 3.82864)/(15 - 6)
0.0586742				
4.86753	(10/12/2004)	3.82864	(12/19/1996)	(4.86753 - 3.82864)/(16 - 6)
0.103889				
4.07754	(4/1/2005)	3.82864	(12/19/1996)	(4.07754 - 3.82864)/(17 - 6)
0.0226269				
3.99268	(10/25/2005)	3.82864	(12/19/1996)	(3.99268 - 3.82864)/(18 - 6)
0.01367				
3.20275	(4/29/2006)	3.82864	(12/19/1996)	(3.20275 - 3.82864)/(19 - 6)
-0.0481458				
3.60005	(11/18/2006)	3.82864	(12/19/1996)	(3.60005 - 3.82864)/(20 - 6)
-0.0163281				
2.94444	(5/23/2007)	3.82864	(12/19/1996)	(2.94444 - 3.82864)/(21 - 6)
-0.0589468				
3.50255	(11/28/2007)	3.82864	(12/19/1996)	(3.50255 - 3.82864)/(22 - 6)
-0.0203807				
3.08191	(6/5/2008)	3.82864	(12/19/1996)	(3.08191 - 3.82864)/(23 - 6)
-0.0439254				

2.31254	(11/20/2008)	3.82864	(12/19/1996)	(2.31254 - 3.82864)/(24 - 6)	
-0.0842281					
2.48491	(6/11/2009)	3.82864	(12/19/1996)	(2.48491 - 3.82864)/(25 - 6)	
-0.0707229					
2.30259	(6/30/2010)	3.82864	(12/19/1996)	(2.30259 - 3.82864)/(26 - 6)	
-0.0763028					
2.30259	(11/12/2010)	3.82864	(12/19/1996)	(2.30259 - 3.82864)/(27 - 6)	
-0.0726693					
2.83321	(7/5/2011)	3.82864	(12/19/1996)	(2.83321 - 3.82864)/(28 - 6)	
-0.0452467					
2.56495	(11/22/2011)	3.82864	(12/19/1996)	(2.56495 - 3.82864)/(29 - 6)	
-0.0549431					
2.56495	(11/22/2011)	3.82864	(12/19/1996)	(2.56495 - 3.82864)/(29 - 6)	
-0.0549431					
3.21888	(9/24/1997)	3.8712	(3/24/1997)	(3.21888 - 3.8712)/(8 - 7)	
-0.652325					
3.66356	(4/7/1998)	3.8712	(3/24/1997)	(3.66356 - 3.8712)/(9 - 7)	-0.10382
2.77259	(9/23/1998)	3.8712	(3/24/1997)	(2.77259 - 3.8712)/(10 - 7)	
-0.366204					
2.6174	(3/16/1999)	3.8712	(3/24/1997)	(2.6174 - 3.8712)/(11 - 7)	
-0.313451					
2.7213	(9/23/1999)	3.8712	(3/24/1997)	(2.7213 - 3.8712)/(12 - 7)	
-0.229981					
ND<0	(3/15/2000)	3.8712	(3/24/1997)	(0 - 3.8712)/(13 - 7)	-0.6452
5.43808	(9/24/2003)	3.8712	(3/24/1997)	(5.43808 - 3.8712)/(14 - 7)	0.22384
4.35671	(3/11/2004)	3.8712	(3/24/1997)	(4.35671 - 3.8712)/(15 - 7)	
0.0606885					
4.86753	(10/12/2004)	3.8712	(3/24/1997)	(4.86753 - 3.8712)/(16 - 7)	
0.110704					
4.07754	(4/1/2005)	3.8712	(3/24/1997)	(4.07754 - 3.8712)/(17 - 7)	
0.0206336					
3.99268	(10/25/2005)	3.8712	(3/24/1997)	(3.99268 - 3.8712)/(18 - 7)	
0.0110436					
3.20275	(4/29/2006)	3.8712	(3/24/1997)	(3.20275 - 3.8712)/(19 - 7)	
-0.0557045					
3.60005	(11/18/2006)	3.8712	(3/24/1997)	(3.60005 - 3.8712)/(20 - 7)	
-0.0208579					
2.94444	(5/23/2007)	3.8712	(3/24/1997)	(2.94444 - 3.8712)/(21 - 7)	
-0.0661973					
3.50255	(11/28/2007)	3.8712	(3/24/1997)	(3.50255 - 3.8712)/(22 - 7)	
-0.0245767					
3.08191	(6/5/2008)	3.8712	(3/24/1997)	(3.08191 - 3.8712)/(23 - 7)	
-0.0493307					
2.31254	(11/20/2008)	3.8712	(3/24/1997)	(2.31254 - 3.8712)/(24 - 7)	
-0.0916862					
2.48491	(6/11/2009)	3.8712	(3/24/1997)	(2.48491 - 3.8712)/(25 - 7)	
-0.0770164					
2.30259	(6/30/2010)	3.8712	(3/24/1997)	(2.30259 - 3.8712)/(26 - 7)	
-0.0825587					
2.30259	(11/12/2010)	3.8712	(3/24/1997)	(2.30259 - 3.8712)/(27 - 7)	
-0.0784308					
2.83321	(7/5/2011)	3.8712	(3/24/1997)	(2.83321 - 3.8712)/(28 - 7)	
-0.049428					
2.56495	(11/22/2011)	3.8712	(3/24/1997)	(2.56495 - 3.8712)/(29 - 7)	
-0.0593751					
2.56495	(11/22/2011)	3.8712	(3/24/1997)	(2.56495 - 3.8712)/(29 - 7)	
-0.0593751					
3.66356	(4/7/1998)	3.21888	(9/24/1997)	(3.66356 - 3.21888)/(9 - 8)	
0.444686					

2.77259	(9/23/1998)	3.21888	(9/24/1997)	(2.77259 - 3.21888)/(10 - 8)		
	-0.223144					
2.6174	(3/16/1999)	3.21888	(9/24/1997)	(2.6174 - 3.21888)/(11 - 8)		
	-0.200493					
2.7213	(9/23/1999)	3.21888	(9/24/1997)	(2.7213 - 3.21888)/(12 - 8)		
	-0.124395					
ND<0	(3/15/2000)	3.21888	(9/24/1997)	(0 - 3.21888)/(13 - 8)		
	-0.643775					
5.43808	(9/24/2003)	3.21888	(9/24/1997)	(5.43808 - 3.21888)/(14 - 8)		
	0.369867					
4.35671	(3/11/2004)	3.21888	(9/24/1997)	(4.35671 - 3.21888)/(15 - 8)		
	0.162548					
4.86753	(10/12/2004)	3.21888	(9/24/1997)	(4.86753 - 3.21888)/(16 - 8)		
	0.206082					
4.07754	(4/1/2005)	3.21888	(9/24/1997)	(4.07754 - 3.21888)/(17 - 8)		
	0.0954068					
3.99268	(10/25/2005)	3.21888	(9/24/1997)	(3.99268 - 3.21888)/(18 - 8)		
	0.0773805					
3.20275	(4/29/2006)	3.21888	(9/24/1997)	(3.20275 - 3.21888)/(19 - 8)		
	-0.00146631					
3.60005	(11/18/2006)	3.21888	(9/24/1997)	(3.60005 - 3.21888)/(20 - 8)		
	0.0317644					
2.94444	(5/23/2007)	3.21888	(9/24/1997)	(2.94444 - 3.21888)/(21 - 8)		
	-0.0211105					
3.50255	(11/28/2007)	3.21888	(9/24/1997)	(3.50255 - 3.21888)/(22 - 8)		
	0.0202624					
3.08191	(6/5/2008)	3.21888	(9/24/1997)	(3.08191 - 3.21888)/(23 - 8)		
	-0.00913106					
2.31254	(11/20/2008)	3.21888	(9/24/1997)	(2.31254 - 3.21888)/(24 - 8)		
	-0.0566463					
2.48491	(6/11/2009)	3.21888	(9/24/1997)	(2.48491 - 3.21888)/(25 - 8)		
	-0.0431747					
2.30259	(6/30/2010)	3.21888	(9/24/1997)	(2.30259 - 3.21888)/(26 - 8)		
	-0.050905					
2.30259	(11/12/2010)	3.21888	(9/24/1997)	(2.30259 - 3.21888)/(27 - 8)		
	-0.0482258					
2.83321	(7/5/2011)	3.21888	(9/24/1997)	(2.83321 - 3.21888)/(28 - 8)		
	-0.0192831					
2.56495	(11/22/2011)	3.21888	(9/24/1997)	(2.56495 - 3.21888)/(29 - 8)		
	-0.0311394					
2.56495	(11/22/2011)	3.21888	(9/24/1997)	(2.56495 - 3.21888)/(29 - 8)		
	-0.0311394					
2.77259	(9/23/1998)	3.66356	(4/7/1998)	(2.77259 - 3.66356)/(10 - 9)		
	-0.890973					
2.6174	(3/16/1999)	3.66356	(4/7/1998)	(2.6174 - 3.66356)/(11 - 9)		
	-0.523083					
2.7213	(9/23/1999)	3.66356	(4/7/1998)	(2.7213 - 3.66356)/(12 - 9)		
	-0.314089					
ND<0	(3/15/2000)	3.66356	(4/7/1998)	(0 - 3.66356)/(13 - 9)		-0.91589
5.43808	(9/24/2003)	3.66356	(4/7/1998)	(5.43808 - 3.66356)/(14 - 9)		
	0.354904					
4.35671	(3/11/2004)	3.66356	(4/7/1998)	(4.35671 - 3.66356)/(15 - 9)		
	0.115525					
4.86753	(10/12/2004)	3.66356	(4/7/1998)	(4.86753 - 3.66356)/(16 - 9)		
	0.171996					
4.07754	(4/1/2005)	3.66356	(4/7/1998)	(4.07754 - 3.66356)/(17 - 9)		
	0.051747					
3.99268	(10/25/2005)	3.66356	(4/7/1998)	(3.99268 - 3.66356)/(18 - 9)		
	0.0365688					
3.20275	(4/29/2006)	3.66356	(4/7/1998)	(3.20275 - 3.66356)/(19 - 9)		
	-0.0460815					

3.60005	(11/18/2006)	3.66356	(4/7/1998)	(3.60005 - 3.66356)/(20 - 9)	-0.00577395
2.94444	(5/23/2007)	3.66356	(4/7/1998)	(2.94444 - 3.66356)/(21 - 9)	-0.0599269
3.50255	(11/28/2007)	3.66356	(4/7/1998)	(3.50255 - 3.66356)/(22 - 9)	-0.0123855
3.08191	(6/5/2008)	3.66356	(4/7/1998)	(3.08191 - 3.66356)/(23 - 9)	-0.0415465
2.31254	(11/20/2008)	3.66356	(4/7/1998)	(2.31254 - 3.66356)/(24 - 9)	-0.0900684
2.48491	(6/11/2009)	3.66356	(4/7/1998)	(2.48491 - 3.66356)/(25 - 9)	-0.0736659
2.30259	(6/30/2010)	3.66356	(4/7/1998)	(2.30259 - 3.66356)/(26 - 9)	-0.0800574
2.30259	(11/12/2010)	3.66356	(4/7/1998)	(2.30259 - 3.66356)/(27 - 9)	-0.0756098
2.83321	(7/5/2011)	3.66356	(4/7/1998)	(2.83321 - 3.66356)/(28 - 9)	-0.0437025
2.56495	(11/22/2011)	3.66356	(4/7/1998)	(2.56495 - 3.66356)/(29 - 9)	-0.0549306
2.56495	(11/22/2011)	3.66356	(4/7/1998)	(2.56495 - 3.66356)/(29 - 9)	-0.0549306
2.6174	(3/16/1999)	2.77259	(9/23/1998)	(2.6174 - 2.77259)/(11 - 10)	-0.155193
2.7213	(9/23/1999)	2.77259	(9/23/1998)	(2.7213 - 2.77259)/(12 - 10)	-0.0256466
ND<0	(3/15/2000)	2.77259	(9/23/1998)	(0 - 2.77259)/(13 - 10)	-0.924196
5.43808	(9/24/2003)	2.77259	(9/23/1998)	(5.43808 - 2.77259)/(14 - 10)	0.666373
4.35671	(3/11/2004)	2.77259	(9/23/1998)	(4.35671 - 2.77259)/(15 - 10)	0.316824
4.86753	(10/12/2004)	2.77259	(9/23/1998)	(4.86753 - 2.77259)/(16 - 10)	0.349158
4.07754	(4/1/2005)	2.77259	(9/23/1998)	(4.07754 - 2.77259)/(17 - 10)	0.186421
3.99268	(10/25/2005)	2.77259	(9/23/1998)	(3.99268 - 2.77259)/(18 - 10)	0.152512
3.20275	(4/29/2006)	2.77259	(9/23/1998)	(3.20275 - 2.77259)/(19 - 10)	0.0477953
3.60005	(11/18/2006)	2.77259	(9/23/1998)	(3.60005 - 2.77259)/(20 - 10)	0.082746
2.94444	(5/23/2007)	2.77259	(9/23/1998)	(2.94444 - 2.77259)/(21 - 10)	0.0156228
3.50255	(11/28/2007)	2.77259	(9/23/1998)	(3.50255 - 2.77259)/(22 - 10)	0.0608301
3.08191	(6/5/2008)	2.77259	(9/23/1998)	(3.08191 - 2.77259)/(23 - 10)	0.0237939
2.31254	(11/20/2008)	2.77259	(9/23/1998)	(2.31254 - 2.77259)/(24 - 10)	-0.0328609
2.48491	(6/11/2009)	2.77259	(9/23/1998)	(2.48491 - 2.77259)/(25 - 10)	-0.0191788
2.30259	(6/30/2010)	2.77259	(9/23/1998)	(2.30259 - 2.77259)/(26 - 10)	-0.0293752
2.30259	(11/12/2010)	2.77259	(9/23/1998)	(2.30259 - 2.77259)/(27 - 10)	-0.0276473
2.83321	(7/5/2011)	2.77259	(9/23/1998)	(2.83321 - 2.77259)/(28 - 10)	0.00336803
2.56495	(11/22/2011)	2.77259	(9/23/1998)	(2.56495 - 2.77259)/(29 - 10)	-0.0109284

2.56495	(11/22/2011)	2.77259	(9/23/1998)	(2.56495 - 2.77259)/(29 - 10)	
-0.0109284					
2.7213	(9/23/1999)	2.6174	(3/16/1999)	(2.7213 - 2.6174)/(12 - 11)	0.1039
ND<0	(3/15/2000)	2.6174	(3/16/1999)	(0 - 2.6174)/(13 - 11)	-1.3087
5.43808	(9/24/2003)	2.6174	(3/16/1999)	(5.43808 - 2.6174)/(14 - 11)	
0.940228					
4.35671	(3/11/2004)	2.6174	(3/16/1999)	(4.35671 - 2.6174)/(15 - 11)	
0.434828					
4.86753	(10/12/2004)	2.6174	(3/16/1999)	(4.86753 - 2.6174)/(16 - 11)	
0.450028					
4.07754	(4/1/2005)	2.6174	(3/16/1999)	(4.07754 - 2.6174)/(17 - 11)	
0.243357					
3.99268	(10/25/2005)	2.6174	(3/16/1999)	(3.99268 - 2.6174)/(18 - 11)	
0.196469					
3.20275	(4/29/2006)	2.6174	(3/16/1999)	(3.20275 - 2.6174)/(19 - 11)	
0.0731688					
3.60005	(11/18/2006)	2.6174	(3/16/1999)	(3.60005 - 2.6174)/(20 - 11)	
0.109184					
2.94444	(5/23/2007)	2.6174	(3/16/1999)	(2.94444 - 2.6174)/(21 - 11)	
0.0327043					
3.50255	(11/28/2007)	2.6174	(3/16/1999)	(3.50255 - 2.6174)/(22 - 11)	
0.0804685					
3.08191	(6/5/2008)	2.6174	(3/16/1999)	(3.08191 - 2.6174)/(23 - 11)	
0.0387095					
2.31254	(11/20/2008)	2.6174	(3/16/1999)	(2.31254 - 2.6174)/(24 - 11)	
-0.0234508					
2.48491	(6/11/2009)	2.6174	(3/16/1999)	(2.48491 - 2.6174)/(25 - 11)	
-0.00946351					
2.30259	(6/30/2010)	2.6174	(3/16/1999)	(2.30259 - 2.6174)/(26 - 11)	
-0.0209874					
2.30259	(11/12/2010)	2.6174	(3/16/1999)	(2.30259 - 2.6174)/(27 - 11)	
-0.0196757					
2.83321	(7/5/2011)	2.6174	(3/16/1999)	(2.83321 - 2.6174)/(28 - 11)	
0.0126951					
2.56495	(11/22/2011)	2.6174	(3/16/1999)	(2.56495 - 2.6174)/(29 - 11)	
-0.00291369					
2.56495	(11/22/2011)	2.6174	(3/16/1999)	(2.56495 - 2.6174)/(29 - 11)	
-0.00291369					
ND<0	(3/15/2000)	2.7213	(9/23/1999)	(0 - 2.7213)/(13 - 12)	-2.7213
5.43808	(9/24/2003)	2.7213	(9/23/1999)	(5.43808 - 2.7213)/(14 - 12)	
1.35839					
4.35671	(3/11/2004)	2.7213	(9/23/1999)	(4.35671 - 2.7213)/(15 - 12)	
0.545138					
4.86753	(10/12/2004)	2.7213	(9/23/1999)	(4.86753 - 2.7213)/(16 - 12)	
0.53656					
4.07754	(4/1/2005)	2.7213	(9/23/1999)	(4.07754 - 2.7213)/(17 - 12)	
0.271248					
3.99268	(10/25/2005)	2.7213	(9/23/1999)	(3.99268 - 2.7213)/(18 - 12)	
0.211898					
3.20275	(4/29/2006)	2.7213	(9/23/1999)	(3.20275 - 2.7213)/(19 - 12)	
0.0687787					
3.60005	(11/18/2006)	2.7213	(9/23/1999)	(3.60005 - 2.7213)/(20 - 12)	
0.109844					
2.94444	(5/23/2007)	2.7213	(9/23/1999)	(2.94444 - 2.7213)/(21 - 12)	
0.0247937					
3.50255	(11/28/2007)	2.7213	(9/23/1999)	(3.50255 - 2.7213)/(22 - 12)	
0.0781254					
3.08191	(6/5/2008)	2.7213	(9/23/1999)	(3.08191 - 2.7213)/(23 - 12)	
0.0327831					

2.31254	(11/20/2008)	2.7213	(9/23/1999)	(2.31254 - 2.7213)/(24 - 12)	
-0.0340633					
2.48491	(6/11/2009)	2.7213	(9/23/1999)	(2.48491 - 2.7213)/(25 - 12)	
-0.0181838					
2.30259	(6/30/2010)	2.7213	(9/23/1999)	(2.30259 - 2.7213)/(26 - 12)	
-0.0299079					
2.30259	(11/12/2010)	2.7213	(9/23/1999)	(2.30259 - 2.7213)/(27 - 12)	
-0.027914					
2.83321	(7/5/2011)	2.7213	(9/23/1999)	(2.83321 - 2.7213)/(28 - 12)	
0.00699487					
2.56495	(11/22/2011)	2.7213	(9/23/1999)	(2.56495 - 2.7213)/(29 - 12)	
-0.00919683					
2.56495	(11/22/2011)	2.7213	(9/23/1999)	(2.56495 - 2.7213)/(29 - 12)	
-0.00919683					
5.43808	(9/24/2003)	ND<0	(3/15/2000)	(5.43808 - 0)/(14 - 13)	5.43808
4.35671	(3/11/2004)	ND<0	(3/15/2000)	(4.35671 - 0)/(15 - 13)	2.17835
4.86753	(10/12/2004)	ND<0	(3/15/2000)	(4.86753 - 0)/(16 - 13)	1.62251
4.07754	(4/1/2005)	ND<0	(3/15/2000)	(4.07754 - 0)/(17 - 13)	1.01938
3.99268	(10/25/2005)	ND<0	(3/15/2000)	(3.99268 - 0)/(18 - 13)	
0.798536					
3.20275	(4/29/2006)	ND<0	(3/15/2000)	(3.20275 - 0)/(19 - 13)	
0.533791					
3.60005	(11/18/2006)	ND<0	(3/15/2000)	(3.60005 - 0)/(20 - 13)	
0.514293					
2.94444	(5/23/2007)	ND<0	(3/15/2000)	(2.94444 - 0)/(21 - 13)	
0.368055					
3.50255	(11/28/2007)	ND<0	(3/15/2000)	(3.50255 - 0)/(22 - 13)	
0.389172					
3.08191	(6/5/2008)	ND<0	(3/15/2000)	(3.08191 - 0)/(23 - 13)	
0.308191					
2.31254	(11/20/2008)	ND<0	(3/15/2000)	(2.31254 - 0)/(24 - 13)	0.21023
2.48491	(6/11/2009)	ND<0	(3/15/2000)	(2.48491 - 0)/(25 - 13)	
0.207076					
2.30259	(6/30/2010)	ND<0	(3/15/2000)	(2.30259 - 0)/(26 - 13)	
0.177122					
2.30259	(11/12/2010)	ND<0	(3/15/2000)	(2.30259 - 0)/(27 - 13)	0.16447
2.83321	(7/5/2011)	ND<0	(3/15/2000)	(2.83321 - 0)/(28 - 13)	
0.188881					
2.56495	(11/22/2011)	ND<0	(3/15/2000)	(2.56495 - 0)/(29 - 13)	
0.160309					
2.56495	(11/22/2011)	ND<0	(3/15/2000)	(2.56495 - 0)/(29 - 13)	
0.160309					
4.35671	(3/11/2004)	5.43808	(9/24/2003)	(4.35671 - 5.43808)/(15 - 14)	
-1.08137					
4.86753	(10/12/2004)	5.43808	(9/24/2003)	(4.86753 - 5.43808)/(16 - 14)	
-0.285272					
4.07754	(4/1/2005)	5.43808	(9/24/2003)	(4.07754 - 5.43808)/(17 - 14)	
-0.453514					
3.99268	(10/25/2005)	5.43808	(9/24/2003)	(3.99268 - 5.43808)/(18 - 14)	
-0.36135					
3.20275	(4/29/2006)	5.43808	(9/24/2003)	(3.20275 - 5.43808)/(19 - 14)	
-0.447067					
3.60005	(11/18/2006)	5.43808	(9/24/2003)	(3.60005 - 5.43808)/(20 - 14)	
-0.306339					
2.94444	(5/23/2007)	5.43808	(9/24/2003)	(2.94444 - 5.43808)/(21 - 14)	
-0.356234					
3.50255	(11/28/2007)	5.43808	(9/24/2003)	(3.50255 - 5.43808)/(22 - 14)	
-0.241941					
3.08191	(6/5/2008)	5.43808	(9/24/2003)	(3.08191 - 5.43808)/(23 - 14)	
-0.261797					

2.31254	(11/20/2008)	5.43808	(9/24/2003)	(2.31254 - 5.43808)/(24 - 14)
-0.312554				
2.48491	(6/11/2009)	5.43808	(9/24/2003)	(2.48491 - 5.43808)/(25 - 14)
-0.26847				
2.30259	(6/30/2010)	5.43808	(9/24/2003)	(2.30259 - 5.43808)/(26 - 14)
-0.261291				
2.30259	(11/12/2010)	5.43808	(9/24/2003)	(2.30259 - 5.43808)/(27 - 14)
-0.241192				
2.83321	(7/5/2011)	5.43808	(9/24/2003)	(2.83321 - 5.43808)/(28 - 14)
-0.186062				
2.56495	(11/22/2011)	5.43808	(9/24/2003)	(2.56495 - 5.43808)/(29 - 14)
-0.191542				
2.56495	(11/22/2011)	5.43808	(9/24/2003)	(2.56495 - 5.43808)/(29 - 14)
-0.191542				
4.86753	(10/12/2004)	4.35671	(3/11/2004)	(4.86753 - 4.35671)/(16 - 15)
0.510826				
4.07754	(4/1/2005)	4.35671	(3/11/2004)	(4.07754 - 4.35671)/(17 - 15)
-0.139586				
3.99268	(10/25/2005)	4.35671	(3/11/2004)	(3.99268 - 4.35671)/(18 - 15)
-0.121343				
3.20275	(4/29/2006)	4.35671	(3/11/2004)	(3.20275 - 4.35671)/(19 - 15)
-0.288491				
3.60005	(11/18/2006)	4.35671	(3/11/2004)	(3.60005 - 4.35671)/(20 - 15)
-0.151332				
2.94444	(5/23/2007)	4.35671	(3/11/2004)	(2.94444 - 4.35671)/(21 - 15)
-0.235378				
3.50255	(11/28/2007)	4.35671	(3/11/2004)	(3.50255 - 4.35671)/(22 - 15)
-0.122023				
3.08191	(6/5/2008)	4.35671	(3/11/2004)	(3.08191 - 4.35671)/(23 - 15)
-0.15935				
2.31254	(11/20/2008)	4.35671	(3/11/2004)	(2.31254 - 4.35671)/(24 - 15)
-0.22713				
2.48491	(6/11/2009)	4.35671	(3/11/2004)	(2.48491 - 4.35671)/(25 - 15)
-0.18718				
2.30259	(6/30/2010)	4.35671	(3/11/2004)	(2.30259 - 4.35671)/(26 - 15)
-0.186739				
2.30259	(11/12/2010)	4.35671	(3/11/2004)	(2.30259 - 4.35671)/(27 - 15)
-0.171177				
2.83321	(7/5/2011)	4.35671	(3/11/2004)	(2.83321 - 4.35671)/(28 - 15)
-0.117192				
2.56495	(11/22/2011)	4.35671	(3/11/2004)	(2.56495 - 4.35671)/(29 - 15)
-0.127983				
2.56495	(11/22/2011)	4.35671	(3/11/2004)	(2.56495 - 4.35671)/(29 - 15)
-0.127983				
4.07754	(4/1/2005)	4.86753	(10/12/2004)	(4.07754 - 4.86753)/(17 - 16)
-0.789997				
3.99268	(10/25/2005)	4.86753	(10/12/2004)	(3.99268 - 4.86753)/(18 - 16)
-0.437427				
3.20275	(4/29/2006)	4.86753	(10/12/2004)	(3.20275 - 4.86753)/(19 - 16)
-0.554929				
3.60005	(11/18/2006)	4.86753	(10/12/2004)	(3.60005 - 4.86753)/(20 - 16)
-0.316872				
2.94444	(5/23/2007)	4.86753	(10/12/2004)	(2.94444 - 4.86753)/(21 - 16)
-0.384619				
3.50255	(11/28/2007)	4.86753	(10/12/2004)	(3.50255 - 4.86753)/(22 - 16)
-0.227497				
3.08191	(6/5/2008)	4.86753	(10/12/2004)	(3.08191 - 4.86753)/(23 - 16)
-0.255089				
2.31254	(11/20/2008)	4.86753	(10/12/2004)	(2.31254 - 4.86753)/(24 - 16)
-0.319375				

2.48491	(6/11/2009)	4.86753	(10/12/2004)	(2.48491 - 4.86753)/(25 - 16)
-0.264736				
2.30259	(6/30/2010)	4.86753	(10/12/2004)	(2.30259 - 4.86753)/(26 - 16)
-0.256495				
2.30259	(11/12/2010)	4.86753	(10/12/2004)	(2.30259 - 4.86753)/(27 - 16)
-0.233177				
2.83321	(7/5/2011)	4.86753	(10/12/2004)	(2.83321 - 4.86753)/(28 - 16)
-0.169527				
2.56495	(11/22/2011)	4.86753	(10/12/2004)	(2.56495 - 4.86753)/(29 - 16)
-0.177122				
2.56495	(11/22/2011)	4.86753	(10/12/2004)	(2.56495 - 4.86753)/(29 - 16)
-0.177122				
3.99268	(10/25/2005)	4.07754	(4/1/2005)	(3.99268 - 4.07754)/(18 - 17)
-0.0848565				
3.20275	(4/29/2006)	4.07754	(4/1/2005)	(3.20275 - 4.07754)/(19 - 17)
-0.437396				
3.60005	(11/18/2006)	4.07754	(4/1/2005)	(3.60005 - 4.07754)/(20 - 17)
-0.159163				
2.94444	(5/23/2007)	4.07754	(4/1/2005)	(2.94444 - 4.07754)/(21 - 17)
-0.283275				
3.50255	(11/28/2007)	4.07754	(4/1/2005)	(3.50255 - 4.07754)/(22 - 17)
-0.114998				
3.08191	(6/5/2008)	4.07754	(4/1/2005)	(3.08191 - 4.07754)/(23 - 17)
-0.165938				
2.31254	(11/20/2008)	4.07754	(4/1/2005)	(2.31254 - 4.07754)/(24 - 17)
-0.252143				
2.48491	(6/11/2009)	4.07754	(4/1/2005)	(2.48491 - 4.07754)/(25 - 17)
-0.199079				
2.30259	(6/30/2010)	4.07754	(4/1/2005)	(2.30259 - 4.07754)/(26 - 17)
-0.197217				
2.30259	(11/12/2010)	4.07754	(4/1/2005)	(2.30259 - 4.07754)/(27 - 17)
-0.177495				
2.83321	(7/5/2011)	4.07754	(4/1/2005)	(2.83321 - 4.07754)/(28 - 17)
-0.11312				
2.56495	(11/22/2011)	4.07754	(4/1/2005)	(2.56495 - 4.07754)/(29 - 17)
-0.126049				
2.56495	(11/22/2011)	4.07754	(4/1/2005)	(2.56495 - 4.07754)/(29 - 17)
-0.126049				
3.20275	(4/29/2006)	3.99268	(10/25/2005)	(3.20275 - 3.99268)/(19 - 18)
-0.789934				
3.60005	(11/18/2006)	3.99268	(10/25/2005)	(3.60005 - 3.99268)/(20 - 18)
-0.196316				
2.94444	(5/23/2007)	3.99268	(10/25/2005)	(2.94444 - 3.99268)/(21 - 18)
-0.349414				
3.50255	(11/28/2007)	3.99268	(10/25/2005)	(3.50255 - 3.99268)/(22 - 18)
-0.122533				
3.08191	(6/5/2008)	3.99268	(10/25/2005)	(3.08191 - 3.99268)/(23 - 18)
-0.182154				
2.31254	(11/20/2008)	3.99268	(10/25/2005)	(2.31254 - 3.99268)/(24 - 18)
-0.280024				
2.48491	(6/11/2009)	3.99268	(10/25/2005)	(2.48491 - 3.99268)/(25 - 18)
-0.215396				
2.30259	(6/30/2010)	3.99268	(10/25/2005)	(2.30259 - 3.99268)/(26 - 18)
-0.211262				
2.30259	(11/12/2010)	3.99268	(10/25/2005)	(2.30259 - 3.99268)/(27 - 18)
-0.187788				
2.83321	(7/5/2011)	3.99268	(10/25/2005)	(2.83321 - 3.99268)/(28 - 18)
-0.115947				
2.56495	(11/22/2011)	3.99268	(10/25/2005)	(2.56495 - 3.99268)/(29 - 18)
-0.129794				

2.56495	(11/22/2011)	3.99268	(10/25/2005)	(2.56495 - 3.99268)/(29 - 18)	-0.129794
3.60005	(11/18/2006)	3.20275	(4/29/2006)	(3.60005 - 3.20275)/(20 - 19)	0.397302
2.94444	(5/23/2007)	3.20275	(4/29/2006)	(2.94444 - 3.20275)/(21 - 19)	-0.129154
3.50255	(11/28/2007)	3.20275	(4/29/2006)	(3.50255 - 3.20275)/(22 - 19)	0.0999345
3.08191	(6/5/2008)	3.20275	(4/29/2006)	(3.08191 - 3.20275)/(23 - 19)	-0.0302091
2.31254	(11/20/2008)	3.20275	(4/29/2006)	(2.31254 - 3.20275)/(24 - 19)	-0.178042
2.48491	(6/11/2009)	3.20275	(4/29/2006)	(2.48491 - 3.20275)/(25 - 19)	-0.11964
2.30259	(6/30/2010)	3.20275	(4/29/2006)	(2.30259 - 3.20275)/(26 - 19)	-0.128594
2.30259	(11/12/2010)	3.20275	(4/29/2006)	(2.30259 - 3.20275)/(27 - 19)	-0.11252
2.83321	(7/5/2011)	3.20275	(4/29/2006)	(2.83321 - 3.20275)/(28 - 19)	-0.0410592
2.56495	(11/22/2011)	3.20275	(4/29/2006)	(2.56495 - 3.20275)/(29 - 19)	-0.0637797
2.56495	(11/22/2011)	3.20275	(4/29/2006)	(2.56495 - 3.20275)/(29 - 19)	-0.0637797
2.94444	(5/23/2007)	3.60005	(11/18/2006)	(2.94444 - 3.60005)/(21 - 20)	-0.655609
3.50255	(11/28/2007)	3.60005	(11/18/2006)	(3.50255 - 3.60005)/(22 - 20)	-0.0487492
3.08191	(6/5/2008)	3.60005	(11/18/2006)	(3.08191 - 3.60005)/(23 - 20)	-0.172713
2.31254	(11/20/2008)	3.60005	(11/18/2006)	(2.31254 - 3.60005)/(24 - 20)	-0.321878
2.48491	(6/11/2009)	3.60005	(11/18/2006)	(2.48491 - 3.60005)/(25 - 20)	-0.223028
2.30259	(6/30/2010)	3.60005	(11/18/2006)	(2.30259 - 3.60005)/(26 - 20)	-0.216244
2.30259	(11/12/2010)	3.60005	(11/18/2006)	(2.30259 - 3.60005)/(27 - 20)	-0.185352
2.83321	(7/5/2011)	3.60005	(11/18/2006)	(2.83321 - 3.60005)/(28 - 20)	-0.0958544
2.56495	(11/22/2011)	3.60005	(11/18/2006)	(2.56495 - 3.60005)/(29 - 20)	-0.115011
2.56495	(11/22/2011)	3.60005	(11/18/2006)	(2.56495 - 3.60005)/(29 - 20)	-0.115011
3.50255	(11/28/2007)	2.94444	(5/23/2007)	(3.50255 - 2.94444)/(22 - 21)	0.558111
3.08191	(6/5/2008)	2.94444	(5/23/2007)	(3.08191 - 2.94444)/(23 - 21)	0.0687355
2.31254	(11/20/2008)	2.94444	(5/23/2007)	(2.31254 - 2.94444)/(24 - 21)	-0.210635
2.48491	(6/11/2009)	2.94444	(5/23/2007)	(2.48491 - 2.94444)/(25 - 21)	-0.114883
2.30259	(6/30/2010)	2.94444	(5/23/2007)	(2.30259 - 2.94444)/(26 - 21)	-0.128371
2.30259	(11/12/2010)	2.94444	(5/23/2007)	(2.30259 - 2.94444)/(27 - 21)	-0.106976
2.83321	(7/5/2011)	2.94444	(5/23/2007)	(2.83321 - 2.94444)/(28 - 21)	-0.0158894

2.56495	(11/22/2011)	2.94444	(5/23/2007)	(2.56495 - 2.94444)/(29 - 21)	-0.0474362
2.56495	(11/22/2011)	2.94444	(5/23/2007)	(2.56495 - 2.94444)/(29 - 21)	-0.0474362
3.08191	(6/5/2008)	3.50255	(11/28/2007)	(3.08191 - 3.50255)/(23 - 22)	-0.42064
2.31254	(11/20/2008)	3.50255	(11/28/2007)	(2.31254 - 3.50255)/(24 - 22)	-0.595007
2.48491	(6/11/2009)	3.50255	(11/28/2007)	(2.48491 - 3.50255)/(25 - 22)	-0.339214
2.30259	(6/30/2010)	3.50255	(11/28/2007)	(2.30259 - 3.50255)/(26 - 22)	-0.299991
2.30259	(11/12/2010)	3.50255	(11/28/2007)	(2.30259 - 3.50255)/(27 - 22)	-0.239993
2.83321	(7/5/2011)	3.50255	(11/28/2007)	(2.83321 - 3.50255)/(28 - 22)	-0.111556
2.56495	(11/22/2011)	3.50255	(11/28/2007)	(2.56495 - 3.50255)/(29 - 22)	-0.133943
2.56495	(11/22/2011)	3.50255	(11/28/2007)	(2.56495 - 3.50255)/(29 - 22)	-0.133943
2.31254	(11/20/2008)	3.08191	(6/5/2008)	(2.31254 - 3.08191)/(24 - 23)	-0.769375
2.48491	(6/11/2009)	3.08191	(6/5/2008)	(2.48491 - 3.08191)/(25 - 23)	-0.298502
2.30259	(6/30/2010)	3.08191	(6/5/2008)	(2.30259 - 3.08191)/(26 - 23)	-0.259775
2.30259	(11/12/2010)	3.08191	(6/5/2008)	(2.30259 - 3.08191)/(27 - 23)	-0.194831
2.83321	(7/5/2011)	3.08191	(6/5/2008)	(2.83321 - 3.08191)/(28 - 23)	-0.0497393
2.56495	(11/22/2011)	3.08191	(6/5/2008)	(2.56495 - 3.08191)/(29 - 23)	-0.0861601
2.56495	(11/22/2011)	3.08191	(6/5/2008)	(2.56495 - 3.08191)/(29 - 23)	-0.0861601
2.48491	(6/11/2009)	2.31254	(11/20/2008)	(2.48491 - 2.31254)/(25 - 24)	0.172371
2.30259	(6/30/2010)	2.31254	(11/20/2008)	(2.30259 - 2.31254)/(26 - 24)	-0.00497517
2.30259	(11/12/2010)	2.31254	(11/20/2008)	(2.30259 - 2.31254)/(27 - 24)	-0.00331678
2.83321	(7/5/2011)	2.31254	(11/20/2008)	(2.83321 - 2.31254)/(28 - 24)	0.130169
2.56495	(11/22/2011)	2.31254	(11/20/2008)	(2.56495 - 2.31254)/(29 - 24)	0.0504828
2.56495	(11/22/2011)	2.31254	(11/20/2008)	(2.56495 - 2.31254)/(29 - 24)	0.0504828
2.30259	(6/30/2010)	2.48491	(6/11/2009)	(2.30259 - 2.48491)/(26 - 25)	-0.182322
2.30259	(11/12/2010)	2.48491	(6/11/2009)	(2.30259 - 2.48491)/(27 - 25)	-0.0911608
2.83321	(7/5/2011)	2.48491	(6/11/2009)	(2.83321 - 2.48491)/(28 - 25)	0.116102
2.56495	(11/22/2011)	2.48491	(6/11/2009)	(2.56495 - 2.48491)/(29 - 25)	0.0200107
2.56495	(11/22/2011)	2.48491	(6/11/2009)	(2.56495 - 2.48491)/(29 - 25)	0.0200107

2.30259	(11/12/2010)	2.30259	(6/30/2010)	(2.30259 - 2.30259)/(27 - 26)	
	0				
2.83321	(7/5/2011)	2.30259	(6/30/2010)	(2.83321 - 2.30259)/(28 - 26)	
	0.265314				
2.56495	(11/22/2011)	2.30259	(6/30/2010)	(2.56495 - 2.30259)/(29 - 26)	
	0.0874548				
2.56495	(11/22/2011)	2.30259	(6/30/2010)	(2.56495 - 2.30259)/(29 - 26)	
	0.0874548				
2.83321	(7/5/2011)	2.30259	(11/12/2010)	(2.83321 - 2.30259)/(28 - 27)	
	0.530628				
2.56495	(11/22/2011)	2.30259	(11/12/2010)	(2.56495 - 2.30259)/(29 - 27)	
	0.131182				
2.56495	(11/22/2011)	2.30259	(11/12/2010)	(2.56495 - 2.30259)/(29 - 27)	
	0.131182				
2.56495	(11/22/2011)	2.83321	(7/5/2011)	(2.56495 - 2.83321)/(29 - 28)	
	-0.268264				
2.56495	(11/22/2011)	2.83321	(7/5/2011)	(2.56495 - 2.83321)/(29 - 28)	
	-0.268264				
2.56495	(11/22/2011)	2.56495	(11/22/2011)	(2.56495 - 2.56495)/(29 - 29)	
	Same Date				

Number of Q values = 434

Ordered Q Values

n	Q
1	-2.7213
2	-2.19722
3	-1.79176
4	-1.38629
5	-1.3087
6	-1.27621
7	-1.22117
8	-1.08137
9	-0.924196
10	-0.91589
11	-0.890973
12	-0.789997
13	-0.789934
14	-0.769375
15	-0.655609
16	-0.652325
17	-0.6452
18	-0.643775
19	-0.595007
20	-0.554929
21	-0.546949
22	-0.523083
23	-0.453514
24	-0.447067
25	-0.437427
26	-0.437396
27	-0.42064
28	-0.384619
29	-0.366204
30	-0.36135
31	-0.358352
32	-0.356234

33	-0.349414
34	-0.348058
35	-0.339214
36	-0.321878
37	-0.319375
38	-0.316872
39	-0.314089
40	-0.313451
41	-0.312554
42	-0.306339
43	-0.304883
44	-0.299991
45	-0.298502
46	-0.288491
47	-0.285272
48	-0.283275
49	-0.280024
50	-0.26847
51	-0.268264
52	-0.268264
53	-0.264736
54	-0.264013
55	-0.261797
56	-0.261291
57	-0.259775
58	-0.256495
59	-0.255089
60	-0.252143
61	-0.245122
62	-0.242249
63	-0.241941
64	-0.241192
65	-0.239993
66	-0.235378
67	-0.233177
68	-0.229981
69	-0.227497
70	-0.22713
71	-0.223144
72	-0.223028
73	-0.218867
74	-0.216244
75	-0.215396
76	-0.211262
77	-0.210635
78	-0.200493
79	-0.199079
80	-0.197217
81	-0.196316
82	-0.194831
83	-0.191542
84	-0.191542
85	-0.187788
86	-0.18718
87	-0.186739
88	-0.186062
89	-0.185352
90	-0.184558
91	-0.182322
92	-0.182154
93	-0.178042
94	-0.177495

95	-0.177122
96	-0.177122
97	-0.172713
98	-0.171177
99	-0.169527
100	-0.165938
101	-0.15935
102	-0.159163
103	-0.155193
104	-0.154033
105	-0.151332
106	-0.139586
107	-0.134583
108	-0.133943
109	-0.133943
110	-0.132007
111	-0.129794
112	-0.129794
113	-0.129154
114	-0.128594
115	-0.128371
116	-0.127983
117	-0.127983
118	-0.126049
119	-0.126049
120	-0.124395
121	-0.122533
122	-0.122023
123	-0.121343
124	-0.120765
125	-0.11964
126	-0.117192
127	-0.115947
128	-0.115847
129	-0.115011
130	-0.115011
131	-0.114998
132	-0.114883
133	-0.11312
134	-0.11252
135	-0.111556
136	-0.110735
137	-0.106976
138	-0.10382
139	-0.101628
140	-0.0958544
141	-0.0958026
142	-0.0916862
143	-0.0911608
144	-0.0900684
145	-0.0861601
146	-0.0861601
147	-0.0848565
148	-0.0842281
149	-0.0825587
150	-0.0800574
151	-0.0784308
152	-0.0770164
153	-0.0763028
154	-0.0756098
155	-0.0736659
156	-0.0729557

157	-0.0729286
158	-0.0726693
159	-0.0707229
160	-0.0689139
161	-0.0661973
162	-0.0637797
163	-0.0637797
164	-0.0635857
165	-0.0610423
166	-0.060523
167	-0.0599269
168	-0.0593751
169	-0.0593751
170	-0.0589468
171	-0.0584232
172	-0.0566463
173	-0.0557045
174	-0.0556928
175	-0.0550266
176	-0.0549431
177	-0.0549431
178	-0.0549306
179	-0.0549306
180	-0.0533722
181	-0.050905
182	-0.0499369
183	-0.0497393
184	-0.049428
185	-0.0493307
186	-0.0487492
187	-0.0482258
188	-0.0481458
189	-0.0474362
190	-0.0474362
191	-0.0468034
192	-0.0468034
193	-0.046537
194	-0.0460815
195	-0.0452467
196	-0.0439254
197	-0.0437025
198	-0.0431747
199	-0.0415465
200	-0.0410592
201	-0.0391758
202	-0.0391758
203	-0.0382857
204	-0.0368174
205	-0.0355586
206	-0.0355044
207	-0.0340633
208	-0.0328609
209	-0.0311394
210	-0.0311394
211	-0.0302091
212	-0.0300122
213	-0.0299079
214	-0.0293752
215	-0.027914
216	-0.0276473
217	-0.0256466
218	-0.0250804

219	-0.0245767
220	-0.0237983
221	-0.0235828
222	-0.0234508
223	-0.0211105
224	-0.0209874
225	-0.0208579
226	-0.0203807
227	-0.0196757
228	-0.0192831
229	-0.0191788
230	-0.0181838
231	-0.0163281
232	-0.0163046
233	-0.0158894
234	-0.0126996
235	-0.0123855
236	-0.0109284
237	-0.0109284
238	-0.00946351
239	-0.00919683
240	-0.00919683
241	-0.00913106
242	-0.00577395
243	-0.00497517
244	-0.00426153
245	-0.00331678
246	-0.00291369
247	-0.00291369
248	-0.00146631
249	0
250	0
251	0
252	0.000972312
253	0.00336803
254	0.00699487
255	0.00851192
256	0.0102525
257	0.0110436
258	0.0126951
259	0.0133405
260	0.01367
261	0.0156228
262	0.0165931
263	0.0200107
264	0.0200107
265	0.0202624
266	0.0206336
267	0.0226269
268	0.0237939
269	0.0247937
270	0.0272775
271	0.0317644
272	0.0327043
273	0.0327831
274	0.035287
275	0.0365688
276	0.0387095
277	0.0398387
278	0.0406206
279	0.0416496
280	0.0425596

281	0.0463121
282	0.0471462
283	0.0471462
284	0.0477953
285	0.0504828
286	0.0504828
287	0.051747
288	0.0523149
289	0.0548891
290	0.0570847
291	0.0586742
292	0.0602883
293	0.0603386
294	0.0603386
295	0.0606885
296	0.0608301
297	0.0624812
298	0.0644325
299	0.0670599
300	0.0687355
301	0.0687787
302	0.0719205
303	0.0725091
304	0.0731688
305	0.0742066
306	0.0773805
307	0.0781254
308	0.0804685
309	0.0817075
310	0.082746
311	0.0874548
312	0.0874548
313	0.0892429
314	0.0916556
315	0.0954068
316	0.0987704
317	0.0999345
318	0.100293
319	0.103449
320	0.103889
321	0.1039
322	0.104663
323	0.106873
324	0.106873
325	0.109184
326	0.109647
327	0.109844
328	0.110704
329	0.115525
330	0.116102
331	0.11757
332	0.121097
333	0.121712
334	0.123183
335	0.124245
336	0.125099
337	0.129293
338	0.130169
339	0.131182
340	0.131182
341	0.13412
342	0.13836

343	0.143399
344	0.152512
345	0.160309
346	0.160309
347	0.162548
348	0.16447
349	0.166875
350	0.167802
351	0.168596
352	0.170275
353	0.171217
354	0.171996
355	0.172371
356	0.174193
357	0.175872
358	0.177122
359	0.183365
360	0.184027
361	0.18617
362	0.186421
363	0.188881
364	0.196469
365	0.200129
366	0.20118
367	0.206032
368	0.206082
369	0.207019
370	0.207076
371	0.21023
372	0.210791
373	0.211898
374	0.22384
375	0.228768
376	0.231049
377	0.240003
378	0.243357
379	0.24866
380	0.265314
381	0.266138
382	0.270038
383	0.271248
384	0.290103
385	0.307129
386	0.308191
387	0.316824
388	0.334772
389	0.339795
390	0.348512
391	0.349158
392	0.35097
393	0.354904
394	0.368055
395	0.369867
396	0.388756
397	0.389172
398	0.397302
399	0.405178
400	0.434828
401	0.435671
402	0.436233
403	0.442503
404	0.444686

405	0.450028
406	0.455453
407	0.458145
408	0.499289
409	0.510826
410	0.514293
411	0.530628
412	0.533791
413	0.53656
414	0.545138
415	0.554518
416	0.558111
417	0.590635
418	0.604231
419	0.666373
420	0.798536
421	0.828302
422	0.91589
423	0.940228
424	1.01938
425	1.07296
426	1.22117
427	1.35403
428	1.35839
429	1.62251
430	1.9356
431	2.17835
432	2.95317
433	3.82864
434	5.43808

Sen's Estimator (Median Q) is -0.0253635

Tied Group	Value	Members
1	3.82864	2
2	0	2
3	2.30259	2
4	2.56495	2

Time Period		Observations
7/20/1995		1
8/24/1995		1
9/28/1995		1
10/26/1995		1
11/19/1996		1
12/19/1996		1
3/24/1997		1
9/24/1997		1
4/7/1998	1	
9/23/1998		1
3/16/1999		1
9/23/1999		1
3/15/2000		1
9/24/2003		1
3/11/2004		1
10/12/2004		1
4/1/2005	1	
10/25/2005		1
4/29/2006		1
11/18/2006		1
5/23/2007		1
11/28/2007		1

6/5/2008	1	
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/12/2010		1
7/5/2011	1	
11/22/2011		2

There are 1 time periods with multiple data

A = 72
B = 18
C = 0
D = 0
E = 8
F = 2
a = 56550
b = 219240
c = 1740
Group Variance = 3136.68
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.1217
M1 = (434 - 92.1217)/2.0 = 170.939
M2 = (434 + 92.1217)/2.0 + 1 = 264.061
Lower limit is -0.0584232 = Q(171)
Upper limit is 0.0200107 = Q(264)
-0.0584232 < 0 < 0.0200107 indicating no trend in data.

Concentrations (ppb)

Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 232
Total Non-Detect: 128
Percent Non-Detects: 55.1724%
Total Background Measurements: 18
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	18	9 (50%)	3/16/1999	ND<60	ND<60
			9/23/1999	26 J	26 J
			3/15/2000	96	96
			9/24/2003	610	610
			3/11/2004	ND<60	ND<60
			10/12/2004	ND<60	ND<60
			4/1/2005 ND<60	ND<60	
			10/25/2005	ND<60	ND<60
			4/29/2006	ND<60	ND<60
			11/18/2006	10.3 J	10.3 J
			5/23/2007	ND<60	ND<60
			11/28/2007	ND<60	ND<60
			6/5/2008 11.2 J	11.2 J	
			11/20/2008	ND<60	ND<60
			6/11/2009	14	14
			6/30/2010	4.6 J H	4.6 J H
			11/12/2010	5.7 J	5.7 J
			7/5/2011 3.2 J	3.2 J	

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-12A R	19	12 (63.1579%)	3/16/1999	ND<60	ND<60
			9/23/1999	ND<60	ND<60
			3/15/2000	ND<60	ND<60
			9/24/2003	250	250
			3/11/2004	ND<60	ND<60
			10/12/2004	ND<60	ND<60
			4/1/2005 ND<60	ND<60	
			10/25/2005	ND<60	ND<60
			4/29/2006	ND<60	ND<60
			11/18/2006	ND<60	ND<60
			5/23/2007	12.6 J	12.6 J
			11/28/2007	ND<60	ND<60
			6/5/2008 ND<60	ND<60	
			11/20/2008	ND<60	ND<60
			6/11/2009	4.5 J	4.5 J
			6/30/2010	8.8 J	8.8 J
			11/12/2010	3.1 J	3.1 J
			7/5/2011 5.9 J	5.9 J	
			11/22/2011	8.1 J	8.1 J
MW-10	29	19 (65.5172%)	7/20/1995	ND<60	ND<60
			8/24/1995	ND<60	ND<60
			9/28/1995	ND<60	ND<60
			10/26/1995	ND<60	ND<60
			11/19/1996	ND<60	ND<60

			12/19/1996	ND<60	ND<60		
			3/24/1997	110	110		
			9/24/1997	ND<60	ND<60		
			4/7/1998 150	150			
			9/23/1998	ND<60	ND<60		
			3/16/1999	ND<60	ND<60		
			9/23/1999	ND<60	ND<60		
			3/15/2000	ND<60	ND<60		
			9/24/2003	ND<60	ND<60		
			3/11/2004	ND<60	ND<60		
			10/12/2004	ND<60	ND<60		
			4/1/2005 ND<60	ND<60			
			10/25/2005	ND<60	ND<60		
			4/29/2006	ND<60	ND<60		
			11/18/2006	ND<60	ND<60		
			5/23/2007	62.4	62.4		
			11/28/2007	410	410		
			6/5/2008 10.8 J	10.8 J			
			11/20/2008	ND<60	ND<60		
			6/11/2009	28	28		
			6/30/2010	220 H	220 H		
			11/12/2010	7.2 J	7.2 J		
			7/5/2011 3 J	3 J			
			11/22/2011	5.6 J	5.6 J		
MW-12BR		19	12 (63.1579%)	3/16/1999		ND<60	ND<60
			9/23/1999	ND<60	ND<60		
			3/15/2000	ND<60	ND<60		
			9/24/2003	ND<60	ND<60		
			3/11/2004	ND<60	ND<60		
			10/12/2004	ND<60	ND<60		
			4/1/2005 ND<60	ND<60			
			10/25/2005	ND<60	ND<60		
			4/29/2006	ND<60	ND<60		
			11/18/2006	6.33 J	6.33 J		
			5/23/2007	ND<60	ND<60		
			11/28/2007	ND<60	ND<60		
			6/5/2008 13.1 J	13.1 J			
			11/20/2008	ND<60	ND<60		
			6/11/2009	8.3 J	8.3 J		
			6/30/2010	34	34		
			11/12/2010	9.6 J	9.6 J		
			7/5/2011 100	100			
			11/22/2011	31	31		
MW-9	30	16 (53.3333%)	7/20/1995		ND<60	ND<60	
			8/24/1995	33.1 J	33.1 J		
			9/28/1995	ND<60	ND<60		
			10/26/1995	ND<60	ND<60		
			11/19/1996	ND<60	ND<60		
			12/19/1996	ND<60	ND<60		
			3/24/1997	110	110		
			9/24/1997	ND<60	ND<60		
			4/7/1998 ND<60	ND<60			
			9/23/1998	88	88		
			3/16/1999	ND<60	ND<60		
			9/23/1999	5 J	5 J		
			3/15/2000	ND<60	ND<60		
			9/24/2003	120	120		
			3/11/2004	ND<60	ND<60		
			10/12/2004	ND<60	ND<60		
			4/1/2005 ND<60	ND<60			

			10/25/2005	ND<60	ND<60	
			4/29/2006	ND<60	ND<60	
			11/18/2006	5.56 J	5.56 J	
			5/23/2007	56.6	56.6	
			11/28/2007	26 J	26 J	
			6/5/2008 ND<60	ND<60		
			11/20/2008	ND<60	ND<60	
			6/11/2009	22	22	
			6/30/2010	3.6 J H	3.6 J H	
			11/12/2010	2.8 J	2.8 J	
			7/5/2011 8.3 J	8.3 J		
			11/22/2011	4.5 J	4.5 J	
			11/22/2011	4.5 J	4.5 J	
MW-11R	30	15 (50%)	7/20/1995	ND<60	ND<60	
			8/24/1995	34.1 J	34.1 J	
			9/28/1995	30.5	30.5	
			10/26/1995	ND<60	ND<60	
			11/19/1996	ND<60	ND<60	
			12/19/1996	ND<60	ND<60	
			3/24/1997	ND<60	ND<60	
			9/24/1997	92	92	
			4/7/1998 330	330		
			9/23/1998	110	110	
			3/16/1999	ND<60	ND<60	
			9/23/1999	27 J	27 J	
			3/15/2000	ND<60	ND<60	
			9/24/2003	60	60	
			3/11/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005 ND<60	ND<60		
			10/25/2005	ND<60	ND<60	
			4/29/2006	20 J	20 J	
			11/18/2006	ND<60	ND<60	
			5/23/2007	39.7	39.7	
			11/28/2007	ND<60	ND<60	
			6/5/2008 ND<60	ND<60		
			11/20/2008	ND<60	ND<60	
			6/11/2009	46	46	
			6/30/2010	6.9 J H	6.9 J H	
			11/12/2010	3.6 J	3.6 J	
			7/5/2011 6.6 J	6.6 J		
			11/22/2011	63 J	63 J	
			11/22/2011	63 J	63 J	
MW-6	29	17 (58.6207%)	7/20/1995	ND<60	ND<60	
			8/24/1995	346	346	
			9/28/1995	9.5 J	9.5 J	
			10/26/1995	ND<60	ND<60	
			11/19/1996	ND<60	ND<60	
			12/19/1996	ND<60	ND<60	
			3/24/1997	ND<60	ND<60	
			9/24/1997	72	72	
			4/7/1998 75	75		
			9/23/1998	200	200	
			3/16/1999	ND<60	ND<60	
			9/23/1999	ND<60	ND<60	
			3/15/2000	ND<60	ND<60	
			9/24/2003	320	320	
			3/11/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005 ND<60	ND<60		

			10/25/2005	ND<60	ND<60	
			4/29/2006	ND<60	ND<60	
			11/18/2006	ND<60	ND<60	
			5/23/2007	ND<60	ND<60	
			11/28/2007	ND<60	ND<60	
			6/5/2008 7.99 J	7.99 J		
			11/20/2008	ND<60	ND<60	
			6/11/2009	18	18	
			6/30/2010	2.7 J H	2.7 J H	
			11/12/2010	6.4 J	6.4 J	
			7/5/2011 22 J	22 J		
			11/22/2011	11	11	
MW-7	29	13 (44.8276%)	7/20/1995		ND<60	ND<60
			8/24/1995	40 J	40 J	
			9/28/1995	35 J	35 J	
			10/26/1995	ND<60	ND<60	
			11/19/1996	ND<60	ND<60	
			12/19/1996	ND<60	ND<60	
			3/24/1997	ND<60	ND<60	
			9/24/1997	79	79	
			4/7/1998 ND<60	ND<60		
			9/23/1998	95	95	
			3/16/1999	ND<60	ND<60	
			9/23/1999	5 J	5 J	
			3/15/2000	11 J	11 J	
			9/24/2003	180	180	
			3/11/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005 ND<60	ND<60		
			10/25/2005	ND<60	ND<60	
			4/29/2006	ND<60	ND<60	
			11/18/2006	5 J	5 J	
			5/23/2007	73.8	73.8	
			11/28/2007	ND<60	ND<60	
			6/5/2008 11.6 J	11.6 J		
			11/20/2008	76	76	
			6/11/2009	3.9 J	3.9 J	
			6/30/2010	3.7 J H	3.7 J H	
			11/12/2010	5 J	5 J	
			7/5/2011 8.8 J	8.8 J		
			11/22/2011	22 J	22 J	
MW-8	29	15 (51.7241%)	7/20/1995		ND<60	ND<60
			8/24/1995	21 J	21 J	
			9/28/1995	33.6 J	33.6 J	
			10/26/1995	ND<60	ND<60	
			11/19/1996	ND<60	ND<60	
			12/19/1996	ND<60	ND<60	
			3/24/1997	ND<60	ND<60	
			9/24/1997	62	62	
			4/7/1998 150	150		
			9/23/1998	120	120	
			3/16/1999	ND<60	ND<60	
			9/23/1999	ND<60	ND<60	
			3/15/2000	ND<60	ND<60	
			9/24/2003	ND<60	ND<60	
			3/11/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005 ND<60	ND<60		
			10/25/2005	ND<60	ND<60	
			4/29/2006	ND<60	ND<60	

11/18/2006	6.59 J	6.59 J
5/23/2007	51.6	51.6
11/28/2007	27 J	27 J
6/5/2008 8.7 J	8.7 J	
11/20/2008	28 J	28 J
6/11/2009	ND<2.6	ND<2.6
6/30/2010	6.1 J H	6.1 J H
11/12/2010	3.2 J	3.2 J
7/5/2011 15	15	
11/22/2011	19	19

There are 0 unused locations

Loc.	Meas. ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Zinc

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 232

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.3	-2.65209	7.03356	-3.44771
2	2.7	-2.40892	12.8365	-9.95181
3	2.8	-2.25713	17.9311	-16.2718
4	3	-2.12007	22.4258	-22.632
5	3.1	-2.03352	26.561	-28.9359
6	3.2	-1.95996	30.4025	-35.2078
7	3.2	-1.88079	33.9398	-41.2263
8	3.6	-1.82501	37.2705	-47.7963
9	3.6	-1.77438	40.4189	-54.1841
10	3.7	-1.72793	43.4046	-60.5774
11	3.9	-1.67466	46.2091	-67.1086
12	4.5	-1.63524	48.8831	-74.4672
13	4.5	-1.59819	51.4373	-81.659
14	4.5	-1.55477	53.8547	-88.6555
15	4.6	-1.52203	56.1712	-95.6569
16	5	-1.49085	58.3939	-103.111
17	5	-1.46106	60.5286	-110.416
18	5	-1.42554	62.5608	-117.544
19	5	-1.39838	64.5162	-124.536
20	5.56	-1.3722	66.3992	-132.165
21	5.6	-1.34075	68.1968	-139.674
22	5.7	-1.31652	69.93	-147.178
23	5.9	-1.29303	71.6019	-154.807
24	6.1	-1.26464	73.2013	-162.521
25	6.33	-1.24264	74.7454	-170.387
26	6.4	-1.22123	76.2368	-178.203
27	6.59	-1.20036	77.6777	-186.113
28	6.6	-1.17499	79.0583	-193.868
29	6.9	-1.15522	80.3928	-201.839
30	7.2	-1.1359	81.6831	-210.018
31	7.99	-1.11232	82.9203	-218.905
32	8.1	-1.0939	84.1169	-227.766
33	8.3	-1.07584	85.2744	-236.695
34	8.3	-1.05812	86.394	-245.477
35	8.7	-1.03643	87.4682	-254.494
36	8.8	-1.01943	88.5074	-263.465
37	8.8	-1.00271	89.5128	-272.289
38	9.5	-0.982202	90.4776	-281.62
39	9.6	-0.966088	91.4109	-290.895
40	10.3	-0.950222	92.3138	-300.682
41	10.8	-0.93459	93.1873	-310.775
42	11	-0.915365	94.0252	-320.845
43	11	-0.900227	94.8356	-330.747
44	11.2	-0.885291	95.6193	-340.662
45	11.6	-0.866894	96.3708	-350.718
46	12.6	-0.852385	97.0974	-361.458
47	13.1	-0.838054	97.7997	-372.437
48	14	-0.820379	98.4727	-383.922
49	15	-0.806422	99.123	-396.018
50	18	-0.792618	99.7513	-410.286
51	19	-0.778966	100.358	-425.086

52	20	-0.7621	100.939	-440.328	
53	21	-0.748762		101.5	-456.052
54	22	-0.735557		102.041	-472.234
55	22	-0.719228		102.558	-488.057
56	22	-0.706302		103.057	-503.596
57	26	-0.693493		103.538	-521.627
58	26	-0.680797		104.001	-539.327
59	27	-0.665079		104.443	-557.285
60	27	-0.652622		104.869	-574.905
61	28	-0.640266		105.279	-592.833
62	28	-0.624956		105.67	-610.332
63	30	-0.612813		106.045	-628.716
64	30	-0.60076	106.406	-646.739	
65	30	-0.588793		106.753	-664.402
66	30	-0.573953		107.082	-681.621
67	30	-0.56217	107.398	-698.486	
68	30	-0.550465		107.701	-715
69	30	-0.53594	107.989	-731.078	
70	30	-0.524401		108.264	-746.81
71	30	-0.51293	108.527	-762.198	
72	30	-0.498687		108.776	-777.159
73	30	-0.487364		109.013	-791.78
74	30	-0.476105		109.24	-806.063
75	30	-0.464904		109.456	-820.01
76	30	-0.450985		109.659	-833.54
77	30	-0.439913		109.853	-846.737
78	30	-0.428895		110.037	-859.604
79	30	-0.415193		110.209	-872.06
80	30	-0.40429	110.373	-884.188	
81	30	-0.393433		110.527	-895.991
82	30	-0.382622		110.674	-907.47
83	30	-0.369171		110.81	-918.545
84	30	-0.358459		110.939	-929.299
85	30	-0.347787		111.059	-939.733
86	30	-0.334503		111.171	-949.768
87	30	-0.323919		111.276	-959.485
88	30	-0.31337	111.374	-968.886	
89	30	-0.302855		111.466	-977.972
90	30	-0.28976	111.55	-986.665	
91	30	-0.279319		111.628	-995.044
92	30	-0.268908		111.7	-1003.11
93	30	-0.255936		111.766	-1010.79
94	30	-0.24559	111.826	-1018.16	
95	30	-0.235269		111.882	-1025.22
96	30	-0.222403		111.931	-1031.89
97	30	-0.212137		111.976	-1038.25
98	30	-0.201894		112.017	-1044.31
99	30	-0.191671		112.054	-1050.06
100	30	-0.17892	112.086	-1055.43	
101	30	-0.168741		112.114	-1060.49
102	30	-0.158579		112.139	-1065.25
103	30	-0.1459	112.161	-1069.62	
104	30	-0.135774		112.179	-1073.7
105	30	-0.125661		112.195	-1077.47
106	30	-0.115562		112.208	-1080.93
107	30	-0.102953		112.219	-1084.02
108	30	-0.0928787		112.227	-1086.81
109	30	-0.0828129		112.234	-1089.29
110	30	-0.0702426		112.239	-1091.4
111	30	-0.0601949		112.243	-1093.21
112	30	-0.0501541		112.245	-1094.71
113	30	-0.0401167		112.247	-1095.91

114	30	-0.0275759	112.248	-1096.74
115	30	-0.0175476	112.248	-1097.27
116	30	-0.00751925	112.248	-1097.49
117	30	0.00751925	112.248	-1097.27
118	30	0.0175476	112.248	-1096.74
119	30	0.0275759	112.249	-1095.91
120	30	0.0401167	112.251	-1094.71
121	30	0.0501541	112.253	-1093.21
122	30	0.0601949	112.257	-1091.4
123	30	0.0702426	112.262	-1089.29
124	30	0.0828129	112.269	-1086.81
125	30	0.0928787	112.277	-1084.02
126	30	0.102953	112.288	-1080.93
127	30	0.115562	112.301	-1077.47
128	30	0.125661	112.317	-1073.7
129	30	0.135774	112.335	-1069.62
130	30	0.1459	112.357	-1065.25
131	30	0.158579	112.382	-1060.49
132	30	0.168741	112.41	-1055.43
133	30	0.17892	112.442	-1050.06
134	30	0.191671	112.479	-1044.31
135	30	0.201894	112.52	-1038.25
136	30	0.212137	112.565	-1031.89
137	30	0.222403	112.614	-1025.22
138	30	0.235269	112.67	-1018.16
139	30	0.24559	112.73	-1010.79
140	30	0.255936	112.796	-1003.11
141	30	0.268908	112.868	-995.044
142	30	0.279319	112.946	-986.665
143	30	0.28976	113.03	-977.972
144	30	0.302855	113.122	-968.886
145	30	0.31337	113.22	-959.485
146	30	0.323919	113.325	-949.768
147	30	0.334503	113.437	-939.733
148	30	0.347787	113.558	-929.299
149	30	0.358459	113.686	-918.545
150	30	0.369171	113.822	-907.47
151	30	0.382622	113.969	-895.991
152	30	0.393433	114.123	-884.188
153	30	0.40429	114.287	-872.06
154	30	0.415193	114.459	-859.604
155	30	0.428895	114.643	-846.737
156	30	0.439913	114.837	-833.54
157	30	0.450985	115.04	-820.01
158	30	0.464904	115.256	-806.063
159	30	0.476105	115.483	-791.78
160	30	0.487364	115.721	-777.159
161	30	0.498687	115.969	-762.198
162	30	0.51293	116.232	-746.81
163	30	0.524401	116.507	-731.078
164	30	0.53594	116.795	-715
165	30	0.550465	117.098	-698.486
166	30	0.56217	117.414	-681.621
167	30	0.573953	117.743	-664.402
168	30	0.588793	118.09	-646.739
169	30	0.60076	118.451	-628.716
170	30	0.612813	118.826	-610.332
171	30	0.624956	119.217	-591.583
172	30	0.640266	119.627	-572.375
173	30	0.652622	120.053	-552.796
174	30	0.665079	120.495	-532.844
175	30	0.680797	120.958	-512.42

176	30	0.693493		121.439	-491.615
177	30	0.706302		121.938	-470.426
178	30	0.719228		122.455	-448.849
179	30	0.735557		122.997	-426.783
180	30	0.748762		123.557	-404.32
181	30	0.7621	124.138	-381.457	
182	30	0.778966		124.745	-358.088
183	30	0.792618		125.373	-334.309
184	30	0.806422		126.023	-310.116
185	30	0.820379		126.696	-285.505
186	30	0.838054		127.399	-260.363
187	30	0.852385		128.125	-234.792
188	30	0.866894		128.877	-208.785
189	30	0.885291		129.66	-182.226
190	30.5	0.900227		130.471	-154.769
191	31	0.915365		131.309	-126.393
192	33.1	0.93459	132.182	-95.4582	
193	33.6	0.950222		133.085	-63.5308
194	34	0.966088		134.018	-30.6838
195	34.1	0.982202		134.983	2.80932
196	35	1.00271	135.989	37.9042	
197	39.7	1.01943	137.028	78.3755	
198	40	1.03643	138.102	119.833	
199	46	1.05812	139.222	168.506	
200	51.6	1.07584	140.379	224.02	
201	56.6	1.0939	141.576	285.934	
202	60	1.11232	142.813	352.673	
203	62	1.1359	144.103	423.099	
204	62.4	1.15522	145.438	495.185	
205	63	1.17499	146.818	569.209	
206	63	1.20036	148.259	644.832	
207	72	1.22123	149.751	732.76	
208	73.8	1.24264	151.295	824.467	
209	75	1.26464	152.894	919.315	
210	76	1.29303	154.566	1017.59	
211	79	1.31652	156.299	1121.59	
212	88	1.34075	158.097	1239.58	
213	92	1.3722	159.98	1365.82	
214	95	1.39838	161.935	1498.67	
215	96	1.42554	163.967	1635.52	
216	100	1.46106	166.102	1781.62	
217	110	1.49085	168.325	1945.62	
218	110	1.52203	170.641	2113.04	
219	110	1.55477	173.059	2284.07	
220	120	1.59819	175.613	2475.85	
221	120	1.63524	178.287	2672.08	
222	150	1.67466	181.091	2923.28	
223	150	1.72793	184.077	3182.47	
224	180	1.77438	187.226	3501.85	
225	200	1.82501	190.556	3866.86	
226	220	1.88079	194.094	4280.63	
227	250	1.95996	197.935	4770.62	
228	320	2.03352	202.07	5421.35	
229	330	2.12007	206.565	6120.97	
230	346	2.25713	211.66	6901.94	
231	410	2.40892	217.462	7889.59	
232	610	2.65209	224.496	9507.37	

Data Set Standard Deviation = 65.2934
Numerator = 9.039e+007
Denominator = 2.21085e+008

W Statistic = 0.408847 = 9.039e+007 / 2.21085e+008

5% Critical value of 0.976 exceeds 0.408847
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.408847
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Zinc

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.646246
0.646246 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.3	0.00429185	-2.65209	39.9936	344.01	
2	2.7	0.00858369	-2.40892	41.0636	332.136	
3	2.8	0.0128755	-2.25713	41.14	324.723	
4	3	0.0171674	-2.12007	41.2929	318.03	
5	3.1	0.0214592	-2.03352	41.3693	313.804	
6	3.2	0.0257511	-1.95996	41.4457	310.211	
7	3.2	0.0300429	-1.88079	41.4457	306.345	
8	3.6	0.0343348	-1.82501	41.7514	303.621	
9	3.6	0.0386266	-1.77438	41.7514	301.149	
10	3.7	0.0429185	-1.72793	41.8279	298.881	
11	3.9	0.0472103	-1.67466	41.9807	296.279	
12	4.5	0.0515021	-1.63524	42.4393	294.354	
13	4.5	0.055794	-1.59819	42.4393	292.545	
14	4.5	0.0600858	-1.55477	42.4393	290.425	
15	4.6	0.0643777	-1.52203	42.5157	288.826	
16	5	0.0686695	-1.49085	42.8214	287.303	
17	5	0.0729614	-1.46106	42.8214	285.848	
18	5	0.0772532	-1.42554	42.8214	284.114	
19	5	0.0815451	-1.39838	42.8214	282.787	
20	5.56	0.0858369	-1.3722	43.2494	281.509	
21	5.6	0.0901288	-1.34075	43.28	279.974	
22	5.7	0.0944206	-1.31652	43.3564	278.79	
23	5.9	0.0987124	-1.29303	43.5093	277.643	
24	6.1	0.103004	-1.26464	43.6621	276.257	
25	6.33	0.107296	-1.24264	43.8379	275.182	
26	6.4	0.111588	-1.22123	43.8914	274.137	
27	6.59	0.11588	-1.20036	44.0366	273.118	
28	6.6	0.120172	-1.17499	44.0443	271.879	
29	6.9	0.124464	-1.15522	44.2736	270.913	
30	7.2	0.128755	-1.1359	44.5029	269.97	
31	7.99	0.133047	-1.11232	45.1066	268.818	
32	8.1	0.137339	-1.0939	45.1907	267.919	
33	8.3	0.141631	-1.07584	45.3436	267.037	
34	8.3	0.145923	-1.05812	45.3436	266.172	
35	8.7	0.150215	-1.03643	45.6493	265.112	
36	8.8	0.154506	-1.01943	45.7257	264.282	
37	8.8	0.158798	-1.00271	45.7257	263.466	
38	9.5	0.16309	-0.982202	46.2607	262.464	
39	9.6	0.167382	-0.966088	46.3371	261.677	
40	10.3	0.171674	-0.950222	46.8721	260.903	
41	10.8	0.175966	-0.93459	47.2543	260.139	
42	11	0.180258	-0.915365	47.4071	259.2	
43	11	0.184549	-0.900227	47.4071	258.461	
44	11.2	0.188841	-0.885291	47.56	257.732	
45	11.6	0.193133	-0.866894	47.8657	256.833	
46	12.6	0.197425	-0.852385	48.63	256.125	
47	13.1	0.201717	-0.838054	49.0121	255.425	
48	14	0.206009	-0.820379	49.7	254.562	

49	15	0.2103	-0.806422	50.4643	253.88	
50	18	0.214592	-0.792618	52.7571	253.206	
51	19	0.218884	-0.778966	53.5214	252.54	
52	20	0.223176	-0.7621	54.2857	251.716	
53	21	0.227468	-0.748762	55.05	251.065	
54	22	0.23176	-0.735557	55.8143	250.42	
55	22	0.236052	-0.719228	55.8143	249.622	
56	22	0.240343	-0.706302	55.8143	248.991	
57	26	0.244635	-0.693493	58.8714	248.366	
58	26	0.248927	-0.680797	58.8714	247.746	
59	27	0.253219	-0.665079	59.6357	246.978	
60	27	0.257511	-0.652622	59.6357	246.37	
61	28	0.261803	-0.640266	60.4	245.766	
62	28	0.266094	-0.624956	60.4	245.019	
63	30	0.270386	-0.612813	61.9286	244.426	
64	30	0.274678	-0.60076	61.9286	243.837	
65	30	0.27897	-0.588793	61.9286	243.253	
66	30	0.283262	-0.573953	61.9286	242.528	
67	30	0.287554	-0.56217	61.9286	241.953	
68	30	0.291845	-0.550465	61.9286	241.381	
69	30	0.296137	-0.53594	61.9286	240.672	
70	30	0.300429	-0.524401	61.9286	240.108	
71	30	0.304721	-0.51293	61.9286	239.548	
72	30	0.309013	-0.498687	61.9286	238.853	
73	30	0.313305	-0.487364	61.9286	238.3	
74	30	0.317597	-0.476105	61.9286	237.75	
75	30	0.321888	-0.464904	61.9286	237.203	
76	30	0.32618	-0.450985	61.9286	236.523	
77	30	0.330472	-0.439913	61.9286	235.982	
78	30	0.334764	-0.428895	61.9286	235.444	
79	30	0.339056	-0.415193	61.9286	234.775	
80	30	0.343348	-0.40429	61.9286	234.243	
81	30	0.347639	-0.393433	61.9286	233.713	
82	30	0.351931	-0.382622	61.9286	233.185	
83	30	0.356223	-0.369171	61.9286	232.528	
84	30	0.360515	-0.358459	61.9286	232.005	
85	30	0.364807	-0.347787	61.9286	231.484	
86	30	0.369099	-0.334503	61.9286	230.835	
87	30	0.373391	-0.323919	61.9286	230.318	
88	30	0.377682	-0.31337	61.9286	229.803	
89	30	0.381974	-0.302855	61.9286	229.289	
90	30	0.386266	-0.28976	61.9286	228.65	
91	30	0.390558	-0.279319	61.9286	228.14	
92	30	0.39485	-0.268908	61.9286	227.632	
93	30	0.399142	-0.255936	61.9286	226.998	
94	30	0.403433	-0.24559	61.9286	226.493	
95	30	0.407725	-0.235269	61.9286	225.989	
96	30	0.412017	-0.222403	61.9286	225.361	
97	30	0.416309	-0.212137	61.9286	224.859	
98	30	0.420601	-0.201894	61.9286	224.359	
99	30	0.424893	-0.191671	61.9286	223.86	
100	30	0.429185	-0.17892	61.9286	223.237	
101	30	0.433476	-0.168741	61.9286	222.74	
102	30	0.437768	-0.158579	61.9286	222.244	
103	30	0.44206	-0.1459	61.9286	221.625	
104	30	0.446352	-0.135774	61.9286	221.13	
105	30	0.450644	-0.125661	61.9286	220.636	
106	30	0.454936	-0.115562	61.9286	220.143	
107	30	0.459227	-0.102953	61.9286	219.528	
108	30	0.463519	-0.0928787	61.9286	219.036	
109	30	0.467811	-0.0828129	61.9286	218.544	
110	30	0.472103	-0.0702426	61.9286	217.93	

111	30	0.476395	-0.0601949	61.9286	217.44
112	30	0.480687	-0.0501541	61.9286	216.949
113	30	0.484979	-0.0401167	61.9286	216.459
114	30	0.48927	-0.0275759	61.9286	215.847
115	30	0.493562	-0.0175476	61.9286	215.357
116	30	0.497854	-0.00751925	61.9286	214.867
117	30	0.502146	0.00751925	61.9286	214.133
118	30	0.506438	0.0175476	61.9286	213.643
119	30	0.51073	0.0275759	61.9286	213.153
120	30	0.515021	0.0401167	61.9286	212.541
121	30	0.519313	0.0501541	61.9286	212.051
122	30	0.523605	0.0601949	61.9286	211.56
123	30	0.527897	0.0702426	61.9286	211.07
124	30	0.532189	0.0828129	61.9286	210.456
125	30	0.536481	0.0928787	61.9286	209.964
126	30	0.540773	0.102953	61.9286	209.472
127	30	0.545064	0.115562	61.9286	208.857
128	30	0.549356	0.125661	61.9286	208.364
129	30	0.553648	0.135774	61.9286	207.87
130	30	0.55794	0.1459	61.9286	207.375
131	30	0.562232	0.158579	61.9286	206.756
132	30	0.566524	0.168741	61.9286	206.26
133	30	0.570815	0.17892	61.9286	205.763
134	30	0.575107	0.191671	61.9286	205.14
135	30	0.579399	0.201894	61.9286	204.641
136	30	0.583691	0.212137	61.9286	204.141
137	30	0.587983	0.222403	61.9286	203.639
138	30	0.592275	0.235269	61.9286	203.011
139	30	0.596567	0.24559	61.9286	202.507
140	30	0.600858	0.255936	61.9286	202.002
141	30	0.60515	0.268908	61.9286	201.368
142	30	0.609442	0.279319	61.9286	200.86
143	30	0.613734	0.28976	61.9286	200.35
144	30	0.618026	0.302855	61.9286	199.711
145	30	0.622318	0.31337	61.9286	199.197
146	30	0.626609	0.323919	61.9286	198.682
147	30	0.630901	0.334503	61.9286	198.165
148	30	0.635193	0.347787	61.9286	197.516
149	30	0.639485	0.358459	61.9286	196.995
150	30	0.643777	0.369171	61.9286	196.472
151	30	0.648069	0.382622	61.9286	195.815
152	30	0.652361	0.393433	61.9286	195.287
153	30	0.656652	0.40429	61.9286	194.757
154	30	0.660944	0.415193	61.9286	194.225
155	30	0.665236	0.428895	61.9286	193.556
156	30	0.669528	0.439913	61.9286	193.018
157	30	0.67382	0.450985	61.9286	192.477
158	30	0.678112	0.464904	61.9286	191.797
159	30	0.682403	0.476105	61.9286	191.25
160	30	0.686695	0.487364	61.9286	190.7
161	30	0.690987	0.498687	61.9286	190.147
162	30	0.695279	0.51293	61.9286	189.452
163	30	0.699571	0.524401	61.9286	188.892
164	30	0.703863	0.53594	61.9286	188.328
165	30	0.708155	0.550465	61.9286	187.619
166	30	0.712446	0.56217	61.9286	187.047
167	30	0.716738	0.573953	61.9286	186.472
168	30	0.72103	0.588793	61.9286	185.747
169	30	0.725322	0.60076	61.9286	185.163
170	30	0.729614	0.612813	61.9286	184.574
171	30	0.733906	0.624956	61.9286	183.981
172	30	0.738197	0.640266	61.9286	183.234

173	30	0.742489	0.652622	61.9286	182.63
174	30	0.746781	0.665079	61.9286	182.022
175	30	0.751073	0.680797	61.9286	181.254
176	30	0.755365	0.693493	61.9286	180.634
177	30	0.759657	0.706302	61.9286	180.009
178	30	0.763948	0.719228	61.9286	179.378
179	30	0.76824	0.735557	61.9286	178.58
180	30	0.772532	0.748762	61.9286	177.935
181	30	0.776824	0.7621	61.9286	177.284
182	30	0.781116	0.778966	61.9286	176.46
183	30	0.785408	0.792618	61.9286	175.794
184	30	0.7897	0.806422	61.9286	175.12
185	30	0.793991	0.820379	61.9286	174.438
186	30	0.798283	0.838054	61.9286	173.575
187	30	0.802575	0.852385	61.9286	172.875
188	30	0.806867	0.866894	61.9286	172.167
189	30	0.811159	0.885291	61.9286	171.268
190	30.5	0.815451	0.900227	62.3107	170.539
191	31	0.819742	0.915365	62.6929	169.8
192	33.1	0.824034	0.93459	64.2979	168.861
193	33.6	0.828326	0.950222	64.68	168.097
194	34	0.832618	0.966088	64.9857	167.323
195	34.1	0.83691	0.982202	65.0621	166.536
196	35	0.841202	1.00271	65.75	165.534
197	39.7	0.845494	1.01943	69.3421	164.718
198	40	0.849785	1.03643	69.5714	163.888
199	46	0.854077	1.05812	74.1571	162.828
200	51.6	0.858369	1.07584	78.4371	161.963
201	56.6	0.862661	1.0939	82.2586	161.081
202	60	0.866953	1.11232	84.8571	160.182
203	62	0.871245	1.1359	86.3857	159.03
204	62.4	0.875536	1.15522	86.6914	158.087
205	63	0.879828	1.17499	87.15	157.121
206	63	0.88412	1.20036	87.15	155.882
207	72	0.888412	1.22123	94.0286	154.863
208	73.8	0.892704	1.24264	95.4043	153.818
209	75	0.896996	1.26464	96.3214	152.743
210	76	0.901288	1.29303	97.0857	151.357
211	79	0.905579	1.31652	99.3786	150.21
212	88	0.909871	1.34075	106.257	149.026
213	92	0.914163	1.3722	109.314	147.491
214	95	0.918455	1.39838	111.607	146.213
215	96	0.922747	1.42554	112.371	144.886
216	100	0.927039	1.46106	115.429	143.152
217	110	0.93133	1.49085	123.071	141.697
218	110	0.935622	1.52203	123.071	140.174
219	110	0.939914	1.55477	123.071	138.575
220	120	0.944206	1.59819	130.714	136.455
221	120	0.948498	1.63524	130.714	134.646
222	150	0.95279	1.67466	153.643	132.721
223	150	0.957082	1.72793	153.643	130.119
224	180	0.961373	1.77438	176.571	127.851
225	200	0.965665	1.82501	191.857	125.379
226	220	0.969957	1.88079	207.143	122.655
227	250	0.974249	1.95996	230.071	118.789
228	320	0.978541	2.03352	283.571	115.196
229	330	0.982833	2.12007	291.214	110.97
230	346	0.987124	2.25713	303.443	104.277
231	410	0.991416	2.40892	352.357	96.8642
232	610	0.995708	2.65209	505.214	84.9898

Shapiro-Francia Test of Normality

Parameter: Zinc

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 232

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.262364		-2.65209	7.03356 -0.695813
2	0.993252		-2.40892	12.8365 -3.08848
3	1.02962	-2.25713	17.9311	-5.41247
4	1.09861	-2.12007	22.4258	-7.7416
5	1.1314	-2.03352	26.561	-10.0423
6	1.16315	-1.95996	30.4025	-12.3221
7	1.16315	-1.88079	33.9398	-14.5097
8	1.28093	-1.82501	37.2705	-16.8474
9	1.28093	-1.77438	40.4189	-19.1203
10	1.30833	-1.72793	43.4046	-21.381
11	1.36098	-1.67466	46.2091	-23.6602
12	1.50408	-1.63524	48.8831	-26.1197
13	1.50408	-1.59819	51.4373	-28.5235
14	1.50408	-1.55477	53.8547	-30.862
15	1.52606	-1.52203	56.1712	-33.1847
16	1.60944	-1.49085	58.3939	-35.5841
17	1.60944	-1.46106	60.5286	-37.9356
18	1.60944	-1.42554	62.5608	-40.2299
19	1.60944	-1.39838	64.5162	-42.4805
20	1.7156	-1.3722	66.3992	-44.8347
21	1.72277	-1.34075	68.1968	-47.1445
22	1.74047	-1.31652	69.93	-49.4358
23	1.77495	-1.29303	71.6019	-51.7309
24	1.80829	-1.26464	73.2013	-54.0178
25	1.8453	-1.24264	74.7454	-56.3108
26	1.8563	-1.22123	76.2368	-58.5778
27	1.88555	-1.20036	77.6777	-60.8411
28	1.88707	-1.17499	79.0583	-63.0584
29	1.93152	-1.15522	80.3928	-65.2897
30	1.97408	-1.1359	81.6831	-67.5321
31	2.07819	-1.11232	82.9203	-69.8437
32	2.09186	-1.0939	84.1169	-72.132
33	2.11626	-1.07584	85.2744	-74.4087
34	2.11626	-1.05812	86.394	-76.648
35	2.16332	-1.03643	87.4682	-78.8901
36	2.17475	-1.01943	88.5074	-81.1071
37	2.17475	-1.00271	89.5128	-83.2878
38	2.25129	-0.982202	90.4776	-85.499
39	2.26176	-0.966088	91.4109	-87.6841
40	2.33214	-0.950222	92.3138	-89.9001
41	2.37955	-0.93459	93.1873	-92.124
42	2.3979	-0.915365	94.0252	-94.319
43	2.3979	-0.900227	94.8356	-96.4776
44	2.41591	-0.885291	95.6193	-98.6164
45	2.45101	-0.866894	96.3708	-100.741
46	2.5337	-0.852385	97.0974	-102.901
47	2.57261	-0.838054	97.7997	-105.057
48	2.63906	-0.820379	98.4727	-107.222
49	2.70805	-0.806422	99.123	-109.406
50	2.89037	-0.792618	99.7513	-111.697
51	2.94444	-0.778966	100.358	-113.99

52	2.99573	-0.7621	100.939	-116.273	
53	3.04452	-0.748762		101.5	-118.553
54	3.09104	-0.735557		102.041	-120.827
55	3.09104	-0.719228		102.558	-123.05
56	3.09104	-0.706302		103.057	-125.233
57	3.2581	-0.693493		103.538	-127.492
58	3.2581	-0.680797		104.001	-129.711
59	3.29584	-0.665079		104.443	-131.903
60	3.29584	-0.652622		104.869	-134.053
61	3.3322	-0.640266		105.279	-136.187
62	3.3322	-0.624956		105.67	-138.269
63	3.4012	-0.612813		106.045	-140.354
64	3.4012	-0.60076	106.406	-142.397	
65	3.4012	-0.588793		106.753	-144.4
66	3.4012	-0.573953		107.082	-146.352
67	3.4012	-0.56217	107.398	-148.264	
68	3.4012	-0.550465		107.701	-150.136
69	3.4012	-0.53594	107.989	-151.959	
70	3.4012	-0.524401		108.264	-153.742
71	3.4012	-0.51293	108.527	-155.487	
72	3.4012	-0.498687		108.776	-157.183
73	3.4012	-0.487364		109.013	-158.841
74	3.4012	-0.476105		109.24	-160.46
75	3.4012	-0.464904		109.456	-162.041
76	3.4012	-0.450985		109.659	-163.575
77	3.4012	-0.439913		109.853	-165.071
78	3.4012	-0.428895		110.037	-166.53
79	3.4012	-0.415193		110.209	-167.942
80	3.4012	-0.40429	110.373	-169.317	
81	3.4012	-0.393433		110.527	-170.656
82	3.4012	-0.382622		110.674	-171.957
83	3.4012	-0.369171		110.81	-173.213
84	3.4012	-0.358459		110.939	-174.432
85	3.4012	-0.347787		111.059	-175.615
86	3.4012	-0.334503		111.171	-176.752
87	3.4012	-0.323919		111.276	-177.854
88	3.4012	-0.31337	111.374	-178.92	
89	3.4012	-0.302855		111.466	-179.95
90	3.4012	-0.28976	111.55	-180.936	
91	3.4012	-0.279319		111.628	-181.886
92	3.4012	-0.268908		111.7	-182.8
93	3.4012	-0.255936		111.766	-183.671
94	3.4012	-0.24559	111.826	-184.506	
95	3.4012	-0.235269		111.882	-185.306
96	3.4012	-0.222403		111.931	-186.063
97	3.4012	-0.212137		111.976	-186.784
98	3.4012	-0.201894		112.017	-187.471
99	3.4012	-0.191671		112.054	-188.123
100	3.4012	-0.17892	112.086	-188.731	
101	3.4012	-0.168741		112.114	-189.305
102	3.4012	-0.158579		112.139	-189.845
103	3.4012	-0.1459	112.161	-190.341	
104	3.4012	-0.135774		112.179	-190.803
105	3.4012	-0.125661		112.195	-191.23
106	3.4012	-0.115562		112.208	-191.623
107	3.4012	-0.102953		112.219	-191.973
108	3.4012	-0.0928787		112.227	-192.289
109	3.4012	-0.0828129		112.234	-192.571
110	3.4012	-0.0702426		112.239	-192.81
111	3.4012	-0.0601949		112.243	-193.014
112	3.4012	-0.0501541		112.245	-193.185
113	3.4012	-0.0401167		112.247	-193.321

114	3.4012	-0.0275759	112.248	-193.415
115	3.4012	-0.0175476	112.248	-193.475
116	3.4012	-0.00751925	112.248	-193.5
117	3.4012	0.00751925	112.248	-193.475
118	3.4012	0.0175476	112.248	-193.415
119	3.4012	0.0275759	112.249	-193.321
120	3.4012	0.0401167	112.251	-193.185
121	3.4012	0.0501541	112.253	-193.014
122	3.4012	0.0601949	112.257	-192.81
123	3.4012	0.0702426	112.262	-192.571
124	3.4012	0.0828129	112.269	-192.289
125	3.4012	0.0928787	112.277	-191.973
126	3.4012	0.102953	112.288	-191.623
127	3.4012	0.115562	112.301	-191.23
128	3.4012	0.125661	112.317	-190.803
129	3.4012	0.135774	112.335	-190.341
130	3.4012	0.1459	112.357	-189.845
131	3.4012	0.158579	112.382	-189.305
132	3.4012	0.168741	112.41	-188.731
133	3.4012	0.17892	112.442	-188.123
134	3.4012	0.191671	112.479	-187.471
135	3.4012	0.201894	112.52	-186.784
136	3.4012	0.212137	112.565	-186.063
137	3.4012	0.222403	112.614	-185.306
138	3.4012	0.235269	112.67	-184.506
139	3.4012	0.24559	112.73	-183.671
140	3.4012	0.255936	112.796	-182.8
141	3.4012	0.268908	112.868	-181.886
142	3.4012	0.279319	112.946	-180.936
143	3.4012	0.28976	113.03	-179.95
144	3.4012	0.302855	113.122	-178.92
145	3.4012	0.31337	113.22	-177.854
146	3.4012	0.323919	113.325	-176.752
147	3.4012	0.334503	113.437	-175.615
148	3.4012	0.347787	113.558	-174.432
149	3.4012	0.358459	113.686	-173.213
150	3.4012	0.369171	113.822	-171.957
151	3.4012	0.382622	113.969	-170.656
152	3.4012	0.393433	114.123	-169.317
153	3.4012	0.40429	114.287	-167.942
154	3.4012	0.415193	114.459	-166.53
155	3.4012	0.428895	114.643	-165.071
156	3.4012	0.439913	114.837	-163.575
157	3.4012	0.450985	115.04	-162.041
158	3.4012	0.464904	115.256	-160.46
159	3.4012	0.476105	115.483	-158.841
160	3.4012	0.487364	115.721	-157.183
161	3.4012	0.498687	115.969	-155.487
162	3.4012	0.51293	116.232	-153.742
163	3.4012	0.524401	116.507	-151.959
164	3.4012	0.53594	116.795	-150.136
165	3.4012	0.550465	117.098	-148.264
166	3.4012	0.56217	117.414	-146.352
167	3.4012	0.573953	117.743	-144.4
168	3.4012	0.588793	118.09	-142.397
169	3.4012	0.60076	118.451	-140.354
170	3.4012	0.612813	118.826	-138.269
171	3.4012	0.624956	119.217	-136.144
172	3.4012	0.640266	119.627	-133.966
173	3.4012	0.652622	120.053	-131.746
174	3.4012	0.665079	120.495	-129.484
175	3.4012	0.680797	120.958	-127.169

176	3.4012	0.693493		121.439	-124.81
177	3.4012	0.706302		121.938	-122.408
178	3.4012	0.719228		122.455	-119.962
179	3.4012	0.735557		122.997	-117.46
180	3.4012	0.748762		123.557	-114.913
181	3.4012	0.7621	124.138	-112.321	
182	3.4012	0.778966		124.745	-109.672
183	3.4012	0.792618		125.373	-106.976
184	3.4012	0.806422		126.023	-104.233
185	3.4012	0.820379		126.696	-101.443
186	3.4012	0.838054		127.399	-98.5924
187	3.4012	0.852385		128.125	-95.6933
188	3.4012	0.866894		128.877	-92.7448
189	3.4012	0.885291		129.66	-89.7338
190	3.41773	0.900227		130.471	-86.657
191	3.43399	0.915365		131.309	-83.5137
192	3.49953	0.93459	132.182	-80.243	
193	3.51453	0.950222		133.085	-76.9035
194	3.52636	0.966088		134.018	-73.4967
195	3.5293	0.982202		134.983	-70.0302
196	3.55535	1.00271	135.989	-66.4652	
197	3.68135	1.01943	137.028	-62.7124	
198	3.68888	1.03643	138.102	-58.8891	
199	3.82864	1.05812	139.222	-54.8379	
200	3.94352	1.07584	140.379	-50.5953	
201	4.03601	1.0939	141.576	-46.1803	
202	4.09434	1.11232	142.813	-41.6261	
203	4.12713	1.1359	144.103	-36.9381	
204	4.13357	1.15522	145.438	-32.1629	
205	4.14313	1.17499	146.818	-27.2948	
206	4.14313	1.20036	148.259	-22.3216	
207	4.27667	1.22123	149.751	-17.0988	
208	4.30136	1.24264	151.295	-11.7537	
209	4.31749	1.26464	152.894	-6.29364	
210	4.33073	1.29303	154.566	-0.693861	
211	4.36945	1.31652	156.299	5.05861	
212	4.47734	1.34075	158.097	11.0616	
213	4.52179	1.3722	159.98	17.2664	
214	4.55388	1.39838	161.935	23.6345	
215	4.56435	1.42554	163.967	30.1411	
216	4.60517	1.46106	166.102	36.8696	
217	4.70048	1.49085	168.325	43.8773	
218	4.70048	1.52203	170.641	51.0316	
219	4.70048	1.55477	173.059	58.3398	
220	4.78749	1.59819	175.613	65.9911	
221	4.78749	1.63524	178.287	73.8198	
222	5.01064	1.67466	181.091	82.2109	
223	5.01064	1.72793	184.077	90.8689	
224	5.19296	1.77438	187.226	100.083	
225	5.29832	1.82501	190.556	109.753	
226	5.39363	1.88079	194.094	119.897	
227	5.52146	1.95996	197.935	130.719	
228	5.76832	2.03352	202.07	142.449	
229	5.79909	2.12007	206.565	154.743	
230	5.84644	2.25713	211.66	167.939	
231	6.01616	2.40892	217.462	182.432	
232	6.41346	2.65209	224.496	199.441	

Data Set Standard Deviation = 0.952312
Numerator = 39776.7
Denominator = 47030.5

W Statistic = 0.845764 = 39776.7 / 47030.5

5% Critical value of 0.976 exceeds 0.845764
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.845764
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Zinc

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.921728
0.921728 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.262364	0.00429185	-2.65209	59.0521	344.01
2	0.993252	0.00858369	-2.40892	114.913	332.136
3	1.02962	0.0128755	-2.25713	117.692	324.723
4	1.09861	0.0171674	-2.12007	122.965	318.03
5	1.1314	0.0214592	-2.03352	125.471	313.804
6	1.16315	0.0257511	-1.95996	127.898	310.211
7	1.16315	0.0300429	-1.88079	127.898	306.345
8	1.28093	0.0343348	-1.82501	136.9	303.621
9	1.28093	0.0386266	-1.77438	136.9	301.149
10	1.30833	0.0429185	-1.72793	138.994	298.881
11	1.36098	0.0472103	-1.67466	143.017	296.279
12	1.50408	0.0515021	-1.63524	153.954	294.354
13	1.50408	0.055794	-1.59819	153.954	292.545
14	1.50408	0.0600858	-1.55477	153.954	290.425
15	1.52606	0.0643777	-1.52203	155.634	288.826
16	1.60944	0.0686695	-1.49085	162.007	287.303
17	1.60944	0.0729614	-1.46106	162.007	285.848
18	1.60944	0.0772532	-1.42554	162.007	284.114
19	1.60944	0.0815451	-1.39838	162.007	282.787
20	1.7156	0.0858369	-1.3722	170.121	281.509
21	1.72277	0.0901288	-1.34075	170.669	279.974
22	1.74047	0.0944206	-1.31652	172.021	278.79
23	1.77495	0.0987124	-1.29303	174.657	277.643
24	1.80829	0.103004	-1.26464	177.205	276.257
25	1.8453	0.107296	-1.24264	180.034	275.182
26	1.8563	0.111588	-1.22123	180.874	274.137
27	1.88555	0.11588	-1.20036	183.11	273.118
28	1.88707	0.120172	-1.17499	183.226	271.879
29	1.93152	0.124464	-1.15522	186.623	270.913
30	1.97408	0.128755	-1.1359	189.876	269.97
31	2.07819	0.133047	-1.11232	197.833	268.818
32	2.09186	0.137339	-1.0939	198.878	267.919
33	2.11626	0.141631	-1.07584	200.742	267.037
34	2.11626	0.145923	-1.05812	200.742	266.172
35	2.16332	0.150215	-1.03643	204.34	265.112
36	2.17475	0.154506	-1.01943	205.213	264.282
37	2.17475	0.158798	-1.00271	205.213	263.466
38	2.25129	0.16309	-0.982202	211.063	262.464
39	2.26176	0.167382	-0.966088	211.863	261.677
40	2.33214	0.171674	-0.950222	217.242	260.903
41	2.37955	0.175966	-0.93459	220.865	260.139
42	2.3979	0.180258	-0.915365	222.268	259.2
43	2.3979	0.184549	-0.900227	222.268	258.461
44	2.41591	0.188841	-0.885291	223.645	257.732
45	2.45101	0.193133	-0.866894	226.327	256.833
46	2.5337	0.197425	-0.852385	232.647	256.125
47	2.57261	0.201717	-0.838054	235.621	255.425
48	2.63906	0.206009	-0.820379	240.699	254.562

49	2.70805	0.2103	-0.806422	245.972	253.88	
50	2.89037	0.214592	-0.792618		259.907	253.206
51	2.94444	0.218884	-0.778966		264.039	252.54
52	2.99573	0.223176	-0.7621	267.96	251.716	
53	3.04452	0.227468	-0.748762		271.689	251.065
54	3.09104	0.23176	-0.735557	275.244	250.42	
55	3.09104	0.236052	-0.719228		275.244	249.622
56	3.09104	0.240343	-0.706302		275.244	248.991
57	3.2581	0.244635	-0.693493		288.012	248.366
58	3.2581	0.248927	-0.680797		288.012	247.746
59	3.29584	0.253219	-0.665079		290.896	246.978
60	3.29584	0.257511	-0.652622		290.896	246.37
61	3.3322	0.261803	-0.640266		293.676	245.766
62	3.3322	0.266094	-0.624956		293.676	245.019
63	3.4012	0.270386	-0.612813		298.949	244.426
64	3.4012	0.274678	-0.60076	298.949	243.837	
65	3.4012	0.27897	-0.588793	298.949	243.253	
66	3.4012	0.283262	-0.573953		298.949	242.528
67	3.4012	0.287554	-0.56217	298.949	241.953	
68	3.4012	0.291845	-0.550465		298.949	241.381
69	3.4012	0.296137	-0.53594	298.949	240.672	
70	3.4012	0.300429	-0.524401		298.949	240.108
71	3.4012	0.304721	-0.51293	298.949	239.548	
72	3.4012	0.309013	-0.498687		298.949	238.853
73	3.4012	0.313305	-0.487364		298.949	238.3
74	3.4012	0.317597	-0.476105		298.949	237.75
75	3.4012	0.321888	-0.464904		298.949	237.203
76	3.4012	0.32618	-0.450985	298.949	236.523	
77	3.4012	0.330472	-0.439913		298.949	235.982
78	3.4012	0.334764	-0.428895		298.949	235.444
79	3.4012	0.339056	-0.415193		298.949	234.775
80	3.4012	0.343348	-0.40429	298.949	234.243	
81	3.4012	0.347639	-0.393433		298.949	233.713
82	3.4012	0.351931	-0.382622		298.949	233.185
83	3.4012	0.356223	-0.369171		298.949	232.528
84	3.4012	0.360515	-0.358459		298.949	232.005
85	3.4012	0.364807	-0.347787		298.949	231.484
86	3.4012	0.369099	-0.334503		298.949	230.835
87	3.4012	0.373391	-0.323919		298.949	230.318
88	3.4012	0.377682	-0.31337	298.949	229.803	
89	3.4012	0.381974	-0.302855		298.949	229.289
90	3.4012	0.386266	-0.28976	298.949	228.65	
91	3.4012	0.390558	-0.279319		298.949	228.14
92	3.4012	0.39485	-0.268908	298.949	227.632	
93	3.4012	0.399142	-0.255936		298.949	226.998
94	3.4012	0.403433	-0.24559	298.949	226.493	
95	3.4012	0.407725	-0.235269		298.949	225.989
96	3.4012	0.412017	-0.222403		298.949	225.361
97	3.4012	0.416309	-0.212137		298.949	224.859
98	3.4012	0.420601	-0.201894		298.949	224.359
99	3.4012	0.424893	-0.191671		298.949	223.86
100	3.4012	0.429185	-0.17892	298.949	223.237	
101	3.4012	0.433476	-0.168741		298.949	222.74
102	3.4012	0.437768	-0.158579		298.949	222.244
103	3.4012	0.44206	-0.1459	298.949	221.625	
104	3.4012	0.446352	-0.135774		298.949	221.13
105	3.4012	0.450644	-0.125661		298.949	220.636
106	3.4012	0.454936	-0.115562		298.949	220.143
107	3.4012	0.459227	-0.102953		298.949	219.528
108	3.4012	0.463519	-0.0928787		298.949	219.036
109	3.4012	0.467811	-0.0828129		298.949	218.544
110	3.4012	0.472103	-0.0702426		298.949	217.93

111	3.4012	0.476395	-0.0601949	298.949	217.44
112	3.4012	0.480687	-0.0501541	298.949	216.949
113	3.4012	0.484979	-0.0401167	298.949	216.459
114	3.4012	0.48927	-0.0275759	298.949	215.847
115	3.4012	0.493562	-0.0175476	298.949	215.357
116	3.4012	0.497854	-0.00751925	298.949	214.867
117	3.4012	0.502146	0.00751925	298.949	214.133
118	3.4012	0.506438	0.0175476	298.949	213.643
119	3.4012	0.51073	0.0275759	298.949	213.153
120	3.4012	0.515021	0.0401167	298.949	212.541
121	3.4012	0.519313	0.0501541	298.949	212.051
122	3.4012	0.523605	0.0601949	298.949	211.56
123	3.4012	0.527897	0.0702426	298.949	211.07
124	3.4012	0.532189	0.0828129	298.949	210.456
125	3.4012	0.536481	0.0928787	298.949	209.964
126	3.4012	0.540773	0.102953	298.949	209.472
127	3.4012	0.545064	0.115562	298.949	208.857
128	3.4012	0.549356	0.125661	298.949	208.364
129	3.4012	0.553648	0.135774	298.949	207.87
130	3.4012	0.55794	0.1459	298.949	207.375
131	3.4012	0.562232	0.158579	298.949	206.756
132	3.4012	0.566524	0.168741	298.949	206.26
133	3.4012	0.570815	0.17892	298.949	205.763
134	3.4012	0.575107	0.191671	298.949	205.14
135	3.4012	0.579399	0.201894	298.949	204.641
136	3.4012	0.583691	0.212137	298.949	204.141
137	3.4012	0.587983	0.222403	298.949	203.639
138	3.4012	0.592275	0.235269	298.949	203.011
139	3.4012	0.596567	0.24559	298.949	202.507
140	3.4012	0.600858	0.255936	298.949	202.002
141	3.4012	0.60515	0.268908	298.949	201.368
142	3.4012	0.609442	0.279319	298.949	200.86
143	3.4012	0.613734	0.28976	298.949	200.35
144	3.4012	0.618026	0.302855	298.949	199.711
145	3.4012	0.622318	0.31337	298.949	199.197
146	3.4012	0.626609	0.323919	298.949	198.682
147	3.4012	0.630901	0.334503	298.949	198.165
148	3.4012	0.635193	0.347787	298.949	197.516
149	3.4012	0.639485	0.358459	298.949	196.995
150	3.4012	0.643777	0.369171	298.949	196.472
151	3.4012	0.648069	0.382622	298.949	195.815
152	3.4012	0.652361	0.393433	298.949	195.287
153	3.4012	0.656652	0.40429	298.949	194.757
154	3.4012	0.660944	0.415193	298.949	194.225
155	3.4012	0.665236	0.428895	298.949	193.556
156	3.4012	0.669528	0.439913	298.949	193.018
157	3.4012	0.67382	0.450985	298.949	192.477
158	3.4012	0.678112	0.464904	298.949	191.797
159	3.4012	0.682403	0.476105	298.949	191.25
160	3.4012	0.686695	0.487364	298.949	190.7
161	3.4012	0.690987	0.498687	298.949	190.147
162	3.4012	0.695279	0.51293	298.949	189.452
163	3.4012	0.699571	0.524401	298.949	188.892
164	3.4012	0.703863	0.53594	298.949	188.328
165	3.4012	0.708155	0.550465	298.949	187.619
166	3.4012	0.712446	0.56217	298.949	187.047
167	3.4012	0.716738	0.573953	298.949	186.472
168	3.4012	0.72103	0.588793	298.949	185.747
169	3.4012	0.725322	0.60076	298.949	185.163
170	3.4012	0.729614	0.612813	298.949	184.574
171	3.4012	0.733906	0.624956	298.949	183.981
172	3.4012	0.738197	0.640266	298.949	183.234

173	3.4012	0.742489	0.652622	298.949	182.63
174	3.4012	0.746781	0.665079	298.949	182.022
175	3.4012	0.751073	0.680797	298.949	181.254
176	3.4012	0.755365	0.693493	298.949	180.634
177	3.4012	0.759657	0.706302	298.949	180.009
178	3.4012	0.763948	0.719228	298.949	179.378
179	3.4012	0.76824	0.735557	298.949	178.58
180	3.4012	0.772532	0.748762	298.949	177.935
181	3.4012	0.776824	0.7621	298.949	177.284
182	3.4012	0.781116	0.778966	298.949	176.46
183	3.4012	0.785408	0.792618	298.949	175.794
184	3.4012	0.7897	0.806422	298.949	175.12
185	3.4012	0.793991	0.820379	298.949	174.438
186	3.4012	0.798283	0.838054	298.949	173.575
187	3.4012	0.802575	0.852385	298.949	172.875
188	3.4012	0.806867	0.866894	298.949	172.167
189	3.4012	0.811159	0.885291	298.949	171.268
190	3.41773	0.815451	0.900227	300.212	170.539
191	3.43399	0.819742	0.915365	301.455	169.8
192	3.49953	0.824034	0.93459	306.464	168.861
193	3.51453	0.828326	0.950222	307.61	168.097
194	3.52636	0.832618	0.966088	308.515	167.323
195	3.5293	0.83691	0.982202	308.739	166.536
196	3.55535	0.841202	1.00271	310.73	165.534
197	3.68135	0.845494	1.01943	320.36	164.718
198	3.68888	0.849785	1.03643	320.936	163.888
199	3.82864	0.854077	1.05812	331.618	162.828
200	3.94352	0.858369	1.07584	340.398	161.963
201	4.03601	0.862661	1.0939	347.466	161.081
202	4.09434	0.866953	1.11232	351.925	160.182
203	4.12713	0.871245	1.1359	354.431	159.03
204	4.13357	0.875536	1.15522	354.922	158.087
205	4.14313	0.879828	1.17499	355.654	157.121
206	4.14313	0.88412	1.20036	355.654	155.882
207	4.27667	0.888412	1.22123	365.859	154.863
208	4.30136	0.892704	1.24264	367.747	153.818
209	4.31749	0.896996	1.26464	368.979	152.743
210	4.33073	0.901288	1.29303	369.992	151.357
211	4.36945	0.905579	1.31652	372.951	150.21
212	4.47734	0.909871	1.34075	381.196	149.026
213	4.52179	0.914163	1.3722	384.594	147.491
214	4.55388	0.918455	1.39838	387.046	146.213
215	4.56435	0.922747	1.42554	387.847	144.886
216	4.60517	0.927039	1.46106	390.967	143.152
217	4.70048	0.93133	1.49085	398.251	141.697
218	4.70048	0.935622	1.52203	398.251	140.174
219	4.70048	0.939914	1.55477	398.251	138.575
220	4.78749	0.944206	1.59819	404.901	136.455
221	4.78749	0.948498	1.63524	404.901	134.646
222	5.01064	0.95279	1.67466	421.956	132.721
223	5.01064	0.957082	1.72793	421.956	130.119
224	5.19296	0.961373	1.77438	435.89	127.851
225	5.29832	0.965665	1.82501	443.943	125.379
226	5.39363	0.969957	1.88079	451.227	122.655
227	5.52146	0.974249	1.95996	460.997	118.789
228	5.76832	0.978541	2.03352	479.865	115.196
229	5.79909	0.982833	2.12007	482.216	110.97
230	5.84644	0.987124	2.25713	485.835	104.277
231	6.01616	0.991416	2.40892	498.806	96.8642
232	6.41346	0.995708	2.65209	529.172	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Zinc

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
MW-13	3/16/1999	ND<3.4012	64.5
	9/23/1999	3.2581 J	184
	3/15/2000	4.56435	215
	9/24/2003	6.41346	232
	3/11/2004	ND<3.4012	64.5
	10/12/2004	ND<3.4012	64.5
	4/1/2005	ND<3.4012	64.5
	10/25/2005	ND<3.4012	64.5
	4/29/2006	ND<3.4012	64.5
	11/18/2006	2.33214 J	167
	5/23/2007	ND<3.4012	64.5
	11/28/2007	ND<3.4012	64.5
	6/5/2008	2.41591 J	171
	11/20/2008	ND<3.4012	64.5
	6/11/2009	2.63906	175
	6/30/2010	1.52606 J H	142
	11/12/2010	1.74047 J	149
	7/5/2011	1.16315 J	133

Rank Sum = 2148.5
Rank Mean = 119.361

Background Rank Sum = 2148.5
Background Rank Mean = 119.361

Compliance Locations

Loc. ID	Date	Value	Rank
MW-12A R	3/16/1999	ND<3.4012	64.5
	9/23/1999	ND<3.4012	64.5
	3/15/2000	ND<3.4012	64.5
	9/24/2003	5.52146	227
	3/11/2004	ND<3.4012	64.5
	10/12/2004	ND<3.4012	64.5
	4/1/2005	ND<3.4012	64.5
	10/25/2005	ND<3.4012	64.5
	4/29/2006	ND<3.4012	64.5
	11/18/2006	ND<3.4012	64.5
	5/23/2007	2.5337 J	173
	11/28/2007	ND<3.4012	64.5
	6/5/2008	ND<3.4012	64.5
	11/20/2008	ND<3.4012	64.5
	6/11/2009	1.50408 J	139
	6/30/2010	2.17475 J	163
	11/12/2010	1.1314 J	132
	7/5/2011	1.77495 J	150
	11/22/2011	2.09186 J	159

Rank Sum = 1917
Rank Mean = 100.895

MW-10	7/20/1995	ND<3.4012		64.5
	8/24/1995	ND<3.4012		64.5
	9/28/1995	ND<3.4012		64.5
	10/26/1995	ND<3.4012		64.5
	11/19/1996	ND<3.4012		64.5
	12/19/1996	ND<3.4012		64.5
	3/24/1997	4.70048		217
	9/24/1997	ND<3.4012		64.5
	4/7/1998	5.01064		222
	9/23/1998	ND<3.4012		64.5
	3/16/1999	ND<3.4012		64.5
	9/23/1999	ND<3.4012		64.5
	3/15/2000	ND<3.4012		64.5
	9/24/2003	ND<3.4012		64.5
	3/11/2004	ND<3.4012		64.5
	10/12/2004	ND<3.4012		64.5
	4/1/2005	ND<3.4012		64.5
	10/25/2005	ND<3.4012		64.5
	4/29/2006	ND<3.4012		64.5
	11/18/2006	ND<3.4012		64.5
	5/23/2007	4.13357		204
	11/28/2007	6.01616		231
	6/5/2008	2.37955	J	168
	11/20/2008	ND<3.4012		64.5
	6/11/2009	3.3322		188
	6/30/2010	5.39363	H	226
	11/12/2010	1.97408	J	157
	7/5/2011	1.09861	J	131
	11/22/2011	1.72277	J	148

Rank Sum = 3117.5
Rank Mean = 107.5

MW-12BR	3/16/1999	ND<3.4012		64.5
	9/23/1999	ND<3.4012		64.5
	3/15/2000	ND<3.4012		64.5
	9/24/2003	ND<3.4012		64.5
	3/11/2004	ND<3.4012		64.5
	10/12/2004	ND<3.4012		64.5
	4/1/2005	ND<3.4012		64.5
	10/25/2005	ND<3.4012		64.5
	4/29/2006	ND<3.4012		64.5
	11/18/2006	1.8453	J	152
	5/23/2007	ND<3.4012		64.5
	11/28/2007	ND<3.4012		64.5
	6/5/2008	2.57261	J	174
	11/20/2008	ND<3.4012		64.5
	6/11/2009	2.11626	J	160
	6/30/2010	3.52636		194
	11/12/2010	2.26176	J	166
	7/5/2011	4.60517		216
	11/22/2011	3.43399		191

Rank Sum = 2027
Rank Mean = 106.684

MW-9	7/20/1995	ND<3.4012		64.5
	8/24/1995	3.49953	J	192
	9/28/1995	ND<3.4012		64.5
	10/26/1995	ND<3.4012		64.5
	11/19/1996	ND<3.4012		64.5
	12/19/1996	ND<3.4012		64.5
	3/24/1997	4.70048		218
	9/24/1997	ND<3.4012		64.5

	4/7/1998	ND<3.4012	64.5
	9/23/1998	4.47734	212
	3/16/1999	ND<3.4012	64.5
	9/23/1999	1.60944 J	143
	3/15/2000	ND<3.4012	64.5
	9/24/2003	4.78749	220
	3/11/2004	ND<3.4012	64.5
	10/12/2004	ND<3.4012	64.5
	4/1/2005	ND<3.4012	64.5
	10/25/2005	ND<3.4012	64.5
	4/29/2006	ND<3.4012	64.5
	11/18/2006	1.7156 J	147
	5/23/2007	4.03601	201
	11/28/2007	3.2581 J	185
	6/5/2008	ND<3.4012	64.5
	11/20/2008	ND<3.4012	64.5
	6/11/2009	3.09104	181
	6/30/2010	1.28093 J H	135
	11/12/2010	1.02962 J	130
	7/5/2011	2.11626 J	161
	11/22/2011	1.50408 J	140
	11/22/2011	1.50408 J	141

Rank Sum = 3438
Rank Mean = 114.6

MW-11R	7/20/1995	ND<3.4012	64.5
	8/24/1995	3.5293 J	195
	9/28/1995	3.41773	190
	10/26/1995	ND<3.4012	64.5
	11/19/1996	ND<3.4012	64.5
	12/19/1996	ND<3.4012	64.5
	3/24/1997	ND<3.4012	64.5
	9/24/1997	4.52179	213
	4/7/1998	5.79909	229
	9/23/1998	4.70048	219
	3/16/1999	ND<3.4012	64.5
	9/23/1999	3.29584 J	186
	3/15/2000	ND<3.4012	64.5
	9/24/2003	4.09434	202
	3/11/2004	ND<3.4012	64.5
	10/12/2004	ND<3.4012	64.5
	4/1/2005	ND<3.4012	64.5
	10/25/2005	ND<3.4012	64.5
	4/29/2006	2.99573 J	179
	11/18/2006	ND<3.4012	64.5
	5/23/2007	3.68135	197
	11/28/2007	ND<3.4012	64.5
	6/5/2008	ND<3.4012	64.5
	11/20/2008	ND<3.4012	64.5
	6/11/2009	3.82864	199
	6/30/2010	1.93152 J H	156
	11/12/2010	1.28093 J	136
	7/5/2011	1.88707 J	155
	11/22/2011	4.14313 J	205
	11/22/2011	4.14313 J	206

Rank Sum = 3834.5
Rank Mean = 127.817

MW-6	7/20/1995	ND<3.4012	64.5
	8/24/1995	5.84644	230
	9/28/1995	2.25129 J	165
	10/26/1995	ND<3.4012	64.5

	11/19/1996	ND<3.4012		64.5
	12/19/1996	ND<3.4012		64.5
	3/24/1997	ND<3.4012		64.5
	9/24/1997	4.27667		207
	4/7/1998	4.31749		209
	9/23/1998	5.29832		225
	3/16/1999	ND<3.4012		64.5
	9/23/1999	ND<3.4012		64.5
	3/15/2000	ND<3.4012		64.5
	9/24/2003	5.76832		228
	3/11/2004	ND<3.4012		64.5
	10/12/2004	ND<3.4012		64.5
	4/1/2005	ND<3.4012		64.5
	10/25/2005	ND<3.4012		64.5
	4/29/2006	ND<3.4012		64.5
	11/18/2006	ND<3.4012		64.5
	5/23/2007	ND<3.4012		64.5
	11/28/2007	ND<3.4012		64.5
	6/5/2008	2.07819 J		158
	11/20/2008	ND<3.4012		64.5
	6/11/2009	2.89037		177
	6/30/2010	0.993252 J H		129
	11/12/2010	1.8563 J		153
	7/5/2011	3.09104 J		182
	11/22/2011	2.3979		169

Rank Sum = 3328.5
Rank Mean = 114.776

MW-7	7/20/1995	ND<3.4012		64.5
	8/24/1995	3.68888 J		198
	9/28/1995	3.55535 J		196
	10/26/1995	ND<3.4012		64.5
	11/19/1996	ND<3.4012		64.5
	12/19/1996	ND<3.4012		64.5
	3/24/1997	ND<3.4012		64.5
	9/24/1997	4.36945		211
	4/7/1998	ND<3.4012		64.5
	9/23/1998	4.55388		214
	3/16/1999	ND<3.4012		64.5
	9/23/1999	1.60944 J		144
	3/15/2000	2.3979 J		170
	9/24/2003	5.19296		224
	3/11/2004	ND<3.4012		64.5
	10/12/2004	ND<3.4012		64.5
	4/1/2005	ND<3.4012		64.5
	10/25/2005	ND<3.4012		64.5
	4/29/2006	ND<3.4012		64.5
	11/18/2006	1.60944 J		145
	5/23/2007	4.30136		208
	11/28/2007	ND<3.4012		64.5
	6/5/2008	2.45101 J		172
	11/20/2008	4.33073		210
	6/11/2009	1.36098 J		138
	6/30/2010	1.30833 J H		137
	11/12/2010	1.60944 J		146
	7/5/2011	2.17475 J		164
	11/22/2011	3.09104 J		183

Rank Sum = 3698.5
Rank Mean = 127.534

MW-8	7/20/1995	ND<3.4012		64.5
	8/24/1995	3.04452 J		180

9/28/1995	3.51453	J	193
10/26/1995	ND<3.4012		64.5
11/19/1996	ND<3.4012		64.5
12/19/1996	ND<3.4012		64.5
3/24/1997	ND<3.4012		64.5
9/24/1997	4.12713		203
4/7/1998	5.01064		223
9/23/1998	4.78749		221
3/16/1999	ND<3.4012		64.5
9/23/1999	ND<3.4012		64.5
3/15/2000	ND<3.4012		64.5
9/24/2003	ND<3.4012		64.5
3/11/2004	ND<3.4012		64.5
10/12/2004	ND<3.4012		64.5
4/1/2005	ND<3.4012		64.5
10/25/2005	ND<3.4012		64.5
4/29/2006	ND<3.4012		64.5
11/18/2006	1.88555	J	154
5/23/2007	3.94352		200
11/28/2007	3.29584	J	187
6/5/2008	2.16332	J	162
11/20/2008	3.3322	J	189
6/11/2009	ND<0.262364		64.5
6/30/2010	1.80829	J H	151
11/12/2010	1.16315	J	134
7/5/2011	2.70805		176
11/22/2011	2.94444		178

Rank Sum = 3518.5
Rank Mean = 121.328

Calculation Results:

Kruskal-Wallis H Statistic = 3.81768
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 4.58821
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
3.81768 < 15.5073 indicating no significant group difference at 5% significance level
4.58821 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties