FINAL
MAY 2012 (N=31) 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
100 W. Oglethorpe Avenue
Savannah, GA 31401

October 2012

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SIGNATURE OF CERTIFIED PROFESSIONAL GEOLOGIST	
Kevin G. Haborak, P. G. Professional License Numbers: Georgia # 1683	10/13/12 Date

KEVIN G. HABORAK
No. 001683
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

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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

MAY 2012 (N=31) 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 May 2012. 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=31) 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 November 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. Constitutes above the NC2L standard were: Benzene for monitoring wells SLMW-7, SLMW-8, SLMW-9, and SLMW-10 and surface water SW-1; Vinyl Chloride for monitoring wells SLMW-7, SLMW-8, SLMW-9, and SLMW-10 and surface water SW-1; Dibromochloromethane for monitoring well SLMW-6; Bis(2ethylhexyl)phthalate for monitoring well SLMW-9; 1,2-dichloroethane for monitoring well SLMW-10 and surface water SW-1; 1,2-dichloropropane from monitoring well SLMW-10 and surface water SW-1; Tetrachloroethene in surface water SW-1.

3.0 METHODS

3.1 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.

3.2 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.

3.3 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.

3.4 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.

4.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSIS

4.1 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 last 2011 sampling event indicated that some VOCs and inorganics were detected at low levels, and most detections were below NC2L standards (Table 4). Five 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-7

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

Compound	2L	Concentration
Vinyl Chloride	0.015 µg/L	0.43 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	2.7 µg/L
Vinyl Chloride	0.015 µg/L	12 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
Vinyl Chloride	0.015 µg/L	0.87 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	0.54 J µg/L
1,2-dichloropropane	0.56 µg/L	3.7 µg/L
Benzene	1 µg/L	1.7 µg/L
Vinyl Chloride	0.015 µg/L	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	0.45 J µg/L
Benzene	1 µg/L	2.2 µg/L
Tetrachloroethene	0.7 µg/L	0.91 J µg/L
Vinyl Chloride	0.015 µg/L	2.4 µg/L

  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).

4.2 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.

4.3 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. Three methane monitoring wells contained high levels of methane (> 5% Methane by Volume) all above or at 14.5% methane by volume. Methane vent flares were recommended for this landfill in the 2005 Report.

5.0 CONCLUSIONS AND RECOMMENATIONS

The annual monitoring program consists of two sampling events (this was the first of 2012) conducted six months apart. This was the N=31 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-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. 1,2-Dichloroethane was detected above the NC2L standard in monitoring wells SLMW-10 and SW-1. 1,2-Dichloropropane was detected at SLMW-10 above their respective NC2L standard. Tetrachloroethene was 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=32 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. Three methane monitoring wells showed high levels of methane (> 5%) all readings were at or above 14.5% methane by volume. Methane vent flares were recommended for this landfill in the 2005 Report.

6.0 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

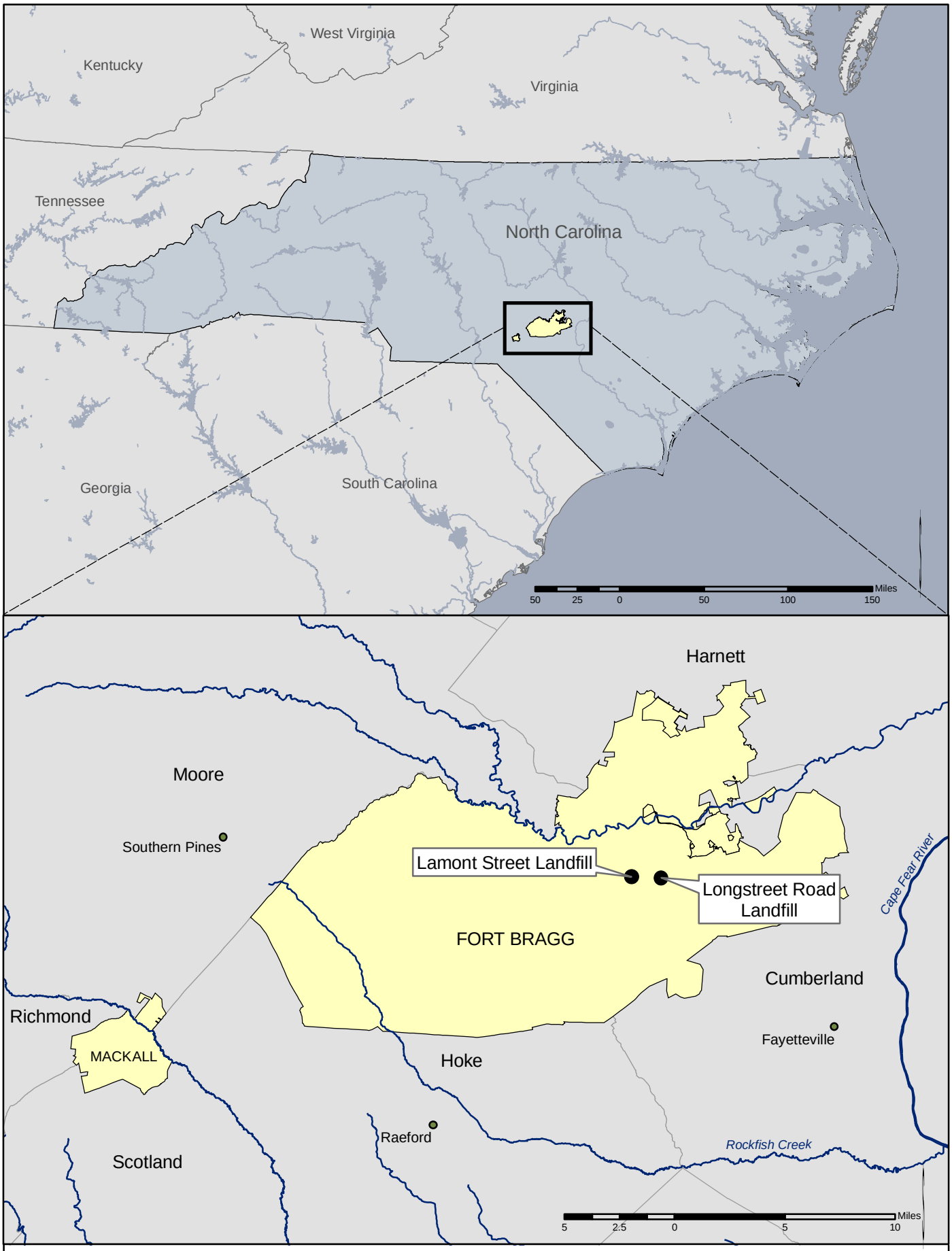

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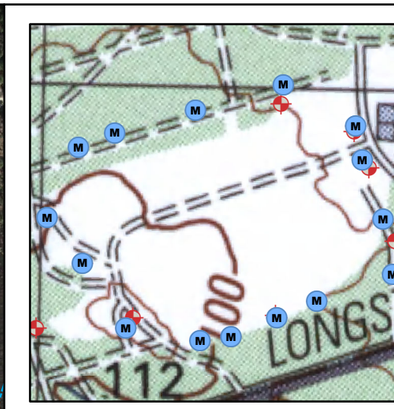
Figure 1

Site Map -- Ft. Bragg, NC



Legend

- MONITORING WELL
- METHANE SAMPLE
- SURFACE-WATER SAMPLE
- STREAM
- BUILDING

1 inch = 350 feet

0 175 350 700'

N

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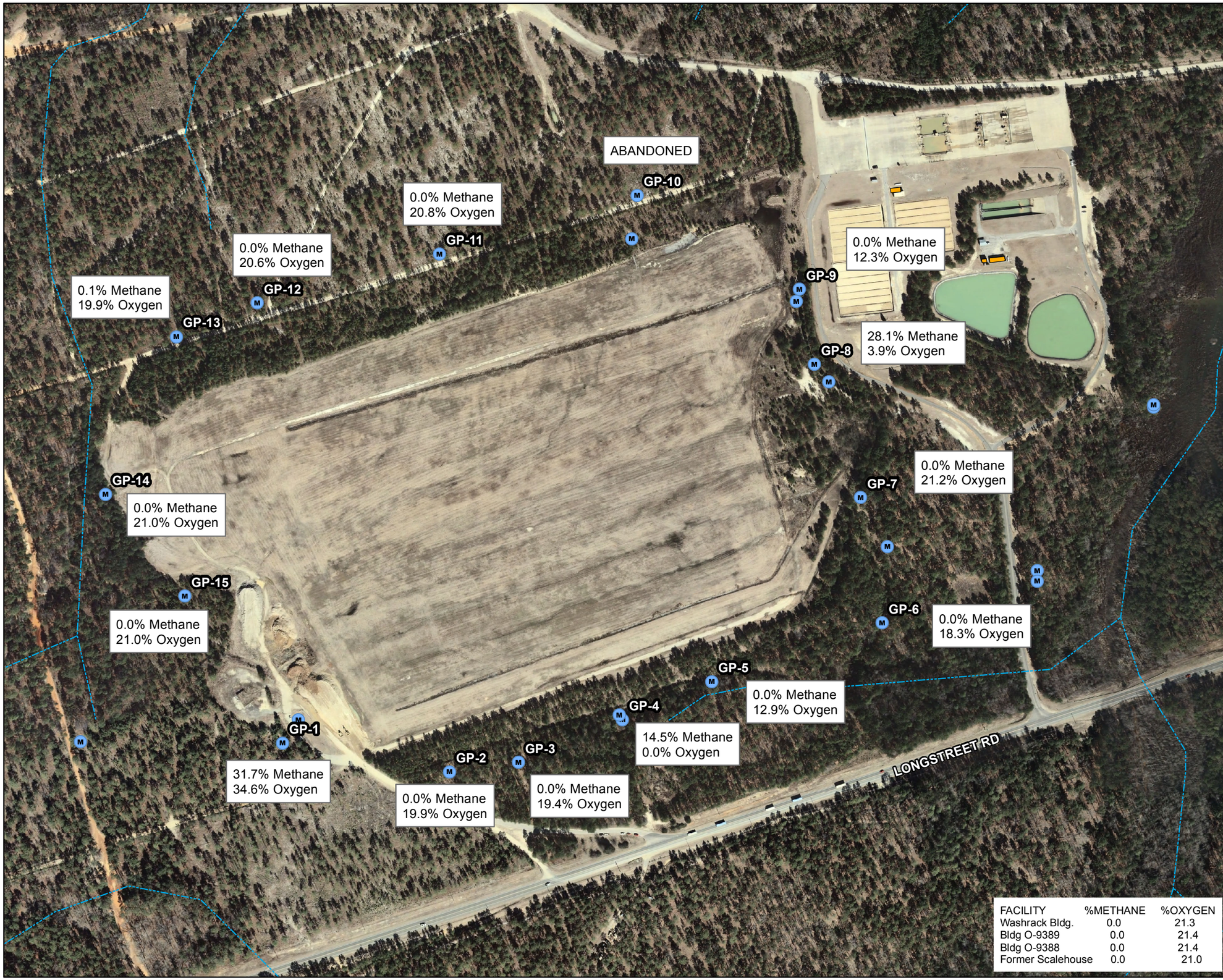
SAVANNAH, GEORGIA

LONGSTREET ROAD LANDFILL

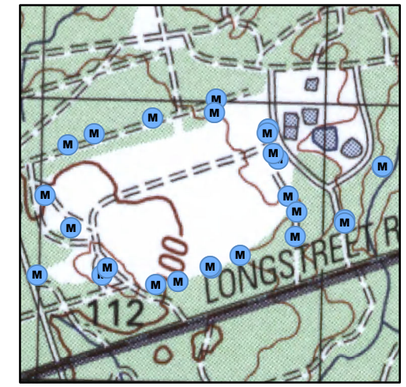
LOCATION MAP

FORT BRAGG, NC

DATE: AUGUST 2012 | FIGURE: 2



FACILITY	%METHANE	%OXYGEN
Washrack Bldg.	0.0	21.3
Bldg O-9389	0.0	21.4
Bldg O-9388	0.0	21.4
Former Scalehouse	0.0	21.0



Legend

- METHANE SAMPLE
- STREAM
- BUILDING

1 inch = 350 feet

0 175 350 700'

N

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SAVANNAH, GEORGIA

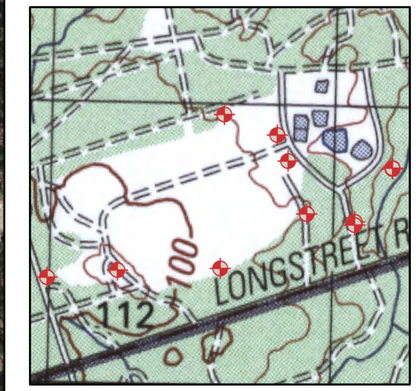
LONGSTREET ROAD LANDFILL

METHANE MONITORING RESULTS

FORT BRAGG, NC

DATE: AUGUST 2012

FIGURE: 3



Legend

- MONITORING WELL
- STREAM
- Groundwater Contour Line
- BUILDING

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

Arrows point in direction of groundwater flow.

1 inch = 300 feet

0 150 300 600'

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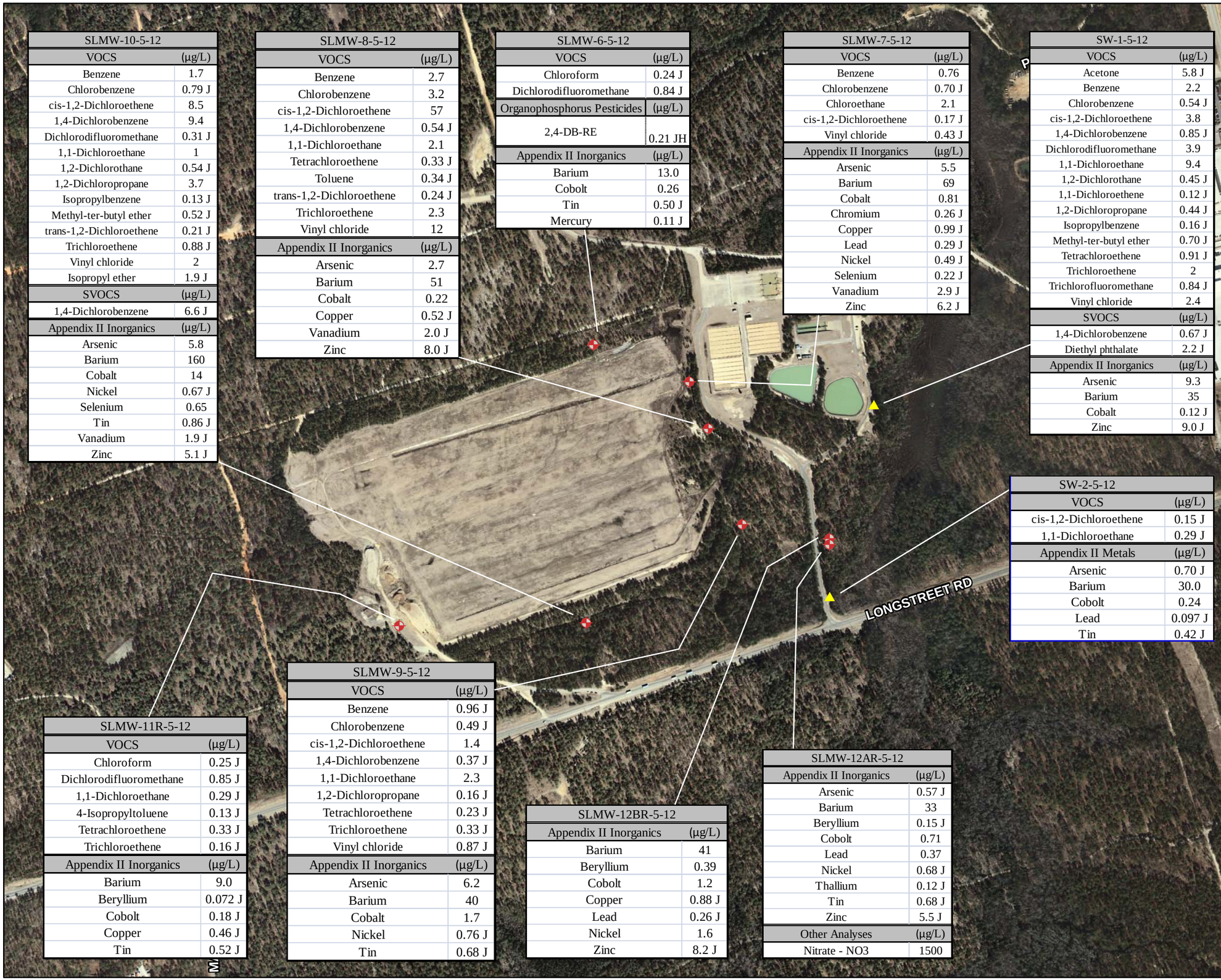
LONGSTREET ROAD LANDFILL

POTENTIOMETRIC SURFACE MAP

FORT BRAGG, NC

DATE: AUGUST 2012 | FIGURE: 4



SLMW-10-5-12	
VOCS	(µg/L)
Benzene	1.7
Chlorobenzene	0.79 J
cis-1,2-Dichloroethene	8.5
1,4-Dichlorobenzene	9.4
Dichlorodifluoromethane	0.31 J
1,1-Dichloroethane	1
1,2-Dichlorothane	0.54 J
1,2-Dichloropropane	3.7
Isopropylbenzene	0.13 J
Methyl-ter-butyl ether	0.52 J
trans-1,2-Dichloroethene	0.21 J
Trichloroethene	0.88 J
Vinyl chloride	2
Isopropyl ether	1.9 J
SVOCS	(µg/L)
1,4-Dichlorobenzene	6.6 J
Appendix II Inorganics	(µg/L)
Arsenic	5.8
Barium	160
Cobalt	14
Nickel	0.67 J
Selenium	0.65
Tin	0.86 J
Vanadium	1.9 J
Zinc	5.1 J

SLMW-8-5-12	
VOCS	(µg/L)
Benzene	2.7
Chlorobenzene	3.2
cis-1,2-Dichloroethene	57
1,4-Dichlorobenzene	0.54 J
1,1-Dichloroethane	2.1
Tetrachloroethene	0.33 J
Toluene	0.34 J
trans-1,2-Dichloroethene	0.24 J
Trichloroethene	2.3
Vinyl chloride	12
Appendix II Inorganics	(µg/L)
Arsenic	2.7
Barium	51
Cobalt	0.22
Copper	0.52 J
Vanadium	2.0 J
Zinc	8.0 J

SLMW-6-5-12	
VOCS	(µg/L)
Chloroform	0.24 J
Dichlorodifluoromethane	0.84 J
Organophosphorus Pesticides	(µg/L)
2,4-DB-RE	0.21 JH
Appendix II Inorganics	(µg/L)
Barium	13.0
Cobolt	0.26
Tin	0.50 J
Mercury	0.11 J

SLMW-7-5-12	
VOCS	(µg/L)
Benzene	0.76
Chlorobenzene	0.70 J
Chloroethane	2.1
cis-1,2-Dichloroethene	0.17 J
Vinyl chloride	0.43 J
Appendix II Inorganics	(µg/L)
Arsenic	5.5
Barium	69
Cobalt	0.81
Chromium	0.26 J
Copper	0.99 J
Lead	0.29 J
Nickel	0.49 J
Selenium	0.22 J
Vanadium	2.9 J
Zinc	6.2 J

SW-1-5-12	
VOCS	(µg/L)
Acetone	5.8 J
Benzene	2.2
Chlorobenzene	0.54 J
cis-1,2-Dichloroethene	3.8
1,4-Dichlorobenzene	0.85 J
Dichlorodifluoromethane	3.9
1,1-Dichloroethane	9.4
1,2-Dichlorothane	0.45 J
1,1-Dichloroethene	0.12 J
1,2-Dichloropropane	0.44 J
Isopropylbenzene	0.16 J
Methyl-ter-butyl ether	0.70 J
Tetrachloroethene	0.91 J
Trichloroethene	2
Trichlorofluoromethane	0.84 J
Vinyl chloride	2.4
SVOCS	(µg/L)
1,4-Dichlorobenzene	0.67 J
Diethyl phthalate	2.2 J
Appendix II Inorganics	(µg/L)
Arsenic	9.3
Barium	35
Cobalt	0.12 J
Zinc	9.0 J

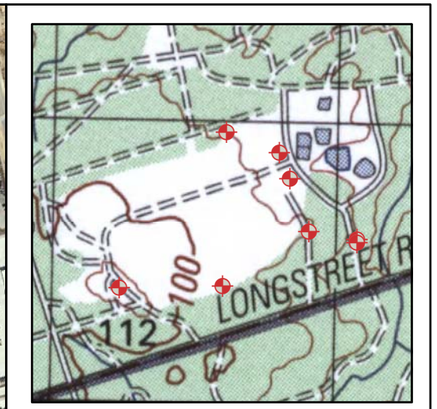
SW-2-5-12	
VOCS	(µg/L)
cis-1,2-Dichloroethene	0.15 J
1,1-Dichloroethane	0.29 J
Appendix II Metals	(µg/L)
Arsenic	0.70 J
Barium	30.0
Cobolt	0.24
Lead	0.097 J
Tin	0.42 J

SLMW-11R-5-12	
VOCS	(µg/L)
Chloroform	0.25 J
Dichlorodifluoromethane	0.85 J
1,1-Dichloroethane	0.29 J
4-Isopropyltoluene	0.13 J
Tetrachloroethene	0.33 J
Trichloroethene	0.16 J
Appendix II Inorganics	(µg/L)
Barium	9.0
Beryllium	0.072 J
Cobolt	0.18 J
Copper	0.46 J
Tin	0.52 J

SLMW-9-5-12	
VOCS	(µg/L)
Benzene	0.96 J
Chlorobenzene	0.49 J
cis-1,2-Dichloroethene	1.4
1,4-Dichlorobenzene	0.37 J
1,1-Dichloroethane	2.3
1,2-Dichloropropane	0.16 J
Tetrachloroethene	0.23 J
Trichloroethene	0.33 J
Vinyl chloride	0.87 J
Appendix II Inorganics	(µg/L)
Arsenic	6.2
Barium	40
Cobalt	1.7
Nickel	0.76 J
Tin	0.68 J

SLMW-12BR-5-12	
Appendix II Inorganics	(µg/L)
Barium	41
Beryllium	0.39
Cobolt	1.2
Copper	0.88 J
Lead	0.26 J
Nickel	1.6
Zinc	8.2 J

SLMW-12AR-5-12	
Appendix II Inorganics	(µg/L)
Arsenic	0.57 J
Barium	33
Beryllium	0.15 J
Cobolt	0.71
Lead	0.37
Nickel	0.68 J
Thallium	0.12 J
Tin	0.68 J
Zinc	5.5 J
Other Analyses	(µg/L)
Nitrate - NO3	1500



Legend

- MONITORING WELLS
- SURFACE-WATER SAMPLE

Only detected analytes shown.
NA - Not Available
U - Target analytes were not detected above the reporting limits
J - Analyte was present but concentration is an estimated value.
Bold - Concentrations exceed NC 2L standards.
*IMAC - Interim maximum allowable concentration
**PRG based on carcinogenic factor.

1 inch = 600 feet

0 300 600 1,200'

N

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

LONGSTREET ROAD LANDFILL

GROUNDWATER
ANALYTICAL RESULTS
MAY 2012

FORT BRAGG, NC

DATE: OCTOBER 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 MAY 2012	12:42	31.7%	34.6%	0.0%
Gas-MW-2	19 MAY 2012	13:06	0.0%	19.9%	1.3%
Gas-MW-3	19 MAY 2012	13:10	0.0%	19.4%	1.5%
Gas-MW-4	19 MAY 2012	13:16	14.5%	0.0%	23.3%
Gas-MW-5	19 MAY 2012	13:22	0.0 %	12.9%	7.8%
Gas-MW-6	19 MAY 2012	13:33	0.0 %	18.3%	2.6%
Gas-MW-7	19 MAY 2012	13:37	0.0%	21.2%	0.0%
Gas-MW-8	19 MAY 2012	12:52	28.1%	3.9%	21.6%
Gas-MW-9	19 MAY 2012	12:59	0.0%	12.3%	7.6%
Gas-MW-10**	N/A	N/A	N/A	N/A	N/A
Gas-MW-11	19 MAY 2012	12:23	0.0%	20.8%	0.0%
Gas-MW-12	19 MAY 2012	12:16	0.0%	20.6%	0.0%
Gas-MW-13	19 MAY 2012	12:10	0.1%	19.9%	0.6%
Gas-MW-14	19 MAY 2012	12:39	0.0%	21.0%	0.0%
Gas-MW-15	19 MAY 2012	12:36	0.0%	21.0%	0.0%
Former Scalehouse	19 MAY 2012	12:45	0.0%	21.0%	0.0%
Wash Rack Bldg.	19 MAY 2012	13:46	0.0%	21.3%	0.0 %
Bldg O-9388	19 MAY 2012	13:49	0.0%	21.4%	0.0 %
Bldg 0-9389	19 MAY 2012	13:51	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 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-6-5-12	4.48	0.022	20.18	1.64	1.20	190.6
SLMW-7	GW-SLMW-7-5-12	5.66	0.339	22.82	2.15	0.24	-69.8
SLMW-8	GW-SLMW-8-5-12	6.04	0.983	22.65	6.2	0.42	-116.9
SLMW-9	GW-SLMW-9-5-12	6.02	0.651	22.57	3.21	2.25	-77.1
SLMW-10	GW-SLMW-10-5-12	6.01	0.893	17.74	0.16	*	*
SLMW-11R	GW-SLMW-11R-5-12	4.11	0.023	20.57	9.98	7.38	280.1
SLMW-12AR	GW-SLMW-12AR-5-12	4.33	0.040	20.59	8.86	4.05	244.7
SLMW-12BR	GW-SLMW-12BR-5-12	4.75	0.074	24.18	20.2	2.33	168.5
SLMW-13	GW-SLMW-13-5-12	NS	NS	NS	NS	NS	NS
SW-1	SW-1-5-12	--	--	--	--	--	--
SW-2	SW-2-5-12	--	--	--	--	--	--

Note:

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

ORP --- Oxidation Reduction Potential

NS - Not Sampled

*** -** Not recorded

Table 2
Groundwater Elevation Data
Longstreet Landfill, Fort Bragg NC

Well ID	TOC Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)	Water Level (ft. BTOC)	Water Level Elev. (ft. amsl)
		November-08	November-08	June-09	June-09	November-09	November-09	June-10	June-10	November-10	November-10	June-11	June-11	November-11	November-11	May-12	May-12
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	30.84	262.71
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	21.78	268.72
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	266.34	24.3	266.04	24.15	266.19
SLMW-9	289.54	38.31	251.23	37.3	252.24	38.72	250.82	36.66	252.88	38.34	251.2	40.2	249.34	41.75	247.79	42.53	247.01
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	20.8	285.19
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	83.14	274.66
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	9.45	233.91
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	9.52	233.9
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
* - well was dry

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SLMW-6 04/05	SLMW-6 10/05	SLMW-6 4/06	SLMW-6 11/06	SLMW-6 05/07	SLMW-6 11/07	SLMW-6 11/08	SLMW-6 06/09	SLMW-6 11/09	SLMW-6 06/10	SLMW-6 11/10	SLMW-6 11/10	SLMW-6 5/12	SLMW-7 04/05	SLMW-7 10/05	SLMW-7 4/06	SLMW-7 11/06	SLMW-7 05/07	SLMW-7 11/07	SLMW-7 11/08	SLMW-7 06/09	SLMW-7 11/09	SLMW-7 06/10	SLMW-7 11/10	SLMW-7 11/11	SLMW-7 5/12	SLMW-8 04/05	SLMW-8 10/05	SLMW-8 4/06	SLMW-8 11/06	GW-SLMW-8 06/07	GW-SLMW-8 11/07	GW-SLMW-8 11/08	SLMW-8 06/09	SLMW-8 11/09	SLMW-8 06/10	SLMW-8 11/10	SLMW-8 11/11	SLMW-8 5/12
VOCs (EPA 8260B)																																										
1,1,2,2-tetrachloroethane	0.17	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,1-dichloroethane	700	810*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.91 J	3.43	2.11	2.86	BRL	4.11	3.08	5.2	NS	2.5	2.4	2.5	2.1
1,1 dichloroethene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2,3-trichloropropane	0.005	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2,4-trimethylbenzene	350	15 *	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2-dibromo-3-chloropropane	0.025	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2-dibromoethane	0.0004	0.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2-dichlorobenzene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2-dichloroethane	0.38	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,2-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
1,4-dichlorobenzene	75	75	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28J	0.36J	0.43J	BRL	0.28 J	0.31	0.62 J	NS	BRL	0.76 J	0.49 J	0.54 J
1,4-dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
2-butanone	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
4-isopropyltoluene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
acetone	700	NA	NA	2.2	BRL	BRL	BRL	BRL	7.6 J	BRL	BRL	BRL	13 J	BRL	NA	6.97	BRL	1.34J	BRL	BRL	24	52	6 J	BRL	8.6 J	BRL	BRL	BRL	NA	1.27J	BRL	BRL	BRL	BRL	9.72	9.8 J	NS	5.3 J	BRL	13 J	BRL
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
benzene	1	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.51J	0.68J	0.36J	**1.2**	0.50 J	1.01 J	0.73 J	BRL	0.72 J	0.60 J	**1.1**	0.76 J	**3.22**	**4.99**	**2.54**	**4.03**	**3.2**	**4.5**	**2.72**	**3.6**	NS	**2.1**	**2.9**	**2.9**	**2.7**
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.24J	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
chlorobenzene	50	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.29 J	BRL	BRL	0.59 J	0.36 J	0.93 J	0.70 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	3.2
chloroethane	2800	4.6*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.74	1.47J	2.27	0.72J	BRL	0.98 J	1.23 J	BRL	BRL	BRL	BRL	BRL	BRL	2.1	0.76 J	0.96J	0.30J	0.38J	BRL	BRL	1.10 J	9.1	NS	BRL	1.9	2.1	BRL
chloroform	70	80	0.24 J	BRL	BRL	BRL	BRL	0.27 J	0.21 J	0.31 J	BRL	0.44 J	0.51 J	0.26 J	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
chloromethane (methyl chloride	2.6	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.13	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.21 J	BRL	BRL	BRL	BRL	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	0.17 J	55.9	**105**	42.5	42.4	25	60.9	35	39	NS	43	58	65	57
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.71 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
dichlorodifluoromethane	1400	390*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.84 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.61J	0.58J	BRL	BRL	BRL	1.9	NS	BRL	BRL	BRL	BRL
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.43 J	BRL	BRL	NS	BRL	BRL	BRL	BRL
isopropylbenzene	70	660*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
isopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
m&p xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
methylene chloride (dichloromethane	4.6	5	BRL	BRL	BRL	BRL	BRL	0.21 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.26	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.75J	BRL	0.43 J	BRL	BRL	NS	BRL	BRL	BRL	BRL
MTBE	200	13*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.54J	BRL	0.21J	BRL	0.39 J	BRL	BRL	NS	BRL	BRL	BRL	BRL
naphthalene	21	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
o-xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.24 J	0.71J	0.41J	0.46J	BRL	0.27 J	0.29	BRL	NS	BRL	BRL	BRL	BRL
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
tetrachloroethene	0.7	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**5.34**	**2.18**	**2.4**	**2.69**	BRL	0.54 J	0.65	**0.80 J**	NS	0.24 J	BRL	0.34 J	0.33 J
toluene	1000	1000	BRL	BRL	0.43J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.26J	0.39J	0.51J	BRL	0.27 J	0.29 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	0.34 J
trans-1,2-dichloroethene	70	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28 J	0.52J	0.28J	3.65	BRL	0.55 J	0.25	BRL	NS	0.24 J	0.23 J	0.39 J	0.24 J
trichloroethene	2.8	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.29	**6.66**	2.22	**3.54**	1.6	**4.18**	1.3	1.3	NS	0.87 J	1.9	2	2.3
trichlorofluoromethane	2100	1300*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	10.1	BRL	NS	BRL	BRL	BRL	BRL
vinyl chloride	0.015	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.52 J**	**0.36J**	**0.64J**	**0.35J**	BRL	BRL	**0.58 J**	BRL	BRL	BRL	0.29 J	**0.44 J**	**0.43 J**	**59**	**54.2**	**24.6**	**36.6**	**19**	**33.2**	**10.1**	**12**	NS	**10**	**10**	**13**	**12**
SVOCs (EPA 8270)																																										
1,4-dichlorobenzene (para)	1.4	75	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
1,4-Dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
4-methylphenol (p-cresol)	3.5	180*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.87 J	BRL	**14.6**	BRL	**13.5**	BRL	38.3	**12**	BRL	**26**	BRL	BRL	BRL	**7.44 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
benzoic acid	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8.4 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
benzyl alcohol	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
diethyl phthalate	5000	29000*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.06J	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
di-n-butylphthalate	700	3600*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
bis(2-Ethylhexyl)phthalate	2.5	6	BRL	BRL	3.62	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
phenol	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.89 J	BRL	4.42 J	1.7J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Pesticides (EPA 8081)																																										
delta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.043	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
alpha-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
beta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
gamma-BHC	0.2	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	.0207J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
alpha-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
gamma-Chlordane*	0.1	2	BRL	BRL	BRL	0.0202J	0.0202J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Aldrin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Dieldrin	0.0022	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Endosulfan I	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Heptachlor	0.0078	0.4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
PCBs (EPA 8082)																																										
No Detections																																										
Organophosphorus Pesticides (EPA 8141A)																																										
2,4-DB-RE	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.21 J H	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	NS	BRL	BRL
Appendix II Inorganics (EPA 6010B/6020A)																																										
Antimony	NA	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.516 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
Arsenic	10	10	BRL	BRL	BRL	BRL	BRL	BRL	5.75	BRL	BRL	BRL	BRL	BRL	BRL	5.76	8.44	9.41	4.84	9.45	12.3	5.37	5.2	BRL	6.7	7.7	5	5.5	5.17	6.67	4.63	3.32	5.92	5.85	1.05 J	3.6	NS	1.7	5.1	2.6	2.7
Barium	2000	2000	5.7 J	5.5	BRL	6.07	7.22	6.22	8	7	6.9	7.9	9.8	12	13	46.8	47.5	50	37.7	63.2	8.3	59.6	47	BRL	45	34	66	69	95.7	65.2	70	85.5	76.3	100	64.2	55	NS	67	70	48	51
Beryllium	NA	4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	44	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	46.2	BRL	NS	BRL	BRL	BRL	BRL
Cadmium	5	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	5.8 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
Chromium	50	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.19 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 50	BRL	0.32 J	0.51 J	0.54 J	0.26 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 5	NS	0.24 J	0.24 J	0.87 J	BRL
Cobalt	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J	0.13 J	0.21	0.23	0.26	BRL	BRL	BRL	BRL	0.586J	BRL	BRL	BRL	0.48	BRL	0.37	0.34	0.71	0.81	BRL	BRL	BRL	1	BRL	BRL	BRL	0.4	NS	0.51	2.4	0.23	0.22
Copper	1000	1000	BRL	BRL	BRL	BRL	BRL	5.16J	BRL	1.2	1.3	1.6	0.35 J	0.60 J	BRL	BRL	BRL	BRL	3.41J	10.8	7.06	6 J	2.3 J	BRL	2.1	1.8	1.3	0.99 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 1	NS	0.62 J	1.1	0.56 J	0.52 J
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Lead	15	15	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.11 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.734 J	0.17 J	0.16 J	0.16 J	0.18 J	0.12 J	0.29 J	BRL	BRL	BRL	BRL	BRL	BRL	0.658 J	BRL	NS	BRL	BRL	BRL	BRL
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Nickel	100	730*	BRL	BRL	BRL	4.96	BRL	BRL	0.35 J	0.32 J	BRL	BRL	0.46 J	BRL	BRL	BRL	BRL	1.74J	BRL	BRL	BRL	16.4	BRL	BRL	0.50 J	1.7	0.54 J	0.49 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 50	NS	0.68 J	1.9	0.51 J	BRL
Selenium	50	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.34 J	BRL	1.34J	BRL	BRL	BRL	BRL	0.27 J	BRL	BRL	BRL	BRL	0.22 J	1.63 J	1.52J	1.04J	BRL	BRL	BRL	BRL	BRL	NS	BRL	0.22 J	0.54	BRL
Silver	18	100*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
Thallium	NA	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.15 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
Tin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.50 J	BRL	BRL	BRL	BRL	BRL	BRL	0.0347	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.317	BRL	NS	BRL	BRL	BRL	BRL
Vanadium	NA	260*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8.33	BRL	16.2	4.3 J	BRL	4.7 J	1.9 J	2.8 J	2.9 J	BRL	BRL	BRL	4.47J	12.0	21	9.1	1.4 J	NS	BRL	1.9 J	2.0 J	2.0 J
Zinc	2100	5000	BRL	BRL	BRL	BRL	BRL	BRL	18	7.6 J	2.7 J	6.4 J	11	BRL	BRL	BRL	BRL	5J	73.8	BRL	76.5	3.9 J	BRL	3.7 J	5.0 J	22 J	8.2 J	BRL	BRL	BRL	6.59J	51.6	27J	27.7 J	BRL	NS	6.1 J	3.2 J	19	8.0 J
Other Analyses																																										
Sulfide (EPA 376.1)	250,000	250,000	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	43,000	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	18,000	BRL	BRL
Cyanide (EPA 335.2)	154	200	NA	BRL	BRL	BRL	14 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL
Mercury	1.05	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.37	BRL	0.11 J	BRL	BRL

Longstreet

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SLMW-9 10/05	SLMW-9 4/06	SLMW-9 11/06	GW-SLMW-9 06/07	GW-SLMW-9 11/07	GW-SLMW-9 11/08	SLMW-9 06/09	SLMW-9 11/09	SLMW-9 7/10	SLMW-9 11/10	SLMW-9 11/11	SLMW-9 5/12	SLMW-10 04/05	SLM-DUP1 04/05	SLMW-10 10/05	SLMW-10 4/06	SLMW-10 Dup 4/06	SLMW-10 11/06	SLMW-10 05/07	SLMW-10 Dup 05/07	SLMW-10 11/07	SLMW-10 11/08	SLMW-10 DUP 11/08	SLMW-10 06/09	SLMW-10 11/09	SLMW-10 7-10	SLMW-10 11/10	SLMW-10 11/11	SLMW-10 5/12	SLMW-11 04/05	SLMW-11 10/05	SLMW-11 4/06	SLMW-11 11/06	GW-SLMW-11 06/07	GW-SLMW-11 11/07	GW-SLMW-11R 11/08	SLMW-11R 06-09	SLMW-11R 11-09	SLMW-11R 06/10	SLMW-11R 11/10	SLMW-11R 11/11	SLMW-11R 5/12
VOCs (EPA 8260B)																																													
1,1,2,2-tetrachloroethane	0.17	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,1-dichloroethane	700	810*	2.04	1.38J	1.39J	BRL	3.170	3.11	7.6	4.8	4.6	3.8	2.2	2.3	1.25 J	1.41 J	1.6J	1.91J	1.85J	1.12J	BRL	BRL	1.35 J	0.92 J	0.9 J	0.97 J	1.1	0.49 J	0.71 J	1	1	3.86	2.18	1.68J	2.07	BRL	4.05	0.56 J	2.9	0.42 J	2.9	BRL	BRL	0.29 J
1,1 dichloroethene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2,3-trichloropropane	0.005	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2,4-trimethylbenzene	350	15 *	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.43 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2-dibromo-3-chloropropane	0.025	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2-dibromoethane	0.0004	0.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2-dichlorobenzene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.51 J	BRL	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2-dichloroethane	0.38	5	BRL	BRL	BRL	BRL	0.24 J	**0.44 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.58J**	**0.61J**	BRL	BRL	BRL	**0.42 J**	**0.48 J**	BRL	BRL	**0.45 J**	0.20 J	0.35 J	**0.41 J**	**0.54 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	.23J	BRL	BRL	0.33 J	0.37 J	0.25 J	BRL	0.16 J	**2.12**	**2.28**	**3.32**	**3.97**	**3.72**	**2.93**	BRL	BRL	**3.78**	**3.27**	**3.09**	**2.2**	**2.8**	**1.7**	**3**	**3.3**	**3.7**	**1.3 J**	BRL	0.5J	**0.6J**	BRL	**.950 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,4-dichlorobenzene	75	75	0.54J	0.43J	0.4J	BRL	.660J	BRL	BRL	BRL	0.97 J	BRL	BRL	0.37 J	2.75	2.63	3.99	5.6	4.7	3.9	4.1	3.4	5.99	BRL	BRL	3.4	6.9 J	5.2	8.6	7.9	9.4	BRL	BRL	BRL	BRL	BRL	0.300 J	BRL	0.48 J	BRL	0.37 J	BRL	BRL	BRL	BRL
1,4-dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
2-butanone	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.29J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
4-isopropyltoluene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J
acetone	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8.6 J	BRL	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	26	BRL	BRL	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	18 J
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
benzene	1	5	**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	0.96 J	**1.8 J**	**1.72 J**	**1.32J**	**1.31J**	**1.24J**	0.96J	BRL	BRL	**1.38 J**	1.0 J	1.0 J	**1**	**1.3**	0.94 J	**1.3**	**1.3**	**1.7**	**4.58**	**1.54J**	0.83J	0.93J	**2.1**	**1.30 J**	BRL	0.59 J	BRL	0.81 J	BRL	BRL	BRL	BRL
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.54J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chlorobenzene	50	100	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	0.49 J	0.33 J	0.35 J	0.43J	0.59J	0.50J	0.4J	BRL	BRL	0.59 J	0.62 J	0.61 J	0.45 J	0.63 J	BRL	0.69 J	0.73 J	0.79 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroethane	2800	4.6*	BRL	BRL	0.22J	BRL	0.530 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.42J	0.56J	0.82J	BRL	.200 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroform	70	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.22 J	BRL	0.23 J	BRL	0.18 J	0.27 J	0.25 J
chloromethane (methyl chloride	2.6	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.45 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.44	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	1.26J	0.88J	0.71J	3.0	1.570 J	1.79 J	2.3	BRL	2.3	1.8	1.7 Q	1.4	9.33	10	13.4	15.8	15.5	8.96	9.1	8.9	13.6	11.8	11.6	9	BRL	5.8	8.6	10	8.5	9.47	4.56	2.88	1.71J	5.7	3.24	BRL	1.3	BRL	1.6	BRL	0.22 J Q	BRL
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dichlorodifluoromethane	1400	390*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.96	3.5	2.13	1.5J	1.18J	0.62J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.31 J	4.85	0.8J	BRL	0.68J	BRL	0.410 J	1.64 J	1.3	1.1	BRL	BRL	BRL	BRL	0.85 J
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.54 J	0.56 J	1.04J	1.15J	1.22J	0.88J	BRL	BRL	1.13 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	.0280 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
isopropylbenzene	70	660*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
isopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.9 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
m&p xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.64 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.23J	BRL	BRL	BRL	0.510 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
methylene chloride (dichloromethane	4.6	5	BRL	BRL	BRL	BRL	0.200 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.230 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
MTBE	200	13*	0.39J	0.22J	BRL	BRL	BRL	0.29 J	BRL	BRL	BRL	BRL	BRL	BRL	0.2 J	0.2 J	0.37J	0.44J	0.42J	0.28J	BRL	BRL	0.39 J	0.57 J	0.54 J	BRL	BRL	BRL	BRL	BRL	0.52 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
naphthalene	21	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.95 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
o-xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.33 J	BRL	BRL	BRL	BRL	BRL	BRL	0.34 J	0.26J	BRL	BRL	BRL	0.470 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	0.230 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28J	0.22J	0.21J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
tetrachloroethene	0.7	5	0.32J	0.29J	0.21J	BRL	0.280 J	0.41 J	0.39 J	0.58 J	0.68 J	0.53 J	0.33 J	0.23 J	**0.75 J**	0.45 J	**0.71J**	**0.96J**	**0.74J**	0.55J	BRL	BRL	0.31 J	0.25 J	0.26 J	BRL	0.29 J	BRL	BRL	BRL	BRL	**2.64**	0.46J	BRL	0.49J	BRL	0.380J	0.4 J	**2.3**	0.3 J	**1.2**	BRL	0.21 J	0.33 J
toluene	1000	1000	BRL	0.46J	BRL	BRL	0.200 J	0.33 J	0.35 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.35J	0.55J	BRL	BRL	BRL	BRL	BRL	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3.16	BRL	BRL	0.550 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trans-1,2-dichloroethene	70	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.24 J	0.23 J	0.24J	0.29J	0.30J	0.59J	BRL	BRL	0.28 J	0.21 J	0.22 J	BRL	0.27 J	BRL	BRL	BRL	0.21 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trichloroethene	2.8	5	BRL	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	0.33 J	0.88 J	1.01 J	1.15J	1.27J	1.29J	0.89J	BRL	BRL	1.00 J	0.91 J	0.89 J	0.59 J	0.94 J	0.52 J	0.86 J	1.4	0.88 J	**3.01**	1.28J	0.59J	0.96J	2.0	1.01 J	0.29 J	1.5	0.22 J	1.4	BRL	BRL	0.16 J
trichlorofluoromethane	2100	1300*	0.53J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.31 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28J	BRL	BRL	BRL	BRL	0.2 J	BRL	BRL	0.54 J	BRL	BRL	BRL
vinyl chloride	0.015	2	**1.45J**	**0.69J**	**0.73J**	BRL	**1.71 J**	**1.41 J**	**2**	**1.2**	**2.1**	**1.9**	0.94 J	**0.87 J**	1.91 J	3.58	**2.48**	**2.8**	**2.62**	**1.7**	BRL	BRL	**2.59 J**	**1.58 J**	**1.72 J**	**1.3**	**1.5**	BRL	**1.6**	**2.2**	**2**	**3.57**	**0.9J**	**0.78J**	**0.8J**	BRL	**0.48 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL
SVOCs (EPA 8270)																																													
1,4-dichlorobenzene (para)	1.4	75	BRL	BRL	BRL	BRL	BRL	0.54 J	BRL	BRL	BRL	BRL	BRL	BRL	1.31 J	1.57 J	1.75J	2.79J	2.62J	**2.7J**	**1.94 J**	**1.75 J**	BRL	**3.37 J**	**4.25 J**	BRL	BRL	BRL	BRL	BRL	6.6 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,4-Dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	21 H	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
4-methylphenol (p-cresol)	3.5	180*	BRL	BRL	BRL	BRL	BRL	BRL	2.1 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.95 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
benzoic acid	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
benzyl alcohol	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
diethyl phthalate	5000	29000*	BRL	BRL	BRL	2.55 J	1.44 J	BRL	0.95 J	BRL	BRL	0.92 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
di-n-butylphthalate	700	3600*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3 J	BRL	BRL	1.8 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
bis(2-Ethylhexyl)phthalate	2.5	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**6.7 J**	BRL	BRL	BRL	BRL	5.02	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	4.41	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
phenol	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**BRL**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Pesticides (EPA 8081)																																													
delta-BHC	NA	NA	BRL	BRL	BRL	BRL	.015 PJ	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.124	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
alpha-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0496	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
beta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	0.065	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.123	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
gamma-BHC	0.2	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0496	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
alpha-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.1**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
gamma-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.11J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aldrin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Dieldrin	0.0022	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Endosulfan I	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Heptachlor	0.0078	0.4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.06J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
PCBs (EPA 8082)																																													
No Detections																																													
Organophosphorus Pesticides (EPA 8141A)																																													
2,4-DB-RE	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Appendix II Inorganics (EPA 6010B/6020A)																																													
Antimony	NA	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**BRL**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Arsenic	10	10	6.28	**11**	**11.4**	**10.8**	8.98	**13.8**	8.6	8.7	10	9.1	7	6.2	1.13 J	1.17 J	BRL	1.31J	1.31J	1.88J	3.62	3.75	4.82	2.11	2.34	3.1	3.6	4.2	4.3	4.6	5.8	10.4	7.5	7.92	2.65	**25.5**	4.87	BRL	BRL	BRL	1.7	BRL	BRL	BRL
Barium	2000	2000	39	40	49.3	70.4	46.8	49	46	41	45	41	32	40	77.9	79.2	76.8	BRL	110	123	139	129	118	0.15	0.151	170	130	160	150	160	160	28.8	19.1	30	116	50.0	33.7	10.5	11 J	7.2	18	8.7	9.8	9
Beryllium	NA	4	BRL	BRL	BRL	BRL	BRL	41	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	56.3	56.8	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.070 J	0.072 J
Cadmium	5	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.50J	BRL	0.532 J	0.518 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Chromium	50	100	BRL	BRL	BRL	BRL	BRL	BRL	0.62 J	BRL	0.23 J	BRL	0.25 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.22 J	0.27 J	0.16 J	0.20 J	0.19 J	BRL	BRL	BRL	BRL	BRL	BRL	4.61 J	BRL	BRL	< 5	0.22 J	0.18 J	BRL	0.33 J	BRL
Cobalt	NA	NA	BRL	0.01J	1.25	BRL	BRL	3.11 J	1	0.93	0.73	0.52	1.1	1.7	BRL	BRL	BRL	BRL	BRL	1.45	BRL	1.29 J	3 J	5.7	6.1	2	2.8	2.7	3.3	4.2	14	BRL	BRL	0.01J	2.13	1.02 J	BRL	BRL	0.25	0.15 J	0.58	0.18 J	0.2	0.18 J
Copper	1000	1000	BRL	0.01J	13.8	5.59 J	BRL	BRL	0.76 J	0.33 J	1	0.65 J	0.35 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	6.64 J	5.65 J	BRL	BRL	BRL	0.39 J	0.37 J	0.93 J	BRL	0.80 J	BRL	BRL	BRL	0.01J	BRL	9.94 J	8.4	BRL	< 1	0.73 J	0.6 J	0.60 J	0.64 J	0.46 J
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Lead	15	15	BRL	0.66J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.14 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.22	BRL	BRL	BRL	0.636 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BR

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SLMW-12A 04/05	SLMW-12B 04/05	SLMW-12AR 04/05	SLMW-12AR 10/05	SLMW-12AR Dup 10/05	SLMW-12AR 4/06	SLMW-12AR 11/06	SLMW-12AR 05/07	SLMW-12AR 11/07	SLMW-12AR-DUP 11/07	SLMW-12AR11/08	SLMW-12AR 06/09	SLMW-12AR 11/09	SLMW-12AR 06/10	SLMW-12AR 11/10	SLMW-12AR 11/11	SLMW-12AR 5/12	SLMW-12BR 04/05	SLMW-12BR Dup	SLMW-12BR 10/05	SLMW-12BR 4/06	SLMW-12BR 11/06	SLMW-12BR 05/07	SLMW-12BR 11/07	SLMW-12BR 11/08	SLMW-12BR 06/09	SLMW-12BR 11/09	SLMW-12BR 06/10	SLMW-12BR 11/10	SLMW-12BR 11/11	SLMW-12BR 5/12	SLMW-13 04/05	SLMW-13 10/05	SLMW-13 4/06	SLMW-13 11/06	GW-SLMW-13 06/07	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	SLMW-13 5/12
VOCs (EPA 8260B)																																															
1,1,2,2-tetrachloroethane	0.17	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,1-dichloroethane	700	810*	BRL	4.25	BRL	1.21J	1.22J	1.39J	0.83J	BRL	1.15 J	1.0 J	0.62 J	BRL	0.35 J	BRL	1	BRL	BRL	1.41J	1.39J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,1 dichloroethene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2,3-trichloropropane	0.005	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2,4-trimethylbenzene	350	15 *	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2-dibromo-3-chloropropane	0.025	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2-dibromoethane	0.0004	0.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2-dichlorobenzene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2-dichloroethane	0.38	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,2-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.23 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.42J	0.45J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,4-dichlorobenzene	75	75	BRL	1.11 J	BRL	1.05J	0.94J	1.14J	0.84J	BRL	0.78 J	0.67 J	0.49 J	BRL	BRL	BRL	0.61 J	BRL	BRL	1.07J	1.15J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,4-dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	9.8	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
2-butanone	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
4-isopropyltoluene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
acetone	700	NA	NA	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	18 J	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
benzene	1	5	BRL	BRL	BRL	**1.03J**	0.95J	**1.04J**	0.76J	BRL	0.84 J	0.72 J	0.53 J	BRL	0.26 J	BRL	0.73 J	BRL	BRL	**1.11J**	**1.15J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
chlorobenzene	50	100	BRL	1.01 J	BRL	0.57J	0.53J	0.62J	0.53J	BRL	0.56 J	0.51 J	0.4 J	BRL	BRL	BRL	0.73 J	BRL	BRL	0.58J	0.6J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
chloroethane	2800	4.6*	BRL	0.4 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
chloroform	70	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
chloromethane (methyl chloride	2.6	NA	BRL	BRL	BRL	BRL	BRL	BRL	2.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
cis-1,2-dichloroethene	70	70	BRL	10.7	BRL	2.9	2.58	3.19	1.09J	BRL	1.22 J	1.08 J	0.83 J	BRL	BRL	BRL	0.92 J	BRL	BRL	3.79	4.02	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
dichlorodifluoromethane	1400	390*	BRL	3.73	BRL	5.11	5.15	4.41	3.61	BRL	1.81 J	1.78 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	10.2	11.6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
isopropylbenzene	70	660*	BRL	0.5 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
isopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
m&p xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
methylene chloride (dichloromethane	4.6	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.21 J	0.27 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.25 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
MTBE	200	13*	BRL	BRL	BRL	0.32J	0.35J	0.31J	BRL	BRL	0.22 J	0.21 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.36J	0.38J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
naphthalene	21	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
o-xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
tetrachloroethene	0.7	5	BRL	0.42 J	BRL	0.32J	0.3J	0.35J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.16 J	BRL	BRL	0.4J	0.38J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
toluene	1000	1000	BRL	BRL	BRL	BRL	BRL	0.37J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.24J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
trans-1,2-dichloroethene	70	100	BRL	0.22 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
trichloroethene	2.8	5	BRL	2.14	BRL	0.64J	0.52J	0.55J	0.35J	BRL	0.45 J	0.37 J	0.23 J	BRL	0.13 J	BRL	0.27 J	BRL	BRL	0.71J	0.68J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
trichlorofluoromethane	2100	1300*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
vinyl chloride	0.015	2	BRL	**5.41**	BRL	**2.08**	**1.82J**	**2.44**	**1.17**	BRL	**0.97 J**	**0.77 J**	**0.52 J**	BRL	BRL	BRL	**0.58 J**	BRL	BRL	**3.25**	**3.5**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
SVOCs (EPA 8270)																																															
1,4-dichlorobenzene (para)	1.4	75	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.98J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
1,4-Dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
4-methylphenol (p-cresol)	3.5	180*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**13.1**	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
benzoic acid	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
benzyl alcohol	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
diethyl phthalate	5000	29000*	BRL	3.49 J	BRL	1.51J	1.23J	BRL	1.15J	1.28 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.46J	2.2J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
di-n-butylphthalate	700	3600*	BRL	BRL	1.06J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
bis(2-Ethylhexyl)phthalate	2.5	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.5 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
phenol	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Pesticides (EPA 8081)																																															
delta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
alpha-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0255J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
beta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
gamma-BHC	0.2	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
alpha-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0306J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
gamma-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0255J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Aldrin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	0.095	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0918	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0306J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Dieldrin	0.0022	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Endosulfan I	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Heptachlor	0.0078	0.4	BRL	BRL	BRL	BRL	BRL	BRL	0.125	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.0255J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
PCBs (EPA 8082)																																															
No Detections																																															
Organophosphorus Pesticides (EPA 8141A)																																															
2,4-DB-RE	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Appendix II Inorganics (EPA 6010B/6020A)																																															
Antimony	NA	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Arsenic	10	10	BRL	1.95 J	BRL	2.02	1.61J	BRL	1.05J	1.05 J	BRL	BRL	BRL	0.42 J	0.5 J	0.54 J	0.75 J	BRL	0.57 J	1.26J	1.61J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.45 J	BRL	BRL	BRL	BRL	BRL	BRL	1.11 J	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Barium	2000	2000	36	40.1	43.4	27.7	27.7	30	33.2	34.1	42.0	41.0	44.8	38	41	36	41	31	33	27.2	28.4	35	30	34.5	41.5	41	43.2	42	37	40	43	42	41	8.7 J	BRL	5	5.43	10.9	7	8.3	9	6.9	9.9	9	NS	NS
Beryllium	NA	4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J	0.12 J	0.12 J	0.070 J	0.13 J	0.15 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.36	0.33	0.37	0.34	0.41	0.39	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Cadmium	5	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Chromium	50	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 5	0.74 J	0.4 J	0.60 J	0.71 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.32 J	0.52 J	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.17 J	0.19 J	BRL	0.26 J	NS	NS
Cobalt	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	0.698J	BRL	BRL	BRL	BRL	< 1	0.8	0.65	0.89	0.69	0.71	BRL	BRL	BRL	BRL	1.46	BRL	BRL	BRL	1.1	1	1.1	1.1	1.1	1.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.11 J	0.083 J	0.10 J	0.11 J	NS	NS
Copper	1000	1000	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 1	0.53 J	2	BRL	0.62 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	6 JB	BRL	< 1	1.2	3.4	2.2	1.2	0.88 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.50 J	0.3 J	0.35 J	BRL	NS	NS
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	52	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Lead	15	15	BRL	BRL	0.611	BRL	BRL	0.50J	BRL	0.819 J	BRL	BRL	0.738 J	0.34	0.44	0.45	0.49	0.34	0.37	BRL	BRL	0.623J	0.50J	BRL	BRL	BRL	2.72	0.17 J	0.26 J	0.27 J	0.72	0.19 J	0.26 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.12 J	NS	NS
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	30	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	14	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS
Nickel	100	730*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	< 50	1	0.97 J	0.64 J	0.84 J	0.68 J	BRL	BRL	BRL	BRL	2.29	BRL	4 J	BRL	2.2 J	1.8	2.1	2.6	2	1.6	BRL	BRL	BRL	1.27J	BRL	BRL	BRL	0.36 J	0.42 J	BRL	BRL	NS	NS
Selenium	50	50	BRL	1.89 J	BRL	1.54J	2.24	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.66	BRL	1.48J	1.46J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	B

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	SW-1 04/05	SW-1 10/05	SW-1 4/06	SW-1 11/06	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-1 5/12	SW-2 04/05	SW-2 10/05	SW-2 4/06	SW-2 11/06	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	SW-2 5/12
VOCs (EPA 8260B)																												
1,1,2,2-tetrachloroethane	0.17	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,1-dichloroethane	700	810*	BRL	7.64	7.8	3.93	7.7	7.36	7.73	10	0.46 J	BRL	0.32 J	11	9.4	BRL	BRL	BRL	BRL	BRL	0.20 J	0.31 J	BRL	BRL	NS	8.2	0.48 J	0.29 J
1,1 dichloroethene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.12 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,2,3-trichloropropane	0.005	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2,4-trimethylbenzene	350	15 *	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2-dibromo-3-chloropropane	0.025	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2-dibromoethane	0.0004	0.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2-dichlorobenzene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2-dichloroethane	0.38	5	BRL	BRL	0.41J	BRL	BRL	BRL	BRL	0.34 J	BRL	BRL	BRL	**0.50 J**	**0.45 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,2-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	BRL	0.44 J	0.058 J	0.44 J	BRL	BRL	BRL	**0.74 J**	0.44 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	0.51 J	BRL	BRL
1,4-dichlorobenzene	75	75	BRL	0.76J	0.96J	0.51J	BRL	0.71 J	BRL	0.62 J	BRL	BRL	BRL	1.2	0.85 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	1.3	BRL	BRL
1,4-dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	4.8 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	7.7 J	NS	BRL	BRL	BRL
2-butanone	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.78J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
4-isopropyltoluene	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.21 J	BRL	BRL	NS	BRL	BRL	BRL
acetone	700	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	6.9 J	5.8 J	NA	3.5	BRL	BRL	BRL	4.29 J	BRL	BRL	BRL	NS	BRL	8.8 J	BRL
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.59J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
benzene	1	5	BRL	**1.59J**	**1.72J**	0.87J	**1.6**	**1.45 J**	**1.88 J**	**1.7**	BRL	BRL	BRL	**2.9**	**2.2**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	**2.2**	BRL	BRL
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
chlorobenzene	50	100	BRL	0.35J	0.37J	BRL	BRL	0.22 J	0.42 J	BRL	BRL	BRL	BRL	1.1	0.54 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	0.85 J	BRL	BRL
chloroethane	2800	4.6*	BRL	0.51J	0.52J	0.23J	BRL	0.38 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
chloroform	70	80	BRL	BRL	BRL	BRL	BRL	0.43 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
chloromethane (methyl chloride	2.6	NA	BRL	0.51J	0.52J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	BRL	5.02	5.01	1.79J	6.1	4.73	5.24	4.8	BRL	BRL	0.20 J	4.7	3.8	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	4.7	0.28 J	0.15 J
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
dichlorodifluoromethane	1400	390*	BRL	10.4	7.07	5.78	8.4	5.77	5.1	4.2	BRL	BRL	BRL	5.8 Q	3.9	BRL	BRL	BRL	BRL	BRL	BRL	0.23 J	BRL	BRL	NS	3.2	BRL	BRL
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
isopropylbenzene	70	660*	BRL	0.2J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.16 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
isopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
m&p xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
methylene chloride (dichloromethane	4.6	5	BRL	BRL	BRL	BRL	BRL	0.30 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.22 J	BRL	BRL	BRL	NS	BRL	BRL	BRL
MTBE	200	13*	BRL	1.2J	0.86J	BRL	BRL	0.56 J	0.66 J	BRL	BRL	BRL	BRL	BRL	0.70 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
naphthalene	21	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
o-xylene	530#	10000#	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	BRL	0.20 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
tetrachloroethene	0.7	5	BRL	**1.41J**	**1.36J**	**0.77J**	BRL	**0.88 J**	**1.32 J**	**1.1**	BRL	BRL	BRL	**1.1**	**0.91 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	**1.2**	BRL	BRL
toluene	1000	1000	BRL	BRL	0.42J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.62J	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
trans-1,2-dichloroethene	70	100	BRL	BRL	BRL	0.27J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
trichloroethene	2.8	5	BRL	2.36	2.21	1.12J	BRL	2.14	2.3	1.9	BRL	BRL	BRL	2.5	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	2	BRL	BRL
trichlorofluoromethane	2100	1300*	BRL	0.59J	0.54J	BRL	BRL	0.30 J	BRL	BRL	BRL	BRL	BRL	BRL	0.84 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	0.57 J	BRL	BRL
vinyl chloride	0.015	2	BRL	**2.78**	**3.52**	**1.89J**	BRL	**3.24**	**2.98**	**2.8**	BRL	BRL	BRL	**3.3**	**2.4**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	**2.8**	BRL	BRL
SVOCs (EPA 8270)																												
1,4-dichlorobenzene (para)	1.4	75	BRL	BRL	BRL	BRL	BRL	BRL	0.91 J	BRL	BRL	BRL	BRL	BRL	0.67 J	BRL	BRL	BRL	BRL	**1.87 J**	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
1,4-Dioxane	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	15 H	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	12 H	BRL
4-methylphenol (p-cresol)	3.5	180*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
benzoic acid	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
benzyl alcohol	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	2.2 J	BRL
diethyl phthalate	5000	29000*	BRL	2.81J	3.19J	2.02J	2.51 J	1.79 J	1.98	BRL	BRL	BRL	BRL	4.1 J	2.2 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	2.5 J	BRL	BRL
di-n-butylphthalate	700	3600*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
bis(2-Ethylhexyl)phthalate	2.5	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.35J	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
phenol	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Pesticides (EPA 8081)																												
delta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.038 J	NS	BRL	BRL	BRL
alpha-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.04 J	NS	BRL	BRL	BRL
beta-BHC	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	0.042	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.03	BRL	0.051 J	NS	BRL	BRL	BRL
gamma-BHC	0.2	0.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
alpha-Chlordane*	0.1	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
gamma-Chlordane*	0.1	2	BRL	BRL	BRL	0.0354J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Aldrin	NA	NA	BRL	BRL	BRL	0.131	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Dieldrin	0.0022	NA	BRL	BRL	BRL	**0.0505J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.0306J**	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Endosulfan I	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Heptachlor	0.0078	0.4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
PCBs (EPA 8082)																												
No Detections																												
Organophosphorus Pesticides (EPA 8141A)																												
2,4-DB-RE	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL													BRL
Appendix II Inorganics (EPA 6010B/6020A)																												
Antimony	NA	6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Arsenic	10	10	BRL	2.37	3.89	5.69	**14.0**	**27.7**	**14.4**	6.6	1.2	0.57 J	9	BRL	9.3	BRL	1.09J	1.08J	BRL	1.18 J	1.85 J	5.79	0.53 J	0.76 J	NS	9.2	BRL	0.70 J
Barium	2000	2000	10.2	31.7	20	22	35.0	21	28	26	8.2	22	120	25	35	10.3	15.6	10	11.6	9.3	20	22	23	15	NS	39	27	30
Beryllium	NA	4	BRL	BRL	BRL	BRL	BRL	BRL	19	BRL	BRL	BRL	1.3	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.36 J	0.094 J	NS	BRL	BRL	BRL
Cadmium	5	5	BRL	0.774J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.31 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Chromium	50	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.16 J	0.74 J	0.38 J	6.6	0.80 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.4 B	NS	BRL	1.3	BRL
Cobalt	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.19 J	0.18 J	0.23	4.4	0.25	0.12 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.26	0.3	NS	0.19 J	0.27	0.24
Copper	1000	1000	BRL	BRL	BRL	BRL	7.68 J	BRL	BRL	0.39 J	4.4	1.5	9.2	0.41 J	BRL	BRL	BRL	BRL	BRL	BRL	5.4	BRL	0.51 J	1.8	NS	BRL	0.45 J	BRL
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**5400**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Lead	15	15	BRL	1.08	BRL	BRL	1.85	BRL	BRL	0.12 J	0.51	0.15 J	11	BRL	BRL	BRL	BRL	2.36	0.56J	BRL	BRL	BRL	0.19 J	0.72	NS	0.12 J	BRL	0.097 J
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	24	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Nickel	100	730*	BRL	22.9J	BRL	BRL	BRL	BRL	BRL	0.54 J	1.7	0.55 J	3.3	0.67 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.6	1.2	NS	BRL	0.57 J	BRL
Selenium	50	50	BRL	1.07J	1.16J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.83	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Silver	18	100*	BRL	10.1J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Thallium	NA	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	0.15 J	BRL	BRL
Tin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.1	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	0.50 J	BRL	0.42 J
Vanadium	NA	260*	BRL	10.1J	BRL	BRL	13.1	11	11	BRL	BRL	BRL	25	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Zinc	2100	5000	BRL	55.3J	BRL	5.73J	117	42 J	BRL	20	15	370	280	16	9.0 J	37.1 J	BRL	0.02J	34.5	24.5 J	BRL	BRL	12	24	NS	16	15	BRL
Other Analyses																												
Sulfide (EPA 376.1)	250,000	250,000	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	10,000	10,000	BRL	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	10,000	BRL	BRL
Cyanide (EPA 335.2)	154	200	NA	BRL	BRL	BRL	18 J	BRL	BRL	BRL	4.2 J	2.5	2.5	BRL	BRL	NA	BRL	BRL	BRL	18 J	BRL	BRL	BRL	2.7 J	NS	2.5	BRL	BRL
Mercury	1.05	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL
Nitrate/Nitrite (SM 4500 - NO3-E)	10,000	10,000	NA	78	0.058J	0.03J	11 J	BRL	541	NA	BRL	1,700	360	<7.5	BRL	NA	BRL	0.331J	0.492	68	BRL	BRL	880	BRL	NS	360	<7.5	BRL

Note: BRL -- Below Reporting Limit NA -- Not Available; NS -- Not Sampled; U -- Target analytes were not detected above the reporting limits; J -- Analyte was present but concentration is an estimated value. **Bold**-- Concentration exceeds NC 2L Std. * No MCL, used PRG. #Used total values. **Used values for Chlordane.

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 Longstreet Landfill **DATE:** 5/20/2012
SAMPLED BY: R.Hill, C. Poston **TIME : 0943**
WEATHER CONDITIONS: Clear 63°

Location: Longstreet Landfill	**Sample ID: SLMW-10-5-12**

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):	20.8	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.13	(gallons)
Flow Rate:	284	(ml/min)	Purge Vol:	5.1	(gallons)
Length of Time Purged:	68	(minutes)	Purge Time:	835	
Amount Purged:	5.1	(gallons)	Pump Depth:	25.5	

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	0850	0901	0914	0928	0938	
pH	5.99	5.98	5.98	6.01	6.01	
Sp. Cond	0.908	0.883	0.875	0.887	0.893	
Temp. °C	17.38	17.56	17.78	17.71	17.74	
Turbidity	1.08	0.98	0.24	0.18	0.16	
DO	0.82	0.40	0.30	0.33	0.29	
ORP	-64.1	-56.1	-55.9	-57.3	-57.8	
Water Level	21.2	21.2	21.2	21.2	21.2	

5. NOTES: 6020-Ap2 + 300-Collected 5/21/12 at 0855

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/20/2012
SAMPLED BY: R.Hill, C. Poston **TIME :1342**
WEATHER CONDITIONS: Partly cloudy 79°

Location: Longstreet Landfill	**Sample ID: SLMW-8-5-12**

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):	27.21	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	24.15	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.50	(gallons)
Flow Rate:	68	(ml/min)	Purge Vol:	0.8	(gallons)
Length of Time Purged:	42	(minutes)	Purge Time:	1300	
Amount Purged:	0.8	(gallons)	Pump Depth:	26.2	

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	1317	1327	1337			
pH	6.06	6.00	6.04			
Sp. Cond	0.994	0.980	0.983			
Temp. °C	22.10	22.43	22.65			
Turbidity	22.7	18.9	6.2			
DO	1.10	0.55	0.42			
ORP	-112.9	-115.5	-116.9			
Water Level	25.11	25.16	25.16			

5. NOTES: Collected 1 L of 8270,8151,8141,8081/8082.
5/21/12 6020 Ap 2 + 300 collected@ 0930.

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/20/2012
SAMPLED BY: R.Hill, C. Poston **TIME :1600**
WEATHER CONDITIONS: Sunny Breezy Warm 80°

Location: Longstreet Landfill	**Sample ID: SLMW-7-5-12**

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):	21.78	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.85	(gallons)
Flow Rate:	95	(ml/min)	Purge Vol:	1.5	(gallons)
Length of Time Purged:	60	(minutes)	Purge Time:	1500	
Amount Purged:	1.5	(gallons)	Pump Depth:	25.5	

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	1510	1515	1520	1530	1540	1550
pH	5.64	5.68	5.70	5.68	5.66	5.66
Sp. Cond	0.349	0.372	0.398	0.353	0.338	0.339
Temp. °C	23.15	24.63	25.25	22.55	22.39	22.82
Turbidity	5.47	4.68	6.18	3.79	2.85	2.15
DO	1.04	0.73	0.54	0.26	0.25	0.24
ORP	-36.3	-65.2	-66.8	-70.3	-63.8	-69.8
Water Level	23.2	23.6	23.9	24.6	25.2	25.4

5. NOTES: Collected 1 L of 8270,8151,8141,8081/8082.
5/21/12 6020 Ap 2 + 300 collected@ 0945.

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/21/2012
SAMPLED BY: R.Hill, C. Poston **TIME :1530**
WEATHER CONDITIONS: Sunny 81°

Location: Longstreet Landfill	**Sample ID: SLMW-12B-5-12**

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):	9.52	(ft)	Diameter (d):	0.167	(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			9.10	(gallons)
Flow Rate:	147	(ml/min)	Purge Vol:	3.5	(gallons)
Length of Time Purged:	90	(minutes)	Purge Time:	1400	
Amount Purged:	3.5	(gallons)	Pump Depth:	63	

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	1432	1447	1504	1520		
pH	4.44	4.67	4.67	4.75		
Sp. Cond	0.069	0.073	0.071	0.074		
Temp. °C	20.12	22.49	21.48	24.18		
Turbidity	8.19	19.7	18.9	20.2		
DO	0.36	1.68	2.54	2.33		
ORP	194.7	186.2	184.1	168.5		
Water Level	13.2	18.8	20.2	20.2		

5. NOTES: Turbidity trending up. MS/MSD taken.

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/21/2012
SAMPLED BY: R.Hill, C. Poston **TIME :1625**
WEATHER CONDITIONS: Sunny 83°

Location: Longstreet Landfill	**Sample ID: SLMW-12A-5-12**

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):	20	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	9.45	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.73	(gallons)
Flow Rate:	194	(ml/min)	Purge Vol:	2.0	(gallons)
Length of Time Purged:	39	(minutes)	Purge Time:	1546	
Amount Purged:	2	(gallons)	Pump Depth:	18	

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	1600	1610	1620			
pH	4.31	4.32	4.33			
Sp. Cond	0.041	0.041	0.040			
Temp. °C	20.89	20.96	20.59			
Turbidity	42.8	34.3	8.86			
DO	4.00	3.74	4.05			
ORP	228.3	246.4	244.7			
Water Level	10.15	10.15	10.15			

5. NOTES: SW-1 collected on 5-21-12 @ 1430.

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/22/2012
SAMPLED BY: R.Hill, C. Poston **TIME : 0858**
WEATHER CONDITIONS: Sunny Humid 75°

Location: Longstreet Landfill	**Sample ID: SLMW-11R-5-12**

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):	86.7	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	83.14	(ft)	Diameter (d):	0.167	(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			0.58	(gallons)
	Flow Rate:	142	(ml/min)	Purge Vol:	1.5	(gallons)
Length of Time Purged:	40	(minutes)	Purge Time:	818	
Amount Purged:	1.5	(gallons)	Pump Depth:	85	

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	0843	0848	0853			
pH	4.13	4.10	4.11			
Sp. Cond	0.023	0.023	0.023			
Temp. °C	20.73	20.62	20.57			
Turbidity	15.4	10.9	9.98			
DO	7.35	7.22	7.38			
ORP	271.3	277.4	280.1			
Water Level	83.3	83.3	83.3			

5. NOTES:

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/22/2012
SAMPLED BY: R.Hill, C. Poston **TIME :**
WEATHER CONDITIONS: Partly Cloudy 75°

Location: Longstreet Landfill	**Sample ID: SLMW-13-5-12**

PRESERVATIVE:
ANALYSES REQUESTED:
 # OF CONTAINERS:
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):	57.94	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):		(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =					(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: Well is dry.

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/22/2012
SAMPLED BY: R.Hill, C. Poston **TIME :1135**
WEATHER CONDITIONS: Cloudy Humid 78°

Location: Longstreet Landfill	**Sample ID: SLMW-6-5-12**

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):	37.34	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	30.84	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.07	(gallons)
Flow Rate:	189	(ml/min)	Purge Vol:	1.5	(gallons)
Length of Time Purged:	30	(minutes)	Purge Time:	1105	
Amount Purged:	1.5	(gallons)	Pump Depth:	35	

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	1115	1120	1125	1130		
pH	4.20	4.47	4.52	4.48		
Sp. Cond	0.021	0.022	0.022	0.022		
Temp. °C	20.40	20.48	20.44	20.18		
Turbidity	3.72	3.20	3.15	1.64		
DO	1.23	1.25	1.23	1.20		
ORP	205.1	195.8	190.1	190.6		
Water Level	30.95	30.95	30.95	30.95		

5. NOTES: SW-2 collected at 1500

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

1. CLIENT: Fort Bragg Longstreet Landfill **DATE:** 5/22/2012
SAMPLED BY: R.Hill, C. Poston **TIME : 1445**
WEATHER CONDITIONS: Sunny 85°

Location: Longstreet Landfill	**Sample ID: SLMW-9-5-12**

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):	42.53	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.98	(gallons)
Flow Rate:	162	(ml/min)	Purge Vol:	1.5	(gallons)
Length of Time Purged:	35	(minutes)	Purge Time:	1410	
Amount Purged:	1.5	(gallons)	Pump Depth:	47	

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	1422	1430	1435	1440		
pH	6.00	6.02	6.03	6.02		
Sp. Cond	0.655	0.659	0.653	0.651		
Temp. °C	22.27	22.58	22.55	22.57		
Turbidity	3.78	3.26	4.23	3.21		
DO	3.50	2.22	2.23	2.25		
ORP	-85.9	-73.9	-76.4	-77.1		
Water Level	44.4	44.7	44.7	44.7		

5. NOTES: BLK-1 collected at 1600

APPENDIX B

DATA VALIDATION REPORTS

QA LEVEL II - DATA EVALUATION CHECKLIST

Company Name: USACE
Project Name: L+L Landfills
Reviewer: Kevin Rabarak

Project Manager: Zainul Kidwai
Project Number: NA
Validation Date: 10/12/12

Laboratory: Test America
SDG #: 680-77725-1

Analytical Method (type and no.):
Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐
Sample Names see associated SDG

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (Soils)?	☐	☐	☑	
e) Sample type indicated (grab/composite)?	☐	☐	☑	
f) Field QC noted?	☑	☐	☐	
g) Field parameters collected (note types)?	☑	☐	☐	
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies:	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
k) Was the COC properly completed?	☑	☐	☐	
l) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
m) Were samples received in good condition?	☑	☐	☐	

General (Reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	
b) Were hold times met for sample analysis?	☑	☑	☐	sample re-extracted for pentachlorophenol
c) Were the correct preservatives used?	☑	☐	☐	outside of hold time
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☑	☐	☐	Nitrate
g) Were any matrix problems noted?	☐	☑	☐	

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☑	☐	☑	Ba @ 0.28 J, Zn @ 3.0 J
c) Were analytes detected in the equipment blank(s)?	☑	☑	☑	all samples > 10 x for Ba
d) Were analytes detected in the trip blank(s)?	☐	☑	☐	all samples ND ~~[illegible]~~ for Zn except SW-2.

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	LCS failed for Pentachlorophenol re-extracted out of hold see notes for others, See notes for others

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☑	☐	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☐	☑	
b) Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
d) Were MS/MSD precision criteria met?	☐	☐	☑	

Reagent Water Spike and Duplicate (RWS & RWSD)	YES	NO	NA	COMMENTS
a) Was RWS accuracy criteria met?	☐	☑	☐	
b) Was RWSD accuracy criteria met?	☐	☐	☑	
c) Was RWS/RWSD precision criteria met (RPD)?	☐	☐	☑	

Surrogate Spikes	YES	NO	NA	COMMENTS
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☑	☐	☐	some nitrate ~~solutions~~ samples diluted

Comments/Notes: Several LCS analytes recoveries were biased low. These include 1,2 Dibromo-3chloropropane, Bromoform, carbon tetrachloride, bis(2-ethylhexyl) phthalate, butyl benzyl phthalate, di-n-butyl phthalate, di-n-octyl phthalate. Pentachloro phenol failed LCS recovery low, samples were re-extracted out of hold.

LCS/LCSD RPD limit exceeded for Chlorobromomethane

All other QC data were within limits. No qualifications necessary except for pentachlorophenol

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
~~Pentac All~~	Pentachlorophenol	U	UJ	~~LCS~~ re-extracted out of hold
SW-2	Zn	7.95	7.9U	blank contamination

Signature: [signature] Date: 10/12/12

QA LEVEL II - DATA EVALUATION CHECKLIST

Company Name: [illegible] Project Manager: [illegible]
Project Name: [illegible] Project Number: [illegible]
Reviewer: Validation Date:

Laboratory: Test America SDG #: 680-79687-2
Analytical Method (type and no.):
Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐
Sample Names see associated COC

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	✓			
b) Sampling team indicated?	✓			
c) Sample location noted?	✓			
d) Sample depth indicated (Soils)?			✓	
e) Sample type indicated (grab/composite)?			✓	
f) Field QC noted?	✓			
g) Field parameters collected (note types)?	✓			
h) Field Calibration within control limits?	✓			
i) Notations of unacceptable field conditions/performances from field logs or field notes?		✓		
j) Does the laboratory narrative indicate deficiencies:		✓		

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
k) Was the COC properly completed?	✓			
l) Was the COC signed by both field and laboratory personnel?	✓			
m) Were samples received in good condition?	✓			

General (Reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?		✓		some samples re-extracted out of hold
b) Were hold times met for sample analysis?	✓			
	✓			
	✓			
	✓			
	✓			
	✓			PCBs sample matrix interference

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	✓	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	✓	
c) Were analytes detected in the equipment blank(s)?	☐	☐	✓	
d) Were analytes detected in the trip blank(s)?	☐	✓	☐	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	✓	☐	☐	
b) Were the proper compounds included in the LCS?	✓	☐	☐	
c) Was the LCS accuracy criteria met?	☐	✓	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	✓	☐	☐	SLMW-10 + SLMW-Dup-1
b) Were field dup. precision criteria met (note RPD)?	✓	☐	☐	non-estimated values w/in 20%RPD
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	✓	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	✓	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	✓	☐	
b) Was the %D within control limits?	☐	☐	✓	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	✓	☐	several biased low
b) Recovery could not be calculated since sample contained high concentration of analyte?	☐	✓	☐	
c) Was MSD accuracy criteria met?	☐	✓	☐	several biased low
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☐	3-3'-dichloro benzidine
d) Were MS/MSD precision criteria met?	✓	✓	☐	failed recovery criteria

Reagent Water Spike and Duplicate (RWS & RWSD)	YES	NO	NA	COMMENTS
a) Was RWS accuracy criteria met?	☐	✓	☐	
b) Was RWSD accuracy criteria met?	☐	☐	✓	
c) Was RWS/RWSD precision criteria met (RPD)?	☐	☐	✓	

Analytical Blanks	YES	NO	NA	COMMENTS
	✗	✓		DCAA failed for method
		✓		Blank

Comments/Notes

several analytes biased low for LCS recoveries. DCB failed recovery for Pest/PCBs. Samples re-extracted ~~re-a~~ out of hold. Pentachlorophenol failed recovery for Herbs. Samples re-extracted out of hold.

Nitrate samples for SLMW-10, 8, 7, + dup ~~per extracted~~ analyzed out of hold, due to equipment error

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
All	3-3' dichlorobenzidine	U	UJ	MS/MSD failed recovery
SLMW-7,8,10	Nitrate	~~rec~~ U	UJ	analyzed out of hold
All	8081B/8082A/8151	U	UJ	analyzed out of hold

10/12/12

APPENDIX C

CHAINS OF CUSTODY & LAB 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: 680-79725-1
Client Project/Site: Fort Bragg Longstreet

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

Attn: Mr. Kevin Haborak

Authorized for release by:
6/14/2012 3:17:14 PM

Linda Wolfe
Project Manager I
linda.wolfe@testamericainc.com

LINKS

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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: 680-79725-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Fort Bragg Longstreet

Report Number: 680-79725-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 05/23/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.8º C, 1.8º C, 2.1º C, 2.1º C and 2.6º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4), SLNW-BLK-1-5-12 (680-79725-5) and Trip Blank (680-79725-6) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/30/2012.

1,2-Dibromo-3-Chloropropane, Bromoform and Carbon tetrachloride failed the recovery criteria low for LCS 680-238839/4. Chlorobromomethane exceeded the rpd limit for LCSD 680-238839/5. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)
Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/24/2012 and analyzed on 06/11/2012.

Bis(2-ethylhexyl) phthalate, Butyl benzyl phthalate, Di-n-butyl phthalate and Di-n-octyl phthalate failed the recovery criteria low for LCS 680-238359/14-A. Refer to the QC report for details..

No other difficulties were encountered during the semivolatiles analyses.

All other quality control parameters were within the acceptance limits.

PESTICIDES AND PCBS
Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 05/25/2012 and analyzed on 06/02/2012 and 06/04/2012.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from

Job ID: 680-79725-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

both columns are unacceptable. Results outside criteria are qualified.

No difficulties were encountered during the Pesticides and PCBs analyses.

All quality control parameters were within the acceptance limits.

ORGANOPHOSPHORUS PESTICIDES

Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for organophosphorus pesticides in accordance with EPA SW-846 Method 8141B. The samples were prepared on 05/25/2012 and analyzed on 06/07/2012.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No difficulties were encountered during the pesticides analyses.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 05/24/2012 and 06/05/2012 and analyzed on 05/26/2012 and 06/06/2012.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

Pentachlorophenol failed the recovery criteria low for LCS 680-238328/18-A. Refer to the QC report for details.

Due to the LCS failure for pentachlorophenol, the samples were re-extracted outside of holding time. Pentachlorophenol was not detected in the samples. Both sets of results are reported.

It was noted that 2,4 DB was detected at a level slightly above the MDL in the re-extract for sample SLMW-6-5-12 (680-79725-2). This compound was not detected in the original extract. The laboratory believes it to be an extraneous peak due to an artifact in the re-extract. The result is qualified with a "J".

No other difficulties were encountered during the herbicides analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICPMS)

Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for Metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/24/2012 and analyzed on 05/25/2012.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

ANIONS (NITRATE/NITRITE)

Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for Anions (Nitrate/Nitrite) in accordance with EPA Method 300.0. The samples were analyzed on 05/23/2012.

Samples SLMW-11R-5-12 (680-79725-1)[5X], SLMW-6-5-12 (680-79725-2)[5X], SLMW-9-5-12 (680-79725-3)[5X], SW-2-5-12 (680-79725-4)[5X] and SLNW-BLK-1-5-12 (680-79725-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted

Job ID: 680-79725-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

accordingly.

No difficulties were encountered during the Anions analyses.

All quality control parameters were within the acceptance limits.

TOTAL CYANIDE
Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 05/25/2012.

No difficulties were encountered during the cyanide analyses.

All quality control parameters were within the acceptance limits.

SULFIDE
Samples SLMW-11R-5-12 (680-79725-1), SLMW-6-5-12 (680-79725-2), SLMW-9-5-12 (680-79725-3), SW-2-5-12 (680-79725-4) and SLNW-BLK-1-5-12 (680-79725-5) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 05/24/2012.

No difficulties were encountered during the sulfide analyses.

All quality control parameters were within the acceptance limits.

Sample Summary

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

TestAmerica Job ID: 680-79725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79725-1	SLMW-11R-5-12	Water	05/22/12 08:58	05/23/12 09:14
680-79725-2	SLMW-6-5-12	Water	05/22/12 11:35	05/23/12 09:14
680-79725-3	SLMW-9-5-12	Water	05/22/12 14:45	05/23/12 09:14
680-79725-4	SW-2-5-12	Water	05/22/12 15:00	05/23/12 09:14
680-79725-5	SLNW-BLK-1-5-12	Water	05/22/12 16:00	05/23/12 09:14
680-79725-6	Trip Blank	Water	05/22/12 08:00	05/23/12 09:14

Method Summary

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

TestAmerica Job ID: 680-79725-1

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
8141B	Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique	SW846	TAL PIT
8151A	Herbicides (GC)	SW846	TAL SAV
6020A	Metals (ICP/MS)	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 PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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 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
M	Manual integrated compound.

GC Semi VOA

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

Metals

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

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: Fort Bragg Longstreet

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12 — Lab Sample ID: 680-79725-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.25	J	1.0	0.14	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.85	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.29	J	1.0	0.25	ug/L	1		8260B	Total/NA
4-Isopropyltoluene	0.13	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.33	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.16	J	1.0	0.13	ug/L	1		8260B	Total/NA
Barium	9.0		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.072	J	0.20	0.070	ug/L	1		6020A	Total/NA
Cobalt	0.18	J	0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.46	J	1.0	0.21	ug/L	1		6020A	Total/NA
Tin	0.52	J	1.0	0.40	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-6-5-12 — Lab Sample ID: 680-79725-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.24	J	1.0	0.14	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.84	J	1.0	0.25	ug/L	1		8260B	Total/NA
2,4-DB - RE	0.21	J H	0.47	0.14	ug/L	1		8151A	Total/NA
Barium	13		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.26		0.20	0.078	ug/L	1		6020A	Total/NA
Tin	0.50	J	1.0	0.40	ug/L	1		6020A	Total/NA
Mercury	0.11	J	0.20	0.080	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-9-5-12 — Lab Sample ID: 680-79725-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.96	J	1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.49	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.4		1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.37	J	1.0	0.28	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	2.3		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	0.16	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.23	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.33	J	1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	0.87	J	1.0	0.18	ug/L	1		8260B	Total/NA
Arsenic	6.2		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	40		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	1.7		0.20	0.078	ug/L	1		6020A	Total/NA
Nickel	0.76	J	1.0	0.40	ug/L	1		6020A	Total/NA
Tin	0.68	J	1.0	0.40	ug/L	1		6020A	Total/NA

Client Sample ID: SW-2-5-12 — Lab Sample ID: 680-79725-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.15	J	1.0	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.29	J	1.0	0.25	ug/L	1		8260B	Total/NA
Arsenic	0.70	J	1.0	0.40	ug/L	1		6020A	Total/NA
Barium	30		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.24		0.20	0.078	ug/L	1		6020A	Total/NA
Lead	0.097	J	0.30	0.080	ug/L	1		6020A	Total/NA
Tin	0.42	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	7.9	J	10	2.6	ug/L	1		6020A	Total/NA

Detection Summary

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLNW-BLK-1-5-12 — Lab Sample ID: 680-79725-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.28	J	1.0	0.15	ug/L	1		6020A	Total/NA
Zinc	3.0	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 680-79725-6

No Detections

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12

Lab Sample ID: 680-79725-1

Date Collected: 05/22/12 08:58

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 19:56	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 19:56	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 19:56	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 19:56	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 19:56	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 19:56	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 19:56	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 19:56	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 19:56	1
Chloroform	**0.25**	**J**	1.0	0.14	ug/L			05/30/12 19:56	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 19:56	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 19:56	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 19:56	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 19:56	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 19:56	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 19:56	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 19:56	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 19:56	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 19:56	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
Dichlorodifluoromethane	**0.85**	**J**	1.0	0.25	ug/L			05/30/12 19:56	1
1,1-Dichloroethane	**0.29**	**J**	1.0	0.25	ug/L			05/30/12 19:56	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 19:56	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 19:56	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 19:56	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 19:56	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 19:56	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 19:56	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 19:56	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 19:56	1
4-Isopropyltoluene	**0.13**	**J**	1.0	0.13	ug/L			05/30/12 19:56	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 19:56	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 19:56	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 19:56	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 19:56	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 19:56	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 19:56	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 19:56	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 19:56	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 19:56	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 19:56	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 19:56	1
Tetrachloroethene	**0.33**	**J**	1.0	0.15	ug/L			05/30/12 19:56	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 19:56	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 19:56	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 19:56	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12
Date Collected: 05/22/12 08:58
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 19:56	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 19:56	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 19:56	1
Trichloroethene	**0.16**	**J**	1.0	0.13	ug/L			05/30/12 19:56	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 19:56	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 19:56	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 19:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 19:56	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 19:56	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*		*05/30/12 19:56*	*1*
Dibromofluoromethane	*89*		*70 - 130*		*05/30/12 19:56*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/30/12 19:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 16:07	1
1,2-Dichlorobenzene	0.51	U	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 16:07	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 16:07	1
1,4-Dichlorobenzene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4-Dinitrophenol	9.5	U	48	9.5	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Chlorophenol	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Methylphenol	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		05/24/12 15:47	06/11/12 16:07	1
2-Nitrophenol	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 16:07	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 16:07	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		05/24/12 15:47	06/11/12 16:07	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 16:07	1
4,6-Dinitro-2-methylphenol	9.5	U	48	9.5	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 16:07	1
Acenaphthene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 16:07	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 16:07	1
Anthracene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzo[a]pyrene	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzo[g,h,i]perylene	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 16:07	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12
Date Collected: 05/22/12 08:58
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 16:07	1
Bis(2-chloroethoxy)methane	0.90	U	9.5	0.90	ug/L		05/24/12 15:47	06/11/12 16:07	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 16:07	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 16:07	1
Chrysene	0.49	U	9.5	0.49	ug/L		05/24/12 15:47	06/11/12 16:07	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 16:07	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 16:07	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 16:07	1
Diethyl phthalate	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 16:07	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 16:07	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 16:07	1
Fluoranthene	0.71	U	9.5	0.71	ug/L		05/24/12 15:47	06/11/12 16:07	1
Fluorene	0.92	U	9.5	0.92	ug/L		05/24/12 15:47	06/11/12 16:07	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 16:07	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 16:07	1
Hexachloroethane	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 16:07	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 16:07	1
Isophorone	0.86	U	9.5	0.86	ug/L		05/24/12 15:47	06/11/12 16:07	1
Naphthalene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 16:07	1
Nitrobenzene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 16:07	1
N-Nitrosodiphenylamine	0.88	U	9.5	0.88	ug/L		05/24/12 15:47	06/11/12 16:07	1
N-Nitrosodi-n-propylamine	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 16:07	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/24/12 15:47	06/11/12 16:07	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 16:07	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 16:07	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 16:07	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 16:07	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 16:07	1
Benzoic acid	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 16:07	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 16:07	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/24/12 15:47	06/11/12 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*31 - 141*	*05/24/12 15:47*	*06/11/12 16:07*	*1*
2-Fluorobiphenyl	*76*		*38 - 130*	*05/24/12 15:47*	*06/11/12 16:07*	*1*
2-Fluorophenol	*77*		*25 - 130*	*05/24/12 15:47*	*06/11/12 16:07*	*1*
Terphenyl-d14	*65*		*10 - 143*	*05/24/12 15:47*	*06/11/12 16:07*	*1*
Phenol-d5	*74*		*25 - 130*	*05/24/12 15:47*	*06/11/12 16:07*	*1*
Nitrobenzene-d5	*75*		*39 - 130*	*05/24/12 15:47*	*06/11/12 16:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/25/12 15:33	06/02/12 02:55	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		05/25/12 15:33	06/02/12 02:55	1
Dieldrin	0.0090	U	0.099	0.0090	ug/L		05/25/12 15:33	06/02/12 02:55	1
Endosulfan I	0.0042	U J	0.050	0.0042	ug/L		05/25/12 15:33	06/02/12 02:55	1
Endosulfan II	0.0097	U	0.099	0.0097	ug/L		05/25/12 15:33	06/02/12 02:55	1
Endosulfan sulfate	0.0067	U	0.099	0.0067	ug/L		05/25/12 15:33	06/02/12 02:55	1
Endrin	0.0096	U	0.099	0.0096	ug/L		05/25/12 15:33	06/02/12 02:55	1
Endrin aldehyde	0.016	U	0.099	0.016	ug/L		05/25/12 15:33	06/02/12 02:55	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12
Date Collected: 05/22/12 08:58
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-1
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
Endrin ketone	0.0083	U	0.099	0.0083	ug/L		05/25/12 15:33	06/02/12 02:55	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		05/25/12 15:33	06/02/12 02:55	1
Heptachlor	0.0069	U	0.050	0.0069	ug/L		05/25/12 15:33	06/02/12 02:55	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		05/25/12 15:33	06/02/12 02:55	1
Methoxychlor	0.013	U	0.099	0.013	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1016	0.070	U	0.99	0.070	ug/L		05/25/12 15:33	06/02/12 02:55	1
4,4'-DDD	0.0064	U	0.099	0.0064	ug/L		05/25/12 15:33	06/02/12 02:55	1
4,4'-DDE	0.0076	U	0.099	0.0076	ug/L		05/25/12 15:33	06/02/12 02:55	1
4,4'-DDT	0.0096	U	0.099	0.0096	ug/L		05/25/12 15:33	06/02/12 02:55	1
Aldrin	0.0069	U	0.050	0.0069	ug/L		05/25/12 15:33	06/02/12 02:55	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		05/25/12 15:33	06/02/12 02:55	1
beta-BHC	0.0066	U	0.050	0.0066	ug/L		05/25/12 15:33	06/02/12 02:55	1
Chlordane (technical)	0.099	U	0.50	0.099	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1232	0.11	U	0.99	0.11	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1242	0.18	U	0.99	0.18	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1248	0.36	U	0.99	0.36	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1254	0.26	U	0.99	0.26	ug/L		05/25/12 15:33	06/02/12 02:55	1
PCB-1260	0.20	U	0.99	0.20	ug/L		05/25/12 15:33	06/02/12 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*36 - 130*	*05/25/12 15:33*	*06/02/12 02:55*	*1*
Tetrachloro-m-xylene	*66*		*36 - 130*	*05/25/12 15:33*	*06/02/12 02:55*	*1*
DCB Decachlorobiphenyl	*73*		*40 - 130*	*05/25/12 15:33*	*06/02/12 02:55*	*1*
DCB Decachlorobiphenyl	*73*		*40 - 130*	*05/25/12 15:33*	*06/02/12 02:55*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:23	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:23	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/25/12 13:15	06/07/12 20:23	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/25/12 13:15	06/07/12 20:23	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/25/12 13:15	06/07/12 20:23	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 20:23	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/25/12 13:15	06/07/12 20:23	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 20:23	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 20:23	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:23	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:23	1
EPN	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:23	1
Mocap	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:23	1
Famphur	0.12	U	0.94	0.12	ug/L		05/25/12 13:15	06/07/12 20:23	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/25/12 13:15	06/07/12 20:23	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 20:23	1
Malathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:23	1
Parathion	0.15	U	0.94	0.15	ug/L		05/25/12 13:15	06/07/12 20:23	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:23	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/25/12 13:15	06/07/12 20:23	1
Phorate	0.087	U	0.94	0.087	ug/L		05/25/12 13:15	06/07/12 20:23	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/25/12 13:15	06/07/12 20:23	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/25/12 13:15	06/07/12 20:23	1

Client Sample ID: SLMW-11R-5-12

Lab Sample ID: 680-79725-1

Date Collected: 05/22/12 08:58

Matrix: Water

Date Received: 05/23/12 09:14

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 20:23	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:23	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 20:23	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 20:23	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*100*		*49 - 122*	*05/25/12 13:15*	*06/07/12 20:23*	*1*
Tributyl phosphate	*105*		*49 - 122*	*05/25/12 13:15*	*06/07/12 20:23*	*1*
Triphenylphosphate	*103*		*45 - 145*	*05/25/12 13:15*	*06/07/12 20:23*	*1*
Triphenylphosphate	*108*		*45 - 145*	*05/25/12 13:15*	*06/07/12 20:23*	*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		05/24/12 08:36	05/26/12 19:22	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:22	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:22	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:22	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 19:22	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 19:22	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:22	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 19:22	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 19:22	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 19:22	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*81*		*52 - 151*	*05/24/12 08:36*	*05/26/12 19:22*	*1*
DCAA	*79*		*52 - 151*	*05/24/12 08:36*	*05/26/12 19:22*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.48	0.035	ug/L		06/05/12 07:51	06/06/12 19:52	1
2,4-DB	0.14	U H	0.48	0.14	ug/L		06/05/12 07:51	06/06/12 19:52	1
2,4,5-T	0.059	U H	0.48	0.059	ug/L		06/05/12 07:51	06/06/12 19:52	1
Silvex (2,4,5-TP)	0.059	U H	0.48	0.059	ug/L		06/05/12 07:51	06/06/12 19:52	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 19:52	1
Dicamba	0.081	U H	0.48	0.081	ug/L		06/05/12 07:51	06/06/12 19:52	1
Dichlorprop	0.14	U H	0.48	0.14	ug/L		06/05/12 07:51	06/06/12 19:52	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 19:52	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 19:52	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 19:52	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*73*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:52*	*1*
DCAA	*75*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:52*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:50	1
Barium	**9.0**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 05:50	1

Client Sample ID: SLMW-11R-5-12

Lab Sample ID: 680-79725-1

Date Collected: 05/22/12 08:58

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 05:50	1
Beryllium	**0.072**	**J**	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 05:50	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 05:50	1
Cobalt	**0.18**	**J**	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 05:50	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 05:50	1
Copper	**0.46**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 05:50	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:50	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 05:50	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:50	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 05:50	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:50	1
Tin	**0.52**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:50	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 05:50	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 05:50	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 05:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 17:17	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 13:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 10:30	05/24/12 13:54	1

Client Sample ID: SLMW-6-5-12

Lab Sample ID: 680-79725-2

Date Collected: 05/22/12 11:35

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 20:26	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 20:26	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 20:26	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 20:26	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 20:26	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 20:26	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 20:26	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 20:26	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 20:26	1
Chloroform	**0.24**	**J**	1.0	0.14	ug/L			05/30/12 20:26	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 20:26	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 20:26	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 20:26	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 20:26	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 20:26	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 20:26	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 20:26	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 20:26	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 20:26	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-6-5-12
Date Collected: 05/22/12 11:35
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
Dichlorodifluoromethane	**0.84**	**J**	1.0	0.25	ug/L			05/30/12 20:26	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 20:26	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 20:26	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 20:26	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 20:26	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 20:26	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 20:26	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 20:26	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 20:26	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 20:26	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 20:26	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 20:26	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 20:26	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 20:26	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 20:26	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 20:26	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 20:26	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 20:26	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 20:26	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 20:26	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 20:26	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 20:26	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 20:26	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 20:26	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 20:26	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 20:26	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 20:26	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 20:26	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 20:26	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:26	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 20:26	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 20:26	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 20:26	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 20:26	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*		*05/30/12 20:26*	*1*
Dibromofluoromethane	*88*		*70 - 130*		*05/30/12 20:26*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/30/12 20:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.55	U	9.9	0.55	ug/L		05/24/12 15:47	06/11/12 16:35	1
1,2-Dichlorobenzene	0.52	U	9.9	0.52	ug/L		05/24/12 15:47	06/11/12 16:35	1
1,3-Dichlorobenzene	0.58	U	9.9	0.58	ug/L		05/24/12 15:47	06/11/12 16:35	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-6-5-12
Date Collected: 05/22/12 11:35
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.53	U J	9.9	0.53	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4,5-Trichlorophenol	1.2	U J	9.9	1.2	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4,6-Trichlorophenol	0.84	U J	9.9	0.84	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4-Dichlorophenol	1.1	U	9.9	1.1	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4-Dimethylphenol	4.0	U	9.9	4.0	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4-Dinitrophenol	9.9	U	49	9.9	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,4-Dinitrotoluene	1.2	U J	9.9	1.2	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Chlorophenol	0.86	U J	9.9	0.86	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Chloronaphthalene	0.79	U J	9.9	0.79	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Methylnaphthalene	0.77	U J	9.9	0.77	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Methylphenol	0.88	U J	9.9	0.88	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Nitroaniline	1.3	U J	49	1.3	ug/L		05/24/12 15:47	06/11/12 16:35	1
2-Nitrophenol	0.75	U	9.9	0.75	ug/L		05/24/12 15:47	06/11/12 16:35	1
3 & 4 Methylphenol	1.3	U	9.9	1.3	ug/L		05/24/12 15:47	06/11/12 16:35	1
3,3'-Dichlorobenzidine	30	U J	59	30	ug/L		05/24/12 15:47	06/11/12 16:35	1
3-Nitroaniline	4.9	U J	49	4.9	ug/L		05/24/12 15:47	06/11/12 16:35	1
4,6-Dinitro-2-methylphenol	9.9	U	49	9.9	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Bromophenyl phenyl ether	0.76	U J	9.9	0.76	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Chloro-3-methylphenol	0.99	U J	9.9	0.99	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Chloroaniline	2.2	U J	20	2.2	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Chlorophenyl phenyl ether	0.83	U J	9.9	0.83	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Nitroaniline	4.9	U J	49	4.9	ug/L		05/24/12 15:47	06/11/12 16:35	1
Acenaphthene	0.75	U	9.9	0.75	ug/L		05/24/12 15:47	06/11/12 16:35	1
Acenaphthylene	0.84	U J	9.9	0.84	ug/L		05/24/12 15:47	06/11/12 16:35	1
Anthracene	0.68	U J	9.9	0.68	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzo[a]anthracene	0.54	U	9.9	0.54	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzo[a]pyrene	0.70	U	9.9	0.70	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzo[b]fluoranthene	2.6	U J	9.9	2.6	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzo[g,h,i]perylene	0.86	U J	9.9	0.86	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzo[k]fluoranthene	1.2	U J	9.9	1.2	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzyl alcohol	1.1	U J	9.9	1.1	ug/L		05/24/12 15:47	06/11/12 16:35	1
Bis(2-chloroethoxy)methane	0.93	U J	9.9	0.93	ug/L		05/24/12 15:47	06/11/12 16:35	1
Bis(2-chloroethyl)ether	1.1	U J	9.9	1.1	ug/L		05/24/12 15:47	06/11/12 16:35	1
Bis(2-ethylhexyl) phthalate	1.6	U Q J	9.9	1.6	ug/L		05/24/12 15:47	06/11/12 16:35	1
Chrysene	0.50	U J	9.9	0.50	ug/L		05/24/12 15:47	06/11/12 16:35	1
Dibenz(a,h)anthracene	0.99	U J	9.9	0.99	ug/L		05/24/12 15:47	06/11/12 16:35	1
Dibenzofuran	0.78	U J	9.9	0.78	ug/L		05/24/12 15:47	06/11/12 16:35	1
Di-n-butyl phthalate	0.82	U Q J	9.9	0.82	ug/L		05/24/12 15:47	06/11/12 16:35	1
Diethyl phthalate	0.87	U J	9.9	0.87	ug/L		05/24/12 15:47	06/11/12 16:35	1
Dimethyl phthalate	0.98	U J	9.9	0.98	ug/L		05/24/12 15:47	06/11/12 16:35	1
Di-n-octyl phthalate	1.4	U Q J	9.9	1.4	ug/L		05/24/12 15:47	06/11/12 16:35	1
Fluoranthene	0.73	U	9.9	0.73	ug/L		05/24/12 15:47	06/11/12 16:35	1
Fluorene	0.95	U J	9.9	0.95	ug/L		05/24/12 15:47	06/11/12 16:35	1
Hexachlorobenzene	0.78	U J	9.9	0.78	ug/L		05/24/12 15:47	06/11/12 16:35	1
Hexachlorobutadiene	0.61	U	9.9	0.61	ug/L		05/24/12 15:47	06/11/12 16:35	1
Hexachloroethane	0.75	U J	9.9	0.75	ug/L		05/24/12 15:47	06/11/12 16:35	1
Indeno[1,2,3-cd]pyrene	0.99	U	9.9	0.99	ug/L		05/24/12 15:47	06/11/12 16:35	1
Isophorone	0.89	U J	9.9	0.89	ug/L		05/24/12 15:47	06/11/12 16:35	1
Naphthalene	0.69	U	9.9	0.69	ug/L		05/24/12 15:47	06/11/12 16:35	1
Nitrobenzene	0.72	U J	9.9	0.72	ug/L		05/24/12 15:47	06/11/12 16:35	1
N-Nitrosodiphenylamine	0.91	U J	9.9	0.91	ug/L		05/24/12 15:47	06/11/12 16:35	1

Client Sample ID: SLMW-6-5-12

Lab Sample ID: 680-79725-2

Date Collected: 05/22/12 11:35

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	0.71	U J	9.9	0.71	ug/L		05/24/12 15:47	06/11/12 16:35	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/24/12 15:47	06/11/12 16:35	1
Phenanthrene	0.76	U	9.9	0.76	ug/L		05/24/12 15:47	06/11/12 16:35	1
Phenol	0.82	U	9.9	0.82	ug/L		05/24/12 15:47	06/11/12 16:35	1
Pyrene	0.62	U	9.9	0.62	ug/L		05/24/12 15:47	06/11/12 16:35	1
Butyl benzyl phthalate	1.2	U Q J	9.9	1.2	ug/L		05/24/12 15:47	06/11/12 16:35	1
bis(chloroisopropyl) ether	0.77	U J	9.9	0.77	ug/L		05/24/12 15:47	06/11/12 16:35	1
Benzoic acid	4.9	U	49	4.9	ug/L		05/24/12 15:47	06/11/12 16:35	1
2,6-Dinitrotoluene	1.1	U J	9.9	1.1	ug/L		05/24/12 15:47	06/11/12 16:35	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/24/12 15:47	06/11/12 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*62*		*31 - 141*	*05/24/12 15:47*	*06/11/12 16:35*	*1*
2-Fluorobiphenyl	*52*		*38 - 130*	*05/24/12 15:47*	*06/11/12 16:35*	*1*
2-Fluorophenol	*56*		*25 - 130*	*05/24/12 15:47*	*06/11/12 16:35*	*1*
Terphenyl-d14	*66*		*10 - 143*	*05/24/12 15:47*	*06/11/12 16:35*	*1*
Phenol-d5	*52*		*25 - 130*	*05/24/12 15:47*	*06/11/12 16:35*	*1*
Nitrobenzene-d5	*54*		*39 - 130*	*05/24/12 15:47*	*06/11/12 16:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/25/12 15:33	06/02/12 04:07	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		05/25/12 15:33	06/02/12 04:07	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endrin	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		05/25/12 15:33	06/02/12 04:07	1
Endrin ketone	0.0084	U	0.10	0.0084	ug/L		05/25/12 15:33	06/02/12 04:07	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		05/25/12 15:33	06/02/12 04:07	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/02/12 04:07	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		05/25/12 15:33	06/02/12 04:07	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1016	0.071	U	1.0	0.071	ug/L		05/25/12 15:33	06/02/12 04:07	1
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		05/25/12 15:33	06/02/12 04:07	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		05/25/12 15:33	06/02/12 04:07	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/02/12 04:07	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/02/12 04:07	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		05/25/12 15:33	06/02/12 04:07	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		05/25/12 15:33	06/02/12 04:07	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1232	0.11	U	1.0	0.11	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1242	0.18	U	1.0	0.18	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1248	0.36	U	1.0	0.36	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1254	0.26	U	1.0	0.26	ug/L		05/25/12 15:33	06/02/12 04:07	1
PCB-1260	0.20	U	1.0	0.20	ug/L		05/25/12 15:33	06/02/12 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*49*		*36 - 130*	*05/25/12 15:33*	*06/02/12 04:07*	*1*
Tetrachloro-m-xylene	*46*		*36 - 130*	*05/25/12 15:33*	*06/02/12 04:07*	*1*

Client Sample ID: SLMW-6-5-12

Lab Sample ID: 680-79725-2

Date Collected: 05/22/12 11:35

Matrix: Water

Date Received: 05/23/12 09:14

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	42		40 - 130	05/25/12 15:33	06/02/12 04:07	1
DCB Decachlorobiphenyl	41		40 - 130	05/25/12 15:33	06/02/12 04:07	1

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:49	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:49	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/25/12 13:15	06/07/12 20:49	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/25/12 13:15	06/07/12 20:49	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/25/12 13:15	06/07/12 20:49	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 20:49	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/25/12 13:15	06/07/12 20:49	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 20:49	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 20:49	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:49	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:49	1
EPN	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 20:49	1
Mocap	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:49	1
Famphur	0.12	U	0.94	0.12	ug/L		05/25/12 13:15	06/07/12 20:49	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/25/12 13:15	06/07/12 20:49	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 20:49	1
Malathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:49	1
Parathion	0.15	U	0.94	0.15	ug/L		05/25/12 13:15	06/07/12 20:49	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 20:49	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/25/12 13:15	06/07/12 20:49	1
Phorate	0.087	U	0.94	0.087	ug/L		05/25/12 13:15	06/07/12 20:49	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/25/12 13:15	06/07/12 20:49	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/25/12 13:15	06/07/12 20:49	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 20:49	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 20:49	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 20:49	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 20:49	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 20:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	101		49 - 122	05/25/12 13:15	06/07/12 20:49	1
Tributyl phosphate	105		49 - 122	05/25/12 13:15	06/07/12 20:49	1
Triphenylphosphate	102		45 - 145	05/25/12 13:15	06/07/12 20:49	1
Triphenylphosphate	108		45 - 145	05/25/12 13:15	06/07/12 20:49	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		05/24/12 08:36	05/26/12 19:38	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:38	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:38	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:38	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 19:38	1
Dicamba	0.082	U	0.48	0.082	ug/L		05/24/12 08:36	05/26/12 19:38	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:38	1
Dinoseb	0.15	U	5.8	0.15	ug/L		05/24/12 08:36	05/26/12 19:38	1
MCPA	16	U	120	16	ug/L		05/24/12 08:36	05/26/12 19:38	1

Client Sample ID: SLMW-6-5-12

Lab Sample ID: 680-79725-2

Date Collected: 05/22/12 11:35

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mecoprop	18	U	120	18	ug/L		05/24/12 08:36	05/26/12 19:38	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*84*		*52 - 151*	*05/24/12 08:36*	*05/26/12 19:38*	*1*
DCAA	*79*		*52 - 151*	*05/24/12 08:36*	*05/26/12 19:38*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 20:08	1
2,4-DB	**0.21**	**J H**	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:08	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:08	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:08	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 20:08	1
Dicamba	0.081	U H	0.47	0.081	ug/L		06/05/12 07:51	06/06/12 20:08	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:08	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 20:08	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 20:08	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 20:08	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*67*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:08*	*1*
DCAA	*67*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:08*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:57	1
Barium	**13**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 05:57	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 05:57	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 05:57	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 05:57	1
Cobalt	**0.26**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 05:57	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 05:57	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 05:57	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:57	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 05:57	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:57	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 05:57	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:57	1
Tin	**0.50**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:57	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 05:57	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 05:57	1
Mercury	**0.11**	**J**	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 05:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 18:03	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 13:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 10:30	05/24/12 13:54	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-9-5-12

Lab Sample ID: 680-79725-3

Date Collected: 05/22/12 14:45

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 21:25	1
Benzene	**0.96**	**J**	1.0	0.25	ug/L			05/30/12 21:25	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 21:25	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 21:25	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 21:25	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 21:25	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 21:25	1
Chlorobenzene	**0.49**	**J**	1.0	0.25	ug/L			05/30/12 21:25	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 21:25	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 21:25	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 21:25	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 21:25	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 21:25	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 21:25	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 21:25	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 21:25	1
cis-1,2-Dichloroethene	**1.4**		1.0	0.15	ug/L			05/30/12 21:25	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 21:25	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 21:25	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 21:25	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
1,4-Dichlorobenzene	**0.37**	**J**	1.0	0.28	ug/L			05/30/12 21:25	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
1,1-Dichloroethane	**2.3**		1.0	0.25	ug/L			05/30/12 21:25	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 21:25	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 21:25	1
1,2-Dichloropropane	**0.16**	**J**	1.0	0.13	ug/L			05/30/12 21:25	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 21:25	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 21:25	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 21:25	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 21:25	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 21:25	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 21:25	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 21:25	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 21:25	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 21:25	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 21:25	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 21:25	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 21:25	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 21:25	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 21:25	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 21:25	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 21:25	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 21:25	1
Tetrachloroethene	**0.23**	**J**	1.0	0.15	ug/L			05/30/12 21:25	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 21:25	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 21:25	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 21:25	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-9-5-12
Date Collected: 05/22/12 14:45
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 21:25	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 21:25	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 21:25	1
Trichloroethene	**0.33**	**J**	1.0	0.13	ug/L			05/30/12 21:25	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 21:25	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 21:25	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 21:25	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 21:25	1
Vinyl chloride	**0.87**	**J**	1.0	0.18	ug/L			05/30/12 21:25	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*		*05/30/12 21:25*	*1*
Dibromofluoromethane	*88*		*70 - 130*		*05/30/12 21:25*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/30/12 21:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.54	U	9.6	0.54	ug/L		05/24/12 15:47	06/11/12 17:03	1
1,2-Dichlorobenzene	0.51	U	9.6	0.51	ug/L		05/24/12 15:47	06/11/12 17:03	1
1,3-Dichlorobenzene	0.56	U	9.6	0.56	ug/L		05/24/12 15:47	06/11/12 17:03	1
1,4-Dichlorobenzene	0.52	U	9.6	0.52	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4,5-Trichlorophenol	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4,6-Trichlorophenol	0.81	U	9.6	0.81	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4-Dichlorophenol	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4-Dimethylphenol	3.8	U	9.6	3.8	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4-Dinitrophenol	9.6	U	48	9.6	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,4-Dinitrotoluene	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Chlorophenol	0.83	U	9.6	0.83	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Chloronaphthalene	0.77	U	9.6	0.77	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Methylnaphthalene	0.75	U	9.6	0.75	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Methylphenol	0.85	U	9.6	0.85	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		05/24/12 15:47	06/11/12 17:03	1
2-Nitrophenol	0.73	U	9.6	0.73	ug/L		05/24/12 15:47	06/11/12 17:03	1
3 & 4 Methylphenol	1.2	U	9.6	1.2	ug/L		05/24/12 15:47	06/11/12 17:03	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		05/24/12 15:47	06/11/12 17:03	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:03	1
4,6-Dinitro-2-methylphenol	9.6	U	48	9.6	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Bromophenyl phenyl ether	0.74	U	9.6	0.74	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Chlorophenyl phenyl ether	0.80	U	9.6	0.80	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:03	1
Acenaphthene	0.73	U	9.6	0.73	ug/L		05/24/12 15:47	06/11/12 17:03	1
Acenaphthylene	0.81	U	9.6	0.81	ug/L		05/24/12 15:47	06/11/12 17:03	1
Anthracene	0.66	U	9.6	0.66	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzo[a]anthracene	0.53	U	9.6	0.53	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzo[a]pyrene	0.68	U	9.6	0.68	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzo[b]fluoranthene	2.5	U	9.6	2.5	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzo[g,h,i]perylene	0.83	U	9.6	0.83	ug/L		05/24/12 15:47	06/11/12 17:03	1

Client Sample Results

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-9-5-12

Date Collected: 05/22/12 14:45
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzyl alcohol	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
Bis(2-chloroethoxy)methane	0.90	U	9.6	0.90	ug/L		05/24/12 15:47	06/11/12 17:03	1
Bis(2-chloroethyl)ether	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.6	1.5	ug/L		05/24/12 15:47	06/11/12 17:03	1
Chrysene	0.49	U	9.6	0.49	ug/L		05/24/12 15:47	06/11/12 17:03	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		05/24/12 15:47	06/11/12 17:03	1
Dibenzofuran	0.76	U	9.6	0.76	ug/L		05/24/12 15:47	06/11/12 17:03	1
Di-n-butyl phthalate	0.79	U Q	9.6	0.79	ug/L		05/24/12 15:47	06/11/12 17:03	1
Diethyl phthalate	0.84	U	9.6	0.84	ug/L		05/24/12 15:47	06/11/12 17:03	1
Dimethyl phthalate	0.95	U	9.6	0.95	ug/L		05/24/12 15:47	06/11/12 17:03	1
Di-n-octyl phthalate	1.3	U Q	9.6	1.3	ug/L		05/24/12 15:47	06/11/12 17:03	1
Fluoranthene	0.71	U	9.6	0.71	ug/L		05/24/12 15:47	06/11/12 17:03	1
Fluorene	0.92	U	9.6	0.92	ug/L		05/24/12 15:47	06/11/12 17:03	1
Hexachlorobenzene	0.76	U	9.6	0.76	ug/L		05/24/12 15:47	06/11/12 17:03	1
Hexachlorobutadiene	0.59	U	9.6	0.59	ug/L		05/24/12 15:47	06/11/12 17:03	1
Hexachloroethane	0.73	U	9.6	0.73	ug/L		05/24/12 15:47	06/11/12 17:03	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		05/24/12 15:47	06/11/12 17:03	1
Isophorone	0.86	U	9.6	0.86	ug/L		05/24/12 15:47	06/11/12 17:03	1
Naphthalene	0.67	U	9.6	0.67	ug/L		05/24/12 15:47	06/11/12 17:03	1
Nitrobenzene	0.70	U	9.6	0.70	ug/L		05/24/12 15:47	06/11/12 17:03	1
N-Nitrosodiphenylamine	0.88	U	9.6	0.88	ug/L		05/24/12 15:47	06/11/12 17:03	1
N-Nitrosodi-n-propylamine	0.69	U	9.6	0.69	ug/L		05/24/12 15:47	06/11/12 17:03	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/24/12 15:47	06/11/12 17:03	1
Phenanthrene	0.74	U	9.6	0.74	ug/L		05/24/12 15:47	06/11/12 17:03	1
Phenol	0.79	U	9.6	0.79	ug/L		05/24/12 15:47	06/11/12 17:03	1
Pyrene	0.60	U	9.6	0.60	ug/L		05/24/12 15:47	06/11/12 17:03	1
Butyl benzyl phthalate	1.1	U Q	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
bis(chloroisopropyl) ether	0.75	U	9.6	0.75	ug/L		05/24/12 15:47	06/11/12 17:03	1
Benzoic acid	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:03	1
2,6-Dinitrotoluene	1.1	U	9.6	1.1	ug/L		05/24/12 15:47	06/11/12 17:03	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/24/12 15:47	06/11/12 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*31 - 141*	*05/24/12 15:47*	*06/11/12 17:03*	*1*
2-Fluorobiphenyl	*70*		*38 - 130*	*05/24/12 15:47*	*06/11/12 17:03*	*1*
2-Fluorophenol	*68*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:03*	*1*
Terphenyl-d14	*54*		*10 - 143*	*05/24/12 15:47*	*06/11/12 17:03*	*1*
Phenol-d5	*69*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:03*	*1*
Nitrobenzene-d5	*68*		*39 - 130*	*05/24/12 15:47*	*06/11/12 17:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/25/12 15:33	06/04/12 16:03	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		05/25/12 15:33	06/04/12 16:03	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		05/25/12 15:33	06/04/12 16:03	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		05/25/12 15:33	06/04/12 16:03	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		05/25/12 15:33	06/04/12 16:03	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		05/25/12 15:33	06/04/12 16:03	1
Endrin	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/04/12 16:03	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		05/25/12 15:33	06/04/12 16:03	1

Client Sample ID: SLMW-9-5-12

Lab Sample ID: 680-79725-3

Date Collected: 05/22/12 14:45

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0084	U	0.10	0.0084	ug/L		05/25/12 15:33	06/04/12 16:03	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		05/25/12 15:33	06/04/12 16:03	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/04/12 16:03	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		05/25/12 15:33	06/04/12 16:03	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1016	0.071	U	1.0	0.071	ug/L		05/25/12 15:33	06/04/12 16:03	1
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		05/25/12 15:33	06/04/12 16:03	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		05/25/12 15:33	06/04/12 16:03	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/04/12 16:03	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/04/12 16:03	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		05/25/12 15:33	06/04/12 16:03	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		05/25/12 15:33	06/04/12 16:03	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1232	0.11	U	1.0	0.11	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1242	0.18	U	1.0	0.18	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1248	0.36	U	1.0	0.36	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1254	0.26	U	1.0	0.26	ug/L		05/25/12 15:33	06/04/12 16:03	1
PCB-1260	0.20	U	1.0	0.20	ug/L		05/25/12 15:33	06/04/12 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*36 - 130*	*05/25/12 15:33*	*06/04/12 16:03*	*1*
Tetrachloro-m-xylene	*64*		*36 - 130*	*05/25/12 15:33*	*06/04/12 16:03*	*1*
DCB Decachlorobiphenyl	*44*		*40 - 130*	*05/25/12 15:33*	*06/04/12 16:03*	*1*
DCB Decachlorobiphenyl	*39*	*J*	*40 - 130*	*05/25/12 15:33*	*06/04/12 16:03*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.95	0.11	ug/L		05/25/12 13:15	06/07/12 21:16	1
Bolstar	0.10	U	0.95	0.10	ug/L		05/25/12 13:15	06/07/12 21:16	1
Chlorpyrifos	0.097	U	0.95	0.097	ug/L		05/25/12 13:15	06/07/12 21:16	1
Coumaphos	0.14	U	0.95	0.14	ug/L		05/25/12 13:15	06/07/12 21:16	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/25/12 13:15	06/07/12 21:16	1
Demeton-O	0.089	U	0.95	0.089	ug/L		05/25/12 13:15	06/07/12 21:16	1
Demeton-S	0.068	U	0.95	0.068	ug/L		05/25/12 13:15	06/07/12 21:16	1
Diazinon	0.090	U	0.95	0.090	ug/L		05/25/12 13:15	06/07/12 21:16	1
Dichlorvos	0.081	U	0.95	0.081	ug/L		05/25/12 13:15	06/07/12 21:16	1
Dimethoate	0.11	U	0.95	0.11	ug/L		05/25/12 13:15	06/07/12 21:16	1
Disulfoton	0.096	U	0.95	0.096	ug/L		05/25/12 13:15	06/07/12 21:16	1
EPN	0.11	U	0.95	0.11	ug/L		05/25/12 13:15	06/07/12 21:16	1
Mocap	0.096	U	0.95	0.096	ug/L		05/25/12 13:15	06/07/12 21:16	1
Famphur	0.12	U	0.95	0.12	ug/L		05/25/12 13:15	06/07/12 21:16	1
Fensulfothion	0.16	U	0.95	0.16	ug/L		05/25/12 13:15	06/07/12 21:16	1
Fenthion	0.081	U	0.95	0.081	ug/L		05/25/12 13:15	06/07/12 21:16	1
Malathion	0.10	U	0.95	0.10	ug/L		05/25/12 13:15	06/07/12 21:16	1
Parathion	0.15	U	0.95	0.15	ug/L		05/25/12 13:15	06/07/12 21:16	1
Methyl parathion	0.11	U	0.95	0.11	ug/L		05/25/12 13:15	06/07/12 21:16	1
Mevinphos	0.093	U	0.95	0.093	ug/L		05/25/12 13:15	06/07/12 21:16	1
Phorate	0.088	U	0.95	0.088	ug/L		05/25/12 13:15	06/07/12 21:16	1
Ronnel	0.097	U	0.95	0.097	ug/L		05/25/12 13:15	06/07/12 21:16	1
Stirophos	0.091	U	0.95	0.091	ug/L		05/25/12 13:15	06/07/12 21:16	1

Client Sample ID: SLMW-9-5-12

Lab Sample ID: 680-79725-3

Date Collected: 05/22/12 14:45

Matrix: Water

Date Received: 05/23/12 09:14

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.090	U	0.95	0.090	ug/L		05/25/12 13:15	06/07/12 21:16	1
Thionazin	0.095	U	0.95	0.095	ug/L		05/25/12 13:15	06/07/12 21:16	1
Tokuthion	0.089	U	0.95	0.089	ug/L		05/25/12 13:15	06/07/12 21:16	1
Trichloronate	0.094	U	0.95	0.094	ug/L		05/25/12 13:15	06/07/12 21:16	1
O,O,O-Triethyl phosphorothioate	0.095	U	0.95	0.095	ug/L		05/25/12 13:15	06/07/12 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*114*		*49 - 122*	*05/25/12 13:15*	*06/07/12 21:16*	*1*
Tributyl phosphate	*118*		*49 - 122*	*05/25/12 13:15*	*06/07/12 21:16*	*1*
Triphenylphosphate	*108*		*45 - 145*	*05/25/12 13:15*	*06/07/12 21:16*	*1*
Triphenylphosphate	*111*		*45 - 145*	*05/25/12 13:15*	*06/07/12 21:16*	*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		05/24/12 08:36	05/26/12 21:28	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 21:28	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 21:28	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 21:28	1
Dalapon	0.095	U	9.5	0.095	ug/L		05/24/12 08:36	05/26/12 21:28	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 21:28	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 21:28	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 21:28	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 21:28	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 21:28	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*82*		*52 - 151*	*05/24/12 08:36*	*05/26/12 21:28*	*1*
DCAA	*77*		*52 - 151*	*05/24/12 08:36*	*05/26/12 21:28*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.033	U H	0.45	0.033	ug/L		06/05/12 07:51	06/06/12 20:24	1
2,4-DB	0.14	U H	0.45	0.14	ug/L		06/05/12 07:51	06/06/12 20:24	1
2,4,5-T	0.056	U H	0.45	0.056	ug/L		06/05/12 07:51	06/06/12 20:24	1
Silvex (2,4,5-TP)	0.056	U H	0.45	0.056	ug/L		06/05/12 07:51	06/06/12 20:24	1
Dalapon	0.090	U H	9.0	0.090	ug/L		06/05/12 07:51	06/06/12 20:24	1
Dicamba	0.077	U H	0.45	0.077	ug/L		06/05/12 07:51	06/06/12 20:24	1
Dichlorprop	0.14	U H	0.45	0.14	ug/L		06/05/12 07:51	06/06/12 20:24	1
Dinoseb	0.14	U H	5.4	0.14	ug/L		06/05/12 07:51	06/06/12 20:24	1
MCPA	15	U H	110	15	ug/L		06/05/12 07:51	06/06/12 20:24	1
Mecoprop	17	U H	110	17	ug/L		06/05/12 07:51	06/06/12 20:24	1
Pentachlorophenol	0.033	U H	0.23	0.033	ug/L		06/05/12 07:51	06/06/12 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*84*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:24*	*1*
DCAA	*85*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:24*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.2**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:05	1
Barium	**40**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 06:05	1

Client Sample ID: SLMW-9-5-12

Lab Sample ID: 680-79725-3

Date Collected: 05/22/12 14:45

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 06:05	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 06:05	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 06:05	1
Cobalt	**1.7**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 06:05	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 06:05	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 06:05	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:05	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 06:05	1
Nickel	**0.76**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:05	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 06:05	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:05	1
Tin	**0.68**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:05	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 06:05	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 06:05	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 06:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 18:19	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 13:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 10:30	05/24/12 13:54	1

Client Sample ID: SW-2-5-12

Lab Sample ID: 680-79725-4

Date Collected: 05/22/12 15:00

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 20:56	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 20:56	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 20:56	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 20:56	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 20:56	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 20:56	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 20:56	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 20:56	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 20:56	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 20:56	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 20:56	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 20:56	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 20:56	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 20:56	1
cis-1,2-Dichloroethene	**0.15**	**J**	1.0	0.15	ug/L			05/30/12 20:56	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 20:56	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 20:56	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 20:56	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 20:56	1

Client Sample ID: SW-2-5-12
Date Collected: 05/22/12 15:00
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
1,1-Dichloroethane	**0.29**	**J**	1.0	0.25	ug/L			05/30/12 20:56	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 20:56	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 20:56	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 20:56	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 20:56	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 20:56	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 20:56	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 20:56	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 20:56	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 20:56	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 20:56	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 20:56	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 20:56	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 20:56	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 20:56	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 20:56	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 20:56	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 20:56	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 20:56	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 20:56	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 20:56	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 20:56	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 20:56	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 20:56	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 20:56	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 20:56	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 20:56	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 20:56	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 20:56	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 20:56	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 20:56	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 20:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 20:56	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 20:56	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*		*05/30/12 20:56*	*1*
Dibromofluoromethane	*89*		*70 - 130*		*05/30/12 20:56*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/30/12 20:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 17:31	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 17:31	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 17:31	1

Client Sample ID: SW-2-5-12
Date Collected: 05/22/12 15:00
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.51	U	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4,6-Trichlorophenol	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Chlorophenol	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 17:31	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:31	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 17:31	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 17:31	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 17:31	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 17:31	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:31	1
Acenaphthylene	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 17:31	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzo[g,h,i]perylene	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:31	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 17:31	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:31	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 17:31	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 17:31	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:31	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 17:31	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 17:31	1
Diethyl phthalate	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 17:31	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 17:31	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 17:31	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 17:31	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 17:31	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 17:31	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 17:31	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:31	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:31	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 17:31	1
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 17:31	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 17:31	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 17:31	1

Client Sample ID: SW-2-5-12

Lab Sample ID: 680-79725-4

Date Collected: 05/22/12 15:00

Matrix: Water

Date Received: 05/23/12 09:14

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		05/24/12 15:47	06/11/12 17:31	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 17:31	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 17:31	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 17:31	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 17:31	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:31	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 17:31	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 17:31	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:31	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*31 - 141*	*05/24/12 15:47*	*06/11/12 17:31*	*1*
2-Fluorobiphenyl	*65*		*38 - 130*	*05/24/12 15:47*	*06/11/12 17:31*	*1*
2-Fluorophenol	*67*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:31*	*1*
Terphenyl-d14	*34*		*10 - 143*	*05/24/12 15:47*	*06/11/12 17:31*	*1*
Phenol-d5	*65*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:31*	*1*
Nitrobenzene-d5	*65*		*39 - 130*	*05/24/12 15:47*	*06/11/12 17:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.49	U	4.9	0.49	ug/L		05/25/12 15:33	06/04/12 16:27	1
delta-BHC	0.0047	U	0.049	0.0047	ug/L		05/25/12 15:33	06/04/12 16:27	1
Dieldrin	0.0089	U	0.098	0.0089	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endosulfan I	0.0041	U	0.049	0.0041	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endosulfan II	0.0096	U	0.098	0.0096	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endosulfan sulfate	0.0067	U	0.098	0.0067	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endrin	0.0095	U	0.098	0.0095	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endrin aldehyde	0.016	U	0.098	0.016	ug/L		05/25/12 15:33	06/04/12 16:27	1
Endrin ketone	0.0083	U	0.098	0.0083	ug/L		05/25/12 15:33	06/04/12 16:27	1
gamma-BHC (Lindane)	0.0058	U	0.049	0.0058	ug/L		05/25/12 15:33	06/04/12 16:27	1
Heptachlor	0.0069	U	0.049	0.0069	ug/L		05/25/12 15:33	06/04/12 16:27	1
Heptachlor epoxide	0.0059	U	0.049	0.0059	ug/L		05/25/12 15:33	06/04/12 16:27	1
Methoxychlor	0.013	U	0.098	0.013	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1016	0.070	U	0.98	0.070	ug/L		05/25/12 15:33	06/04/12 16:27	1
4,4'-DDD	0.0064	U	0.098	0.0064	ug/L		05/25/12 15:33	06/04/12 16:27	1
4,4'-DDE	0.0076	U	0.098	0.0076	ug/L		05/25/12 15:33	06/04/12 16:27	1
4,4'-DDT	0.0095	U	0.098	0.0095	ug/L		05/25/12 15:33	06/04/12 16:27	1
Aldrin	0.0069	U	0.049	0.0069	ug/L		05/25/12 15:33	06/04/12 16:27	1
alpha-BHC	0.0056	U	0.049	0.0056	ug/L		05/25/12 15:33	06/04/12 16:27	1
beta-BHC	0.0066	U	0.049	0.0066	ug/L		05/25/12 15:33	06/04/12 16:27	1
Chlordane (technical)	0.098	U	0.49	0.098	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1232	0.11	U	0.98	0.11	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1242	0.18	U	0.98	0.18	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1248	0.35	U	0.98	0.35	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1254	0.26	U	0.98	0.26	ug/L		05/25/12 15:33	06/04/12 16:27	1
PCB-1260	0.20	U	0.98	0.20	ug/L		05/25/12 15:33	06/04/12 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*36 - 130*	*05/25/12 15:33*	*06/04/12 16:27*	*1*
Tetrachloro-m-xylene	*63*		*36 - 130*	*05/25/12 15:33*	*06/04/12 16:27*	*1*

Client Sample ID: SW-2-5-12

Lab Sample ID: 680-79725-4

Date Collected: 05/22/12 15:00

Matrix: Water

Date Received: 05/23/12 09:14

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		40 - 130	05/25/12 15:33	06/04/12 16:27	1
DCB Decachlorobiphenyl	50		40 - 130	05/25/12 15:33	06/04/12 16:27	1

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 21:43	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 21:43	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/25/12 13:15	06/07/12 21:43	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/25/12 13:15	06/07/12 21:43	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/25/12 13:15	06/07/12 21:43	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 21:43	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/25/12 13:15	06/07/12 21:43	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 21:43	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 21:43	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 21:43	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 21:43	1
EPN	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 21:43	1
Mocap	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 21:43	1
Famphur	0.12	U	0.94	0.12	ug/L		05/25/12 13:15	06/07/12 21:43	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/25/12 13:15	06/07/12 21:43	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 21:43	1
Malathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 21:43	1
Parathion	0.15	U	0.94	0.15	ug/L		05/25/12 13:15	06/07/12 21:43	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 21:43	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/25/12 13:15	06/07/12 21:43	1
Phorate	0.087	U	0.94	0.087	ug/L		05/25/12 13:15	06/07/12 21:43	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/25/12 13:15	06/07/12 21:43	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/25/12 13:15	06/07/12 21:43	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 21:43	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 21:43	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 21:43	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 21:43	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	113		49 - 122	05/25/12 13:15	06/07/12 21:43	1
Tributyl phosphate	117		49 - 122	05/25/12 13:15	06/07/12 21:43	1
Triphenylphosphate	109		45 - 145	05/25/12 13:15	06/07/12 21:43	1
Triphenylphosphate	112		45 - 145	05/25/12 13:15	06/07/12 21:43	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		05/24/12 08:36	05/26/12 21:44	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 21:44	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 21:44	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 21:44	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 21:44	1
Dicamba	0.082	U	0.48	0.082	ug/L		05/24/12 08:36	05/26/12 21:44	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 21:44	1
Dinoseb	0.15	U	5.8	0.15	ug/L		05/24/12 08:36	05/26/12 21:44	1
MCPA	16	U	120	16	ug/L		05/24/12 08:36	05/26/12 21:44	1

Client Sample ID: SW-2-5-12

Lab Sample ID: 680-79725-4

Date Collected: 05/22/12 15:00

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mecoprop	18	U	120	18	ug/L		05/24/12 08:36	05/26/12 21:44	1
Pentachlorophenol	0.036	U J Q	0.24	0.036	ug/L		05/24/12 08:36	05/26/12 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*66*		*52 - 151*	*05/24/12 08:36*	*05/26/12 21:44*	*1*
DCAA	*69*		*52 - 151*	*05/24/12 08:36*	*05/26/12 21:44*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 20:40	1
2,4-DB	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:40	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:40	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:40	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 20:40	1
Dicamba	0.080	U H	0.47	0.080	ug/L		06/05/12 07:51	06/06/12 20:40	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:40	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 20:40	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 20:40	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 20:40	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*79*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:40*	*1*
DCAA	*101*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:40*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.70**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:27	1
Barium	**30**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 06:27	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 06:27	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 06:27	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 06:27	1
Cobalt	**0.24**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 06:27	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 06:27	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 06:27	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:27	1
Lead	**0.097**	**J**	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 06:27	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:27	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 06:27	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:27	1
Tin	**0.42**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:27	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 06:27	1
Zinc	**7.9**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 06:27	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 06:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 18:34	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 13:04	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 13:53	05/24/12 13:54	1

Client Sample Results

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLNW-BLK-1-5-12

Lab Sample ID: 680-79725-5

Date Collected: 05/22/12 16:00

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 17:28	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:28	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 17:28	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 17:28	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 17:28	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 17:28	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 17:28	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:28	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 17:28	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 17:28	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 17:28	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:28	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 17:28	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 17:28	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:28	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 17:28	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 17:28	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 17:28	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 17:28	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:28	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 17:28	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:28	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:28	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 17:28	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 17:28	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 17:28	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:28	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 17:28	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 17:28	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 17:28	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 17:28	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 17:28	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:28	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 17:28	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:28	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 17:28	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 17:28	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:28	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 17:28	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:28	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 17:28	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 17:28	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 17:28	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLNW-BLK-1-5-12
Date Collected: 05/22/12 16:00
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 17:28	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 17:28	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 17:28	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 17:28	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:28	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 17:28	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:28	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:28	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 17:28	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*		*05/30/12 17:28*	*1*
Dibromofluoromethane	*87*		*70 - 130*		*05/30/12 17:28*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/30/12 17:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 17:59	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 17:59	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 17:59	1
1,4-Dichlorobenzene	0.51	U	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4-Dinitrophenol	9.5	U	48	9.5	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Chlorophenol	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Methylphenol	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		05/24/12 15:47	06/11/12 17:59	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:59	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 17:59	1
3,3'-Dichlorobenzidine	29	U	57	29	ug/L		05/24/12 15:47	06/11/12 17:59	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:59	1
4,6-Dinitro-2-methylphenol	9.5	U	48	9.5	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:59	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:59	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 17:59	1
Anthracene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzo[a]pyrene	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzo[g,h,i]perylene	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 17:59	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLNW-BLK-1-5-12
Date Collected: 05/22/12 16:00
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:59	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 17:59	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:59	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 17:59	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 17:59	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:59	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 17:59	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 17:59	1
Diethyl phthalate	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 17:59	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 17:59	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 17:59	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 17:59	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 17:59	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 17:59	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 17:59	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 17:59	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 17:59	1
Isophorone	0.86	U	9.5	0.86	ug/L		05/24/12 15:47	06/11/12 17:59	1
Naphthalene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 17:59	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 17:59	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 17:59	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 17:59	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/24/12 15:47	06/11/12 17:59	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 17:59	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 17:59	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 17:59	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 17:59	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 17:59	1
Benzoic acid	4.8	U	48	4.8	ug/L		05/24/12 15:47	06/11/12 17:59	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 17:59	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/24/12 15:47	06/11/12 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*31 - 141*	*05/24/12 15:47*	*06/11/12 17:59*	*1*
2-Fluorobiphenyl	*64*		*38 - 130*	*05/24/12 15:47*	*06/11/12 17:59*	*1*
2-Fluorophenol	*64*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:59*	*1*
Terphenyl-d14	*64*		*10 - 143*	*05/24/12 15:47*	*06/11/12 17:59*	*1*
Phenol-d5	*61*		*25 - 130*	*05/24/12 15:47*	*06/11/12 17:59*	*1*
Nitrobenzene-d5	*63*		*39 - 130*	*05/24/12 15:47*	*06/11/12 17:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/25/12 15:33	06/04/12 17:39	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		05/25/12 15:33	06/04/12 17:39	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		05/25/12 15:33	06/04/12 17:39	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/25/12 15:33	06/04/12 17:39	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		05/25/12 15:33	06/04/12 17:39	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		05/25/12 15:33	06/04/12 17:39	1
Endrin	0.0092	U	0.095	0.0092	ug/L		05/25/12 15:33	06/04/12 17:39	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		05/25/12 15:33	06/04/12 17:39	1

Client Sample ID: SLNW-BLK-1-5-12

Lab Sample ID: 680-79725-5

Date Collected: 05/22/12 16:00

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0080	U	0.095	0.0080	ug/L		05/25/12 15:33	06/04/12 17:39	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/25/12 15:33	06/04/12 17:39	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/25/12 15:33	06/04/12 17:39	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		05/25/12 15:33	06/04/12 17:39	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1016	0.067	U	0.95	0.067	ug/L		05/25/12 15:33	06/04/12 17:39	1
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		05/25/12 15:33	06/04/12 17:39	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		05/25/12 15:33	06/04/12 17:39	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		05/25/12 15:33	06/04/12 17:39	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/25/12 15:33	06/04/12 17:39	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/25/12 15:33	06/04/12 17:39	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		05/25/12 15:33	06/04/12 17:39	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1221	0.27	U	1.9	0.27	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1232	0.10	U	0.95	0.10	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1242	0.17	U	0.95	0.17	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1248	0.34	U	0.95	0.34	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1254	0.25	U	0.95	0.25	ug/L		05/25/12 15:33	06/04/12 17:39	1
PCB-1260	0.19	U	0.95	0.19	ug/L		05/25/12 15:33	06/04/12 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*36 - 130*	*05/25/12 15:33*	*06/04/12 17:39*	*1*
Tetrachloro-m-xylene	*64*		*36 - 130*	*05/25/12 15:33*	*06/04/12 17:39*	*1*
DCB Decachlorobiphenyl	*48*		*40 - 130*	*05/25/12 15:33*	*06/04/12 17:39*	*1*
DCB Decachlorobiphenyl	*48*		*40 - 130*	*05/25/12 15:33*	*06/04/12 17:39*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 22:09	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 22:09	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/25/12 13:15	06/07/12 22:09	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/25/12 13:15	06/07/12 22:09	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/25/12 13:15	06/07/12 22:09	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 22:09	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/25/12 13:15	06/07/12 22:09	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 22:09	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 22:09	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 22:09	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 22:09	1
EPN	0.11	U	0.94	0.11	ug/L		05/25/12 13:15	06/07/12 22:09	1
Mocap	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 22:09	1
Famphur	0.12	U	0.94	0.12	ug/L		05/25/12 13:15	06/07/12 22:09	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/25/12 13:15	06/07/12 22:09	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/25/12 13:15	06/07/12 22:09	1
Malathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 22:09	1
Parathion	0.15	U	0.94	0.15	ug/L		05/25/12 13:15	06/07/12 22:09	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/25/12 13:15	06/07/12 22:09	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/25/12 13:15	06/07/12 22:09	1
Phorate	0.087	U	0.94	0.087	ug/L		05/25/12 13:15	06/07/12 22:09	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/25/12 13:15	06/07/12 22:09	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/25/12 13:15	06/07/12 22:09	1

Client Sample ID: SLNW-BLK-1-5-12

Lab Sample ID: 680-79725-5

Date Collected: 05/22/12 16:00

Matrix: Water

Date Received: 05/23/12 09:14

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/25/12 13:15	06/07/12 22:09	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/25/12 13:15	06/07/12 22:09	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/25/12 13:15	06/07/12 22:09	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 22:09	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/25/12 13:15	06/07/12 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*100*		*49 - 122*	*05/25/12 13:15*	*06/07/12 22:09*	*1*
Tributyl phosphate	*106*		*49 - 122*	*05/25/12 13:15*	*06/07/12 22:09*	*1*
Triphenylphosphate	*103*		*45 - 145*	*05/25/12 13:15*	*06/07/12 22:09*	*1*
Triphenylphosphate	*108*		*45 - 145*	*05/25/12 13:15*	*06/07/12 22:09*	*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		05/24/12 08:36	05/26/12 22:00	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 22:00	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 22:00	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 22:00	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 22:00	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 22:00	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 22:00	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 22:00	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 22:00	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 22:00	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*72*		*52 - 151*	*05/24/12 08:36*	*05/26/12 22:00*	*1*
DCAA	*69*		*52 - 151*	*05/24/12 08:36*	*05/26/12 22:00*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 20:56	1
2,4-DB	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:56	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:56	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 20:56	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 20:56	1
Dicamba	0.081	U H	0.47	0.081	ug/L		06/05/12 07:51	06/06/12 20:56	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 20:56	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 20:56	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 20:56	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 20:56	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*71*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:56*	*1*
DCAA	*80*		*52 - 151*	*06/05/12 07:51*	*06/06/12 20:56*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:34	1
Barium	**0.28**	**J**	1.0	0.15	ug/L		05/24/12 08:00	05/25/12 06:34	1

Client Sample ID: SLNW-BLK-1-5-12

Lab Sample ID: 680-79725-5

Date Collected: 05/22/12 16:00

Matrix: Water

Date Received: 05/23/12 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 06:34	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 06:34	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 06:34	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 06:34	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 06:34	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 06:34	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:34	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 06:34	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:34	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 06:34	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 06:34	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 06:34	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 06:34	1
Zinc	**3.0**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 06:34	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 06:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 18:49	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 13:09	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 13:53	05/24/12 13:55	1

Client Sample ID: Trip Blank

Lab Sample ID: 680-79725-6

Date Collected: 05/22/12 08:00

Matrix: Water

Date Received: 05/23/12 09:14

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			05/30/12 15:29	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:29	1
Bromoform	0.50	U Q	1.0	0.50	ug/L			05/30/12 15:29	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 15:29	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 15:29	1
Carbon tetrachloride	0.50	U Q	1.0	0.50	ug/L			05/30/12 15:29	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
Chlorobromomethane	0.14	U Q	1.0	0.14	ug/L			05/30/12 15:29	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:29	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 15:29	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 15:29	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 15:29	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:29	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 15:29	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 15:29	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:29	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 15:29	1
1,2-Dibromo-3-Chloropropane	0.44	U Q	1.0	0.44	ug/L			05/30/12 15:29	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 15:29	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 15:29	1

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: Trip Blank
Date Collected: 05/22/12 08:00
Date Received: 05/23/12 09:14

Lab Sample ID: 680-79725-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:29	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 15:29	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:29	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:29	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 15:29	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 15:29	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 15:29	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:29	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 15:29	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 15:29	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 15:29	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 15:29	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 15:29	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:29	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 15:29	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:29	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 15:29	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 15:29	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:29	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 15:29	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:29	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 15:29	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 15:29	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 15:29	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 15:29	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 15:29	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 15:29	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 15:29	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:29	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 15:29	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:29	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:29	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 15:29	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*		*05/30/12 15:29*	*1*
Dibromofluoromethane	*90*		*70 - 130*		*05/30/12 15:29*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/30/12 15:29*	*1*

Surrogate Summary

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

TestAmerica Job ID: 680-79725-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
680-79725-1	SLMW-11R-5-12	101	89	96
680-79725-2	SLMW-6-5-12	100	88	98
680-79725-3	SLMW-9-5-12	100	88	98
680-79725-4	SW-2-5-12	99	89	96
680-79725-5	SLNW-BLK-1-5-12	102	87	96
680-79725-6	Trip Blank	100	90	96
LCS 680-238839/4	Lab Control Sample	89	79	82
LCSD 680-238839/5	Lab Control Sample Dup	109	94	100
MB 680-238839/7	Method Blank	101	90	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	TPH	PHL	NBZ
Lab Sample ID	Client Sample ID	(31-141)	(38-130)	(25-130)	(10-143)	(25-130)	(39-130)
680-79725-1	SLMW-11R-5-12	83	76	77	65	74	75
680-79725-2	SLMW-6-5-12	62	52	56	66	52	54
680-79725-2 MS	SLMW-6-5-12	71	55	55	70	50	54
680-79725-2 MSD	SLMW-6-5-12	73	56	54	61	54	53
680-79725-3	SLMW-9-5-12	83	70	68	54	69	68
680-79725-4	SW-2-5-12	76	65	67	34	65	65
680-79725-5	SLNW-BLK-1-5-12	69	64	64	64	61	63
LCS 680-238359/14-A	Lab Control Sample	85	75	80	65	80	75
MB 680-238359/13-A	Method Blank	84	75	78	69	76	78

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(36-130)	(36-130)	(40-130)	(40-130)
680-79725-1	SLMW-11R-5-12	69	66	73	73
680-79725-1 MS	SLMW-11R-5-12	78	75	83	84
680-79725-1 MSD	SLMW-11R-5-12	90	86	97	97
680-79725-2	SLMW-6-5-12	49	46	42	41
680-79725-2 MS	SLMW-6-5-12	81	68	91	63

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(36-130)	(36-130)	(40-130)	(40-130)
680-79725-2 MSD	SLMW-6-5-12	76	59	88	62
680-79725-3	SLMW-9-5-12	76	64	44	39 J
680-79725-4	SW-2-5-12	72	63	71	50
680-79725-4 MS	SW-2-5-12	70	69	52	53
680-79725-4 MSD	SW-2-5-12	65	70	57	53
680-79725-5	SLNW-BLK-1-5-12	62	64	48	48
LCS 680-238463/21-A	Lab Control Sample	70	71	60	60
LCS 680-238463/24-A	Lab Control Sample	72	71	74	73
LCS 680-238463/27-A	Lab Control Sample	77	78	75	74
MB 680-238463/20-A	Method Blank	71	73	64	65

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TBPH1	TBPH2	TPP1	TPP2
Lab Sample ID	Client Sample ID	(49-122)	(49-122)	(45-145)	(45-145)
680-79725-1	SLMW-11R-5-12	100	105	103	108
680-79725-2	SLMW-6-5-12	101	105	102	108
680-79725-3	SLMW-9-5-12	114	118	108	111
680-79725-4	SW-2-5-12	113	117	109	112
680-79725-5	SLNW-BLK-1-5-12	100	106	103	108
LCS 180-37215/2-A	Lab Control Sample	117	122	106	108
LCSD 180-37215/3-A	Lab Control Sample Dup	119	125 J	107	110
MB 180-37215/1-A	Method Blank	91	96	93	102

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

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)
680-79725-1	SLMW-11R-5-12	81	79
680-79725-1 - RE	SLMW-11R-5-12	73	75
680-79725-2	SLMW-6-5-12	84	79
680-79725-2 - RE	SLMW-6-5-12	67	67
680-79725-3	SLMW-9-5-12	82	77
680-79725-3 - RE	SLMW-9-5-12	84	85
680-79725-4	SW-2-5-12	66	69
680-79725-4 - RE	SW-2-5-12	79	101
680-79725-4 MS	SW-2-5-12	81	87

Surrogate Summary

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

TestAmerica Job ID: 680-79725-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCPA1 (52-151)	DCPA2 (52-151)						
680-79725-4 MSD	SW-2-5-12	75	90						
680-79725-5	SLNW-BLK-1-5-12	72	69						
680-79725-5 - RE	SLNW-BLK-1-5-12	71	80						
LCS 680-238328/18-A	Lab Control Sample		89						
LCS 680-239271/17-A	Lab Control Sample	72	86						
MB 680-238328/17-A	Method Blank	81	76						
MB 680-239271/16-A	Method Blank	45 J	49 M J						

Surrogate Legend

DCPA = DCAA

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

Lab Sample ID: MB 680-238839/7
Matrix: Water
Analysis Batch: 238839

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			05/30/12 13:31	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 13:31	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 13:31	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 13:31	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 13:31	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 13:31	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 13:31	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 13:31	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 13:31	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 13:31	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 13:31	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 13:31	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 13:31	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 13:31	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 13:31	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 13:31	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 13:31	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 13:31	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 13:31	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 13:31	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 13:31	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 13:31	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 13:31	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 13:31	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 13:31	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 13:31	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 13:31	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 13:31	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 13:31	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 13:31	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 13:31	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 13:31	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 13:31	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 13:31	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 13:31	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 13:31	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 13:31	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 13:31	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 13:31	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 13:31	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 13:31	1

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

Lab Sample ID: MB 680-238839/7
Matrix: Water
Analysis Batch: 238839

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			05/30/12 13:31	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 13:31	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 13:31	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 13:31	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 13:31	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 13:31	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:31	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 13:31	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 13:31	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 13:31	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 13:31	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 13:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*		*05/30/12 13:31*	*1*
Dibromofluoromethane	*90*		*70 - 130*		*05/30/12 13:31*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/30/12 13:31*	*1*

Lab Sample ID: LCS 680-238839/4
Matrix: Water
Analysis Batch: 238839

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	57.8		ug/L		58	26 - 180
Benzene	50.0	44.3		ug/L		89	70 - 130
Bromobenzene	50.0	41.9		ug/L		84	70 - 130
Bromoform	50.0	33.7	Q	ug/L		67	70 - 130
Bromomethane	50.0	37.3		ug/L		75	23 - 165
2-Butanone (MEK)	100	58.3		ug/L		58	49 - 172
Carbon tetrachloride	50.0	33.1	Q	ug/L		66	70 - 130
Chlorobenzene	50.0	44.1		ug/L		88	70 - 130
Chlorobromomethane	50.0	41.9		ug/L		84	70 - 130
Chlorodibromomethane	50.0	38.8		ug/L		78	70 - 130
Chloroethane	50.0	35.8		ug/L		72	56 - 152
Chloroform	50.0	42.0		ug/L		84	70 - 130
Chloromethane	50.0	39.0		ug/L		78	70 - 130
2-Chlorotoluene	50.0	42.8		ug/L		86	70 - 130
4-Chlorotoluene	50.0	43.1		ug/L		86	70 - 130
cis-1,2-Dichloroethene	50.0	40.8		ug/L		82	70 - 130
cis-1,3-Dichloropropene	50.0	36.1		ug/L		72	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	33.8	Q	ug/L		68	70 - 130
1,2-Dichlorobenzene	50.0	41.5		ug/L		83	70 - 130
1,3-Dichlorobenzene	50.0	42.1		ug/L		84	70 - 130
1,4-Dichlorobenzene	50.0	42.0		ug/L		84	70 - 130
Dichlorobromomethane	50.0	38.2		ug/L		76	70 - 130
Dichlorodifluoromethane	50.0	41.4		ug/L		83	44 - 146
1,1-Dichloroethane	50.0	41.9		ug/L		84	70 - 130
1,2-Dichloroethane	50.0	39.4		ug/L		79	70 - 130

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

Lab Sample ID: LCS 680-238839/4
Matrix: Water
Analysis Batch: 238839

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	40.8		ug/L		82	66 - 131
1,2-Dichloropropane	50.0	43.0		ug/L		86	70 - 130
1,3-Dichloropropane	50.0	41.2		ug/L		82	70 - 130
2,2-Dichloropropane	50.0	37.4		ug/L		75	70 - 135
1,1-Dichloropropene	50.0	42.2		ug/L		84	70 - 130
Ethylbenzene	50.0	45.1		ug/L		90	70 - 130
Ethylene Dibromide	50.0	38.2		ug/L		76	70 - 130
Hexachlorobutadiene	50.0	41.1		ug/L		82	70 - 130
Isopropylbenzene	50.0	43.7		ug/L		87	70 - 130
4-Isopropyltoluene	50.0	42.3		ug/L		85	70 - 130
Methylene Chloride	50.0	43.8		ug/L		88	67 - 130
4-Methyl-2-pentanone (MIBK)	100	75.7		ug/L		76	70 - 130
Methyl tert-butyl ether	100	80.1		ug/L		80	64 - 131
Naphthalene	50.0	37.2		ug/L		74	70 - 130
n-Butylbenzene	50.0	41.7		ug/L		83	70 - 130
N-Propylbenzene	50.0	43.2		ug/L		86	70 - 130
sec-Butylbenzene	50.0	43.1		ug/L		86	70 - 130
Styrene	50.0	44.2		ug/L		88	70 - 130
tert-Butylbenzene	50.0	42.2		ug/L		84	70 - 130
1,1,1,2-Tetrachloroethane	50.0	37.8		ug/L		76	70 - 130
1,1,2,2-Tetrachloroethane	50.0	41.5		ug/L		83	70 - 130
Tetrachloroethene	50.0	42.8		ug/L		86	70 - 130
Toluene	50.0	42.9		ug/L		86	70 - 130
trans-1,2-Dichloroethene	50.0	40.1		ug/L		80	70 - 130
trans-1,3-Dichloropropene	50.0	38.8		ug/L		78	70 - 130
1,2,3-Trichlorobenzene	50.0	38.3		ug/L		77	70 - 130
1,2,4-Trichlorobenzene	50.0	37.6		ug/L		75	65 - 130
1,1,1-Trichloroethane	50.0	37.0		ug/L		74	70 - 130
1,1,2-Trichloroethane	50.0	39.6		ug/L		79	70 - 130
Trichloroethene	50.0	39.5		ug/L		79	70 - 130
Trichlorofluoromethane	50.0	38.2		ug/L		76	55 - 156
1,2,3-Trichloropropane	50.0	40.7		ug/L		81	70 - 130
1,2,4-Trimethylbenzene	50.0	41.8		ug/L		84	70 - 130
1,3,5-Trimethylbenzene	50.0	42.5		ug/L		85	70 - 130
Vinyl chloride	50.0	40.2		ug/L		80	67 - 134
Isopropyl ether	50.0	50.3		ug/L		101	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*70 - 130*
Dibromofluoromethane	*79*		*70 - 130*
Toluene-d8 (Surr)	*82*		*70 - 130*

Lab Sample ID: LCSD 680-238839/5
Matrix: Water
Analysis Batch: 238839

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	71.4		ug/L		71	26 - 180	21	50
Benzene	50.0	54.0		ug/L		108	70 - 130	20	30

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

Lab Sample ID: LCSD 680-238839/5
Matrix: Water
Analysis Batch: 238839

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
Bromobenzene	50.0	51.6		ug/L		103	70 - 130	21	30
Bromoform	50.0	42.7		ug/L		85	70 - 130	24	30
Bromomethane	50.0	43.1		ug/L		86	23 - 165	14	50
2-Butanone (MEK)	100	72.4		ug/L		72	49 - 172	21	30
Carbon tetrachloride	50.0	40.4		ug/L		81	70 - 130	20	30
Chlorobenzene	50.0	53.3		ug/L		107	70 - 130	19	30
Chlorobromomethane	50.0	62.1	Q	ug/L		124	70 - 130	39	30
Chlorodibromomethane	50.0	47.6		ug/L		95	70 - 130	21	50
Chloroethane	50.0	41.2		ug/L		82	56 - 152	14	40
Chloroform	50.0	49.6		ug/L		99	70 - 130	17	30
Chloromethane	50.0	45.1		ug/L		90	70 - 130	14	30
2-Chlorotoluene	50.0	51.7		ug/L		103	70 - 130	19	30
4-Chlorotoluene	50.0	51.8		ug/L		104	70 - 130	18	30
cis-1,2-Dichloroethene	50.0	48.2		ug/L		96	70 - 130	17	30
cis-1,3-Dichloropropene	50.0	45.5		ug/L		91	70 - 130	23	30
1,2-Dibromo-3-Chloropropane	50.0	43.7		ug/L		87	70 - 130	26	50
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	70 - 130	21	30
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130	19	30
1,4-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130	20	30
Dichlorobromomethane	50.0	46.5		ug/L		93	70 - 130	20	30
Dichlorodifluoromethane	50.0	47.5		ug/L		95	44 - 146	14	50
1,1-Dichloroethane	50.0	48.9		ug/L		98	70 - 130	15	30
1,2-Dichloroethane	50.0	48.7		ug/L		97	70 - 130	21	30
1,1-Dichloroethene	50.0	46.7		ug/L		93	66 - 131	13	30
1,2-Dichloropropane	50.0	52.7		ug/L		105	70 - 130	20	30
1,3-Dichloropropane	50.0	50.7		ug/L		101	70 - 130	21	30
2,2-Dichloropropane	50.0	45.9		ug/L		92	70 - 135	20	30
1,1-Dichloropropene	50.0	50.8		ug/L		102	70 - 130	19	30
Ethylbenzene	50.0	53.8		ug/L		108	70 - 130	18	30
Ethylene Dibromide	50.0	48.0		ug/L		96	70 - 130	23	30
Hexachlorobutadiene	50.0	49.5		ug/L		99	70 - 130	19	30
Isopropylbenzene	50.0	52.3		ug/L		105	70 - 130	18	30
4-Isopropyltoluene	50.0	50.2		ug/L		100	70 - 130	17	50
Methylene Chloride	50.0	51.9		ug/L		104	67 - 130	17	30
4-Methyl-2-pentanone (MIBK)	100	96.3		ug/L		96	70 - 130	24	30
Methyl tert-butyl ether	100	97.3		ug/L		97	64 - 131	19	30
Naphthalene	50.0	45.7		ug/L		91	70 - 130	21	30
n-Butylbenzene	50.0	49.4		ug/L		99	70 - 130	17	30
N-Propylbenzene	50.0	51.8		ug/L		104	70 - 130	18	30
sec-Butylbenzene	50.0	51.2		ug/L		102	70 - 130	17	30
Styrene	50.0	53.6		ug/L		107	70 - 130	19	30
tert-Butylbenzene	50.0	50.5		ug/L		101	70 - 130	18	30
1,1,1,2-Tetrachloroethane	50.0	46.0		ug/L		92	70 - 130	20	30
1,1,2,2-Tetrachloroethane	50.0	52.4		ug/L		105	70 - 130	23	30
Tetrachloroethene	50.0	52.0		ug/L		104	70 - 130	20	30
Toluene	50.0	51.1		ug/L		102	70 - 130	17	30
trans-1,2-Dichloroethene	50.0	47.1		ug/L		94	70 - 130	16	30
trans-1,3-Dichloropropene	50.0	48.7		ug/L		97	70 - 130	23	50
1,2,3-Trichlorobenzene	50.0	46.1		ug/L		92	70 - 130	19	30
1,2,4-Trichlorobenzene	50.0	46.3		ug/L		93	65 - 130	21	30

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

Lab Sample ID: LCSD 680-238839/5
Matrix: Water
Analysis Batch: 238839

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
1,1,1-Trichloroethane	50.0	43.9		ug/L		88	70 - 130	17	30
1,1,2-Trichloroethane	50.0	49.6		ug/L		99	70 - 130	22	30
Trichloroethene	50.0	47.5		ug/L		95	70 - 130	18	30
Trichlorofluoromethane	50.0	44.0		ug/L		88	55 - 156	14	30
1,2,3-Trichloropropane	50.0	50.1		ug/L		100	70 - 130	21	30
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	70 - 130	19	50
1,3,5-Trimethylbenzene	50.0	51.3		ug/L		103	70 - 130	19	50
Vinyl chloride	50.0	45.8		ug/L		92	67 - 134	13	30
Isopropyl ether	50.0	48.3		ug/L		97	10 - 200	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane	*94*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 680-238359/13-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 238359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.56	U	10	0.56	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,2-Dichlorobenzene	0.53	U	10	0.53	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,3-Dichlorobenzene	0.59	U	10	0.59	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,4-Dichlorobenzene	0.54	U	10	0.54	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dinitrophenol	10	U	50	10	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Methylphenol	0.89	U	10	0.89	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		05/24/12 15:47	06/11/12 11:56	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		05/24/12 15:47	06/11/12 11:56	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Acenaphthene	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
Acenaphthylene	0.85	U	10	0.85	ug/L		05/24/12 15:47	06/11/12 11:56	1

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

Lab Sample ID: MB 680-238359/13-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 238359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.69	U	10	0.69	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		05/24/12 15:47	06/11/12 11:56	1
Chrysene	0.51	U	10	0.51	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dibenzofuran	0.79	U	10	0.79	ug/L		05/24/12 15:47	06/11/12 11:56	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		05/24/12 15:47	06/11/12 11:56	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		05/24/12 15:47	06/11/12 11:56	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		05/24/12 15:47	06/11/12 11:56	1
Fluoranthene	0.74	U	10	0.74	ug/L		05/24/12 15:47	06/11/12 11:56	1
Fluorene	0.96	U	10	0.96	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachloroethane	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Isophorone	0.90	U	10	0.90	ug/L		05/24/12 15:47	06/11/12 11:56	1
Naphthalene	0.70	U	10	0.70	ug/L		05/24/12 15:47	06/11/12 11:56	1
Nitrobenzene	0.73	U	10	0.73	ug/L		05/24/12 15:47	06/11/12 11:56	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		05/24/12 15:47	06/11/12 11:56	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		05/24/12 15:47	06/11/12 11:56	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Phenanthrene	0.77	U	10	0.77	ug/L		05/24/12 15:47	06/11/12 11:56	1
Phenol	0.83	U	10	0.83	ug/L		05/24/12 15:47	06/11/12 11:56	1
Pyrene	0.63	U	10	0.63	ug/L		05/24/12 15:47	06/11/12 11:56	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzoic acid	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		05/24/12 15:47	06/11/12 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*31 - 141*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
2-Fluorobiphenyl	*75*		*38 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
2-Fluorophenol	*78*		*25 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Terphenyl-d14	*69*		*10 - 143*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Phenol-d5	*76*		*25 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Nitrobenzene-d5	*78*		*39 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*

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

Lab Sample ID: LCS 680-238359/14-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	61.3		ug/L		61	42 - 130
1,2-Dichlorobenzene	100	60.7		ug/L		61	43 - 130
1,3-Dichlorobenzene	100	58.9		ug/L		59	41 - 130
1,4-Dichlorobenzene	100	57.7		ug/L		58	43 - 130
2,4,5-Trichlorophenol	100	80.0		ug/L		80	61 - 130
2,4,6-Trichlorophenol	100	81.7		ug/L		82	57 - 130
2,4-Dichlorophenol	100	76.7		ug/L		77	54 - 130
2,4-Dimethylphenol	100	55.4		ug/L		55	40 - 130
2,4-Dinitrophenol	100	111		ug/L		111	20 - 165
2,4-Dinitrotoluene	100	80.5		ug/L		80	63 - 130
2-Chlorophenol	100	75.1		ug/L		75	57 - 130
2-Chloronaphthalene	100	70.8		ug/L		71	53 - 130
2-Methylnaphthalene	100	70.6		ug/L		71	52 - 130
2-Methylphenol	100	75.0		ug/L		75	55 - 130
2-Nitroaniline	100	82.7		ug/L		83	60 - 130
2-Nitrophenol	100	79.0		ug/L		79	54 - 130
3 & 4 Methylphenol	100	76.5		ug/L		76	35 - 130
3,3'-Dichlorobenzidine	100	55.4	J	ug/L		55	27 - 130
3-Nitroaniline	100	77.7		ug/L		78	54 - 130
4,6-Dinitro-2-methylphenol	100	87.3		ug/L		87	45 - 134
4-Bromophenyl phenyl ether	100	65.2		ug/L		65	61 - 130
4-Chloro-3-methylphenol	100	79.5		ug/L		80	60 - 130
4-Chloroaniline	100	54.7		ug/L		55	42 - 130
4-Chlorophenyl phenyl ether	100	67.5		ug/L		67	57 - 130
4-Nitroaniline	100	82.0		ug/L		82	54 - 130
Acenaphthene	100	77.2		ug/L		77	55 - 130
Acenaphthylene	100	78.7		ug/L		79	60 - 130
Anthracene	100	66.5		ug/L		66	61 - 130
Benzo[a]anthracene	100	65.3		ug/L		65	58 - 130
Benzo[a]pyrene	100	63.6		ug/L		64	61 - 130
Benzo[b]fluoranthene	100	56.7		ug/L		57	51 - 130
Benzo[g,h,i]perylene	100	59.3		ug/L		59	54 - 130
Benzo[k]fluoranthene	100	56.4		ug/L		56	53 - 130
Benzyl alcohol	100	77.2		ug/L		77	53 - 130
Bis(2-chloroethoxy)methane	100	79.2		ug/L		79	64 - 130
Bis(2-chloroethyl)ether	100	75.1		ug/L		75	56 - 130
Bis(2-ethylhexyl) phthalate	100	54.1	Q	ug/L		54	62 - 130
Chrysene	100	61.7		ug/L		62	59 - 130
Dibenz(a,h)anthracene	100	58.1	M	ug/L		58	55 - 130
Dibenzofuran	100	73.8		ug/L		74	58 - 130
Di-n-butyl phthalate	100	64.1	Q	ug/L		64	66 - 130
Diethyl phthalate	100	76.3		ug/L		76	70 - 130
Dimethyl phthalate	100	79.2		ug/L		79	69 - 130
Di-n-octyl phthalate	100	54.1	Q	ug/L		54	64 - 130
Fluoranthene	100	65.5		ug/L		65	56 - 130
Fluorene	100	74.8		ug/L		75	61 - 130
Hexachlorobenzene	100	56.6		ug/L		57	52 - 130
Hexachlorobutadiene	100	54.0		ug/L		54	36 - 130
Hexachloroethane	100	53.6		ug/L		54	39 - 130

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

Lab Sample ID: LCS 680-238359/14-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	100	63.8		ug/L		64	47 - 130
Isophorone	100	73.8		ug/L		74	59 - 130
Naphthalene	100	69.3		ug/L		69	50 - 130
Nitrobenzene	100	70.6		ug/L		71	56 - 130
N-Nitrosodiphenylamine	100	77.3		ug/L		77	68 - 130
N-Nitrosodi-n-propylamine	100	83.0		ug/L		83	64 - 130
Pentachlorophenol	100	91.8		ug/L		92	42 - 138
Phenanthrene	100	73.7		ug/L		74	62 - 130
Phenol	100	71.5		ug/L		72	29 - 130
Pyrene	100	67.1		ug/L		67	60 - 130
Butyl benzyl phthalate	100	64.1	Q	ug/L		64	66 - 130
bis(chloroisopropyl) ether	100	74.0		ug/L		74	55 - 130
Benzoic acid	100	78.8		ug/L		79	10 - 130
2,6-Dinitrotoluene	100	79.8		ug/L		80	65 - 130
4-Nitrophenol	100	82.4		ug/L		82	38 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*31 - 141*
2-Fluorobiphenyl	*75*		*38 - 130*
2-Fluorophenol	*80*		*25 - 130*
Terphenyl-d14	*65*		*10 - 143*
Phenol-d5	*80*		*25 - 130*
Nitrobenzene-d5	*75*		*39 - 130*

Lab Sample ID: 680-79725-2 MS
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-6-5-12
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	0.55	U	99.9	44.6		ug/L		45	42 - 130
1,2-Dichlorobenzene	0.52	U	99.9	44.0		ug/L		44	43 - 130
1,3-Dichlorobenzene	0.58	U	99.9	42.3		ug/L		42	41 - 130
1,4-Dichlorobenzene	0.53	U J	99.9	41.1	J	ug/L		41	43 - 130
2,4,5-Trichlorophenol	1.2	U J	99.9	54.4	J	ug/L		54	61 - 130
2,4,6-Trichlorophenol	0.84	U J	99.9	55.8	J	ug/L		56	57 - 130
2,4-Dichlorophenol	1.1	U	99.9	53.5		ug/L		54	54 - 130
2,4-Dimethylphenol	4.0	U	99.9	51.1		ug/L		51	40 - 130
2,4-Dinitrophenol	9.9	U	99.9	81.8		ug/L		82	20 - 165
2,4-Dinitrotoluene	1.2	U J	99.9	62.3	J	ug/L		62	63 - 130
2-Chlorophenol	0.86	U J	99.9	52.1	J	ug/L		52	57 - 130
2-Chloronaphthalene	0.79	U J	99.9	49.9	J	ug/L		50	53 - 130
2-Methylnaphthalene	0.77	U J	99.9	49.2	J	ug/L		49	52 - 130
2-Methylphenol	0.88	U J	99.9	49.8	J	ug/L		50	55 - 130
2-Nitroaniline	1.3	U J	99.9	50.9	J	ug/L		51	60 - 130
2-Nitrophenol	0.75	U	99.9	54.7		ug/L		55	54 - 130
3 & 4 Methylphenol	1.3	U	99.9	52.6		ug/L		53	35 - 130
3,3'-Dichlorobenzidine	30	U J	99.9	30	U J	ug/L		0	27 - 130
3-Nitroaniline	4.9	U J	99.9	5.0	U J	ug/L		0	54 - 130
4,6-Dinitro-2-methylphenol	9.9	U	99.9	68.9		ug/L		69	45 - 134

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

Lab Sample ID: 680-79725-2 MS
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-6-5-12
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl phenyl ether	0.76	U J	99.9	56.3	J	ug/L		56	61 - 130
4-Chloro-3-methylphenol	0.99	U J	99.9	54.3	J	ug/L		54	60 - 130
4-Chloroaniline	2.2	U J	99.9	3.40	J	ug/L		3	42 - 130
4-Chlorophenyl phenyl ether	0.83	U J	99.9	54.7	J	ug/L		55	57 - 130
4-Nitroaniline	4.9	U J	99.9	8.36	J	ug/L		8	54 - 130
Acenaphthene	0.75	U	99.9	54.7		ug/L		55	55 - 130
Acenaphthylene	0.84	U J	99.9	24.0	J	ug/L		24	60 - 130
Anthracene	0.68	U J	99.9	55.3	J	ug/L		55	61 - 130
Benzo[a]anthracene	0.54	U	99.9	62.8		ug/L		63	58 - 130
Benzo[a]pyrene	0.70	U	99.9	79.9		ug/L		80	61 - 130
Benzo[b]fluoranthene	2.6	U J	99.9	97.7		ug/L		98	51 - 130
Benzo[g,h,i]perylene	0.86	U J	99.9	88.9		ug/L		89	54 - 130
Benzo[k]fluoranthene	1.2	U J	99.9	91.9		ug/L		92	53 - 130
Benzyl alcohol	1.1	U J	99.9	30.9	J	ug/L		31	53 - 130
Bis(2-chloroethoxy)methane	0.93	U J	99.9	6.49	J	ug/L		7	64 - 130
Bis(2-chloroethyl)ether	1.1	U J	99.9	52.8	J	ug/L		53	56 - 130
Bis(2-ethylhexyl) phthalate	1.6	U Q J	99.9	61.9		ug/L		62	62 - 130
Chrysene	0.50	U J	99.9	62.8		ug/L		63	59 - 130
Dibenz(a,h)anthracene	0.99	U J	99.9	102		ug/L		102	55 - 130
Dibenzofuran	0.78	U J	99.9	54.3	J	ug/L		54	58 - 130
Di-n-butyl phthalate	0.82	U Q J	99.9	62.7	J	ug/L		63	66 - 130
Diethyl phthalate	0.87	U J	99.9	59.0	J	ug/L		59	70 - 130
Dimethyl phthalate	0.98	U J	99.9	57.3	J	ug/L		57	69 - 130
Di-n-octyl phthalate	1.4	U Q J	99.9	59.7	J	ug/L		60	64 - 130
Fluoranthene	0.73	U	99.9	66.1		ug/L		66	56 - 130
Fluorene	0.95	U J	99.9	56.9	J	ug/L		57	61 - 130
Hexachlorobenzene	0.78	U J	99.9	54.1		ug/L		54	52 - 130
Hexachlorobutadiene	0.61	U	99.9	43.3		ug/L		43	36 - 130
Hexachloroethane	0.75	U J	99.9	38.2	J	ug/L		38	39 - 130
Indeno[1,2,3-cd]pyrene	0.99	U	99.9	65.9		ug/L		66	47 - 130
Isophorone	0.89	U J	99.9	50.7	J	ug/L		51	59 - 130
Naphthalene	0.69	U	99.9	49.6		ug/L		50	50 - 130
Nitrobenzene	0.72	U J	99.9	50.4	J	ug/L		50	56 - 130
N-Nitrosodiphenylamine	0.91	U J	99.9	17.6	J	ug/L		18	68 - 130
N-Nitrosodi-n-propylamine	0.71	U J	99.9	57.7	J	ug/L		58	64 - 130
Pentachlorophenol	2.0	U	99.9	73.8		ug/L		74	42 - 138
Phenanthrene	0.76	U	99.9	62.6		ug/L		63	62 - 130
Phenol	0.82	U	99.9	45.8		ug/L		46	29 - 130
Pyrene	0.62	U	99.9	60.6		ug/L		61	60 - 130
Butyl benzyl phthalate	1.2	U Q J	99.9	61.1	J	ug/L		61	66 - 130
bis(chloroisopropyl) ether	0.77	U J	99.9	50.7	J	ug/L		51	55 - 130
Benzoic acid	4.9	U	99.9	51.2	M	ug/L		51	10 - 130
2,6-Dinitrotoluene	1.1	U J	99.9	58.0	J	ug/L		58	65 - 130
4-Nitrophenol	1.9	U	99.9	63.2		ug/L		63	38 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*71*		*31 - 141*
2-Fluorobiphenyl	*55*		*38 - 130*
2-Fluorophenol	*55*		*25 - 130*

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

Lab Sample ID: 680-79725-2 MS
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-6-5-12
Prep Type: Total/NA
Prep Batch: 238359

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*70*		*10 - 143*
Phenol-d5	*50*		*25 - 130*
Nitrobenzene-d5	*54*		*39 - 130*

Lab Sample ID: 680-79725-2 MSD
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-6-5-12
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	0.55	U	90.4	42.9		ug/L		47	42 - 130	4	50
1,2-Dichlorobenzene	0.52	U	90.4	40.6		ug/L		45	43 - 130	8	50
1,3-Dichlorobenzene	0.58	U	90.4	39.1		ug/L		43	41 - 130	8	50
1,4-Dichlorobenzene	0.53	U J	90.4	38.5		ug/L		43	43 - 130	6	50
2,4,5-Trichlorophenol	1.2	U J	90.4	55.8		ug/L		62	61 - 130	3	50
2,4,6-Trichlorophenol	0.84	U J	90.4	55.5		ug/L		61	57 - 130	1	50
2,4-Dichlorophenol	1.1	U	90.4	50.8		ug/L		56	54 - 130	5	50
2,4-Dimethylphenol	4.0	U	90.4	49.8		ug/L		55	40 - 130	2	50
2,4-Dinitrophenol	9.9	U	90.4	87.2		ug/L		96	20 - 165	6	50
2,4-Dinitrotoluene	1.2	U J	90.4	61.6		ug/L		68	63 - 130	1	50
2-Chlorophenol	0.86	U J	90.4	49.4	J	ug/L		55	57 - 130	5	50
2-Chloronaphthalene	0.79	U J	90.4	48.7		ug/L		54	53 - 130	3	50
2-Methylnaphthalene	0.77	U J	90.4	49.0		ug/L		54	52 - 130	0	50
2-Methylphenol	0.88	U J	90.4	48.5	J	ug/L		54	55 - 130	3	50
2-Nitroaniline	1.3	U J	90.4	55.7		ug/L		62	60 - 130	9	50
2-Nitrophenol	0.75	U	90.4	52.0		ug/L		58	54 - 130	5	50
3 & 4 Methylphenol	1.3	U	90.4	50.8		ug/L		56	35 - 130	3	50
3,3'-Dichlorobenzidine	30	U J	90.4	27	U J	ug/L		0	27 - 130	NC	50
3-Nitroaniline	4.9	U J	90.4	9.65	J	ug/L		11	54 - 130	200	50
4,6-Dinitro-2-methylphenol	9.9	U	90.4	68.4		ug/L		76	45 - 134	1	50
4-Bromophenyl phenyl ether	0.76	U J	90.4	51.7	J	ug/L		57	61 - 130	9	50
4-Chloro-3-methylphenol	0.99	U J	90.4	54.7		ug/L		61	60 - 130	1	50
4-Chloroaniline	2.2	U J	90.4	6.21	J	ug/L		7	42 - 130	59	50
4-Chlorophenyl phenyl ether	0.83	U J	90.4	52.2		ug/L		58	57 - 130	5	50
4-Nitroaniline	4.9	U J	90.4	35.7	J	ug/L		40	54 - 130	124	50
Acenaphthene	0.75	U	90.4	54.4		ug/L		60	55 - 130	1	50
Acenaphthylene	0.84	U J	90.4	53.4	J	ug/L		59	60 - 130	76	50
Anthracene	0.68	U J	90.4	52.8	J	ug/L		58	61 - 130	5	50
Benzo[a]anthracene	0.54	U	90.4	57.0		ug/L		63	58 - 130	10	50
Benzo[a]pyrene	0.70	U	90.4	56.1		ug/L		62	61 - 130	35	50
Benzo[b]fluoranthene	2.6	U J	90.4	50.2	J	ug/L		56	51 - 130	64	50
Benzo[g,h,i]perylene	0.86	U J	90.4	50.3	J	ug/L		56	54 - 130	56	50
Benzo[k]fluoranthene	1.2	U J	90.4	52.7	J	ug/L		58	53 - 130	54	50
Benzyl alcohol	1.1	U J	90.4	45.6	J	ug/L		50	53 - 130	38	50
Bis(2-chloroethoxy)methane	0.93	U J	90.4	48.5	J	ug/L		54	64 - 130	153	50
Bis(2-chloroethyl)ether	1.1	U J	90.4	49.7	J	ug/L		55	56 - 130	6	50
Bis(2-ethylhexyl) phthalate	1.6	U Q J	90.4	50.9	J	ug/L		56	62 - 130	20	50
Chrysene	0.50	U J	90.4	52.7	J	ug/L		58	59 - 130	18	50
Dibenz(a,h)anthracene	0.99	U J	90.4	51.5	J	ug/L		57	55 - 130	66	50
Dibenzofuran	0.78	U J	90.4	52.7		ug/L		58	58 - 130	3	50

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

Lab Sample ID: 680-79725-2 MSD — **Client Sample ID: SLMW-6-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240036 — **Prep Batch: 238359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-butyl phthalate	0.82	U Q J	90.4	57.0	J	ug/L		63	66 - 130	10	50
Diethyl phthalate	0.87	U J	90.4	59.1	J	ug/L		65	70 - 130	0	50
Dimethyl phthalate	0.98	U J	90.4	57.0	J	ug/L		63	69 - 130	1	50
Di-n-octyl phthalate	1.4	U Q J	90.4	49.6	J	ug/L		55	64 - 130	19	50
Fluoranthene	0.73	U	90.4	58.0		ug/L		64	56 - 130	13	50
Fluorene	0.95	U J	90.4	55.4		ug/L		61	61 - 130	3	50
Hexachlorobenzene	0.78	U J	90.4	45.7	J	ug/L		51	52 - 130	17	50
Hexachlorobutadiene	0.61	U	90.4	40.7		ug/L		45	36 - 130	6	50
Hexachloroethane	0.75	U J	90.4	35.7		ug/L		40	39 - 130	7	50
Indeno[1,2,3-cd]pyrene	0.99	U	90.4	51.9		ug/L		57	47 - 130	24	50
Isophorone	0.89	U J	90.4	48.7	J	ug/L		54	59 - 130	4	50
Naphthalene	0.69	U	90.4	47.3		ug/L		52	50 - 130	5	50
Nitrobenzene	0.72	U J	90.4	46.0	J	ug/L		51	56 - 130	9	50
N-Nitrosodiphenylamine	0.91	U J	90.4	43.8	J	ug/L		48	68 - 130	85	50
N-Nitrosodi-n-propylamine	0.71	U J	90.4	54.3	J	ug/L		60	64 - 130	6	50
Pentachlorophenol	2.0	U	90.4	71.1		ug/L		79	42 - 138	4	50
Phenanthrene	0.76	U	90.4	57.6		ug/L		64	62 - 130	8	50
Phenol	0.82	U	90.4	43.4		ug/L		48	29 - 130	5	50
Pyrene	0.62	U	90.4	59.4		ug/L		66	60 - 130	2	50
Butyl benzyl phthalate	1.2	U Q J	90.4	59.2	J	ug/L		65	66 - 130	3	50
bis(chloroisopropyl) ether	0.77	U J	90.4	48.1	J	ug/L		53	55 - 130	5	50
Benzoic acid	4.9	U	90.4	47.2	M	ug/L		52	10 - 130	8	50
2,6-Dinitrotoluene	1.1	U J	90.4	57.7	J	ug/L		64	65 - 130	1	50
4-Nitrophenol	1.9	U	90.4	60.7		ug/L		67	38 - 130	4	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*73*		*31 - 141*
2-Fluorobiphenyl	*56*		*38 - 130*
2-Fluorophenol	*54*		*25 - 130*
Terphenyl-d14	*61*		*10 - 143*
Phenol-d5	*54*		*25 - 130*
Nitrobenzene-d5	*53*		*39 - 130*

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

Lab Sample ID: MB 680-238463/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/25/12 15:33	06/02/12 00:31	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		05/25/12 15:33	06/02/12 00:31	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		05/25/12 15:33	06/02/12 00:31	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		05/25/12 15:33	06/02/12 00:31	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		05/25/12 15:33	06/02/12 00:31	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		05/25/12 15:33	06/02/12 00:31	1
Endrin	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/02/12 00:31	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		05/25/12 15:33	06/02/12 00:31	1

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

Lab Sample ID: MB 680-238463/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0084	U	0.10	0.0084	ug/L		05/25/12 15:33	06/02/12 00:31	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		05/25/12 15:33	06/02/12 00:31	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/02/12 00:31	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		05/25/12 15:33	06/02/12 00:31	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1016	0.071	U	1.0	0.071	ug/L		05/25/12 15:33	06/02/12 00:31	1
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		05/25/12 15:33	06/02/12 00:31	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		05/25/12 15:33	06/02/12 00:31	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		05/25/12 15:33	06/02/12 00:31	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		05/25/12 15:33	06/02/12 00:31	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		05/25/12 15:33	06/02/12 00:31	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		05/25/12 15:33	06/02/12 00:31	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1232	0.11	U	1.0	0.11	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1242	0.18	U	1.0	0.18	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1248	0.36	U	1.0	0.36	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1254	0.26	U	1.0	0.26	ug/L		05/25/12 15:33	06/02/12 00:31	1
PCB-1260	0.20	U	1.0	0.20	ug/L		05/25/12 15:33	06/02/12 00:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*36 - 130*	*05/25/12 15:33*	*06/02/12 00:31*	*1*
Tetrachloro-m-xylene	*73*		*36 - 130*	*05/25/12 15:33*	*06/02/12 00:31*	*1*
DCB Decachlorobiphenyl	*64*		*40 - 130*	*05/25/12 15:33*	*06/02/12 00:31*	*1*
DCB Decachlorobiphenyl	*65*		*40 - 130*	*05/25/12 15:33*	*06/02/12 00:31*	*1*

Lab Sample ID: LCS 680-238463/21-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.100	0.0892		ug/L		89	23 - 191
Dieldrin	0.200	0.180		ug/L		90	61 - 136
Endosulfan I	0.100	0.0836		ug/L		84	52 - 141
Endosulfan II	0.200	0.178		ug/L		89	60 - 140
Endosulfan sulfate	0.200	0.190		ug/L		95	60 - 151
Endrin	0.200	0.171		ug/L		86	66 - 150
Endrin aldehyde	0.200	0.207		ug/L		103	16 - 200
Endrin ketone	0.200	0.191		ug/L		95	55 - 156
gamma-BHC (Lindane)	0.100	0.0850		ug/L		85	54 - 134
Heptachlor	0.100	0.0808		ug/L		81	10 - 200
Heptachlor epoxide	0.100	0.0885		ug/L		88	49 - 142
Methoxychlor	0.200	0.192		ug/L		96	13 - 186
4,4'-DDD	0.200	0.184		ug/L		92	49 - 144
4,4'-DDE	0.200	0.169		ug/L		85	46 - 144
4,4'-DDT	0.200	0.188		ug/L		94	48 - 166
Aldrin	0.100	0.0786		ug/L		79	14 - 168
alpha-BHC	0.100	0.0808		ug/L		81	43 - 138

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

Lab Sample ID: LCS 680-238463/21-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	0.100	0.116		ug/L		116	38 - 158

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

Lab Sample ID: LCS 680-238463/24-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	8.54		ug/L		85	38 - 172
PCB-1260	10.0	7.83		ug/L		78	46 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*36 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*
DCB Decachlorobiphenyl	*74*		*40 - 130*
DCB Decachlorobiphenyl	*73*		*40 - 130*

Lab Sample ID: LCS 680-238463/27-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	10.0	8.54		ug/L		85	35 - 138
Chlordane (technical)	5.00	5.80		ug/L		116	56 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*77*		*36 - 130*
Tetrachloro-m-xylene	*78*		*36 - 130*
DCB Decachlorobiphenyl	*75*		*40 - 130*
DCB Decachlorobiphenyl	*74*		*40 - 130*

Lab Sample ID: 680-79725-1 MS — **Client Sample ID: SLMW-11R-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.0048	U	0.0991	0.106		ug/L		107	23 - 191
Dieldrin	0.0090	U	0.198	0.206		ug/L		104	61 - 136
Endosulfan I	0.0042	U J	0.0991	0.135		ug/L		136	52 - 141
Endosulfan II	0.0097	U	0.198	0.200		ug/L		101	60 - 140
Endosulfan sulfate	0.0067	U	0.198	0.219		ug/L		110	60 - 151
Endrin	0.0096	U	0.198	0.194		ug/L		98	66 - 150
Endrin aldehyde	0.016	U	0.198	0.230		ug/L		116	16 - 200

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

Lab Sample ID: 680-79725-1 MS — **Client Sample ID: SLMW-11R-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin ketone	0.0083	U	0.198	0.215		ug/L		109	55 - 156
gamma-BHC (Lindane)	0.0059	U	0.0991	0.0996		ug/L		100	54 - 134
Heptachlor	0.0069	U	0.0991	0.108		ug/L		109	10 - 200
Heptachlor epoxide	0.0060	U	0.0991	0.109		ug/L		110	49 - 142
Methoxychlor	0.013	U	0.198	0.237		ug/L		120	13 - 186
4,4'-DDD	0.0064	U	0.198	0.206		ug/L		104	49 - 144
4,4'-DDE	0.0076	U	0.198	0.206		ug/L		104	46 - 144
4,4'-DDT	0.0096	U	0.198	0.224		ug/L		113	48 - 166
Aldrin	0.0069	U	0.0991	0.0918		ug/L		93	14 - 168
alpha-BHC	0.0057	U	0.0991	0.0929		ug/L		94	43 - 138
beta-BHC	0.0066	U	0.0991	0.118		ug/L		119	38 - 158

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*78*		*36 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*
DCB Decachlorobiphenyl	*83*		*40 - 130*
DCB Decachlorobiphenyl	*84*		*40 - 130*

Lab Sample ID: 680-79725-1 MSD — **Client Sample ID: SLMW-11R-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239203 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	0.0048	U	0.0910	0.105		ug/L		115	23 - 191	1	50
Dieldrin	0.0090	U	0.182	0.206		ug/L		113	61 - 136	0	50
Endosulfan I	0.0042	U J	0.0910	0.142	J	ug/L		156	52 - 141	5	50
Endosulfan II	0.0097	U	0.182	0.203		ug/L		111	60 - 140	2	50
Endosulfan sulfate	0.0067	U	0.182	0.222		ug/L		122	60 - 151	2	50
Endrin	0.0096	U	0.182	0.212		ug/L		117	66 - 150	9	50
Endrin aldehyde	0.016	U	0.182	0.228		ug/L		125	16 - 200	1	50
Endrin ketone	0.0083	U	0.182	0.212		ug/L		117	55 - 156	2	50
gamma-BHC (Lindane)	0.0059	U	0.0910	0.0974		ug/L		107	54 - 134	2	50
Heptachlor	0.0069	U	0.0910	0.110		ug/L		121	10 - 200	2	50
Heptachlor epoxide	0.0060	U	0.0910	0.109		ug/L		119	49 - 142	0	50
Methoxychlor	0.013	U	0.182	0.242		ug/L		133	13 - 186	2	50
4,4'-DDD	0.0064	U	0.182	0.208		ug/L		114	49 - 144	1	50
4,4'-DDE	0.0076	U	0.182	0.202		ug/L		111	46 - 144	2	50
4,4'-DDT	0.0096	U	0.182	0.228		ug/L		125	48 - 166	1	50
Aldrin	0.0069	U	0.0910	0.0916		ug/L		101	14 - 168	0	50
alpha-BHC	0.0057	U	0.0910	0.0940		ug/L		103	43 - 138	1	50
beta-BHC	0.0066	U	0.0910	0.120		ug/L		132	38 - 158	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*90*		*36 - 130*
Tetrachloro-m-xylene	*86*		*36 - 130*
DCB Decachlorobiphenyl	*97*		*40 - 130*
DCB Decachlorobiphenyl	*97*		*40 - 130*

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

Lab Sample ID: 680-79725-2 MS — **Client Sample ID: SLMW-6-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239345 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.071	U	9.96	10.1		ug/L		102	38 - 172
PCB-1260	0.20	U	9.96	8.16		ug/L		82	46 - 138

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*81*		*36 - 130*
Tetrachloro-m-xylene	*68*		*36 - 130*
DCB Decachlorobiphenyl	*91*		*40 - 130*
DCB Decachlorobiphenyl	*63*		*40 - 130*

Lab Sample ID: 680-79725-2 MSD — **Client Sample ID: SLMW-6-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239345 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.071	U	9.08	9.26		ug/L		102	38 - 172	9	50
PCB-1260	0.20	U	9.08	7.68		ug/L		85	46 - 138	6	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*36 - 130*
Tetrachloro-m-xylene	*59*		*36 - 130*
DCB Decachlorobiphenyl	*88*		*40 - 130*
DCB Decachlorobiphenyl	*62*		*40 - 130*

Lab Sample ID: 680-79725-4 MS — **Client Sample ID: SW-2-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239345 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	0.49	U	9.89	8.96		ug/L		91	35 - 138
Chlordane (technical)	0.098	U	4.94	5.25		ug/L		106	56 - 144

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*70*		*36 - 130*
Tetrachloro-m-xylene	*69*		*36 - 130*
DCB Decachlorobiphenyl	*52*		*40 - 130*
DCB Decachlorobiphenyl	*53*		*40 - 130*

Lab Sample ID: 680-79725-4 MSD — **Client Sample ID: SW-2-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239345 — **Prep Batch: 238463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene	0.49	U	9.09	7.92		ug/L		87	35 - 138	12	50
Chlordane (technical)	0.098	U	4.54	5.38		ug/L		118	56 - 144	2	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*65*		*36 - 130*

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

Lab Sample ID: 680-79725-4 MSD
Matrix: Water
Analysis Batch: 239345

Client Sample ID: SW-2-5-12
Prep Type: Total/NA
Prep Batch: 238463

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	*70*		*36 - 130*
DCB Decachlorobiphenyl	*57*		*40 - 130*
DCB Decachlorobiphenyl	*53*		*40 - 130*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Lab Sample ID: MB 180-37215/1-A
Matrix: Water
Analysis Batch: 38389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	1.0	0.11	ug/L		05/25/12 13:15	06/07/12 22:36	1
Bolstar	0.11	U	1.0	0.11	ug/L		05/25/12 13:15	06/07/12 22:36	1
Chlorpyrifos	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1
Coumaphos	0.15	U	1.0	0.15	ug/L		05/25/12 13:15	06/07/12 22:36	1
Demeton, Total	0.16	U	2.0	0.16	ug/L		05/25/12 13:15	06/07/12 22:36	1
Demeton-O	0.094	U	1.0	0.094	ug/L		05/25/12 13:15	06/07/12 22:36	1
Demeton-S	0.071	U	1.0	0.071	ug/L		05/25/12 13:15	06/07/12 22:36	1
Diazinon	0.094	U	1.0	0.094	ug/L		05/25/12 13:15	06/07/12 22:36	1
Dichlorvos	0.085	U	1.0	0.085	ug/L		05/25/12 13:15	06/07/12 22:36	1
Dimethoate	0.12	U	1.0	0.12	ug/L		05/25/12 13:15	06/07/12 22:36	1
Disulfoton	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1
EPN	0.12	U	1.0	0.12	ug/L		05/25/12 13:15	06/07/12 22:36	1
Mocap	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1
Famphur	0.12	U	1.0	0.12	ug/L		05/25/12 13:15	06/07/12 22:36	1
Fensulfothion	0.17	U	1.0	0.17	ug/L		05/25/12 13:15	06/07/12 22:36	1
Fenthion	0.085	U	1.0	0.085	ug/L		05/25/12 13:15	06/07/12 22:36	1
Malathion	0.11	U	1.0	0.11	ug/L		05/25/12 13:15	06/07/12 22:36	1
Parathion	0.16	U	1.0	0.16	ug/L		05/25/12 13:15	06/07/12 22:36	1
Methyl parathion	0.11	U	1.0	0.11	ug/L		05/25/12 13:15	06/07/12 22:36	1
Mevinphos	0.098	U	1.0	0.098	ug/L		05/25/12 13:15	06/07/12 22:36	1
Phorate	0.092	U	1.0	0.092	ug/L		05/25/12 13:15	06/07/12 22:36	1
Ronnel	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1
Stirophos	0.096	U	1.0	0.096	ug/L		05/25/12 13:15	06/07/12 22:36	1
Sulfotepp	0.095	U	1.0	0.095	ug/L		05/25/12 13:15	06/07/12 22:36	1
Thionazin	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1
Tokuthion	0.094	U	1.0	0.094	ug/L		05/25/12 13:15	06/07/12 22:36	1
Trichloronate	0.099	U	1.0	0.099	ug/L		05/25/12 13:15	06/07/12 22:36	1
O,O,O-Triethyl phosphorothioate	0.10	U	1.0	0.10	ug/L		05/25/12 13:15	06/07/12 22:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	*91*		*49 - 122*	*05/25/12 13:15*	*06/07/12 22:36*	*1*
Tributyl phosphate	*96*		*49 - 122*	*05/25/12 13:15*	*06/07/12 22:36*	*1*
Triphenylphosphate	*93*		*45 - 145*	*05/25/12 13:15*	*06/07/12 22:36*	*1*
Triphenylphosphate	*102*		*45 - 145*	*05/25/12 13:15*	*06/07/12 22:36*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: LCS 180-37215/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 38389 — **Prep Batch: 37215**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Azinphos-methyl	10.0	9.11		ug/L		91	40 - 150
Bolstar	10.0	11.2		ug/L		112	50 - 150
Chlorpyrifos	10.0	10.6		ug/L		106	50 - 130
Coumaphos	10.0	9.86		ug/L		99	50 - 150
Demeton-O	10.0	12.4		ug/L		124	10 - 150
Demeton-S	10.0	11.1		ug/L		111	10 - 150
Diazinon	10.0	10.5		ug/L		105	50 - 150
Dichlorvos	10.0	12.1		ug/L		121	30 - 150
Dimethoate	10.0	12.2		ug/L		122	26 - 136
Disulfoton	10.0	10.9		ug/L		109	45 - 124
EPN	10.0	10.0		ug/L		100	50 - 150
Mocap	10.0	12.0		ug/L		120	40 - 150
Famphur	10.0	11.3		ug/L		113	52 - 131
Fensulfothion	10.0	11.4		ug/L		114	38 - 150
Fenthion	10.0	12.0		ug/L		120	10 - 150
Malathion	10.0	10.9		ug/L		109	50 - 150
Parathion	10.0	10.6		ug/L		106	56 - 125
Methyl parathion	10.0	10.5		ug/L		105	41 - 148
Mevinphos	10.0	12.0		ug/L		120	30 - 150
Phorate	10.0	11.7		ug/L		117	41 - 135
Ronnel	10.0	10.5		ug/L		105	50 - 150
Stirophos	10.0	11.2		ug/L		112	50 - 150
Sulfotepp	10.0	10.7		ug/L		107	56 - 128
Thionazin	10.0	10.9		ug/L		109	44 - 128
Tokuthion	10.0	10.2		ug/L		102	50 - 150
Trichloronate	10.0	11.1		ug/L		111	10 - 150
O,O,O-Triethyl phosphorothioate	10.0	9.85		ug/L		99	31 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tributyl phosphate	*117*		*49 - 122*
Tributyl phosphate	*122*		*49 - 122*
Triphenylphosphate	*106*		*45 - 145*
Triphenylphosphate	*108*		*45 - 145*

Lab Sample ID: LCSD 180-37215/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 38389 — **Prep Batch: 37215**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Azinphos-methyl	10.0	9.45		ug/L		95	40 - 150	4	30
Bolstar	10.0	11.4		ug/L		114	50 - 150	2	30
Chlorpyrifos	10.0	10.8		ug/L		108	50 - 130	2	25
Coumaphos	10.0	10.0		ug/L		100	50 - 150	1	30
Demeton-O	10.0	12.0		ug/L		120	10 - 150	3	30
Demeton-S	10.0	10.8		ug/L		108	10 - 150	3	30
Diazinon	10.0	10.5		ug/L		105	50 - 150	0	30
Dichlorvos	10.0	12.4		ug/L		124	30 - 150	2	30
Dimethoate	10.0	12.4		ug/L		124	26 - 136	2	22

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: LCSD 180-37215/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 38389 — **Prep Batch: 37215**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Disulfoton	10.0	11.2		ug/L		112	45 - 124	2	30
EPN	10.0	10.4		ug/L		104	50 - 150	3	30
Mocap	10.0	12.2		ug/L		122	40 - 150	2	30
Famphur	10.0	11.4		ug/L		114	52 - 131	1	24
Fensulfothion	10.0	11.7		ug/L		117	38 - 150	3	30
Fenthion	10.0	12.1		ug/L		121	10 - 150	1	30
Malathion	10.0	11.1		ug/L		111	50 - 150	2	30
Parathion	10.0	10.9		ug/L		109	56 - 125	2	21
Methyl parathion	10.0	10.8		ug/L		108	41 - 148	3	30
Mevinphos	10.0	12.1		ug/L		121	30 - 150	1	30
Phorate	10.0	11.8		ug/L		118	41 - 135	1	24
Ronnel	10.0	10.7		ug/L		107	50 - 150	2	30
Stirophos	10.0	11.4		ug/L		114	50 - 150	1	30
Sulfotepp	10.0	10.7		ug/L		107	56 - 128	0	23
Thionazin	10.0	11.1		ug/L		111	44 - 128	2	21
Tokuthion	10.0	10.2		ug/L		102	50 - 150	0	30
Trichloronate	10.0	11.3		ug/L		113	10 - 150	2	30
O,O,O-Triethyl phosphorothioate	10.0	10.0		ug/L		100	31 - 131	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tributyl phosphate	*119*		*49 - 122*
Tributyl phosphate	*125*	*J*	*49 - 122*
Triphenylphosphate	*107*		*45 - 145*
Triphenylphosphate	*110*		*45 - 145*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 680-238328/17-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

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		05/24/12 08:36	05/26/12 17:00	1
2,4-DB	0.15	U	0.50	0.15	ug/L		05/24/12 08:36	05/26/12 17:00	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		05/24/12 08:36	05/26/12 17:00	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dalapon	0.10	U	10	0.10	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dicamba	0.085	U	0.50	0.085	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dinoseb	0.16	U	6.0	0.16	ug/L		05/24/12 08:36	05/26/12 17:00	1
MCPA	17	U	120	17	ug/L		05/24/12 08:36	05/26/12 17:00	1
Mecoprop	19	U	120	19	ug/L		05/24/12 08:36	05/26/12 17:00	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		05/24/12 08:36	05/26/12 17:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*81*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:00*	*1*
DCAA	*76*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:00*	*1*

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

Lab Sample ID: LCS 680-238328/18-A
Matrix: Water
Analysis Batch: 238607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 238328

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	2.43		ug/L		121	34 - 157
2,4,5-T	2.00	1.49		ug/L		74	59 - 130
Silvex (2,4,5-TP)	2.00	1.55		ug/L		78	64 - 130
Dalapon	2.00	1.56	J	ug/L		78	24 - 130
Dicamba	2.00	1.88		ug/L		94	66 - 130
Dichlorprop	2.00	1.53		ug/L		77	65 - 152
Dinoseb	2.00	1.51	J	ug/L		75	10 - 130
MCPA	200	167		ug/L		83	40 - 130
Mecoprop	200	190		ug/L		95	53 - 130
Pentachlorophenol	2.00	1.37	Q	ug/L		68	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*89*		*52 - 151*

Lab Sample ID: 680-79725-4 MS
Matrix: Water
Analysis Batch: 238608

Client Sample ID: SW-2-5-12
Prep Type: Total/NA
Prep Batch: 238328

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.036	U	2.00	2.12	M	ug/L		106	63 - 130
2,4-DB	0.14	U	2.00	2.23		ug/L		112	34 - 157
2,4,5-T	0.060	U	2.00	1.56		ug/L		78	59 - 130
Silvex (2,4,5-TP)	0.060	U	2.00	1.43		ug/L		71	64 - 130
Dalapon	0.096	U	2.00	0.960	J	ug/L		48	24 - 130
Dicamba	0.082	U	2.00	1.51		ug/L		76	66 - 130
Dichlorprop	0.14	U	2.00	1.44	M	ug/L		72	65 - 152
Dinoseb	0.15	U	2.00	0.948	J	ug/L		47	10 - 130
MCPA	16	U	200	154		ug/L		77	40 - 130
Mecoprop	18	U	200	175		ug/L		88	53 - 130
Pentachlorophenol	0.036	U J Q	2.00	1.09	M J	ug/L		55	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCAA	*81*		*52 - 151*
DCAA	*87*		*52 - 151*

Lab Sample ID: 680-79725-4 MSD
Matrix: Water
Analysis Batch: 238608

Client Sample ID: SW-2-5-12
Prep Type: Total/NA
Prep Batch: 238328

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	0.036	U	2.00	2.11	M	ug/L		106	63 - 130	1	50
2,4-DB	0.14	U	2.00	2.28		ug/L		114	34 - 157	2	50
2,4,5-T	0.060	U	2.00	1.63		ug/L		81	59 - 130	4	50
Silvex (2,4,5-TP)	0.060	U	2.00	1.44		ug/L		72	64 - 130	1	50
Dalapon	0.096	U	2.00	0.917	J	ug/L		46	24 - 130	5	50
Dicamba	0.082	U	2.00	1.61		ug/L		80	66 - 130	6	50
Dichlorprop	0.14	U	2.00	1.44		ug/L		72	65 - 152	0	50
Dinoseb	0.15	U	2.00	1.10	J	ug/L		55	10 - 130	15	50

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

Lab Sample ID: 680-79725-4 MSD — **Client Sample ID: SW-2-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238608 — **Prep Batch: 238328**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MCPA	16	U	200	159		ug/L		80	40 - 130	3	50
Mecoprop	18	U	200	184		ug/L		92	53 - 130	5	50
Pentachlorophenol	0.036	U J Q	2.00	1.10	M J	ug/L		55	70 - 130	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCAA	*75*		*52 - 151*
DCAA	*90*		*52 - 151*

Lab Sample ID: MB 680-239271/16-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239683 — **Prep Batch: 239271**

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		06/05/12 07:51	06/06/12 17:29	1
2,4-DB	0.15	U	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 17:29	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 17:29	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dalapon	0.10	U	10	0.10	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dicamba	0.085	U	0.50	0.085	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dinoseb	0.16	U	6.0	0.16	ug/L		06/05/12 07:51	06/06/12 17:29	1
MCPA	17	U	120	17	ug/L		06/05/12 07:51	06/06/12 17:29	1
Mecoprop	19	U	120	19	ug/L		06/05/12 07:51	06/06/12 17:29	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		06/05/12 07:51	06/06/12 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*45*	*J*	*52 - 151*	*06/05/12 07:51*	*06/06/12 17:29*	*1*
DCAA	*49*	*M J*	*52 - 151*	*06/05/12 07:51*	*06/06/12 17:29*	*1*

Lab Sample ID: LCS 680-239271/17-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 239683 — **Prep Batch: 239271**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	2.00	1.54		ug/L		77	63 - 130
2,4-DB	2.00	2.25		ug/L		113	34 - 157
2,4,5-T	2.00	1.65		ug/L		83	59 - 130
Silvex (2,4,5-TP)	2.00	1.55		ug/L		78	64 - 130
Dalapon	2.00	2.19	J	ug/L		110	24 - 130
Dicamba	2.00	1.75		ug/L		88	66 - 130
Dichlorprop	2.00	1.48		ug/L		74	65 - 152
Dinoseb	2.00	1.62	J	ug/L		81	10 - 130
MCPA	200	187		ug/L		93	40 - 130
Mecoprop	200	218		ug/L		109	53 - 130
Pentachlorophenol	2.00	1.68	J M	ug/L		84	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*72*		*52 - 151*
DCAA	*86*		*52 - 151*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-238259/1-A | **Client Sample ID: Method Blank**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 238534 | **Prep Batch: 238259**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Barium	0.15	U	1.0	0.15	ug/L		05/24/12 08:00	05/25/12 03:31	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 03:31	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 03:31	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 03:31	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 03:31	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 03:31	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 03:31	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:31	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 03:31	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 03:31	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:31	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 03:31	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 03:31	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 03:31	1

Lab Sample ID: LCS 680-238259/2-A | **Client Sample ID: Lab Control Sample**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 238534 | **Prep Batch: 238259**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	20.0	22.1		ug/L		110	75 - 125
Barium	20.0	21.3		ug/L		106	75 - 125
Antimony	10.0	12.2		ug/L		122	75 - 125
Beryllium	10.0	11.7		ug/L		117	75 - 125
Cadmium	10.0	11.6		ug/L		116	75 - 125
Cobalt	10.0	10.4		ug/L		104	75 - 125
Chromium	20.0	19.2		ug/L		96	75 - 125
Copper	20.0	20.4		ug/L		102	75 - 125
Silver	10.0	11.2		ug/L		112	75 - 125
Lead	10.0	11.1		ug/L		111	75 - 125
Nickel	20.0	19.7		ug/L		99	75 - 125
Selenium	20.0	24.5		ug/L		123	75 - 125
Thallium	8.00	8.29		ug/L		104	75 - 125
Tin	20.0	20.8		ug/L		104	75 - 125
Vanadium	20.0	19.0		ug/L		95	75 - 125
Zinc	20.0	23.7		ug/L		119	75 - 125
Mercury	1.00	0.995		ug/L		99	75 - 125

Lab Sample ID: 680-79725-5 MS | **Client Sample ID: SLNW-BLK-1-5-12**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 238534 | **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.40	U	20.0	22.0		ug/L		110	75 - 125
Barium	0.28	J	20.0	21.5		ug/L		106	75 - 125
Antimony	0.99	U	10.0	12.1		ug/L		121	75 - 125
Beryllium	0.070	U	10.0	11.7		ug/L		117	75 - 125

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

Lab Sample ID: 680-79725-5 MS — **Client Sample ID: SLNW-BLK-1-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.20	U	10.0	11.4		ug/L		114	75 - 125
Cobalt	0.078	U	10.0	10.3		ug/L		103	75 - 125
Chromium	0.16	U	20.0	19.4		ug/L		97	75 - 125
Copper	0.21	U	20.0	21.0		ug/L		105	75 - 125
Silver	0.10	U	10.0	11.1		ug/L		111	75 - 125
Lead	0.080	U	10.0	11.1		ug/L		111	75 - 125
Nickel	0.40	U	20.0	20.4		ug/L		102	75 - 125
Selenium	0.21	U	20.0	23.9		ug/L		119	75 - 125
Thallium	0.10	U	8.00	8.23		ug/L		103	75 - 125
Tin	0.40	U	20.0	20.9		ug/L		104	75 - 125
Vanadium	1.4	U	20.0	19.1		ug/L		96	75 - 125
Zinc	3.0	J	20.0	24.8		ug/L		109	75 - 125
Mercury	0.080	U	1.00	0.998		ug/L		100	75 - 125

Lab Sample ID: 680-79725-5 MSD — **Client Sample ID: SLNW-BLK-1-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.40	U	20.0	21.9		ug/L		110	75 - 125	0	20
Barium	0.28	J	20.0	21.2		ug/L		104	75 - 125	2	20
Antimony	0.99	U	10.0	12.1		ug/L		121	75 - 125	0	20
Beryllium	0.070	U	10.0	11.7		ug/L		117	75 - 125	0	20
Cadmium	0.20	U	10.0	11.4		ug/L		114	75 - 125	0	20
Cobalt	0.078	U	10.0	10.4		ug/L		104	75 - 125	1	20
Chromium	0.16	U	20.0	19.3		ug/L		97	75 - 125	1	20
Copper	0.21	U	20.0	20.9		ug/L		104	75 - 125	1	20
Silver	0.10	U	10.0	11.2		ug/L		112	75 - 125	1	20
Lead	0.080	U	10.0	11.1		ug/L		111	75 - 125	0	20
Nickel	0.40	U	20.0	20.4		ug/L		102	75 - 125	0	20
Selenium	0.21	U	20.0	23.9		ug/L		120	75 - 125	0	20
Thallium	0.10	U	8.00	8.38		ug/L		105	75 - 125	2	20
Tin	0.40	U	20.0	20.9		ug/L		104	75 - 125	0	20
Vanadium	1.4	U	20.0	19.1		ug/L		96	75 - 125	0	20
Zinc	3.0	J	20.0	24.8		ug/L		109	75 - 125	0	20
Mercury	0.080	U	1.00	1.01		ug/L		101	75 - 125	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-238397/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 16:31	5

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-238397/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-NO3	22.1	20.4		mg/L		92	90 - 110

Lab Sample ID: LCSD 680-238397/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238397

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	22.1	20.3		mg/L		92	90 - 110	0	30

Lab Sample ID: 680-79725-1 MS — **Client Sample ID: SLMW-11R-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238397

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-NO3	0.36	U	22.1	21.6		mg/L		98	90 - 110

Lab Sample ID: 680-79725-1 MSD — **Client Sample ID: SLMW-11R-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238397

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	0.36	U	22.1	21.5		mg/L		97	90 - 110	0	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-238460/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238508 — **Prep Batch: 238460**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/25/12 08:47	05/25/12 12:57	1

Lab Sample ID: LCS 680-238460/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238508 — **Prep Batch: 238460**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0505	0.0510		mg/L		101	85 - 115

Lab Sample ID: 680-79725-4 MS — **Client Sample ID: SW-2-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238508 — **Prep Batch: 238460**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0050	U	0.0505	0.0473		mg/L		94	85 - 115

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 680-79725-4 MSD — **Client Sample ID: SW-2-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238508 — **Prep Batch: 238460**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0050	U	0.0505	0.0539		mg/L		107	85 - 115	13	20

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

Lab Sample ID: MB 680-238406/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238408 — **Prep Batch: 238406**

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/24/12 10:30	05/24/12 13:54	1

Lab Sample ID: LCS 680-238406/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238408 — **Prep Batch: 238406**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	329	276		mg/L		84	50 - 150

QC Association Summary

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

TestAmerica Job ID: 680-79725-1

GC/MS VOA

Analysis Batch: 238839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8260B	
680-79725-2	SLMW-6-5-12	Total/NA	Water	8260B	
680-79725-3	SLMW-9-5-12	Total/NA	Water	8260B	
680-79725-4	SW-2-5-12	Total/NA	Water	8260B	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8260B	
680-79725-6	Trip Blank	Total/NA	Water	8260B	
LCS 680-238839/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-238839/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-238839/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 238359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	3520C	
680-79725-2	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-2 MS	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-2 MSD	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-3	SLMW-9-5-12	Total/NA	Water	3520C	
680-79725-4	SW-2-5-12	Total/NA	Water	3520C	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	3520C	
LCS 680-238359/14-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-238359/13-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 240036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8270D	238359
680-79725-2	SLMW-6-5-12	Total/NA	Water	8270D	238359
680-79725-2 MS	SLMW-6-5-12	Total/NA	Water	8270D	238359
680-79725-2 MSD	SLMW-6-5-12	Total/NA	Water	8270D	238359
680-79725-3	SLMW-9-5-12	Total/NA	Water	8270D	238359
680-79725-4	SW-2-5-12	Total/NA	Water	8270D	238359
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8270D	238359
LCS 680-238359/14-A	Lab Control Sample	Total/NA	Water	8270D	238359
MB 680-238359/13-A	Method Blank	Total/NA	Water	8270D	238359

GC Semi VOA

Prep Batch: 37215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	3510C	
680-79725-2	SLMW-6-5-12	Total/NA	Water	3510C	
680-79725-3	SLMW-9-5-12	Total/NA	Water	3510C	
680-79725-4	SW-2-5-12	Total/NA	Water	3510C	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	3510C	
LCS 180-37215/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-37215/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 180-37215/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 38389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8141B	37215

GC Semi VOA (Continued)

Analysis Batch: 38389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-2	SLMW-6-5-12	Total/NA	Water	8141B	37215
680-79725-3	SLMW-9-5-12	Total/NA	Water	8141B	37215
680-79725-4	SW-2-5-12	Total/NA	Water	8141B	37215
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8141B	37215
LCS 180-37215/2-A	Lab Control Sample	Total/NA	Water	8141B	37215
LCSD 180-37215/3-A	Lab Control Sample Dup	Total/NA	Water	8141B	37215
MB 180-37215/1-A	Method Blank	Total/NA	Water	8141B	37215

Prep Batch: 238328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8151A	
680-79725-2	SLMW-6-5-12	Total/NA	Water	8151A	
680-79725-3	SLMW-9-5-12	Total/NA	Water	8151A	
680-79725-4	SW-2-5-12	Total/NA	Water	8151A	
680-79725-4 MS	SW-2-5-12	Total/NA	Water	8151A	
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	8151A	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8151A	
LCS 680-238328/18-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-238328/17-A	Method Blank	Total/NA	Water	8151A	

Prep Batch: 238463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	3520C	
680-79725-1 MS	SLMW-11R-5-12	Total/NA	Water	3520C	
680-79725-1 MSD	SLMW-11R-5-12	Total/NA	Water	3520C	
680-79725-2	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-2 MS	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-2 MSD	SLMW-6-5-12	Total/NA	Water	3520C	
680-79725-3	SLMW-9-5-12	Total/NA	Water	3520C	
680-79725-4	SW-2-5-12	Total/NA	Water	3520C	
680-79725-4 MS	SW-2-5-12	Total/NA	Water	3520C	
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	3520C	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	3520C	
LCS 680-238463/21-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-238463/24-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-238463/27-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-238463/20-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 238607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8151A	238328
680-79725-2	SLMW-6-5-12	Total/NA	Water	8151A	238328
LCS 680-238328/18-A	Lab Control Sample	Total/NA	Water	8151A	238328
MB 680-238328/17-A	Method Blank	Total/NA	Water	8151A	238328

Analysis Batch: 238608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-3	SLMW-9-5-12	Total/NA	Water	8151A	238328
680-79725-4	SW-2-5-12	Total/NA	Water	8151A	238328
680-79725-4 MS	SW-2-5-12	Total/NA	Water	8151A	238328
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	8151A	238328
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8151A	238328

GC Semi VOA (Continued)

Analysis Batch: 239203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-1 MS	SLMW-11R-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-1 MSD	SLMW-11R-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-2	SLMW-6-5-12	Total/NA	Water	8081B/8082A	238463
LCS 680-238463/21-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238463
LCS 680-238463/24-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238463
LCS 680-238463/27-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238463
MB 680-238463/20-A	Method Blank	Total/NA	Water	8081B/8082A	238463

Prep Batch: 239271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1 - RE	SLMW-11R-5-12	Total/NA	Water	8151A	
680-79725-2 - RE	SLMW-6-5-12	Total/NA	Water	8151A	
680-79725-3 - RE	SLMW-9-5-12	Total/NA	Water	8151A	
680-79725-4 - RE	SW-2-5-12	Total/NA	Water	8151A	
680-79725-5 - RE	SLNW-BLK-1-5-12	Total/NA	Water	8151A	
LCS 680-239271/17-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-239271/16-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 239345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-2 MS	SLMW-6-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-2 MSD	SLMW-6-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-3	SLMW-9-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-4	SW-2-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-4 MS	SW-2-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	8081B/8082A	238463
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	8081B/8082A	238463

Analysis Batch: 239683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-239271/17-A	Lab Control Sample	Total/NA	Water	8151A	239271
MB 680-239271/16-A	Method Blank	Total/NA	Water	8151A	239271

Analysis Batch: 239981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1 - RE	SLMW-11R-5-12	Total/NA	Water	8151A	239271
680-79725-2 - RE	SLMW-6-5-12	Total/NA	Water	8151A	239271
680-79725-3 - RE	SLMW-9-5-12	Total/NA	Water	8151A	239271
680-79725-4 - RE	SW-2-5-12	Total/NA	Water	8151A	239271
680-79725-5 - RE	SLNW-BLK-1-5-12	Total/NA	Water	8151A	239271

Metals

Prep Batch: 238259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	3030C	
680-79725-2	SLMW-6-5-12	Total/NA	Water	3030C	
680-79725-3	SLMW-9-5-12	Total/NA	Water	3030C	
680-79725-4	SW-2-5-12	Total/NA	Water	3030C	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	3030C	
680-79725-5 MS	SLNW-BLK-1-5-12	Total/NA	Water	3030C	

Metals (Continued)

Prep Batch: 238259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-5 MSD	SLNW-BLK-1-5-12	Total/NA	Water	3030C	
LCS 680-238259/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-238259/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 238534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	6020A	238259
680-79725-2	SLMW-6-5-12	Total/NA	Water	6020A	238259
680-79725-3	SLMW-9-5-12	Total/NA	Water	6020A	238259
680-79725-4	SW-2-5-12	Total/NA	Water	6020A	238259
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	6020A	238259
680-79725-5 MS	SLNW-BLK-1-5-12	Total/NA	Water	6020A	238259
680-79725-5 MSD	SLNW-BLK-1-5-12	Total/NA	Water	6020A	238259
LCS 680-238259/2-A	Lab Control Sample	Total/NA	Water	6020A	238259
MB 680-238259/1-A	Method Blank	Total/NA	Water	6020A	238259

General Chemistry

Analysis Batch: 238397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	300.0	
680-79725-1 MS	SLMW-11R-5-12	Total/NA	Water	300.0	
680-79725-1 MSD	SLMW-11R-5-12	Total/NA	Water	300.0	
680-79725-2	SLMW-6-5-12	Total/NA	Water	300.0	
680-79725-3	SLMW-9-5-12	Total/NA	Water	300.0	
680-79725-4	SW-2-5-12	Total/NA	Water	300.0	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	300.0	
LCS 680-238397/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-238397/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-238397/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 238406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	9030B	
680-79725-2	SLMW-6-5-12	Total/NA	Water	9030B	
680-79725-3	SLMW-9-5-12	Total/NA	Water	9030B	
680-79725-4	SW-2-5-12	Total/NA	Water	9030B	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	9030B	
LCS 680-238406/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 680-238406/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 238408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	9034	238406
680-79725-2	SLMW-6-5-12	Total/NA	Water	9034	238406
680-79725-3	SLMW-9-5-12	Total/NA	Water	9034	238406
680-79725-4	SW-2-5-12	Total/NA	Water	9034	238406
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	9034	238406
LCS 680-238406/2-A	Lab Control Sample	Total/NA	Water	9034	238406
MB 680-238406/1-A	Method Blank	Total/NA	Water	9034	238406

General Chemistry (Continued)

Prep Batch: 238460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	9012B	
680-79725-2	SLMW-6-5-12	Total/NA	Water	9012B	
680-79725-3	SLMW-9-5-12	Total/NA	Water	9012B	
680-79725-4	SW-2-5-12	Total/NA	Water	9012B	
680-79725-4 MS	SW-2-5-12	Total/NA	Water	9012B	
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	9012B	
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	9012B	
LCS 680-238460/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 680-238460/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 238508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79725-1	SLMW-11R-5-12	Total/NA	Water	9012B	238460
680-79725-2	SLMW-6-5-12	Total/NA	Water	9012B	238460
680-79725-3	SLMW-9-5-12	Total/NA	Water	9012B	238460
680-79725-4	SW-2-5-12	Total/NA	Water	9012B	238460
680-79725-4 MS	SW-2-5-12	Total/NA	Water	9012B	238460
680-79725-4 MSD	SW-2-5-12	Total/NA	Water	9012B	238460
680-79725-5	SLNW-BLK-1-5-12	Total/NA	Water	9012B	238460
LCS 680-238460/2-A	Lab Control Sample	Total/NA	Water	9012B	238460
MB 680-238460/1-A	Method Blank	Total/NA	Water	9012B	238460

Lab Chronicle

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-11R-5-12

Lab Sample ID: 680-79725-1

Date Collected: 05/22/12 08:58

Matrix: Water

Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 19:56	AJMC	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 16:07	MES	TAL SAV
Total/NA	Prep	3510C			37215	05/25/12 13:15	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 20:23	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 19:22	JK	TAL SAV
Total/NA	Prep	3520C			238463	05/25/12 15:33	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	239203	06/02/12 02:55	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 19:52	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 05:50	BR	TAL SAV
Total/NA	Analysis	300.0		5	238397	05/23/12 17:17	PAT	TAL SAV
Total/NA	Prep	9030B			238406	05/24/12 10:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238408	05/24/12 13:54	CN	TAL SAV
Total/NA	Prep	9012B			238460	05/25/12 08:47	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238508	05/25/12 13:02	DAM	TAL SAV

Client Sample ID: SLMW-6-5-12

Lab Sample ID: 680-79725-2

Date Collected: 05/22/12 11:35

Matrix: Water

Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 20:26	AJMC	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 16:35	MES	TAL SAV
Total/NA	Prep	3510C			37215	05/25/12 13:15	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 20:49	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 19:38	JK	TAL SAV
Total/NA	Prep	3520C			238463	05/25/12 15:33	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	239203	06/02/12 04:07	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 20:08	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 05:57	BR	TAL SAV
Total/NA	Analysis	300.0		5	238397	05/23/12 18:03	PAT	TAL SAV
Total/NA	Prep	9030B			238406	05/24/12 10:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238408	05/24/12 13:54	CN	TAL SAV
Total/NA	Prep	9012B			238460	05/25/12 08:47	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238508	05/25/12 13:02	DAM	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLMW-9-5-12

Lab Sample ID: 680-79725-3

Date Collected: 05/22/12 14:45
Matrix: Water
Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 21:25	AJMC	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 17:03	MES	TAL SAV
Total/NA	Prep	3510C			37215	05/25/12 13:15	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 21:16	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238608	05/26/12 21:28	JK	TAL SAV
Total/NA	Prep	3520C			238463	05/25/12 15:33	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	239345	06/04/12 16:03	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 20:24	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 06:05	BR	TAL SAV
Total/NA	Analysis	300.0		5	238397	05/23/12 18:19	PAT	TAL SAV
Total/NA	Prep	9030B			238406	05/24/12 10:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238408	05/24/12 13:54	CN	TAL SAV
Total/NA	Prep	9012B			238460	05/25/12 08:47	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238508	05/25/12 13:03	DAM	TAL SAV

Client Sample ID: SW-2-5-12

Lab Sample ID: 680-79725-4

Date Collected: 05/22/12 15:00
Matrix: Water
Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 20:56	AJMC	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 17:31	MES	TAL SAV
Total/NA	Prep	3510C			37215	05/25/12 13:15	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 21:43	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238608	05/26/12 21:44	JK	TAL SAV
Total/NA	Prep	3520C			238463	05/25/12 15:33	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	239345	06/04/12 16:27	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 20:40	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 06:27	BR	TAL SAV
Total/NA	Analysis	300.0		5	238397	05/23/12 18:34	PAT	TAL SAV
Total/NA	Prep	9030B			238406	05/24/12 13:53	CN	TAL SAV
Total/NA	Analysis	9034		1	238408	05/24/12 13:54	CN	TAL SAV
Total/NA	Prep	9012B			238460	05/25/12 08:47	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238508	05/25/12 13:04	DAM	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-79725-1

Client Sample ID: SLNW-BLK-1-5-12

Lab Sample ID: 680-79725-5

Date Collected: 05/22/12 16:00

Matrix: Water

Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 17:28	AJMC	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 17:59	MES	TAL SAV
Total/NA	Prep	3510C			37215	05/25/12 13:15	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 22:09	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238608	05/26/12 22:00	JK	TAL SAV
Total/NA	Prep	3520C			238463	05/25/12 15:33	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	239345	06/04/12 17:39	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 20:56	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 06:34	BR	TAL SAV
Total/NA	Analysis	300.0		5	238397	05/23/12 18:49	PAT	TAL SAV
Total/NA	Prep	9030B			238406	05/24/12 13:53	CN	TAL SAV
Total/NA	Analysis	9034		1	238408	05/24/12 13:55	CN	TAL SAV
Total/NA	Prep	9012B			238460	05/25/12 08:47	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238508	05/25/12 13:09	DAM	TAL SAV

Client Sample ID: Trip Blank

Lab Sample ID: 680-79725-6

Date Collected: 05/22/12 08:00

Matrix: Water

Date Received: 05/23/12 09:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238839	05/30/12 15:29	AJMC	TAL SAV

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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

Serial Number 51631

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	PROJECT NO.	PROJECT LOCATION (STATE) NC
TAL (LAB) PROJECT MANAGER: Linda Wolfe	P.O. NUMBER: SPAH0098	CONTRACT NO.
CLIENT (SITE) PM: Kevin Haberek	CLIENT PHONE: 912 652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL: ~~100 West Oglethorpe Ave~~ RH	
CLIENT ADDRESS: 100 West Oglethorpe Ave Savannah, GA		
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: 5

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8081B-SGC	8151A	8270D	9034	9012B	300-48HR	6020A-APP			REMARKS
			Tce	Tce	Tce	Tce	Tce	Tce	Tce	Tce	Tce	Tce	Tce	Tce			
5-22-12	0858	SLMW-11R-5-12	G	X				2	2	2	2	2	1	1	1		
5-22-12	1135	SLMW-6-5-12	G	X				2	2	2	2	2	1	1	1		
5-22-12	1445	SLMW-9-5-12	G	X				1	1	1	1	2	1	1	1		
5-22-12	1500	~~SLM~~ SW-2-5-12	G	X				2	2	2	2	2	1	1	1		
5-22-12	1600	SLMW-B2K-1-5-12	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
[signature]	5-22-12	1730						
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
[signature]	5/23/12	0914	YES ( ) NO ( )		60-79725	1.3/2.6/2.1/2.1/1.8°C

Serial Number 53332

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	PROJECT NO.	PROJECT LOCATION (STATE) NC
TAL (LAB) PROJECT MANAGER Linda Wolfe	P.O. NUMBER BPA #0048	CONTRACT NO.
CLIENT (SITE) PM Kevin Hebecke	CLIENT PHONE 912-652-6083	CLIENT FAX
CLIENT NAME USACE	CLIENT E-MAIL	
CLIENT ADDRESS 100 West Oglethorpe Ave Savannah GA 31404		
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:

REQUIRED ANALYSIS: 8260B; Tcc

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
5-22-12	0858	SLMW-11R-5-12	G	X				3	
5-22-12	0800	Trip Blank	G	X				2	
5-22-12	1135	SLMW-6-5-12	G	X				3	
5-22-12	1445	SLMW-9-5-12	G	X				3	
5-22-12	1500	SW-2-5-12	G	X				3	
5-22-12	1600	SLMW-BAK-1-5-12	G	X				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	5-22-12	1730						
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
[signature]	5/23/12	0914	YES ( ) NO ( )		680-79725	

Certification Summary

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

TestAmerica Job ID: 680-79725-1

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 DEQ	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	Florida	NELAC	4	E87052
TestAmerica Savannah	GA Dept. of Agriculture	State Program	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Georgia	State Program	4	N/A
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	State Program	4	90084
TestAmerica Savannah	Kentucky (UST)	State Program	4	18
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 DENR	State Program	4	269
TestAmerica Savannah	North Carolina DHHS	State Program	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	Federal		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	State Program	3	9950C
TestAmerica Savannah	West Virginia DEP	State Program	3	94
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAC	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAC	4	E871008
TestAmerica Pittsburgh	Illinois	NELAC	5	002602
TestAmerica Pittsburgh	Kansas	NELAC	7	E-10350

Certification Summary

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

TestAmerica Job ID: 680-79725-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	L-A-B	DoD ELAP		L2314
TestAmerica Pittsburgh	Louisiana	NELAC	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAC	1	203011
TestAmerica Pittsburgh	New Jersey	NELAC	2	PA005
TestAmerica Pittsburgh	New York	NELAC	2	11182
TestAmerica Pittsburgh	North Carolina DENR	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
TestAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014002
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAC	8	STLP
TestAmerica Pittsburgh	Virginia	NELAC	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

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: 680-79687-2
Client Project/Site: Fort Bragg Longstreet

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

Attn: Mr. Kevin Haborak

Authorized for release by:
6/22/2012 8:04:51 AM

Linda Wolfe
Project Manager I
linda.wolfe@testamericainc.com

LINKS

Review your project results through TotalAccess

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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 117

Job ID: 680-79687-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Fort Bragg Longstreet

Report Number: 680-79687-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/22/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 2.2º C, 2.4º C, 2.4º C, 2.6º C, 2.6º C, 2.8º C, 2.8º C, 3.0º C and 3.1º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20), SLMW-12AR-5-12 (680-79687-21) and Trip Blank (680-79687-22) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/30/2012 and 05/31/2012.

No difficulties were encountered during the volatiles analyses.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/24/2012 and analyzed on 06/11/2012.

Bis(2-ethylhexyl) phthalate, Butyl benzyl phthalate, Di-n-butyl phthalate and Di-n-octyl phthalate failed the recovery criteria low for LCS 680-238359/14-A. Refer to the QC report for details.

3,3'-Dichlorobenzidine failed the recovery criteria low for the MS and MSD of sample SLMW-12BR-5-12MS (680-79687-20) in batch 680-240036..

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analyses.

All other quality control parameters were within the acceptance limits.

Job ID: 680-79687-2 (Continued)

Laboratory: TestAmerica Savannah (Continued)

PESTICIDES AND PCBS

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 05/23/2012 and 06/04/2012 and analyzed on 05/30/2012 and 06/12/2012.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for samples SLMW-10-5-12 (680-79687-11),SLMW-7-5-12 (680-79687-14), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13) and SW-1-5-12 (680-79687-19). Samples SLMW-10-5-12 (680-79687-11),SLMW-7-5-12 (680-79687-14), SLMW-Dup-1-5-12 (680-79687-13) and SW-1-5-12 (680-79687-19) were re-extracted. Samples SLMW-8-5-12 and SLMW-7-5-12 could not be re-extracted due to insufficient volume. The surrogates failed in the re-extracts confirming the original extraction. Both sets of data are provided.

Endrin ketone failed the recovery criteria high for LCS in the re-extraction batch 680-239184. Refer to the QC report for details.

No other difficulties were encountered during the Pesticides and PCBs analyses.

All other quality control parameters were within the acceptance limits.

ORGANOPHOSPHORUS PESTICIDES

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for organophosphorus pesticides in accordance with EPA SW-846 Method 8141B. The samples were prepared on 05/23/2012 and analyzed on 06/07/2012.

No difficulties were encountered during the pesticides analyses.

All quality control parameters were within the acceptance limits.

CHLORINATED HERBICIDES

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 05/24/2012 and 06/05/2012 and analyzed on 05/26/2012 and 06/06/2012.

DCAA failed the surrogate recovery criteria low for MB 680-239271/16-A. Refer to the QC report for details.

Pentachlorophenol failed the recovery criteria low for LCS 680-238328/18-A. Due to the failure of the pentachlorphenol in the LCS, all samples excluding samples SLMW-8-5-12 and SLMW-7-5-12 were re-extracted outside of holding time. (Samples SLMW-8-5-12 and SLMW-7-5-12 could not be re-extracted due to insufficient sample volume.) Both sets of data are reported.

No other difficulties were encountered during the herbicides analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICPMS)

Samples SLMW-10-5-12 (680-79687-15), SLMW-8-5-12 (680-79687-16), SLMW-Dup-1-5-12 (680-79687-17), SLMW-7-5-12 (680-79687-18), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for Metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/24/2012 and analyzed on 05/25/2012.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

ANIONS (NITRATE/NITRITE)

Samples SLMW-10-5-12 (680-79687-15), SLMW-8-5-12 (680-79687-16), SLMW-Dup-1-5-12 (680-79687-17), SLMW-7-5-12

Job ID: 680-79687-2 (Continued)

Laboratory: TestAmerica Savannah (Continued)

(680-79687-18), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for Anions (Nitrate/Nitrite) in accordance with EPA Method 300.0. The samples were analyzed on 05/23/2012.

Samples SLMW-10-5-12 (680-79687-15)[5X], SLMW-8-5-12 (680-79687-16)[5X], SLMW-Dup-1-5-12 (680-79687-17)[5X], SLMW-7-5-12 (680-79687-18)[5X], SW-1-5-12 (680-79687-19)[5X], SLMW-12BR-5-12 (680-79687-20)[5X] and SLMW-12AR-5-12 (680-79687-21)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Reanalysis of samples SLMW-10-5-12 (680-79687-15), SLMW-8-5-12 (680-79687-16), SLMW-Dup-1-5-12 (680-79687-17), SLMW-7-5-12 (680-79687-18), was performed outside of the analytical holding time. The samples were originally analyzed within holding time but the laboratory was not able to retrieve the data from the instrument.

No other difficulties were encountered during the Anions analyses.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 05/24/2012.

No difficulties were encountered during the cyanide analyses.

All quality control parameters were within the acceptance limits.

SULFIDE

Samples SLMW-10-5-12 (680-79687-11), SLMW-8-5-12 (680-79687-12), SLMW-Dup-1-5-12 (680-79687-13), SLMW-7-5-12 (680-79687-14), SW-1-5-12 (680-79687-19), SLMW-12BR-5-12 (680-79687-20) and SLMW-12AR-5-12 (680-79687-21) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 05/25/2012.

No difficulties were encountered during the sulfide analyses.

All quality control parameters were within the acceptance limits.

Sample Summary

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

TestAmerica Job ID: 680-79687-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79687-11	SLMW-10-5-12	Water	05/20/12 09:43	05/22/12 09:36
680-79687-12	SLMW-8-5-12	Water	05/20/12 13:42	05/22/12 09:36
680-79687-13	SLMW-Dup-1-5-12	Water	05/20/12 12:00	05/22/12 09:36
680-79687-14	SLMW-7-5-12	Water	05/20/12 16:00	05/22/12 09:36
680-79687-15	SLMW-10-5-12	Water	05/21/12 08:55	05/22/12 09:36
680-79687-16	SLMW-8-5-12	Water	05/21/12 09:31	05/22/12 09:36
680-79687-17	SLMW-Dup-1-5-12	Water	05/21/12 12:00	05/22/12 09:36
680-79687-18	SLMW-7-5-12	Water	05/21/12 09:45	05/22/12 09:36
680-79687-19	SW-1-5-12	Water	05/21/12 14:30	05/22/12 09:36
680-79687-20	SLMW-12BR-5-12	Water	05/21/12 15:30	05/22/12 09:36
680-79687-21	SLMW-12AR-5-12	Water	05/21/12 16:25	05/22/12 09:36
680-79687-22	Trip Blank	Water	05/20/12 09:43	05/22/12 09:36

Method Summary

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

TestAmerica Job ID: 680-79687-2

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
8141B	Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique	SW846	TAL PIT
8151A	Herbicides (GC)	SW846	TAL SAV
6020A	Metals (ICP/MS)	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 PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

GC/MS Semi 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.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.

GC Semi VOA

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

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
H	Sample was prepped or analyzed beyond the specified holding time

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: Fort Bragg Longstreet

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-10-5-12 — Lab Sample ID: 680-79687-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.7		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.79	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	8.5		1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	9.4		1.0	0.28	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.31	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	1.0		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.54	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	3.7		1.0	0.13	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.13	J	1.0	0.10	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.52	J	10	0.20	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.21	J	1.0	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	0.88	J	1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	2.0		1.0	0.18	ug/L	1		8260B	Total/NA
Isopropyl ether	1.9	J	10	0.24	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	6.6	J	9.5	0.51	ug/L	1		8270D	Total/NA

Client Sample ID: SLMW-8-5-12 — Lab Sample ID: 680-79687-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.7		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	3.2		1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	57		1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.54	J	1.0	0.28	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	2.1		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.33	J	1.0	0.15	ug/L	1		8260B	Total/NA
Toluene	0.34	J	1.0	0.33	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.24	J	1.0	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	2.3		1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	12		1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-Dup-1-5-12 — Lab Sample ID: 680-79687-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.6		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.75	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	9.5		1.0	0.15	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.22	J	1.0	0.21	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	9.6		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	0.42	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	3.5		1.0	0.13	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.13	J	1.0	0.10	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.61	J	10	0.20	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.16	J	1.0	0.16	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.21	J	1.0	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0	0.13	ug/L	1		8260B	Total/NA
Vinyl chloride	2.1		1.0	0.18	ug/L	1		8260B	Total/NA
Isopropyl ether	1.8	J	10	0.24	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	6.8	J	9.5	0.51	ug/L	1		8270D	Total/NA

Client Sample ID: SLMW-7-5-12 — Lab Sample ID: 680-79687-14

Client Sample ID: SLMW-7-5-12 (Continued) — Lab Sample ID: 680-79687-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.76	J	1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.70	J	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	0.17	J	1.0	0.15	ug/L	1		8260B	Total/NA
Vinyl chloride	0.43	J	1.0	0.18	ug/L	1		8260B	Total/NA

Client Sample ID: SLMW-10-5-12 — Lab Sample ID: 680-79687-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.8		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	160		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	14		0.20	0.078	ug/L	1		6020A	Total/NA
Nickel	0.67	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.65		0.50	0.21	ug/L	1		6020A	Total/NA
Tin	0.88	J	1.0	0.40	ug/L	1		6020A	Total/NA
Vanadium	1.9	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	5.1	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-8-5-12 — Lab Sample ID: 680-79687-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	51		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.22		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.52	J	1.0	0.21	ug/L	1		6020A	Total/NA
Vanadium	2.0	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	8.0	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-Dup-1-5-12 — Lab Sample ID: 680-79687-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.0		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	160		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	17		0.20	0.078	ug/L	1		6020A	Total/NA
Lead	0.086	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	1.0		1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.67		0.50	0.21	ug/L	1		6020A	Total/NA
Tin	0.89	J	1.0	0.40	ug/L	1		6020A	Total/NA
Vanadium	2.6	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	5.2	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-7-5-12 — Lab Sample ID: 680-79687-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.5		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	69		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.81		0.20	0.078	ug/L	1		6020A	Total/NA
Chromium	0.26	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	0.99	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.29	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.49	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	0.22	J	0.50	0.21	ug/L	1		6020A	Total/NA
Vanadium	2.9	J	5.0	1.4	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-7-5-12 (Continued) — Lab Sample ID: 680-79687-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	8.2	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SW-1-5-12 — Lab Sample ID: 680-79687-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.8	J	25	5.0	ug/L	1		8260B	Total/NA
Benzene	2.2		1.0	0.25	ug/L	1		8260B	Total/NA
Chlorobenzene	0.54	J	1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	3.8		1.0	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.85	J	1.0	0.28	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	3.9		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	9.4		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.45	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.12	J	1.0	0.11	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	0.44	J	1.0	0.13	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.16	J	1.0	0.10	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.70	J	10	0.20	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.91	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	2.0		1.0	0.13	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.84	J	1.0	0.25	ug/L	1		8260B	Total/NA
Vinyl chloride	2.4		1.0	0.18	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.67	J	9.5	0.51	ug/L	1		8270D	Total/NA
Diethyl phthalate	2.2	J	9.5	0.83	ug/L	1		8270D	Total/NA
Arsenic	9.3		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	35		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.12	J	0.20	0.078	ug/L	1		6020A	Total/NA
Zinc	9.0	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-12BR-5-12 — Lab Sample ID: 680-79687-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	41		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.39		0.20	0.070	ug/L	1		6020A	Total/NA
Cobalt	1.2		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.88	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.26	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	1.6		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	8.2	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: SLMW-12AR-5-12 — Lab Sample ID: 680-79687-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.57	J	1.0	0.40	ug/L	1		6020A	Total/NA
Barium	33		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.15	J	0.20	0.070	ug/L	1		6020A	Total/NA
Cobalt	0.71		0.20	0.078	ug/L	1		6020A	Total/NA
Lead	0.37		0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.68	J	1.0	0.40	ug/L	1		6020A	Total/NA
Thallium	0.12	J	0.20	0.10	ug/L	1		6020A	Total/NA
Tin	0.68	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	5.5	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate-NO3	1.5		1.1	0.36	mg/L	5		300.0	Total/NA

Detection Summary

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: Trip Blank **Lab Sample ID: 680-79687-22**

No Detections

Client Sample Results

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43
Date Received: 05/22/12 09:36

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			05/30/12 15:56	1
Benzene	**1.7**		1.0	0.25	ug/L			05/30/12 15:56	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:56	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 15:56	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 15:56	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 15:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 15:56	1
Chlorobenzene	**0.79**	**J**	1.0	0.25	ug/L			05/30/12 15:56	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 15:56	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:56	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 15:56	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 15:56	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 15:56	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:56	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 15:56	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 15:56	1
cis-1,2-Dichloroethene	**8.5**		1.0	0.15	ug/L			05/30/12 15:56	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 15:56	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 15:56	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 15:56	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
1,4-Dichlorobenzene	**9.4**		1.0	0.28	ug/L			05/30/12 15:56	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
Dichlorodifluoromethane	**0.31**	**J**	1.0	0.25	ug/L			05/30/12 15:56	1
1,1-Dichloroethane	**1.0**		1.0	0.25	ug/L			05/30/12 15:56	1
1,2-Dichloroethane	**0.54**	**J**	1.0	0.10	ug/L			05/30/12 15:56	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 15:56	1
1,2-Dichloropropane	**3.7**		1.0	0.13	ug/L			05/30/12 15:56	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:56	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 15:56	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 15:56	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 15:56	1
Isopropylbenzene	**0.13**	**J**	1.0	0.10	ug/L			05/30/12 15:56	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 15:56	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 15:56	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 15:56	1
Methyl tert-butyl ether	**0.52**	**J**	10	0.20	ug/L			05/30/12 15:56	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 15:56	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:56	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 15:56	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:56	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 15:56	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 15:56	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:56	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 15:56	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:56	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 15:56	1
trans-1,2-Dichloroethene	**0.21**	**J**	1.0	0.20	ug/L			05/30/12 15:56	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 15:56	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 15:56	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 15:56	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 15:56	1
Trichloroethene	**0.88**	**J**	1.0	0.13	ug/L			05/30/12 15:56	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:56	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 15:56	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:56	1
Vinyl chloride	**2.0**		1.0	0.18	ug/L			05/30/12 15:56	1
Isopropyl ether	**1.9**	**J**	10	0.24	ug/L			05/30/12 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 130*		*05/30/12 15:56*	*1*
Dibromofluoromethane	*92*		*70 - 130*		*05/30/12 15:56*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*05/30/12 15:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 12:52	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 12:52	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 12:52	1
1,4-Dichlorobenzene	**6.6**	**J**	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4,6-Trichlorophenol	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Chlorophenol	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 12:52	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 12:52	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 12:52	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 12:52	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 12:52	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Chlorophenyl phenyl ether	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 12:52	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 12:52	1
Acenaphthylene	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 12:52	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzo[g,h,i]perylene	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 12:52	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 12:52	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 12:52	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 12:52	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 12:52	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 12:52	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 12:52	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 12:52	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 12:52	1
Diethyl phthalate	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 12:52	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 12:52	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 12:52	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 12:52	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 12:52	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 12:52	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 12:52	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 12:52	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 12:52	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 12:52	1
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 12:52	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 12:52	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 12:52	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 12:52	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 12:52	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 12:52	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 12:52	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 12:52	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 12:52	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 12:52	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 12:52	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 12:52	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*31 - 141*	*05/24/12 15:47*	*06/11/12 12:52*	*1*
2-Fluorobiphenyl	*69*		*38 - 130*	*05/24/12 15:47*	*06/11/12 12:52*	*1*
2-Fluorophenol	*67*		*25 - 130*	*05/24/12 15:47*	*06/11/12 12:52*	*1*
Terphenyl-d14	*34*		*10 - 143*	*05/24/12 15:47*	*06/11/12 12:52*	*1*
Phenol-d5	*69*		*25 - 130*	*05/24/12 15:47*	*06/11/12 12:52*	*1*
Nitrobenzene-d5	*69*		*39 - 130*	*05/24/12 15:47*	*06/11/12 12:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/23/12 16:07	05/30/12 17:43	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		05/23/12 16:07	05/30/12 17:43	1
Dieldrin	0.0086	U	0.094	0.0086	ug/L		05/23/12 16:07	05/30/12 17:43	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/23/12 16:07	05/30/12 17:43	1
Endosulfan II	0.0093	U	0.094	0.0093	ug/L		05/23/12 16:07	05/30/12 17:43	1
Endosulfan sulfate	0.0064	U	0.094	0.0064	ug/L		05/23/12 16:07	05/30/12 17:43	1
Endrin	0.0092	U	0.094	0.0092	ug/L		05/23/12 16:07	05/30/12 17:43	1
Endrin aldehyde	0.015	U	0.094	0.015	ug/L		05/23/12 16:07	05/30/12 17:43	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0079	U	0.094	0.0079	ug/L		05/23/12 16:07	05/30/12 17:43	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 17:43	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 17:43	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		05/23/12 16:07	05/30/12 17:43	1
Methoxychlor	0.012	U	0.094	0.012	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1016	0.067	U	0.94	0.067	ug/L		05/23/12 16:07	05/30/12 17:43	1
4,4'-DDD	0.0061	U	0.094	0.0061	ug/L		05/23/12 16:07	05/30/12 17:43	1
4,4'-DDE	0.0073	U	0.094	0.0073	ug/L		05/23/12 16:07	05/30/12 17:43	1
4,4'-DDT	0.0092	U	0.094	0.0092	ug/L		05/23/12 16:07	05/30/12 17:43	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 17:43	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/23/12 16:07	05/30/12 17:43	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		05/23/12 16:07	05/30/12 17:43	1
Chlordane (technical)	0.094	U	0.47	0.094	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1221	0.26	U	1.9	0.26	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1232	0.10	U	0.94	0.10	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1242	0.17	U	0.94	0.17	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1248	0.34	U	0.94	0.34	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1254	0.25	U	0.94	0.25	ug/L		05/23/12 16:07	05/30/12 17:43	1
PCB-1260	0.19	U	0.94	0.19	ug/L		05/23/12 16:07	05/30/12 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*36 - 130*	*05/23/12 16:07*	*05/30/12 17:43*	*1*
Tetrachloro-m-xylene	*75*		*36 - 130*	*05/23/12 16:07*	*05/30/12 17:43*	*1*
DCB Decachlorobiphenyl	*15*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 17:43*	*1*
DCB Decachlorobiphenyl	*15*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 17:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U H	4.7	0.47	ug/L		06/04/12 15:15	06/12/12 13:26	1
delta-BHC	0.0045	U H	0.047	0.0045	ug/L		06/04/12 15:15	06/12/12 13:26	1
Dieldrin	0.0086	U H	0.095	0.0086	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endosulfan I	0.0040	U H	0.047	0.0040	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endosulfan II	0.0093	U H	0.095	0.0093	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endosulfan sulfate	0.0064	U H	0.095	0.0064	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endrin	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endrin aldehyde	0.015	U H	0.095	0.015	ug/L		06/04/12 15:15	06/12/12 13:26	1
Endrin ketone	0.0080	U H	0.095	0.0080	ug/L		06/04/12 15:15	06/12/12 13:26	1
gamma-BHC (Lindane)	0.0056	U H	0.047	0.0056	ug/L		06/04/12 15:15	06/12/12 13:26	1
Heptachlor	0.0066	U H	0.047	0.0066	ug/L		06/04/12 15:15	06/12/12 13:26	1
Heptachlor epoxide	0.0057	U H	0.047	0.0057	ug/L		06/04/12 15:15	06/12/12 13:26	1
Methoxychlor	0.012	U H	0.095	0.012	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1016	0.067	U H	0.95	0.067	ug/L		06/04/12 15:15	06/12/12 13:26	1
4,4'-DDD	0.0062	U H	0.095	0.0062	ug/L		06/04/12 15:15	06/12/12 13:26	1
4,4'-DDE	0.0073	U H	0.095	0.0073	ug/L		06/04/12 15:15	06/12/12 13:26	1
4,4'-DDT	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 13:26	1
Aldrin	0.0066	U H	0.047	0.0066	ug/L		06/04/12 15:15	06/12/12 13:26	1
alpha-BHC	0.0054	U H	0.047	0.0054	ug/L		06/04/12 15:15	06/12/12 13:26	1
beta-BHC	0.0063	U H	0.047	0.0063	ug/L		06/04/12 15:15	06/12/12 13:26	1
Chlordane (technical)	0.095	U H	0.47	0.095	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1221	0.27	U H	1.9	0.27	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1232	0.10	U H	0.95	0.10	ug/L		06/04/12 15:15	06/12/12 13:26	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	0.17	U H	0.95	0.17	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1248	0.34	U H	0.95	0.34	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1254	0.25	U H	0.95	0.25	ug/L		06/04/12 15:15	06/12/12 13:26	1
PCB-1260	0.19	U H	0.95	0.19	ug/L		06/04/12 15:15	06/12/12 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*59*		*36 - 130*	*06/04/12 15:15*	*06/12/12 13:26*	*1*
Tetrachloro-m-xylene	*58*		*36 - 130*	*06/04/12 15:15*	*06/12/12 13:26*	*1*
DCB Decachlorobiphenyl	*29*	*J*	*40 - 130*	*06/04/12 15:15*	*06/12/12 13:26*	*1*
DCB Decachlorobiphenyl	*27*	*J*	*40 - 130*	*06/04/12 15:15*	*06/12/12 13:26*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 14:37	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 14:37	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/23/12 12:00	06/07/12 14:37	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/23/12 12:00	06/07/12 14:37	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 14:37	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 14:37	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/23/12 12:00	06/07/12 14:37	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 14:37	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 14:37	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 14:37	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 14:37	1
EPN	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 14:37	1
Mocap	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 14:37	1
Famphur	0.12	U	0.94	0.12	ug/L		05/23/12 12:00	06/07/12 14:37	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/23/12 12:00	06/07/12 14:37	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 14:37	1
Malathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 14:37	1
Parathion	0.15	U	0.94	0.15	ug/L		05/23/12 12:00	06/07/12 14:37	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 14:37	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/23/12 12:00	06/07/12 14:37	1
Phorate	0.087	U	0.94	0.087	ug/L		05/23/12 12:00	06/07/12 14:37	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/23/12 12:00	06/07/12 14:37	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/23/12 12:00	06/07/12 14:37	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 14:37	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 14:37	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 14:37	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 14:37	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*110*		*49 - 122*	*05/23/12 12:00*	*06/07/12 14:37*	*1*
Tributyl phosphate	*115*		*49 - 122*	*05/23/12 12:00*	*06/07/12 14:37*	*1*
Triphenylphosphate	*103*		*45 - 145*	*05/23/12 12:00*	*06/07/12 14:37*	*1*
Triphenylphosphate	*106*		*45 - 145*	*05/23/12 12:00*	*06/07/12 14:37*	*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		05/24/12 08:36	05/26/12 17:32	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 17:32	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 17:32	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 17:32	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 17:32	1
Dicamba	0.082	U	0.48	0.082	ug/L		05/24/12 08:36	05/26/12 17:32	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 17:32	1
Dinoseb	0.15	U	5.8	0.15	ug/L		05/24/12 08:36	05/26/12 17:32	1
MCPA	16	U	120	16	ug/L		05/24/12 08:36	05/26/12 17:32	1
Mecoprop	18	U	120	18	ug/L		05/24/12 08:36	05/26/12 17:32	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*80*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:32*	*1*
DCAA	*80*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:32*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 18:01	1
2,4-DB	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 18:01	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 18:01	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 18:01	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 18:01	1
Dicamba	0.080	U H	0.47	0.080	ug/L		06/05/12 07:51	06/06/12 18:01	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 18:01	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 18:01	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 18:01	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 18:01	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*55*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:01*	*1*
DCAA	*61*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-12

Date Collected: 05/20/12 13:42

Matrix: Water

Date Received: 05/22/12 09:36

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			05/31/12 17:11	1
Benzene	**2.7**		1.0	0.25	ug/L			05/31/12 17:11	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 17:11	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 17:11	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 17:11	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 17:11	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 17:11	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-8-5-12
Date Collected: 05/20/12 13:42
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	**3.2**		1.0	0.25	ug/L			05/31/12 17:11	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 17:11	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 17:11	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/31/12 17:11	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 17:11	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 17:11	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:11	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 17:11	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 17:11	1
cis-1,2-Dichloroethene	**57**		1.0	0.15	ug/L			05/31/12 17:11	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/31/12 17:11	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 17:11	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/31/12 17:11	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
1,4-Dichlorobenzene	**0.54**	**J**	1.0	0.28	ug/L			05/31/12 17:11	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
1,1-Dichloroethane	**2.1**		1.0	0.25	ug/L			05/31/12 17:11	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/31/12 17:11	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/31/12 17:11	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 17:11	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 17:11	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/31/12 17:11	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 17:11	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 17:11	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 17:11	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 17:11	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/31/12 17:11	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 17:11	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/31/12 17:11	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 17:11	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 17:11	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 17:11	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/31/12 17:11	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 17:11	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 17:11	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:11	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 17:11	1
Tetrachloroethene	**0.33**	**J**	1.0	0.15	ug/L			05/31/12 17:11	1
Toluene	**0.34**	**J**	1.0	0.33	ug/L			05/31/12 17:11	1
trans-1,2-Dichloroethene	**0.24**	**J**	1.0	0.20	ug/L			05/31/12 17:11	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 17:11	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 17:11	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 17:11	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 17:11	1
Trichloroethene	**2.3**		1.0	0.13	ug/L			05/31/12 17:11	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:11	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 17:11	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-8-5-12
Date Collected: 05/20/12 13:42
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:11	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:11	1
Vinyl chloride	**12**		1.0	0.18	ug/L			05/31/12 17:11	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/31/12 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/31/12 17:11*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/31/12 17:11*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*05/31/12 17:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 13:20	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 13:20	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 13:20	1
1,4-Dichlorobenzene	0.51	U	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Chlorophenol	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 13:20	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:20	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 13:20	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 13:20	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:20	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:20	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:20	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 13:20	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzo[g,h,i]perylene	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:20	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 13:20	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:20	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 13:20	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 13:20	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:20	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-8-5-12
Date Collected: 05/20/12 13:42
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-12
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	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 13:20	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 13:20	1
Diethyl phthalate	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 13:20	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 13:20	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 13:20	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 13:20	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 13:20	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 13:20	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 13:20	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:20	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:20	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 13:20	1
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 13:20	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 13:20	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 13:20	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 13:20	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 13:20	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 13:20	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 13:20	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 13:20	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:20	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 13:20	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:20	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:20	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*31 - 141*	*05/24/12 15:47*	*06/11/12 13:20*	*1*
2-Fluorobiphenyl	*49*		*38 - 130*	*05/24/12 15:47*	*06/11/12 13:20*	*1*
2-Fluorophenol	*49*		*25 - 130*	*05/24/12 15:47*	*06/11/12 13:20*	*1*
Terphenyl-d14	*56*		*10 - 143*	*05/24/12 15:47*	*06/11/12 13:20*	*1*
Phenol-d5	*47*		*25 - 130*	*05/24/12 15:47*	*06/11/12 13:20*	*1*
Nitrobenzene-d5	*49*		*39 - 130*	*05/24/12 15:47*	*06/11/12 13:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/23/12 16:07	05/30/12 18:07	1
delta-BHC	0.0046	U	0.047	0.0046	ug/L		05/23/12 16:07	05/30/12 18:07	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endrin	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		05/23/12 16:07	05/30/12 18:07	1
Endrin ketone	0.0080	U	0.095	0.0080	ug/L		05/23/12 16:07	05/30/12 18:07	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 18:07	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:07	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		05/23/12 16:07	05/30/12 18:07	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1016	0.067	U	0.95	0.067	ug/L		05/23/12 16:07	05/30/12 18:07	1
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		05/23/12 16:07	05/30/12 18:07	1

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-12

Date Collected: 05/20/12 13:42

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		05/23/12 16:07	05/30/12 18:07	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 18:07	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:07	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/23/12 16:07	05/30/12 18:07	1
beta-BHC	0.0064	U	0.047	0.0064	ug/L		05/23/12 16:07	05/30/12 18:07	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1221	0.27	U	1.9	0.27	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1232	0.10	U	0.95	0.10	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1242	0.17	U	0.95	0.17	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1248	0.34	U	0.95	0.34	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1254	0.25	U	0.95	0.25	ug/L		05/23/12 16:07	05/30/12 18:07	1
PCB-1260	0.19	U	0.95	0.19	ug/L		05/23/12 16:07	05/30/12 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*36 - 130*	*05/23/12 16:07*	*05/30/12 18:07*	*1*
Tetrachloro-m-xylene	*75*		*36 - 130*	*05/23/12 16:07*	*05/30/12 18:07*	*1*
DCB Decachlorobiphenyl	*25*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 18:07*	*1*
DCB Decachlorobiphenyl	*23*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 18:07*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 15:03	1
Bolstar	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 15:03	1
Chlorpyrifos	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 15:03	1
Coumaphos	0.14	U	0.95	0.14	ug/L		05/23/12 12:00	06/07/12 15:03	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 15:03	1
Demeton-O	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 15:03	1
Demeton-S	0.068	U	0.95	0.068	ug/L		05/23/12 12:00	06/07/12 15:03	1
Diazinon	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 15:03	1
Dichlorvos	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 15:03	1
Dimethoate	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 15:03	1
Disulfoton	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 15:03	1
EPN	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 15:03	1
Mocap	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 15:03	1
Famphur	0.12	U	0.95	0.12	ug/L		05/23/12 12:00	06/07/12 15:03	1
Fensulfothion	0.16	U	0.95	0.16	ug/L		05/23/12 12:00	06/07/12 15:03	1
Fenthion	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 15:03	1
Malathion	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 15:03	1
Parathion	0.15	U	0.95	0.15	ug/L		05/23/12 12:00	06/07/12 15:03	1
Methyl parathion	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 15:03	1
Mevinphos	0.093	U	0.95	0.093	ug/L		05/23/12 12:00	06/07/12 15:03	1
Phorate	0.088	U	0.95	0.088	ug/L		05/23/12 12:00	06/07/12 15:03	1
Ronnel	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 15:03	1
Stirophos	0.091	U	0.95	0.091	ug/L		05/23/12 12:00	06/07/12 15:03	1
Sulfotepp	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 15:03	1
Thionazin	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 15:03	1
Tokuthion	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 15:03	1
Trichloronate	0.094	U	0.95	0.094	ug/L		05/23/12 12:00	06/07/12 15:03	1
O,O,O-Triethyl phosphorothioate	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*110*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:03*	*1*

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-12

Date Collected: 05/20/12 13:42

Matrix: Water

Date Received: 05/22/12 09:36

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*113*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:03*	*1*
Triphenylphosphate	*104*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:03*	*1*
Triphenylphosphate	*107*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:03*	*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		05/24/12 08:36	05/26/12 17:47	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 17:47	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 17:47	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 17:47	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 17:47	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 17:47	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 17:47	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 17:47	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 17:47	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 17:47	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*64*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:47*	*1*
DCAA	*62*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:47*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

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			05/31/12 17:33	1
Benzene	**1.6**		1.0	0.25	ug/L			05/31/12 17:33	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 17:33	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 17:33	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 17:33	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 17:33	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 17:33	1
Chlorobenzene	**0.75**	**J**	1.0	0.25	ug/L			05/31/12 17:33	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 17:33	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 17:33	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/31/12 17:33	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 17:33	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 17:33	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:33	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 17:33	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 17:33	1
cis-1,2-Dichloroethene	**9.5**		1.0	0.15	ug/L			05/31/12 17:33	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-Dup-1-5-12
Date Collected: 05/20/12 12:00
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/31/12 17:33	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 17:33	1
1,2-Dichlorobenzene	**0.22**	**J**	1.0	0.21	ug/L			05/31/12 17:33	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
1,4-Dichlorobenzene	**9.6**		1.0	0.28	ug/L			05/31/12 17:33	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
1,1-Dichloroethane	**1.0**		1.0	0.25	ug/L			05/31/12 17:33	1
1,2-Dichloroethane	**0.42**	**J**	1.0	0.10	ug/L			05/31/12 17:33	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/31/12 17:33	1
1,2-Dichloropropane	**3.5**		1.0	0.13	ug/L			05/31/12 17:33	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 17:33	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/31/12 17:33	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 17:33	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 17:33	1
Isopropylbenzene	**0.13**	**J**	1.0	0.10	ug/L			05/31/12 17:33	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 17:33	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/31/12 17:33	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 17:33	1
Methyl tert-butyl ether	**0.61**	**J**	10	0.20	ug/L			05/31/12 17:33	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 17:33	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 17:33	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 17:33	1
sec-Butylbenzene	**0.16**	**J**	1.0	0.16	ug/L			05/31/12 17:33	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 17:33	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 17:33	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:33	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 17:33	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 17:33	1
Toluene	0.33	U	1.0	0.33	ug/L			05/31/12 17:33	1
trans-1,2-Dichloroethene	**0.21**	**J**	1.0	0.20	ug/L			05/31/12 17:33	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 17:33	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 17:33	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 17:33	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 17:33	1
Trichloroethene	**1.2**		1.0	0.13	ug/L			05/31/12 17:33	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:33	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 17:33	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:33	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:33	1
Vinyl chloride	**2.1**		1.0	0.18	ug/L			05/31/12 17:33	1
Isopropyl ether	**1.8**	**J**	10	0.24	ug/L			05/31/12 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/31/12 17:33*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/31/12 17:33*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/31/12 17:33*	*1*

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-Dup-1-5-12
Date Collected: 05/20/12 12:00
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 13:48	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 13:48	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 13:48	1
1,4-Dichlorobenzene	**6.8**	**J**	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4,6-Trichlorophenol	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Chlorophenol	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 13:48	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:48	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 13:48	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 13:48	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:48	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:48	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:48	1
Acenaphthylene	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 13:48	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzo[g,h,i]perylene	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:48	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 13:48	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:48	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 13:48	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 13:48	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:48	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 13:48	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 13:48	1
Diethyl phthalate	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 13:48	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 13:48	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 13:48	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 13:48	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 13:48	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 13:48	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 13:48	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 13:48	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 13:48	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 13:48	1

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 13:48	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 13:48	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 13:48	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 13:48	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 13:48	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 13:48	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 13:48	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 13:48	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 13:48	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 13:48	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 13:48	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 13:48	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*31 - 141*	*05/24/12 15:47*	*06/11/12 13:48*	*1*
2-Fluorobiphenyl	*68*		*38 - 130*	*05/24/12 15:47*	*06/11/12 13:48*	*1*
2-Fluorophenol	*65*		*25 - 130*	*05/24/12 15:47*	*06/11/12 13:48*	*1*
Terphenyl-d14	*36*		*10 - 143*	*05/24/12 15:47*	*06/11/12 13:48*	*1*
Phenol-d5	*66*		*25 - 130*	*05/24/12 15:47*	*06/11/12 13:48*	*1*
Nitrobenzene-d5	*67*		*39 - 130*	*05/24/12 15:47*	*06/11/12 13:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/23/12 16:07	05/30/12 18:31	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		05/23/12 16:07	05/30/12 18:31	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endrin	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		05/23/12 16:07	05/30/12 18:31	1
Endrin ketone	0.0079	U	0.095	0.0079	ug/L		05/23/12 16:07	05/30/12 18:31	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 18:31	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:31	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		05/23/12 16:07	05/30/12 18:31	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1016	0.067	U	0.95	0.067	ug/L		05/23/12 16:07	05/30/12 18:31	1
4,4'-DDD	0.0061	U	0.095	0.0061	ug/L		05/23/12 16:07	05/30/12 18:31	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		05/23/12 16:07	05/30/12 18:31	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 18:31	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:31	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/23/12 16:07	05/30/12 18:31	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		05/23/12 16:07	05/30/12 18:31	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1221	0.26	U	1.9	0.26	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1232	0.10	U	0.95	0.10	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1242	0.17	U	0.95	0.17	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1248	0.34	U	0.95	0.34	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1254	0.25	U	0.95	0.25	ug/L		05/23/12 16:07	05/30/12 18:31	1
PCB-1260	0.19	U	0.95	0.19	ug/L		05/23/12 16:07	05/30/12 18:31	1

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46		36 - 130	05/23/12 16:07	05/30/12 18:31	1
Tetrachloro-m-xylene	52		36 - 130	05/23/12 16:07	05/30/12 18:31	1
DCB Decachlorobiphenyl	11	J	40 - 130	05/23/12 16:07	05/30/12 18:31	1
DCB Decachlorobiphenyl	12	J	40 - 130	05/23/12 16:07	05/30/12 18:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U H	4.7	0.47	ug/L		06/04/12 15:15	06/12/12 13:54	1
delta-BHC	0.0045	U H	0.047	0.0045	ug/L		06/04/12 15:15	06/12/12 13:54	1
Dieldrin	0.0086	U H	0.095	0.0086	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endosulfan I	0.0040	U H	0.047	0.0040	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endosulfan II	0.0093	U H	0.095	0.0093	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endosulfan sulfate	0.0064	U H	0.095	0.0064	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endrin	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endrin aldehyde	0.015	U H	0.095	0.015	ug/L		06/04/12 15:15	06/12/12 13:54	1
Endrin ketone	0.0080	U H	0.095	0.0080	ug/L		06/04/12 15:15	06/12/12 13:54	1
gamma-BHC (Lindane)	0.0056	U H	0.047	0.0056	ug/L		06/04/12 15:15	06/12/12 13:54	1
Heptachlor	0.0066	U H	0.047	0.0066	ug/L		06/04/12 15:15	06/12/12 13:54	1
Heptachlor epoxide	0.0057	U H	0.047	0.0057	ug/L		06/04/12 15:15	06/12/12 13:54	1
Methoxychlor	0.012	U H	0.095	0.012	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1016	0.067	U H	0.95	0.067	ug/L		06/04/12 15:15	06/12/12 13:54	1
4,4'-DDD	0.0062	U H	0.095	0.0062	ug/L		06/04/12 15:15	06/12/12 13:54	1
4,4'-DDE	0.0073	U H	0.095	0.0073	ug/L		06/04/12 15:15	06/12/12 13:54	1
4,4'-DDT	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 13:54	1
Aldrin	0.0066	U H	0.047	0.0066	ug/L		06/04/12 15:15	06/12/12 13:54	1
alpha-BHC	0.0054	U H	0.047	0.0054	ug/L		06/04/12 15:15	06/12/12 13:54	1
beta-BHC	0.0064	U H	0.047	0.0064	ug/L		06/04/12 15:15	06/12/12 13:54	1
Chlordane (technical)	0.095	U H	0.47	0.095	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1221	0.27	U H	1.9	0.27	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1232	0.10	U H	0.95	0.10	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1242	0.17	U H	0.95	0.17	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1248	0.34	U H	0.95	0.34	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1254	0.25	U H	0.95	0.25	ug/L		06/04/12 15:15	06/12/12 13:54	1
PCB-1260	0.19	U H	0.95	0.19	ug/L		06/04/12 15:15	06/12/12 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	50		36 - 130	06/04/12 15:15	06/12/12 13:54	1
Tetrachloro-m-xylene	50		36 - 130	06/04/12 15:15	06/12/12 13:54	1
DCB Decachlorobiphenyl	29	J	40 - 130	06/04/12 15:15	06/12/12 13:54	1
DCB Decachlorobiphenyl	28	J	40 - 130	06/04/12 15:15	06/12/12 13:54	1

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:30	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:30	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/23/12 12:00	06/07/12 15:30	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/23/12 12:00	06/07/12 15:30	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 15:30	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 15:30	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/23/12 12:00	06/07/12 15:30	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 15:30	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 15:30	1

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:30	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:30	1
EPN	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:30	1
Mocap	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:30	1
Famphur	0.12	U	0.94	0.12	ug/L		05/23/12 12:00	06/07/12 15:30	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/23/12 12:00	06/07/12 15:30	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 15:30	1
Malathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:30	1
Parathion	0.15	U	0.94	0.15	ug/L		05/23/12 12:00	06/07/12 15:30	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:30	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/23/12 12:00	06/07/12 15:30	1
Phorate	0.087	U	0.94	0.087	ug/L		05/23/12 12:00	06/07/12 15:30	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/23/12 12:00	06/07/12 15:30	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/23/12 12:00	06/07/12 15:30	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 15:30	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:30	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 15:30	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 15:30	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*110*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:30*	*1*
Tributyl phosphate	*114*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:30*	*1*
Triphenylphosphate	*103*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:30*	*1*
Triphenylphosphate	*106*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:30*	*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		05/24/12 08:36	05/26/12 18:03	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:03	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 18:03	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 18:03	1
Dalapon	0.095	U	9.5	0.095	ug/L		05/24/12 08:36	05/26/12 18:03	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 18:03	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:03	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 18:03	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 18:03	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 18:03	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*78*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:03*	*1*
DCAA	*81*	*M*	*52 - 151*	*05/24/12 08:36*	*05/26/12 18:03*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.48	0.035	ug/L		06/05/12 07:51	06/06/12 18:17	1
2,4-DB	0.14	U H	0.48	0.14	ug/L		06/05/12 07:51	06/06/12 18:17	1
2,4,5-T	0.059	U H	0.48	0.059	ug/L		06/05/12 07:51	06/06/12 18:17	1
Silvex (2,4,5-TP)	0.059	U H	0.48	0.059	ug/L		06/05/12 07:51	06/06/12 18:17	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 18:17	1
Dicamba	0.081	U H	0.48	0.081	ug/L		06/05/12 07:51	06/06/12 18:17	1

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorprop	0.14	U H	0.48	0.14	ug/L		06/05/12 07:51	06/06/12 18:17	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 18:17	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 18:17	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 18:17	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*66*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:17*	*1*
DCAA	*63*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:31	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

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			05/31/12 17:56	1
Benzene	**0.76**	**J**	1.0	0.25	ug/L			05/31/12 17:56	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 17:56	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 17:56	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 17:56	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 17:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 17:56	1
Chlorobenzene	**0.70**	**J**	1.0	0.25	ug/L			05/31/12 17:56	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 17:56	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 17:56	1
Chloroethane	**2.1**		1.0	1.0	ug/L			05/31/12 17:56	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 17:56	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 17:56	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:56	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 17:56	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 17:56	1
cis-1,2-Dichloroethene	**0.17**	**J**	1.0	0.15	ug/L			05/31/12 17:56	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/31/12 17:56	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 17:56	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/31/12 17:56	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/31/12 17:56	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/31/12 17:56	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/31/12 17:56	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 17:56	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 17:56	1

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

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			05/31/12 17:56	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 17:56	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 17:56	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 17:56	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 17:56	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/31/12 17:56	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 17:56	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/31/12 17:56	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 17:56	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 17:56	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 17:56	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/31/12 17:56	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 17:56	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 17:56	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 17:56	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 17:56	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 17:56	1
Toluene	0.33	U	1.0	0.33	ug/L			05/31/12 17:56	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/31/12 17:56	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 17:56	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 17:56	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 17:56	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 17:56	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/31/12 17:56	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 17:56	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 17:56	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 17:56	1
Vinyl chloride	**0.43**	**J**	1.0	0.18	ug/L			05/31/12 17:56	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/31/12 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/31/12 17:56*	*1*
Dibromofluoromethane	*100*		*70 - 130*		*05/31/12 17:56*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/31/12 17:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.4	0.53	ug/L		05/24/12 15:47	06/11/12 14:16	1
1,2-Dichlorobenzene	0.50	U	9.4	0.50	ug/L		05/24/12 15:47	06/11/12 14:16	1
1,3-Dichlorobenzene	0.56	U	9.4	0.56	ug/L		05/24/12 15:47	06/11/12 14:16	1
1,4-Dichlorobenzene	0.51	U	9.4	0.51	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4,5-Trichlorophenol	1.1	U	9.4	1.1	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4,6-Trichlorophenol	0.80	U	9.4	0.80	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4-Dichlorophenol	1.0	U	9.4	1.0	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4-Dimethylphenol	3.8	U	9.4	3.8	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4-Dinitrophenol	9.4	U	47	9.4	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,4-Dinitrotoluene	1.1	U	9.4	1.1	ug/L		05/24/12 15:47	06/11/12 14:16	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-7-5-12
Date Collected: 05/20/12 16:00
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	0.82	U	9.4	0.82	ug/L		05/24/12 15:47	06/11/12 14:16	1
2-Chloronaphthalene	0.76	U	9.4	0.76	ug/L		05/24/12 15:47	06/11/12 14:16	1
2-Methylnaphthalene	0.74	U	9.4	0.74	ug/L		05/24/12 15:47	06/11/12 14:16	1
2-Methylphenol	0.84	U	9.4	0.84	ug/L		05/24/12 15:47	06/11/12 14:16	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 14:16	1
2-Nitrophenol	0.72	U	9.4	0.72	ug/L		05/24/12 15:47	06/11/12 14:16	1
3 & 4 Methylphenol	1.2	U	9.4	1.2	ug/L		05/24/12 15:47	06/11/12 14:16	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 14:16	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:16	1
4,6-Dinitro-2-methylphenol	9.4	U	47	9.4	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Bromophenyl phenyl ether	0.73	U	9.4	0.73	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Chloro-3-methylphenol	0.94	U	9.4	0.94	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Chlorophenyl phenyl ether	0.79	U	9.4	0.79	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:16	1
Acenaphthene	0.72	U	9.4	0.72	ug/L		05/24/12 15:47	06/11/12 14:16	1
Acenaphthylene	0.80	U	9.4	0.80	ug/L		05/24/12 15:47	06/11/12 14:16	1
Anthracene	0.65	U	9.4	0.65	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzo[a]anthracene	0.52	U	9.4	0.52	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzo[a]pyrene	0.67	U	9.4	0.67	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzo[b]fluoranthene	2.5	U	9.4	2.5	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzo[g,h,i]perylene	0.82	U	9.4	0.82	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzo[k]fluoranthene	1.1	U	9.4	1.1	ug/L		05/24/12 15:47	06/11/12 14:16	1
Benzyl alcohol	1.0	U	9.4	1.0	ug/L		05/24/12 15:47	06/11/12 14:16	1
Bis(2-chloroethoxy)methane	0.89	U	9.4	0.89	ug/L		05/24/12 15:47	06/11/12 14:16	1
Bis(2-chloroethyl)ether	1.0	U	9.4	1.0	ug/L		05/24/12 15:47	06/11/12 14:16	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.4	1.5	ug/L		05/24/12 15:47	06/11/12 14:16	1
Chrysene	0.48	U	9.4	0.48	ug/L		05/24/12 15:47	06/11/12 14:16	1
Dibenz(a,h)anthracene	0.94	U	9.4	0.94	ug/L		05/24/12 15:47	06/11/12 14:16	1
Dibenzofuran	0.75	U	9.4	0.75	ug/L		05/24/12 15:47	06/11/12 14:16	1
Di-n-butyl phthalate	0.78	U Q	9.4	0.78	ug/L		05/24/12 15:47	06/11/12 14:16	1
Diethyl phthalate	0.83	U	9.4	0.83	ug/L		05/24/12 15:47	06/11/12 14:16	1
Dimethyl phthalate	0.94	U	9.4	0.94	ug/L		05/24/12 15:47	06/11/12 14:16	1
Di-n-octyl phthalate	1.3	U Q	9.4	1.3	ug/L		05/24/12 15:47	06/11/12 14:16	1
Fluoranthene	0.70	U	9.4	0.70	ug/L		05/24/12 15:47	06/11/12 14:16	1
Fluorene	0.91	U	9.4	0.91	ug/L		05/24/12 15:47	06/11/12 14:16	1
Hexachlorobenzene	0.75	U	9.4	0.75	ug/L		05/24/12 15:47	06/11/12 14:16	1
Hexachlorobutadiene	0.59	U	9.4	0.59	ug/L		05/24/12 15:47	06/11/12 14:16	1
Hexachloroethane	0.72	U	9.4	0.72	ug/L		05/24/12 15:47	06/11/12 14:16	1
Indeno[1,2,3-cd]pyrene	0.94	U	9.4	0.94	ug/L		05/24/12 15:47	06/11/12 14:16	1
Isophorone	0.85	U	9.4	0.85	ug/L		05/24/12 15:47	06/11/12 14:16	1
Naphthalene	0.66	U	9.4	0.66	ug/L		05/24/12 15:47	06/11/12 14:16	1
Nitrobenzene	0.69	U	9.4	0.69	ug/L		05/24/12 15:47	06/11/12 14:16	1
N-Nitrosodiphenylamine	0.87	U	9.4	0.87	ug/L		05/24/12 15:47	06/11/12 14:16	1
N-Nitrosodi-n-propylamine	0.68	U	9.4	0.68	ug/L		05/24/12 15:47	06/11/12 14:16	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 14:16	1
Phenanthrene	0.73	U	9.4	0.73	ug/L		05/24/12 15:47	06/11/12 14:16	1
Phenol	0.78	U	9.4	0.78	ug/L		05/24/12 15:47	06/11/12 14:16	1
Pyrene	0.60	U	9.4	0.60	ug/L		05/24/12 15:47	06/11/12 14:16	1
Butyl benzyl phthalate	1.1	U Q	9.4	1.1	ug/L		05/24/12 15:47	06/11/12 14:16	1
bis(chloroisopropyl) ether	0.74	U	9.4	0.74	ug/L		05/24/12 15:47	06/11/12 14:16	1

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:16	1
2,6-Dinitrotoluene	1.0	U	9.4	1.0	ug/L		05/24/12 15:47	06/11/12 14:16	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*31 - 141*	*05/24/12 15:47*	*06/11/12 14:16*	*1*
2-Fluorobiphenyl	*65*		*38 - 130*	*05/24/12 15:47*	*06/11/12 14:16*	*1*
2-Fluorophenol	*65*		*25 - 130*	*05/24/12 15:47*	*06/11/12 14:16*	*1*
Terphenyl-d14	*35*		*10 - 143*	*05/24/12 15:47*	*06/11/12 14:16*	*1*
Phenol-d5	*64*		*25 - 130*	*05/24/12 15:47*	*06/11/12 14:16*	*1*
Nitrobenzene-d5	*65*		*39 - 130*	*05/24/12 15:47*	*06/11/12 14:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/23/12 16:07	05/30/12 18:55	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		05/23/12 16:07	05/30/12 18:55	1
Dieldrin	0.0086	U	0.094	0.0086	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endosulfan II	0.0092	U	0.094	0.0092	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endosulfan sulfate	0.0064	U	0.094	0.0064	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endrin	0.0091	U	0.094	0.0091	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endrin aldehyde	0.015	U	0.094	0.015	ug/L		05/23/12 16:07	05/30/12 18:55	1
Endrin ketone	0.0079	U	0.094	0.0079	ug/L		05/23/12 16:07	05/30/12 18:55	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 18:55	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:55	1
Heptachlor epoxide	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 18:55	1
Methoxychlor	0.012	U	0.094	0.012	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1016	0.067	U	0.94	0.067	ug/L		05/23/12 16:07	05/30/12 18:55	1
4,4'-DDD	0.0061	U	0.094	0.0061	ug/L		05/23/12 16:07	05/30/12 18:55	1
4,4'-DDE	0.0072	U	0.094	0.0072	ug/L		05/23/12 16:07	05/30/12 18:55	1
4,4'-DDT	0.0091	U	0.094	0.0091	ug/L		05/23/12 16:07	05/30/12 18:55	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 18:55	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/23/12 16:07	05/30/12 18:55	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		05/23/12 16:07	05/30/12 18:55	1
Chlordane (technical)	0.094	U	0.47	0.094	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1221	0.26	U	1.9	0.26	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1232	0.10	U	0.94	0.10	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1242	0.17	U	0.94	0.17	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1248	0.34	U	0.94	0.34	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1254	0.24	U	0.94	0.24	ug/L		05/23/12 16:07	05/30/12 18:55	1
PCB-1260	0.19	U	0.94	0.19	ug/L		05/23/12 16:07	05/30/12 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*36 - 130*	*05/23/12 16:07*	*05/30/12 18:55*	*1*
Tetrachloro-m-xylene	*54*		*36 - 130*	*05/23/12 16:07*	*05/30/12 18:55*	*1*
DCB Decachlorobiphenyl	*15*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 18:55*	*1*
DCB Decachlorobiphenyl	*12*	*J*	*40 - 130*	*05/23/12 16:07*	*05/30/12 18:55*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:57	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:57	1

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/23/12 12:00	06/07/12 15:57	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/23/12 12:00	06/07/12 15:57	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 15:57	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 15:57	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/23/12 12:00	06/07/12 15:57	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 15:57	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 15:57	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:57	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:57	1
EPN	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 15:57	1
Mocap	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:57	1
Famphur	0.12	U	0.94	0.12	ug/L		05/23/12 12:00	06/07/12 15:57	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/23/12 12:00	06/07/12 15:57	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 15:57	1
Malathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:57	1
Parathion	0.15	U	0.94	0.15	ug/L		05/23/12 12:00	06/07/12 15:57	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 15:57	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/23/12 12:00	06/07/12 15:57	1
Phorate	0.087	U	0.94	0.087	ug/L		05/23/12 12:00	06/07/12 15:57	1
Ronnel	0.097	U	0.94	0.097	ug/L		05/23/12 12:00	06/07/12 15:57	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/23/12 12:00	06/07/12 15:57	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 15:57	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 15:57	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 15:57	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 15:57	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*108*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:57*	*1*
Tributyl phosphate	*112*		*49 - 122*	*05/23/12 12:00*	*06/07/12 15:57*	*1*
Triphenylphosphate	*105*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:57*	*1*
Triphenylphosphate	*107*		*45 - 145*	*05/23/12 12:00*	*06/07/12 15:57*	*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		05/24/12 08:36	05/26/12 18:19	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:19	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 18:19	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 18:19	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 18:19	1
Dicamba	0.082	U	0.48	0.082	ug/L		05/24/12 08:36	05/26/12 18:19	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:19	1
Dinoseb	0.15	U	5.8	0.15	ug/L		05/24/12 08:36	05/26/12 18:19	1
MCPA	16	U	120	16	ug/L		05/24/12 08:36	05/26/12 18:19	1
Mecoprop	18	U	120	18	ug/L		05/24/12 08:36	05/26/12 18:19	1
Pentachlorophenol	0.036	U Q	0.24	0.036	ug/L		05/24/12 08:36	05/26/12 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*71*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:19*	*1*
DCAA	*69*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:19*	*1*

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:32	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-15

Date Collected: 05/21/12 08:55

Matrix: Water

Date Received: 05/22/12 09:36

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.8**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:15	1
Barium	**160**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:15	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:15	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:15	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:15	1
Cobalt	**14**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:15	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:15	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:15	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:15	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:15	1
Nickel	**0.67**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:15	1
Selenium	**0.65**		0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:15	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:15	1
Tin	**0.88**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:15	1
Vanadium	**1.9**	**J**	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:15	1
Zinc	**5.1**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:15	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 04:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U H	1.1	0.36	mg/L			05/23/12 15:13	5

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-16

Date Collected: 05/21/12 09:31

Matrix: Water

Date Received: 05/22/12 09:36

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:23	1
Barium	**51**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:23	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:23	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:23	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:23	1
Cobalt	**0.22**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:23	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:23	1
Copper	**0.52**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:23	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:23	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:23	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:23	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:23	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:23	1

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-16

Date Collected: 05/21/12 09:31

Matrix: Water

Date Received: 05/22/12 09:36

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		05/24/12 08:00	05/25/12 04:23	1
Vanadium	**2.0**	**J**	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:23	1
Zinc	**8.0**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:23	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 04:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U H	1.1	0.36	mg/L			05/23/12 15:29	5

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-17

Date Collected: 05/21/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.0**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:30	1
Barium	**160**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:30	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:30	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:30	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:30	1
Cobalt	**17**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:30	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:30	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:30	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:30	1
Lead	**0.086**	**J**	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:30	1
Nickel	**1.0**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:30	1
Selenium	**0.67**		0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:30	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:30	1
Tin	**0.89**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:30	1
Vanadium	**2.6**	**J**	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:30	1
Zinc	**5.2**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:30	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 04:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U H	1.1	0.36	mg/L			05/23/12 13:41	5

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-18

Date Collected: 05/21/12 09:45

Matrix: Water

Date Received: 05/22/12 09:36

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.5**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:37	1
Barium	**69**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:37	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:37	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:37	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:37	1
Cobalt	**0.81**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:37	1
Chromium	**0.26**	**J**	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:37	1
Copper	**0.99**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:37	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:37	1

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-18

Date Collected: 05/21/12 09:45

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.29**	**J**	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:37	1
Nickel	**0.49**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:37	1
Selenium	**0.22**	**J**	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:37	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:37	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:37	1
Vanadium	**2.9**	**J**	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:37	1
Zinc	**8.2**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:37	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 04:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U H	1.1	0.36	mg/L			05/23/12 15:44	5

Client Sample ID: SW-1-5-12

Lab Sample ID: 680-79687-19

Date Collected: 05/21/12 14:30

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**5.8**	**J**	25	5.0	ug/L			05/31/12 18:18	1
Benzene	**2.2**		1.0	0.25	ug/L			05/31/12 18:18	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 18:18	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 18:18	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 18:18	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 18:18	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 18:18	1
Chlorobenzene	**0.54**	**J**	1.0	0.25	ug/L			05/31/12 18:18	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 18:18	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 18:18	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/31/12 18:18	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 18:18	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 18:18	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/31/12 18:18	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 18:18	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 18:18	1
cis-1,2-Dichloroethene	**3.8**		1.0	0.15	ug/L			05/31/12 18:18	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/31/12 18:18	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 18:18	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/31/12 18:18	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 18:18	1
1,4-Dichlorobenzene	**0.85**	**J**	1.0	0.28	ug/L			05/31/12 18:18	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 18:18	1
Dichlorodifluoromethane	**3.9**		1.0	0.25	ug/L			05/31/12 18:18	1
1,1-Dichloroethane	**9.4**		1.0	0.25	ug/L			05/31/12 18:18	1
1,2-Dichloroethane	**0.45**	**J**	1.0	0.10	ug/L			05/31/12 18:18	1
1,1-Dichloroethene	**0.12**	**J**	1.0	0.11	ug/L			05/31/12 18:18	1
1,2-Dichloropropane	**0.44**	**J**	1.0	0.13	ug/L			05/31/12 18:18	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 18:18	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/31/12 18:18	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 18:18	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 18:18	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SW-1-5-12

Date Collected: 05/21/12 14:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-19

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 18:18	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 18:18	1
Isopropylbenzene	**0.16**	**J**	1.0	0.10	ug/L			05/31/12 18:18	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 18:18	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/31/12 18:18	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 18:18	1
Methyl tert-butyl ether	**0.70**	**J**	10	0.20	ug/L			05/31/12 18:18	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 18:18	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 18:18	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 18:18	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/31/12 18:18	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 18:18	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 18:18	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 18:18	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 18:18	1
Tetrachloroethene	**0.91**	**J**	1.0	0.15	ug/L			05/31/12 18:18	1
Toluene	0.33	U	1.0	0.33	ug/L			05/31/12 18:18	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/31/12 18:18	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 18:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 18:18	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 18:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 18:18	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 18:18	1
Trichloroethene	**2.0**		1.0	0.13	ug/L			05/31/12 18:18	1
Trichlorofluoromethane	**0.84**	**J**	1.0	0.25	ug/L			05/31/12 18:18	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 18:18	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 18:18	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 18:18	1
Vinyl chloride	**2.4**		1.0	0.18	ug/L			05/31/12 18:18	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/31/12 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*05/31/12 18:18*	*1*
Dibromofluoromethane	*101*		*70 - 130*		*05/31/12 18:18*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/31/12 18:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 14:44	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 14:44	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 14:44	1
1,4-Dichlorobenzene	**0.67**	**J**	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 14:44	1
2-Chlorophenol	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 14:44	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 14:44	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 14:44	1

Client Sample ID: SW-1-5-12
Date Collected: 05/21/12 14:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-19
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 14:44	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 14:44	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 14:44	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 14:44	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 14:44	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:44	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:44	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 14:44	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 14:44	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzo[g,h,i]perylene	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 14:44	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 14:44	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 14:44	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 14:44	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 14:44	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 14:44	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 14:44	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 14:44	1
Diethyl phthalate	**2.2**	**J**	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 14:44	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 14:44	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 14:44	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 14:44	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 14:44	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 14:44	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 14:44	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 14:44	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 14:44	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 14:44	1
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 14:44	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 14:44	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 14:44	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 14:44	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 14:44	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 14:44	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 14:44	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 14:44	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 14:44	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 14:44	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 14:44	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 14:44	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 14:44	1

Client Sample Results

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SW-1-5-12

Date Collected: 05/21/12 14:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-19

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		31 - 141	05/24/12 15:47	06/11/12 14:44	1
2-Fluorobiphenyl	52		38 - 130	05/24/12 15:47	06/11/12 14:44	1
2-Fluorophenol	53		25 - 130	05/24/12 15:47	06/11/12 14:44	1
Terphenyl-d14	40		10 - 143	05/24/12 15:47	06/11/12 14:44	1
Phenol-d5	51		25 - 130	05/24/12 15:47	06/11/12 14:44	1
Nitrobenzene-d5	53		39 - 130	05/24/12 15:47	06/11/12 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.48	U	4.8	0.48	ug/L		05/23/12 16:07	05/30/12 19:19	1
delta-BHC	0.0046	U	0.048	0.0046	ug/L		05/23/12 16:07	05/30/12 19:19	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endosulfan I	0.0040	U	0.048	0.0040	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endosulfan sulfate	0.0065	U	0.095	0.0065	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endrin	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		05/23/12 16:07	05/30/12 19:19	1
Endrin ketone	0.0080	U	0.095	0.0080	ug/L		05/23/12 16:07	05/30/12 19:19	1
gamma-BHC (Lindane)	0.0056	U	0.048	0.0056	ug/L		05/23/12 16:07	05/30/12 19:19	1
Heptachlor	0.0067	U	0.048	0.0067	ug/L		05/23/12 16:07	05/30/12 19:19	1
Heptachlor epoxide	0.0057	U	0.048	0.0057	ug/L		05/23/12 16:07	05/30/12 19:19	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1016	0.067	U	0.95	0.067	ug/L		05/23/12 16:07	05/30/12 19:19	1
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		05/23/12 16:07	05/30/12 19:19	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		05/23/12 16:07	05/30/12 19:19	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 19:19	1
Aldrin	0.0067	U	0.048	0.0067	ug/L		05/23/12 16:07	05/30/12 19:19	1
alpha-BHC	0.0054	U	0.048	0.0054	ug/L		05/23/12 16:07	05/30/12 19:19	1
beta-BHC	0.0064	U	0.048	0.0064	ug/L		05/23/12 16:07	05/30/12 19:19	1
Chlordane (technical)	0.095	U	0.48	0.095	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1221	0.27	U	1.9	0.27	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1232	0.10	U	0.95	0.10	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1242	0.17	U	0.95	0.17	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1248	0.34	U	0.95	0.34	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1254	0.25	U	0.95	0.25	ug/L		05/23/12 16:07	05/30/12 19:19	1
PCB-1260	0.19	U	0.95	0.19	ug/L		05/23/12 16:07	05/30/12 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		36 - 130	05/23/12 16:07	05/30/12 19:19	1
Tetrachloro-m-xylene	69		36 - 130	05/23/12 16:07	05/30/12 19:19	1
DCB Decachlorobiphenyl	26	J	40 - 130	05/23/12 16:07	05/30/12 19:19	1
DCB Decachlorobiphenyl	24	J	40 - 130	05/23/12 16:07	05/30/12 19:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.48	U H	4.8	0.48	ug/L		06/04/12 15:15	06/12/12 14:22	1
delta-BHC	0.0046	U H	0.048	0.0046	ug/L		06/04/12 15:15	06/12/12 14:22	1
Dieldrin	0.0086	U H	0.095	0.0086	ug/L		06/04/12 15:15	06/12/12 14:22	1
Endosulfan I	0.0040	U H	0.048	0.0040	ug/L		06/04/12 15:15	06/12/12 14:22	1
Endosulfan II	0.0093	U H	0.095	0.0093	ug/L		06/04/12 15:15	06/12/12 14:22	1
Endosulfan sulfate	0.0065	U H	0.095	0.0065	ug/L		06/04/12 15:15	06/12/12 14:22	1
Endrin	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 14:22	1

Client Sample ID: SW-1-5-12
Date Collected: 05/21/12 14:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-19
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	0.015	U H	0.095	0.015	ug/L		06/04/12 15:15	06/12/12 14:22	1
Endrin ketone	0.0080	U H	0.095	0.0080	ug/L		06/04/12 15:15	06/12/12 14:22	1
gamma-BHC (Lindane)	0.0056	U H	0.048	0.0056	ug/L		06/04/12 15:15	06/12/12 14:22	1
Heptachlor	0.0067	U H	0.048	0.0067	ug/L		06/04/12 15:15	06/12/12 14:22	1
Heptachlor epoxide	0.0057	U H	0.048	0.0057	ug/L		06/04/12 15:15	06/12/12 14:22	1
Methoxychlor	0.012	U H	0.095	0.012	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1016	0.067	U H	0.95	0.067	ug/L		06/04/12 15:15	06/12/12 14:22	1
4,4'-DDD	0.0062	U H	0.095	0.0062	ug/L		06/04/12 15:15	06/12/12 14:22	1
4,4'-DDE	0.0073	U H	0.095	0.0073	ug/L		06/04/12 15:15	06/12/12 14:22	1
4,4'-DDT	0.0092	U H	0.095	0.0092	ug/L		06/04/12 15:15	06/12/12 14:22	1
Aldrin	0.0067	U H	0.048	0.0067	ug/L		06/04/12 15:15	06/12/12 14:22	1
alpha-BHC	0.0054	U H	0.048	0.0054	ug/L		06/04/12 15:15	06/12/12 14:22	1
beta-BHC	0.0064	U H	0.048	0.0064	ug/L		06/04/12 15:15	06/12/12 14:22	1
Chlordane (technical)	0.095	U H	0.48	0.095	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1221	0.27	U H	1.9	0.27	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1232	0.10	U H	0.95	0.10	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1242	0.17	U H	0.95	0.17	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1248	0.34	U H	0.95	0.34	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1254	0.25	U H	0.95	0.25	ug/L		06/04/12 15:15	06/12/12 14:22	1
PCB-1260	0.19	U H	0.95	0.19	ug/L		06/04/12 15:15	06/12/12 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*55*		*36 - 130*	*06/04/12 15:15*	*06/12/12 14:22*	*1*
Tetrachloro-m-xylene	*61*		*36 - 130*	*06/04/12 15:15*	*06/12/12 14:22*	*1*
DCB Decachlorobiphenyl	*35*	*J*	*40 - 130*	*06/04/12 15:15*	*06/12/12 14:22*	*1*
DCB Decachlorobiphenyl	*30*	*J*	*40 - 130*	*06/04/12 15:15*	*06/12/12 14:22*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 16:23	1
Bolstar	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 16:23	1
Chlorpyrifos	0.096	U	0.94	0.096	ug/L		05/23/12 12:00	06/07/12 16:23	1
Coumaphos	0.14	U	0.94	0.14	ug/L		05/23/12 12:00	06/07/12 16:23	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 16:23	1
Demeton-O	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 16:23	1
Demeton-S	0.067	U	0.94	0.067	ug/L		05/23/12 12:00	06/07/12 16:23	1
Diazinon	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 16:23	1
Dichlorvos	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 16:23	1
Dimethoate	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 16:23	1
Disulfoton	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 16:23	1
EPN	0.11	U	0.94	0.11	ug/L		05/23/12 12:00	06/07/12 16:23	1
Mocap	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 16:23	1
Famphur	0.12	U	0.94	0.12	ug/L		05/23/12 12:00	06/07/12 16:23	1
Fensulfothion	0.16	U	0.94	0.16	ug/L		05/23/12 12:00	06/07/12 16:23	1
Fenthion	0.080	U	0.94	0.080	ug/L		05/23/12 12:00	06/07/12 16:23	1
Malathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 16:23	1
Parathion	0.15	U	0.94	0.15	ug/L		05/23/12 12:00	06/07/12 16:23	1
Methyl parathion	0.10	U	0.94	0.10	ug/L		05/23/12 12:00	06/07/12 16:23	1
Mevinphos	0.092	U	0.94	0.092	ug/L		05/23/12 12:00	06/07/12 16:23	1
Phorate	0.087	U	0.94	0.087	ug/L		05/23/12 12:00	06/07/12 16:23	1

Client Sample ID: SW-1-5-12

Lab Sample ID: 680-79687-19

Date Collected: 05/21/12 14:30

Matrix: Water

Date Received: 05/22/12 09:36

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ronnel	0.097	U	0.94	0.097	ug/L		05/23/12 12:00	06/07/12 16:23	1
Stirophos	0.090	U	0.94	0.090	ug/L		05/23/12 12:00	06/07/12 16:23	1
Sulfotepp	0.089	U	0.94	0.089	ug/L		05/23/12 12:00	06/07/12 16:23	1
Thionazin	0.095	U	0.94	0.095	ug/L		05/23/12 12:00	06/07/12 16:23	1
Tokuthion	0.088	U	0.94	0.088	ug/L		05/23/12 12:00	06/07/12 16:23	1
Trichloronate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 16:23	1
O,O,O-Triethyl phosphorothioate	0.094	U	0.94	0.094	ug/L		05/23/12 12:00	06/07/12 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*117*		*49 - 122*	*05/23/12 12:00*	*06/07/12 16:23*	*1*
Tributyl phosphate	*122*		*49 - 122*	*05/23/12 12:00*	*06/07/12 16:23*	*1*
Triphenylphosphate	*107*		*45 - 145*	*05/23/12 12:00*	*06/07/12 16:23*	*1*
Triphenylphosphate	*110*		*45 - 145*	*05/23/12 12:00*	*06/07/12 16:23*	*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		05/24/12 08:36	05/26/12 18:35	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:35	1
2,4,5-T	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 18:35	1
Silvex (2,4,5-TP)	0.060	U	0.48	0.060	ug/L		05/24/12 08:36	05/26/12 18:35	1
Dalapon	0.096	U	9.6	0.096	ug/L		05/24/12 08:36	05/26/12 18:35	1
Dicamba	0.082	U	0.48	0.082	ug/L		05/24/12 08:36	05/26/12 18:35	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:35	1
Dinoseb	0.15	U	5.8	0.15	ug/L		05/24/12 08:36	05/26/12 18:35	1
MCPA	16	U	120	16	ug/L		05/24/12 08:36	05/26/12 18:35	1
Mecoprop	18	U	120	18	ug/L		05/24/12 08:36	05/26/12 18:35	1
Pentachlorophenol	0.036	U Q	0.24	0.036	ug/L		05/24/12 08:36	05/26/12 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*88*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:35*	*1*
DCAA	*83*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:35*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 18:33	1
2,4-DB	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 18:33	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 18:33	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 18:33	1
Dalapon	0.094	U H	9.4	0.094	ug/L		06/05/12 07:51	06/06/12 18:33	1
Dicamba	0.080	U H	0.47	0.080	ug/L		06/05/12 07:51	06/06/12 18:33	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 18:33	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 18:33	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 18:33	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 18:33	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*79*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:33*	*1*
DCAA	*85*		*52 - 151*	*06/05/12 07:51*	*06/06/12 18:33*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SW-1-5-12

Lab Sample ID: 680-79687-19

Date Collected: 05/21/12 14:30
Matrix: Water
Date Received: 05/22/12 09:36

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.3**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:59	1
Barium	**35**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:59	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:59	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:59	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:59	1
Cobalt	**0.12**	**J**	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:59	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:59	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:59	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:59	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:59	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:59	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:59	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:59	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:59	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:59	1
Zinc	**9.0**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:59	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 04:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 12:24	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:33	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: SLMW-12BR-5-12

Lab Sample ID: 680-79687-20

Date Collected: 05/21/12 15:30
Matrix: Water
Date Received: 05/22/12 09:36

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			05/31/12 14:56	1
Benzene	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 14:56	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 14:56	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 14:56	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 14:56	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 14:56	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 14:56	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 14:56	1
Chloroethane	1.0	U J	1.0	1.0	ug/L			05/31/12 14:56	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 14:56	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 14:56	1
Chloromethane	0.33	U J	1.0	0.33	ug/L			05/31/12 14:56	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 14:56	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 14:56	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 14:56	1
cis-1,3-Dichloropropene	0.11	U J	1.0	0.11	ug/L			05/31/12 14:56	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 14:56	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/31/12 14:56	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-12BR-5-12
Date Collected: 05/21/12 15:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-20
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/31/12 14:56	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
Dichlorodifluoromethane	0.25	U J	1.0	0.25	ug/L			05/31/12 14:56	1
1,1-Dichloroethane	0.25	U J	1.0	0.25	ug/L			05/31/12 14:56	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/31/12 14:56	1
1,1-Dichloroethene	0.11	U J	1.0	0.11	ug/L			05/31/12 14:56	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 14:56	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 14:56	1
2,2-Dichloropropane	0.12	U J	1.0	0.12	ug/L			05/31/12 14:56	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 14:56	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 14:56	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 14:56	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 14:56	1
Methylene Chloride	1.0	U J	5.0	1.0	ug/L			05/31/12 14:56	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 14:56	1
Methyl tert-butyl ether	0.20	U J	10	0.20	ug/L			05/31/12 14:56	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 14:56	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 14:56	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 14:56	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/31/12 14:56	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 14:56	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 14:56	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 14:56	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 14:56	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 14:56	1
Toluene	0.33	U	1.0	0.33	ug/L			05/31/12 14:56	1
trans-1,2-Dichloroethene	0.20	U J	1.0	0.20	ug/L			05/31/12 14:56	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 14:56	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 14:56	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 14:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 14:56	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 14:56	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/31/12 14:56	1
Trichlorofluoromethane	0.25	U J	1.0	0.25	ug/L			05/31/12 14:56	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 14:56	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 14:56	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 14:56	1
Vinyl chloride	0.18	U J	1.0	0.18	ug/L			05/31/12 14:56	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/31/12 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/31/12 14:56*	*1*
Dibromofluoromethane	*99*		*70 - 130*		*05/31/12 14:56*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*05/31/12 14:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.51	U J	9.1	0.51	ug/L		05/24/12 15:47	06/11/12 15:11	1

Client Sample ID: SLMW-12BR-5-12
Date Collected: 05/21/12 15:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-20
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.48	U J	9.1	0.48	ug/L		05/24/12 15:47	06/11/12 15:11	1
1,3-Dichlorobenzene	0.54	U J	9.1	0.54	ug/L		05/24/12 15:47	06/11/12 15:11	1
1,4-Dichlorobenzene	0.49	U J	9.1	0.49	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4,5-Trichlorophenol	1.1	U J	9.1	1.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4,6-Trichlorophenol	0.78	U J	9.1	0.78	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4-Dichlorophenol	1.0	U J	9.1	1.0	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4-Dimethylphenol	3.7	U	9.1	3.7	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4-Dinitrophenol	9.1	U	46	9.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,4-Dinitrotoluene	1.1	U J	9.1	1.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Chlorophenol	0.79	U J	9.1	0.79	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Chloronaphthalene	0.73	U J	9.1	0.73	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Methylnaphthalene	0.71	U J	9.1	0.71	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Methylphenol	0.81	U J	9.1	0.81	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Nitroaniline	1.2	U J	46	1.2	ug/L		05/24/12 15:47	06/11/12 15:11	1
2-Nitrophenol	0.69	U J	9.1	0.69	ug/L		05/24/12 15:47	06/11/12 15:11	1
3 & 4 Methylphenol	1.2	U	9.1	1.2	ug/L		05/24/12 15:47	06/11/12 15:11	1
3,3'-Dichlorobenzidine	27	U J	55	27	ug/L		05/24/12 15:47	06/11/12 15:11	1
3-Nitroaniline	4.6	U J	46	4.6	ug/L		05/24/12 15:47	06/11/12 15:11	1
4,6-Dinitro-2-methylphenol	9.1	U	46	9.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Bromophenyl phenyl ether	0.70	U J	9.1	0.70	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Chloro-3-methylphenol	0.91	U J	9.1	0.91	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Chloroaniline	2.0	U J	18	2.0	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Chlorophenyl phenyl ether	0.77	U J	9.1	0.77	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Nitroaniline	4.6	U J	46	4.6	ug/L		05/24/12 15:47	06/11/12 15:11	1
Acenaphthene	0.69	U	9.1	0.69	ug/L		05/24/12 15:47	06/11/12 15:11	1
Acenaphthylene	0.78	U J	9.1	0.78	ug/L		05/24/12 15:47	06/11/12 15:11	1
Anthracene	0.63	U J	9.1	0.63	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzo[a]anthracene	0.50	U	9.1	0.50	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzo[a]pyrene	0.65	U	9.1	0.65	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzo[b]fluoranthene	2.4	U	9.1	2.4	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzo[g,h,i]perylene	0.79	U	9.1	0.79	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzo[k]fluoranthene	1.1	U	9.1	1.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzyl alcohol	1.0	U J	9.1	1.0	ug/L		05/24/12 15:47	06/11/12 15:11	1
Bis(2-chloroethoxy)methane	0.86	U J	9.1	0.86	ug/L		05/24/12 15:47	06/11/12 15:11	1
Bis(2-chloroethyl)ether	1.0	U J	9.1	1.0	ug/L		05/24/12 15:47	06/11/12 15:11	1
Bis(2-ethylhexyl) phthalate	1.5	U Q J	9.1	1.5	ug/L		05/24/12 15:47	06/11/12 15:11	1
Chrysene	0.47	U J	9.1	0.47	ug/L		05/24/12 15:47	06/11/12 15:11	1
Dibenz(a,h)anthracene	0.91	U	9.1	0.91	ug/L		05/24/12 15:47	06/11/12 15:11	1
Dibenzofuran	0.72	U J	9.1	0.72	ug/L		05/24/12 15:47	06/11/12 15:11	1
Di-n-butyl phthalate	0.76	U Q J	9.1	0.76	ug/L		05/24/12 15:47	06/11/12 15:11	1
Diethyl phthalate	0.80	U J	9.1	0.80	ug/L		05/24/12 15:47	06/11/12 15:11	1
Dimethyl phthalate	0.90	U J	9.1	0.90	ug/L		05/24/12 15:47	06/11/12 15:11	1
Di-n-octyl phthalate	1.3	U Q J	9.1	1.3	ug/L		05/24/12 15:47	06/11/12 15:11	1
Fluoranthene	0.68	U	9.1	0.68	ug/L		05/24/12 15:47	06/11/12 15:11	1
Fluorene	0.88	U J	9.1	0.88	ug/L		05/24/12 15:47	06/11/12 15:11	1
Hexachlorobenzene	0.72	U J	9.1	0.72	ug/L		05/24/12 15:47	06/11/12 15:11	1
Hexachlorobutadiene	0.57	U	9.1	0.57	ug/L		05/24/12 15:47	06/11/12 15:11	1
Hexachloroethane	0.69	U J	9.1	0.69	ug/L		05/24/12 15:47	06/11/12 15:11	1
Indeno[1,2,3-cd]pyrene	0.91	U	9.1	0.91	ug/L		05/24/12 15:47	06/11/12 15:11	1
Isophorone	0.82	U J	9.1	0.82	ug/L		05/24/12 15:47	06/11/12 15:11	1
Naphthalene	0.64	U J	9.1	0.64	ug/L		05/24/12 15:47	06/11/12 15:11	1

Client Sample ID: SLMW-12BR-5-12
Date Collected: 05/21/12 15:30
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-20
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.67	U J	9.1	0.67	ug/L		05/24/12 15:47	06/11/12 15:11	1
N-Nitrosodiphenylamine	0.84	U J	9.1	0.84	ug/L		05/24/12 15:47	06/11/12 15:11	1
N-Nitrosodi-n-propylamine	0.66	U J	9.1	0.66	ug/L		05/24/12 15:47	06/11/12 15:11	1
Pentachlorophenol	1.8	U	46	1.8	ug/L		05/24/12 15:47	06/11/12 15:11	1
Phenanthrene	0.70	U J	9.1	0.70	ug/L		05/24/12 15:47	06/11/12 15:11	1
Phenol	0.76	U	9.1	0.76	ug/L		05/24/12 15:47	06/11/12 15:11	1
Pyrene	0.58	U J	9.1	0.58	ug/L		05/24/12 15:47	06/11/12 15:11	1
Butyl benzyl phthalate	1.1	U Q J	9.1	1.1	ug/L		05/24/12 15:47	06/11/12 15:11	1
bis(chloroisopropyl) ether	0.71	U J	9.1	0.71	ug/L		05/24/12 15:47	06/11/12 15:11	1
Benzoic acid	4.6	U	46	4.6	ug/L		05/24/12 15:47	06/11/12 15:11	1
2,6-Dinitrotoluene	1.0	U J	9.1	1.0	ug/L		05/24/12 15:47	06/11/12 15:11	1
4-Nitrophenol	1.7	U	46	1.7	ug/L		05/24/12 15:47	06/11/12 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*71*		*31 - 141*	*05/24/12 15:47*	*06/11/12 15:11*	*1*
2-Fluorobiphenyl	*62*		*38 - 130*	*05/24/12 15:47*	*06/11/12 15:11*	*1*
2-Fluorophenol	*66*		*25 - 130*	*05/24/12 15:47*	*06/11/12 15:11*	*1*
Terphenyl-d14	*61*		*10 - 143*	*05/24/12 15:47*	*06/11/12 15:11*	*1*
Phenol-d5	*60*		*25 - 130*	*05/24/12 15:47*	*06/11/12 15:11*	*1*
Nitrobenzene-d5	*64*		*39 - 130*	*05/24/12 15:47*	*06/11/12 15:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/23/12 16:07	05/30/12 19:43	1
delta-BHC	0.0048	U J	0.050	0.0048	ug/L		05/23/12 16:07	05/30/12 19:43	1
Dieldrin	0.0091	U J	0.099	0.0091	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endosulfan I	0.0042	U J	0.050	0.0042	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endosulfan II	0.0097	U J	0.099	0.0097	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endosulfan sulfate	0.0068	U J	0.099	0.0068	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endrin	0.0096	U J	0.099	0.0096	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endrin aldehyde	0.016	U J	0.099	0.016	ug/L		05/23/12 16:07	05/30/12 19:43	1
Endrin ketone	0.0084	U J	0.099	0.0084	ug/L		05/23/12 16:07	05/30/12 19:43	1
gamma-BHC (Lindane)	0.0059	U J	0.050	0.0059	ug/L		05/23/12 16:07	05/30/12 19:43	1
Heptachlor	0.0070	U J	0.050	0.0070	ug/L		05/23/12 16:07	05/30/12 19:43	1
Heptachlor epoxide	0.0060	U J	0.050	0.0060	ug/L		05/23/12 16:07	05/30/12 19:43	1
Methoxychlor	0.013	U	0.099	0.013	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1016	0.071	U	0.99	0.071	ug/L		05/23/12 16:07	05/30/12 19:43	1
4,4'-DDD	0.0065	U J	0.099	0.0065	ug/L		05/23/12 16:07	05/30/12 19:43	1
4,4'-DDE	0.0077	U J	0.099	0.0077	ug/L		05/23/12 16:07	05/30/12 19:43	1
4,4'-DDT	0.0096	U J	0.099	0.0096	ug/L		05/23/12 16:07	05/30/12 19:43	1
Aldrin	0.0070	U J	0.050	0.0070	ug/L		05/23/12 16:07	05/30/12 19:43	1
alpha-BHC	0.0057	U J	0.050	0.0057	ug/L		05/23/12 16:07	05/30/12 19:43	1
beta-BHC	0.0067	U J	0.050	0.0067	ug/L		05/23/12 16:07	05/30/12 19:43	1
Chlordane (technical)	0.099	U	0.50	0.099	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1232	0.11	U	0.99	0.11	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1242	0.18	U	0.99	0.18	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1248	0.36	U	0.99	0.36	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1254	0.26	U	0.99	0.26	ug/L		05/23/12 16:07	05/30/12 19:43	1
PCB-1260	0.20	U	0.99	0.20	ug/L		05/23/12 16:07	05/30/12 19:43	1

Client Sample Results

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-12BR-5-12

Lab Sample ID: 680-79687-20

Date Collected: 05/21/12 15:30

Matrix: Water

Date Received: 05/22/12 09:36

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*36 - 130*	*05/23/12 16:07*	*05/30/12 19:43*	*1*
Tetrachloro-m-xylene	*73*		*36 - 130*	*05/23/12 16:07*	*05/30/12 19:43*	*1*
DCB Decachlorobiphenyl	*65*		*40 - 130*	*05/23/12 16:07*	*05/30/12 19:43*	*1*
DCB Decachlorobiphenyl	*65*		*40 - 130*	*05/23/12 16:07*	*05/30/12 19:43*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 16:50	1
Bolstar	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 16:50	1
Chlorpyrifos	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 16:50	1
Coumaphos	0.14	U	0.95	0.14	ug/L		05/23/12 12:00	06/07/12 16:50	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 16:50	1
Demeton-O	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 16:50	1
Demeton-S	0.068	U	0.95	0.068	ug/L		05/23/12 12:00	06/07/12 16:50	1
Diazinon	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 16:50	1
Dichlorvos	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 16:50	1
Dimethoate	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 16:50	1
Disulfoton	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 16:50	1
EPN	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 16:50	1
Mocap	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 16:50	1
Famphur	0.12	U	0.95	0.12	ug/L		05/23/12 12:00	06/07/12 16:50	1
Fensulfothion	0.16	U	0.95	0.16	ug/L		05/23/12 12:00	06/07/12 16:50	1
Fenthion	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 16:50	1
Malathion	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 16:50	1
Parathion	0.15	U	0.95	0.15	ug/L		05/23/12 12:00	06/07/12 16:50	1
Methyl parathion	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 16:50	1
Mevinphos	0.093	U	0.95	0.093	ug/L		05/23/12 12:00	06/07/12 16:50	1
Phorate	0.088	U	0.95	0.088	ug/L		05/23/12 12:00	06/07/12 16:50	1
Ronnel	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 16:50	1
Stirophos	0.091	U	0.95	0.091	ug/L		05/23/12 12:00	06/07/12 16:50	1
Sulfotepp	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 16:50	1
Thionazin	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 16:50	1
Tokuthion	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 16:50	1
Trichloronate	0.094	U	0.95	0.094	ug/L		05/23/12 12:00	06/07/12 16:50	1
O,O,O-Triethyl phosphorothioate	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*100*		*49 - 122*	*05/23/12 12:00*	*06/07/12 16:50*	*1*
Tributyl phosphate	*104*		*49 - 122*	*05/23/12 12:00*	*06/07/12 16:50*	*1*
Triphenylphosphate	*102*		*45 - 145*	*05/23/12 12:00*	*06/07/12 16:50*	*1*
Triphenylphosphate	*105*		*45 - 145*	*05/23/12 12:00*	*06/07/12 16:50*	*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		05/24/12 08:36	05/26/12 18:51	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:51	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 18:51	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 18:51	1
Dalapon	0.095	U	9.5	0.095	ug/L		05/24/12 08:36	05/26/12 18:51	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 18:51	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 18:51	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 18:51	1

Client Sample ID: SLMW-12BR-5-12

Lab Sample ID: 680-79687-20

Date Collected: 05/21/12 15:30

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 18:51	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 18:51	1
Pentachlorophenol	0.035	U J Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*74*		*52 - 151*	*05/24/12 08:36*	*05/26/12 18:51*	*1*
DCAA	*65*	*M*	*52 - 151*	*05/24/12 08:36*	*05/26/12 18:51*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.037	U H	0.50	0.037	ug/L		06/05/12 07:51	06/06/12 19:20	1
2,4-DB	0.15	U H	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 19:20	1
2,4,5-T	0.062	U H	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 19:20	1
Silvex (2,4,5-TP)	0.062	U H	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 19:20	1
Dalapon	0.10	U H	10	0.10	ug/L		06/05/12 07:51	06/06/12 19:20	1
Dicamba	0.085	U H	0.50	0.085	ug/L		06/05/12 07:51	06/06/12 19:20	1
Dichlorprop	0.15	U H	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 19:20	1
Dinoseb	0.16	U H J	6.0	0.16	ug/L		06/05/12 07:51	06/06/12 19:20	1
MCPA	17	U H	120	17	ug/L		06/05/12 07:51	06/06/12 19:20	1
Mecoprop	19	U H	120	19	ug/L		06/05/12 07:51	06/06/12 19:20	1
Pentachlorophenol	0.037	U H J	0.25	0.037	ug/L		06/05/12 07:51	06/06/12 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*84*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:20*	*1*
DCAA	*83*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:20*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:07	1
Barium	**41**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 05:07	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 05:07	1
Beryllium	**0.39**		0.20	0.070	ug/L		05/24/12 08:00	05/25/12 05:07	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 05:07	1
Cobalt	**1.2**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 05:07	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 05:07	1
Copper	**0.88**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 05:07	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:07	1
Lead	**0.26**	**J**	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 05:07	1
Nickel	**1.6**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:07	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 05:07	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:07	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:07	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 05:07	1
Zinc	**8.2**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 05:07	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 05:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 12:39	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:34	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-12AR-5-12
Date Collected: 05/21/12 16:25
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-21
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			05/30/12 17:36	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:36	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 17:36	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 17:36	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 17:36	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 17:36	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 17:36	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:36	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 17:36	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 17:36	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 17:36	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:36	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 17:36	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 17:36	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:36	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 17:36	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 17:36	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 17:36	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 17:36	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:36	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 17:36	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:36	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:36	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 17:36	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 17:36	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 17:36	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:36	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 17:36	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 17:36	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 17:36	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 17:36	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 17:36	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 17:36	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:36	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 17:36	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 17:36	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:36	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 17:36	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:36	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 17:36	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 17:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 17:36	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-12AR-5-12
Date Collected: 05/21/12 16:25
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-21
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 17:36	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 17:36	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 17:36	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 17:36	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:36	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 17:36	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:36	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:36	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 17:36	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/30/12 17:36*	*1*
Dibromofluoromethane	*100*		*70 - 130*		*05/30/12 17:36*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/30/12 17:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.53	U	9.5	0.53	ug/L		05/24/12 15:47	06/11/12 15:39	1
1,2-Dichlorobenzene	0.50	U	9.5	0.50	ug/L		05/24/12 15:47	06/11/12 15:39	1
1,3-Dichlorobenzene	0.56	U	9.5	0.56	ug/L		05/24/12 15:47	06/11/12 15:39	1
1,4-Dichlorobenzene	0.51	U	9.5	0.51	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4,5-Trichlorophenol	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4,6-Trichlorophenol	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4-Dichlorophenol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4-Dimethylphenol	3.8	U	9.5	3.8	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4-Dinitrophenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,4-Dinitrotoluene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Chlorophenol	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Chloronaphthalene	0.76	U	9.5	0.76	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Methylnaphthalene	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Methylphenol	0.84	U	9.5	0.84	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Nitroaniline	1.2	U	47	1.2	ug/L		05/24/12 15:47	06/11/12 15:39	1
2-Nitrophenol	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 15:39	1
3 & 4 Methylphenol	1.2	U	9.5	1.2	ug/L		05/24/12 15:47	06/11/12 15:39	1
3,3'-Dichlorobenzidine	28	U	57	28	ug/L		05/24/12 15:47	06/11/12 15:39	1
3-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 15:39	1
4,6-Dinitro-2-methylphenol	9.5	U	47	9.5	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Bromophenyl phenyl ether	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Chlorophenyl phenyl ether	0.80	U	9.5	0.80	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Nitroaniline	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 15:39	1
Acenaphthene	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 15:39	1
Acenaphthylene	0.81	U	9.5	0.81	ug/L		05/24/12 15:47	06/11/12 15:39	1
Anthracene	0.65	U	9.5	0.65	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzo[a]anthracene	0.52	U	9.5	0.52	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzo[a]pyrene	0.67	U	9.5	0.67	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzo[b]fluoranthene	2.5	U	9.5	2.5	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzo[g,h,i]perylene	0.82	U	9.5	0.82	ug/L		05/24/12 15:47	06/11/12 15:39	1

Client Sample ID: SLMW-12AR-5-12
Date Collected: 05/21/12 16:25
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-21
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	1.1	U	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzyl alcohol	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 15:39	1
Bis(2-chloroethoxy)methane	0.89	U	9.5	0.89	ug/L		05/24/12 15:47	06/11/12 15:39	1
Bis(2-chloroethyl)ether	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 15:39	1
Bis(2-ethylhexyl) phthalate	1.5	U Q	9.5	1.5	ug/L		05/24/12 15:47	06/11/12 15:39	1
Chrysene	0.48	U	9.5	0.48	ug/L		05/24/12 15:47	06/11/12 15:39	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 15:39	1
Dibenzofuran	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 15:39	1
Di-n-butyl phthalate	0.79	U Q	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 15:39	1
Diethyl phthalate	0.83	U	9.5	0.83	ug/L		05/24/12 15:47	06/11/12 15:39	1
Dimethyl phthalate	0.94	U	9.5	0.94	ug/L		05/24/12 15:47	06/11/12 15:39	1
Di-n-octyl phthalate	1.3	U Q	9.5	1.3	ug/L		05/24/12 15:47	06/11/12 15:39	1
Fluoranthene	0.70	U	9.5	0.70	ug/L		05/24/12 15:47	06/11/12 15:39	1
Fluorene	0.91	U	9.5	0.91	ug/L		05/24/12 15:47	06/11/12 15:39	1
Hexachlorobenzene	0.75	U	9.5	0.75	ug/L		05/24/12 15:47	06/11/12 15:39	1
Hexachlorobutadiene	0.59	U	9.5	0.59	ug/L		05/24/12 15:47	06/11/12 15:39	1
Hexachloroethane	0.72	U	9.5	0.72	ug/L		05/24/12 15:47	06/11/12 15:39	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/24/12 15:47	06/11/12 15:39	1
Isophorone	0.85	U	9.5	0.85	ug/L		05/24/12 15:47	06/11/12 15:39	1
Naphthalene	0.66	U	9.5	0.66	ug/L		05/24/12 15:47	06/11/12 15:39	1
Nitrobenzene	0.69	U	9.5	0.69	ug/L		05/24/12 15:47	06/11/12 15:39	1
N-Nitrosodiphenylamine	0.87	U	9.5	0.87	ug/L		05/24/12 15:47	06/11/12 15:39	1
N-Nitrosodi-n-propylamine	0.68	U	9.5	0.68	ug/L		05/24/12 15:47	06/11/12 15:39	1
Pentachlorophenol	1.9	U	47	1.9	ug/L		05/24/12 15:47	06/11/12 15:39	1
Phenanthrene	0.73	U	9.5	0.73	ug/L		05/24/12 15:47	06/11/12 15:39	1
Phenol	0.79	U	9.5	0.79	ug/L		05/24/12 15:47	06/11/12 15:39	1
Pyrene	0.60	U	9.5	0.60	ug/L		05/24/12 15:47	06/11/12 15:39	1
Butyl benzyl phthalate	1.1	U Q	9.5	1.1	ug/L		05/24/12 15:47	06/11/12 15:39	1
bis(chloroisopropyl) ether	0.74	U	9.5	0.74	ug/L		05/24/12 15:47	06/11/12 15:39	1
Benzoic acid	4.7	U	47	4.7	ug/L		05/24/12 15:47	06/11/12 15:39	1
2,6-Dinitrotoluene	1.0	U	9.5	1.0	ug/L		05/24/12 15:47	06/11/12 15:39	1
4-Nitrophenol	1.8	U	47	1.8	ug/L		05/24/12 15:47	06/11/12 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*31 - 141*	*05/24/12 15:47*	*06/11/12 15:39*	*1*
2-Fluorobiphenyl	*69*		*38 - 130*	*05/24/12 15:47*	*06/11/12 15:39*	*1*
2-Fluorophenol	*65*		*25 - 130*	*05/24/12 15:47*	*06/11/12 15:39*	*1*
Terphenyl-d14	*61*		*10 - 143*	*05/24/12 15:47*	*06/11/12 15:39*	*1*
Phenol-d5	*60*		*25 - 130*	*05/24/12 15:47*	*06/11/12 15:39*	*1*
Nitrobenzene-d5	*64*		*39 - 130*	*05/24/12 15:47*	*06/11/12 15:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.47	U	4.7	0.47	ug/L		05/23/12 16:07	05/30/12 20:06	1
delta-BHC	0.0045	U	0.047	0.0045	ug/L		05/23/12 16:07	05/30/12 20:06	1
Dieldrin	0.0086	U	0.095	0.0086	ug/L		05/23/12 16:07	05/30/12 20:06	1
Endosulfan I	0.0040	U	0.047	0.0040	ug/L		05/23/12 16:07	05/30/12 20:06	1
Endosulfan II	0.0093	U	0.095	0.0093	ug/L		05/23/12 16:07	05/30/12 20:06	1
Endosulfan sulfate	0.0064	U	0.095	0.0064	ug/L		05/23/12 16:07	05/30/12 20:06	1
Endrin	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 20:06	1
Endrin aldehyde	0.015	U	0.095	0.015	ug/L		05/23/12 16:07	05/30/12 20:06	1

Client Sample ID: SLMW-12AR-5-12

Lab Sample ID: 680-79687-21

Date Collected: 05/21/12 16:25

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0079	U	0.095	0.0079	ug/L		05/23/12 16:07	05/30/12 20:06	1
gamma-BHC (Lindane)	0.0056	U	0.047	0.0056	ug/L		05/23/12 16:07	05/30/12 20:06	1
Heptachlor	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 20:06	1
Heptachlor epoxide	0.0057	U	0.047	0.0057	ug/L		05/23/12 16:07	05/30/12 20:06	1
Methoxychlor	0.012	U	0.095	0.012	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1016	0.067	U	0.95	0.067	ug/L		05/23/12 16:07	05/30/12 20:06	1
4,4'-DDD	0.0062	U	0.095	0.0062	ug/L		05/23/12 16:07	05/30/12 20:06	1
4,4'-DDE	0.0073	U	0.095	0.0073	ug/L		05/23/12 16:07	05/30/12 20:06	1
4,4'-DDT	0.0092	U	0.095	0.0092	ug/L		05/23/12 16:07	05/30/12 20:06	1
Aldrin	0.0066	U	0.047	0.0066	ug/L		05/23/12 16:07	05/30/12 20:06	1
alpha-BHC	0.0054	U	0.047	0.0054	ug/L		05/23/12 16:07	05/30/12 20:06	1
beta-BHC	0.0063	U	0.047	0.0063	ug/L		05/23/12 16:07	05/30/12 20:06	1
Chlordane (technical)	0.095	U	0.47	0.095	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1221	0.26	U	1.9	0.26	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1232	0.10	U	0.95	0.10	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1242	0.17	U	0.95	0.17	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1248	0.34	U	0.95	0.34	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1254	0.25	U	0.95	0.25	ug/L		05/23/12 16:07	05/30/12 20:06	1
PCB-1260	0.19	U	0.95	0.19	ug/L		05/23/12 16:07	05/30/12 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*56*		*36 - 130*	*05/23/12 16:07*	*05/30/12 20:06*	*1*
Tetrachloro-m-xylene	*52*		*36 - 130*	*05/23/12 16:07*	*05/30/12 20:06*	*1*
DCB Decachlorobiphenyl	*57*		*40 - 130*	*05/23/12 16:07*	*05/30/12 20:06*	*1*
DCB Decachlorobiphenyl	*57*		*40 - 130*	*05/23/12 16:07*	*05/30/12 20:06*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 19:56	1
Bolstar	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 19:56	1
Chlorpyrifos	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 19:56	1
Coumaphos	0.14	U	0.95	0.14	ug/L		05/23/12 12:00	06/07/12 19:56	1
Demeton, Total	0.16	U	1.9	0.16	ug/L		05/23/12 12:00	06/07/12 19:56	1
Demeton-O	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 19:56	1
Demeton-S	0.068	U	0.95	0.068	ug/L		05/23/12 12:00	06/07/12 19:56	1
Diazinon	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 19:56	1
Dichlorvos	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 19:56	1
Dimethoate	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 19:56	1
Disulfoton	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 19:56	1
EPN	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 19:56	1
Mocap	0.096	U	0.95	0.096	ug/L		05/23/12 12:00	06/07/12 19:56	1
Famphur	0.12	U	0.95	0.12	ug/L		05/23/12 12:00	06/07/12 19:56	1
Fensulfothion	0.16	U	0.95	0.16	ug/L		05/23/12 12:00	06/07/12 19:56	1
Fenthion	0.081	U	0.95	0.081	ug/L		05/23/12 12:00	06/07/12 19:56	1
Malathion	0.10	U	0.95	0.10	ug/L		05/23/12 12:00	06/07/12 19:56	1
Parathion	0.15	U	0.95	0.15	ug/L		05/23/12 12:00	06/07/12 19:56	1
Methyl parathion	0.11	U	0.95	0.11	ug/L		05/23/12 12:00	06/07/12 19:56	1
Mevinphos	0.093	U	0.95	0.093	ug/L		05/23/12 12:00	06/07/12 19:56	1
Phorate	0.088	U	0.95	0.088	ug/L		05/23/12 12:00	06/07/12 19:56	1
Ronnel	0.097	U	0.95	0.097	ug/L		05/23/12 12:00	06/07/12 19:56	1
Stirophos	0.091	U	0.95	0.091	ug/L		05/23/12 12:00	06/07/12 19:56	1

Client Sample ID: SLMW-12AR-5-12

Lab Sample ID: 680-79687-21

Date Collected: 05/21/12 16:25

Matrix: Water

Date Received: 05/22/12 09:36

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	0.090	U	0.95	0.090	ug/L		05/23/12 12:00	06/07/12 19:56	1
Thionazin	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 19:56	1
Tokuthion	0.089	U	0.95	0.089	ug/L		05/23/12 12:00	06/07/12 19:56	1
Trichloronate	0.094	U	0.95	0.094	ug/L		05/23/12 12:00	06/07/12 19:56	1
O,O,O-Triethyl phosphorothioate	0.095	U	0.95	0.095	ug/L		05/23/12 12:00	06/07/12 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tributyl phosphate	*95*		*49 - 122*	*05/23/12 12:00*	*06/07/12 19:56*	*1*
Tributyl phosphate	*100*		*49 - 122*	*05/23/12 12:00*	*06/07/12 19:56*	*1*
Triphenylphosphate	*98*		*45 - 145*	*05/23/12 12:00*	*06/07/12 19:56*	*1*
Triphenylphosphate	*104*		*45 - 145*	*05/23/12 12:00*	*06/07/12 19:56*	*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		05/24/12 08:36	05/26/12 19:07	1
2,4-DB	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:07	1
2,4,5-T	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:07	1
Silvex (2,4,5-TP)	0.059	U	0.48	0.059	ug/L		05/24/12 08:36	05/26/12 19:07	1
Dalapon	0.095	U	9.5	0.095	ug/L		05/24/12 08:36	05/26/12 19:07	1
Dicamba	0.081	U	0.48	0.081	ug/L		05/24/12 08:36	05/26/12 19:07	1
Dichlorprop	0.14	U	0.48	0.14	ug/L		05/24/12 08:36	05/26/12 19:07	1
Dinoseb	0.15	U	5.7	0.15	ug/L		05/24/12 08:36	05/26/12 19:07	1
MCPA	16	U	110	16	ug/L		05/24/12 08:36	05/26/12 19:07	1
Mecoprop	18	U	110	18	ug/L		05/24/12 08:36	05/26/12 19:07	1
Pentachlorophenol	0.035	U Q	0.24	0.035	ug/L		05/24/12 08:36	05/26/12 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*86*		*52 - 151*	*05/24/12 08:36*	*05/26/12 19:07*	*1*
DCAA	*77*	*M*	*52 - 151*	*05/24/12 08:36*	*05/26/12 19:07*	*1*

Method: 8151A - Herbicides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.035	U H	0.47	0.035	ug/L		06/05/12 07:51	06/06/12 19:36	1
2,4-DB	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 19:36	1
2,4,5-T	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 19:36	1
Silvex (2,4,5-TP)	0.059	U H	0.47	0.059	ug/L		06/05/12 07:51	06/06/12 19:36	1
Dalapon	0.095	U H	9.5	0.095	ug/L		06/05/12 07:51	06/06/12 19:36	1
Dicamba	0.081	U H	0.47	0.081	ug/L		06/05/12 07:51	06/06/12 19:36	1
Dichlorprop	0.14	U H	0.47	0.14	ug/L		06/05/12 07:51	06/06/12 19:36	1
Dinoseb	0.15	U H	5.7	0.15	ug/L		06/05/12 07:51	06/06/12 19:36	1
MCPA	16	U H	110	16	ug/L		06/05/12 07:51	06/06/12 19:36	1
Mecoprop	18	U H	110	18	ug/L		06/05/12 07:51	06/06/12 19:36	1
Pentachlorophenol	0.035	U H	0.24	0.035	ug/L		06/05/12 07:51	06/06/12 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*75*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:36*	*1*
DCAA	*74*		*52 - 151*	*06/05/12 07:51*	*06/06/12 19:36*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.57**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:43	1
Barium	**33**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 05:43	1

Client Sample ID: SLMW-12AR-5-12

Lab Sample ID: 680-79687-21

Date Collected: 05/21/12 16:25

Matrix: Water

Date Received: 05/22/12 09:36

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 05:43	1
Beryllium	**0.15**	**J**	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 05:43	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 05:43	1
Cobalt	**0.71**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 05:43	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 05:43	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 05:43	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:43	1
Lead	**0.37**		0.30	0.080	ug/L		05/24/12 08:00	05/25/12 05:43	1
Nickel	**0.68**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:43	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 05:43	1
Thallium	**0.12**	**J**	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 05:43	1
Tin	**0.68**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 05:43	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 05:43	1
Zinc	**5.5**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 05:43	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 05:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**1.5**		1.1	0.36	mg/L			05/23/12 14:27	5
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Client Sample ID: Trip Blank

Lab Sample ID: 680-79687-22

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

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			05/30/12 18:08	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 18:08	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 18:08	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 18:08	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 18:08	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 18:08	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 18:08	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 18:08	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 18:08	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 18:08	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 18:08	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 18:08	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 18:08	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 18:08	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 18:08	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 18:08	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 18:08	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 18:08	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 18:08	1

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: Trip Blank
Date Collected: 05/20/12 09:43
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-22
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 18:08	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 18:08	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 18:08	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 18:08	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 18:08	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 18:08	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 18:08	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 18:08	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 18:08	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 18:08	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 18:08	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 18:08	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 18:08	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 18:08	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 18:08	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 18:08	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 18:08	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 18:08	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 18:08	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 18:08	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 18:08	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 18:08	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 18:08	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 18:08	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 18:08	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 18:08	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 18:08	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 18:08	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 18:08	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 18:08	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 18:08	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 18:08	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 18:08	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*05/30/12 18:08*	*1*
Dibromofluoromethane	*101*		*70 - 130*		*05/30/12 18:08*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/30/12 18:08*	*1*

Surrogate Summary

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

TestAmerica Job ID: 680-79687-2

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
680-79687-11	SLMW-10-5-12	101	92	103
680-79687-12	SLMW-8-5-12	97	102	105
680-79687-13	SLMW-Dup-1-5-12	97	102	107
680-79687-14	SLMW-7-5-12	96	100	104
680-79687-19	SW-1-5-12	95	101	106
680-79687-20	SLMW-12BR-5-12	98	99	108
680-79687-20 MS	SLMW-12BR-5-12	98	106	108
680-79687-20 MSD	SLMW-12BR-5-12	94	103	104
680-79687-21	SLMW-12AR-5-12	97	100	107
680-79687-22	Trip Blank	95	101	106
LCS 680-238833/4	Lab Control Sample	106	97	107
LCS 680-238853/4	Lab Control Sample	102	105	109
LCS 680-238959/4	Lab Control Sample	108	111	114
LCS 680-239215/4	Lab Control Sample	93	98	103
LCSD 680-238833/5	Lab Control Sample Dup	104	93	102
LCSD 680-238853/5	Lab Control Sample Dup	103	104	108
LCSD 680-238959/5	Lab Control Sample Dup	100	102	106
LCSD 680-239215/5	Lab Control Sample Dup	103	106	111
MB 680-238833/7	Method Blank	102	91	106
MB 680-238853/7	Method Blank	98	103	107
MB 680-238959/8	Method Blank	95	100	106
MB 680-239215/7	Method Blank	91	102	109

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	TPH	PHL	NBZ
Lab Sample ID	Client Sample ID	(31-141)	(38-130)	(25-130)	(10-143)	(25-130)	(39-130)
680-79687-11	SLMW-10-5-12	83	69	67	34	69	69
680-79687-12	SLMW-8-5-12	66	49	49	56	47	49
680-79687-13	SLMW-Dup-1-5-12	83	68	65	36	66	67
680-79687-14	SLMW-7-5-12	75	65	65	35	64	65
680-79687-19	SW-1-5-12	73	52	53	40	51	53
680-79687-20	SLMW-12BR-5-12	71	62	66	61	60	64
680-79687-20 MS	SLMW-12BR-5-12	73	64	60	65	60	60
680-79687-20 MSD	SLMW-12BR-5-12	71	61	62	64	60	59
680-79687-21	SLMW-12AR-5-12	77	69	65	61	60	64
LCS 680-238359/14-A	Lab Control Sample	85	75	80	65	80	75
MB 680-238359/13-A	Method Blank	84	75	78	69	76	78

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
TPH = Terphenyl-d14

PHL = Phenol-d5
NBZ = Nitrobenzene-d5

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(36-130)	(36-130)	(40-130)	(40-130)
680-79687-11	SLMW-10-5-12	67	75	15 J	15 J
680-79687-11 - RE	SLMW-10-5-12	59	58	29 J	27 J
680-79687-12	SLMW-8-5-12	79	75	25 J	23 J
680-79687-13	SLMW-Dup-1-5-12	46	52	11 J	12 J
680-79687-13 - RE	SLMW-Dup-1-5-12	50	50	29 J	28 J
680-79687-14	SLMW-7-5-12	64	54	15 J	12 J
680-79687-19	SW-1-5-12	72	69	26 J	24 J
680-79687-19 - RE	SW-1-5-12	55	61	35 J	30 J
680-79687-20	SLMW-12BR-5-12	74	73	65	65
680-79687-20 MS	SLMW-12BR-5-12	67	64	65	61
680-79687-20 MS	SLMW-12BR-5-12	75	71	74	72
680-79687-20 MS	SLMW-12BR-5-12	60	58	54	54
680-79687-20 MSD	SLMW-12BR-5-12	73	69	74	71
680-79687-20 MSD	SLMW-12BR-5-12	83	81	72	71
680-79687-20 MSD	SLMW-12BR-5-12	71	68	67	64
680-79687-21	SLMW-12AR-5-12	56	52	57	57
LCS 680-238208/15-A	Lab Control Sample	75	73	51	51
LCS 680-238208/20-A	Lab Control Sample	76	75	41	40
LCS 680-238208/25-A	Lab Control Sample	71	71	50	48
LCS 680-239184/10-A	Lab Control Sample	70	68	84	66
LCS 680-239184/13-A	Lab Control Sample	66	65	75	62
LCS 680-239184/16-A	Lab Control Sample	72	69	68	51
MB 680-238208/14-A	Method Blank	77	74	48	47
MB 680-239184/9-A	Method Blank	74	71	76	66

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TBPH1	TBPH2	TPP1	TPP2
Lab Sample ID	Client Sample ID	(49-122)	(49-122)	(45-145)	(45-145)
680-79687-11	SLMW-10-5-12	110	115	103	106
680-79687-12	SLMW-8-5-12	110	113	104	107
680-79687-13	SLMW-Dup-1-5-12	110	114	103	106
680-79687-14	SLMW-7-5-12	108	112	105	107
680-79687-19	SW-1-5-12	117	122	107	110
680-79687-20	SLMW-12BR-5-12	100	104	102	105
680-79687-20 MS	SLMW-12BR-5-12	116	121	105	108
680-79687-20 MSD	SLMW-12BR-5-12	116	121	104	107
680-79687-21	SLMW-12AR-5-12	95	100	98	104
LCS 180-36944/2-A	Lab Control Sample	118	126 J	106	109

Surrogate Summary

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

TestAmerica Job ID: 680-79687-2

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TBPH1	TBPH2	TPP1	TPP2
Lab Sample ID	Client Sample ID	(49-122)	(49-122)	(45-145)	(45-145)
MB 180-36944/1-A	Method Blank	90	96	91	99

Surrogate Legend

TBPH = Tributyl phosphate

TPP = Triphenylphosphate

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)
680-79687-11	SLMW-10-5-12	80	80
680-79687-11 - RE	SLMW-10-5-12	55	61
680-79687-12	SLMW-8-5-12	64	62
680-79687-13	SLMW-Dup-1-5-12	78	81 M
680-79687-13 - RE	SLMW-Dup-1-5-12	66	63
680-79687-14	SLMW-7-5-12	71	69
680-79687-19	SW-1-5-12	88	83
680-79687-19 - RE	SW-1-5-12	79	85
680-79687-20	SLMW-12BR-5-12	74	65 M
680-79687-20 - RE	SLMW-12BR-5-12	84	83
680-79687-20 MS	SLMW-12BR-5-12	78	82
680-79687-20 MS - RE	SLMW-12BR-5-12	71	84
680-79687-20 MSD	SLMW-12BR-5-12	87	95
680-79687-20 MSD - RE	SLMW-12BR-5-12	67	80
680-79687-21	SLMW-12AR-5-12	86	77 M
680-79687-21 - RE	SLMW-12AR-5-12	75	74
LCS 680-238328/18-A	Lab Control Sample		89
LCS 680-239271/17-A	Lab Control Sample	72	86
MB 680-238328/17-A	Method Blank	81	76
MB 680-239271/16-A	Method Blank	45 J	49 M J

Surrogate Legend

DCPA = DCAA

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

Lab Sample ID: MB 680-238833/7
Matrix: Water
Analysis Batch: 238833

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			05/30/12 12:07	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 12:07	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 12:07	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 12:07	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 12:07	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 12:07	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 12:07	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 12:07	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 12:07	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 12:07	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 12:07	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 12:07	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 12:07	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 12:07	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 12:07	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 12:07	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 12:07	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 12:07	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 12:07	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 12:07	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 12:07	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 12:07	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 12:07	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 12:07	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 12:07	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 12:07	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 12:07	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 12:07	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 12:07	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 12:07	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 12:07	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 12:07	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 12:07	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 12:07	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 12:07	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 12:07	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 12:07	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 12:07	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 12:07	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 12:07	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 12:07	1

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

Lab Sample ID: MB 680-238833/7
Matrix: Water
Analysis Batch: 238833

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			05/30/12 12:07	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 12:07	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 12:07	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 12:07	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 12:07	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 12:07	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:07	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 12:07	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 12:07	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 12:07	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 12:07	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*		*05/30/12 12:07*	*1*
Dibromofluoromethane	*91*		*70 - 130*		*05/30/12 12:07*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/30/12 12:07*	*1*

Lab Sample ID: LCS 680-238833/4
Matrix: Water
Analysis Batch: 238833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	78.9		ug/L		79	26 - 180
Benzene	50.0	55.2		ug/L		110	70 - 130
Bromobenzene	50.0	53.8		ug/L		108	70 - 130
Bromoform	50.0	47.1		ug/L		94	70 - 130
Bromomethane	50.0	38.9		ug/L		78	23 - 165
2-Butanone (MEK)	100	83.6		ug/L		84	49 - 172
Carbon tetrachloride	50.0	49.4		ug/L		99	70 - 130
Chlorobenzene	50.0	50.1		ug/L		100	70 - 130
Chlorobromomethane	50.0	52.2		ug/L		104	70 - 130
Chlorodibromomethane	50.0	51.0		ug/L		102	70 - 130
Chloroethane	50.0	44.2		ug/L		88	56 - 152
Chloroform	50.0	49.2		ug/L		98	70 - 130
Chloromethane	50.0	46.0		ug/L		92	70 - 130
2-Chlorotoluene	50.0	49.0		ug/L		98	70 - 130
4-Chlorotoluene	50.0	48.9		ug/L		98	70 - 130
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	70 - 130
cis-1,3-Dichloropropene	50.0	52.9		ug/L		106	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	51.6		ug/L		103	70 - 130
1,2-Dichlorobenzene	50.0	52.9		ug/L		106	70 - 130
1,3-Dichlorobenzene	50.0	52.0		ug/L		104	70 - 130
1,4-Dichlorobenzene	50.0	54.4		ug/L		109	70 - 130
Dichlorobromomethane	50.0	61.4		ug/L		123	70 - 130
Dichlorodifluoromethane	50.0	47.2		ug/L		94	44 - 146
1,1-Dichloroethane	50.0	50.0		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	61.7		ug/L		123	70 - 130

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

Lab Sample ID: LCS 680-238833/4
Matrix: Water
Analysis Batch: 238833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	45.7		ug/L		91	66 - 131
1,2-Dichloropropane	50.0	57.1		ug/L		114	70 - 130
1,3-Dichloropropane	50.0	59.9		ug/L		120	70 - 130
2,2-Dichloropropane	50.0	52.7		ug/L		105	70 - 135
1,1-Dichloropropene	50.0	55.0		ug/L		110	70 - 130
Ethylbenzene	50.0	48.5		ug/L		97	70 - 130
Ethylene Dibromide	50.0	56.8		ug/L		114	70 - 130
Hexachlorobutadiene	50.0	47.4		ug/L		95	70 - 130
Isopropylbenzene	50.0	45.3		ug/L		91	70 - 130
4-Isopropyltoluene	50.0	46.5		ug/L		93	70 - 130
Methylene Chloride	50.0	47.3		ug/L		95	67 - 130
4-Methyl-2-pentanone (MIBK)	100	112		ug/L		112	70 - 130
Methyl tert-butyl ether	100	105		ug/L		105	64 - 131
Naphthalene	50.0	52.2		ug/L		104	70 - 130
n-Butylbenzene	50.0	45.0		ug/L		90	70 - 130
N-Propylbenzene	50.0	44.9		ug/L		90	70 - 130
sec-Butylbenzene	50.0	42.7		ug/L		85	70 - 130
Styrene	50.0	52.7		ug/L		105	70 - 130
tert-Butylbenzene	50.0	44.3		ug/L		89	70 - 130
1,1,1,2-Tetrachloroethane	50.0	49.3		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	50.0	54.8		ug/L		110	70 - 130
Tetrachloroethene	50.0	44.5		ug/L		89	70 - 130
Toluene	50.0	55.7		ug/L		111	70 - 130
trans-1,2-Dichloroethene	50.0	46.3		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	52.3		ug/L		105	70 - 130
1,2,3-Trichlorobenzene	50.0	54.8		ug/L		110	70 - 130
1,2,4-Trichlorobenzene	50.0	54.5		ug/L		109	65 - 130
1,1,1-Trichloroethane	50.0	57.6		ug/L		115	70 - 130
1,1,2-Trichloroethane	50.0	59.4		ug/L		119	70 - 130
Trichloroethene	50.0	51.8		ug/L		104	70 - 130
Trichlorofluoromethane	50.0	48.6		ug/L		97	55 - 156
1,2,3-Trichloropropane	50.0	53.5		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	50.0	51.8		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	50.0	49.1		ug/L		98	70 - 130
Vinyl chloride	50.0	45.7		ug/L		91	67 - 134
Isopropyl ether	50.0	77.7		ug/L		155	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*70 - 130*
Dibromofluoromethane	*97*		*70 - 130*
Toluene-d8 (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 680-238833/5
Matrix: Water
Analysis Batch: 238833

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	96.0		ug/L		96	26 - 180	20	50
Benzene	50.0	53.0		ug/L		106	70 - 130	4	30

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

Lab Sample ID: LCSD 680-238833/5
Matrix: Water
Analysis Batch: 238833

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
Bromobenzene	50.0	51.7		ug/L		103	70 - 130	4	30
Bromoform	50.0	47.1		ug/L		94	70 - 130	0	30
Bromomethane	50.0	40.9		ug/L		82	23 - 165	5	50
2-Butanone (MEK)	100	98.6		ug/L		99	49 - 172	16	30
Carbon tetrachloride	50.0	45.4		ug/L		91	70 - 130	8	30
Chlorobenzene	50.0	49.1		ug/L		98	70 - 130	2	30
Chlorobromomethane	50.0	50.1		ug/L		100	70 - 130	4	30
Chlorodibromomethane	50.0	49.5		ug/L		99	70 - 130	3	50
Chloroethane	50.0	52.1		ug/L		104	56 - 152	16	40
Chloroform	50.0	46.6		ug/L		93	70 - 130	5	30
Chloromethane	50.0	44.6		ug/L		89	70 - 130	3	30
2-Chlorotoluene	50.0	47.1		ug/L		94	70 - 130	4	30
4-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130	3	30
cis-1,2-Dichloroethene	50.0	45.0		ug/L		90	70 - 130	3	30
cis-1,3-Dichloropropene	50.0	50.4		ug/L		101	70 - 130	5	30
1,2-Dibromo-3-Chloropropane	50.0	60.2		ug/L		120	70 - 130	15	50
1,2-Dichlorobenzene	50.0	52.2		ug/L		104	70 - 130	1	30
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130	2	30
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	70 - 130	5	30
Dichlorobromomethane	50.0	57.8		ug/L		116	70 - 130	6	30
Dichlorodifluoromethane	50.0	45.3		ug/L		91	44 - 146	4	50
1,1-Dichloroethane	50.0	47.5		ug/L		95	70 - 130	5	30
1,2-Dichloroethane	50.0	60.0		ug/L		120	70 - 130	3	30
1,1-Dichloroethene	50.0	43.7		ug/L		87	66 - 131	4	30
1,2-Dichloropropane	50.0	54.1		ug/L		108	70 - 130	5	30
1,3-Dichloropropane	50.0	59.1		ug/L		118	70 - 130	1	30
2,2-Dichloropropane	50.0	49.3		ug/L		99	70 - 135	7	30
1,1-Dichloropropene	50.0	53.2		ug/L		106	70 - 130	3	30
Ethylbenzene	50.0	46.8		ug/L		94	70 - 130	4	30
Ethylene Dibromide	50.0	58.0		ug/L		116	70 - 130	2	30
Hexachlorobutadiene	50.0	53.0		ug/L		106	70 - 130	11	30
Isopropylbenzene	50.0	44.1		ug/L		88	70 - 130	3	30
4-Isopropyltoluene	50.0	46.1		ug/L		92	70 - 130	1	50
Methylene Chloride	50.0	45.9		ug/L		92	67 - 130	3	30
4-Methyl-2-pentanone (MIBK)	100	129		ug/L		129	70 - 130	14	30
Methyl tert-butyl ether	100	104		ug/L		104	64 - 131	1	30
Naphthalene	50.0	58.3		ug/L		117	70 - 130	11	30
n-Butylbenzene	50.0	46.1		ug/L		92	70 - 130	2	30
N-Propylbenzene	50.0	44.5		ug/L		89	70 - 130	1	30
sec-Butylbenzene	50.0	43.0		ug/L		86	70 - 130	1	30
Styrene	50.0	50.1		ug/L		100	70 - 130	5	30
tert-Butylbenzene	50.0	44.6		ug/L		89	70 - 130	1	30
1,1,1,2-Tetrachloroethane	50.0	47.1		ug/L		94	70 - 130	5	30
1,1,2,2-Tetrachloroethane	50.0	58.2		ug/L		116	70 - 130	6	30
Tetrachloroethene	50.0	43.7		ug/L		87	70 - 130	2	30
Toluene	50.0	52.6		ug/L		105	70 - 130	6	30
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 130	5	30
trans-1,3-Dichloropropene	50.0	50.0		ug/L		100	70 - 130	5	50
1,2,3-Trichlorobenzene	50.0	56.9		ug/L		114	70 - 130	4	30
1,2,4-Trichlorobenzene	50.0	56.4		ug/L		113	65 - 130	4	30

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

Lab Sample ID: LCSD 680-238833/5
Matrix: Water
Analysis Batch: 238833

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
1,1,1-Trichloroethane	50.0	54.1		ug/L		108	70 - 130	6	30
1,1,2-Trichloroethane	50.0	57.4		ug/L		115	70 - 130	4	30
Trichloroethene	50.0	49.7		ug/L		99	70 - 130	4	30
Trichlorofluoromethane	50.0	49.4		ug/L		99	55 - 156	2	30
1,2,3-Trichloropropane	50.0	59.3		ug/L		119	70 - 130	10	30
1,2,4-Trimethylbenzene	50.0	50.0		ug/L		100	70 - 130	4	50
1,3,5-Trimethylbenzene	50.0	47.6		ug/L		95	70 - 130	3	50
Vinyl chloride	50.0	43.7		ug/L		87	67 - 134	4	30
Isopropyl ether	50.0	74.5		ug/L		149	10 - 200	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*
Dibromofluoromethane	*93*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 680-238853/7
Matrix: Water
Analysis Batch: 238853

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			05/30/12 12:21	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 12:21	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 12:21	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 12:21	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 12:21	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 12:21	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 12:21	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 12:21	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 12:21	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 12:21	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 12:21	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 12:21	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 12:21	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 12:21	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 12:21	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 12:21	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 12:21	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 12:21	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 12:21	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 12:21	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 12:21	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 12:21	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 12:21	1

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

Lab Sample ID: MB 680-238853/7
Matrix: Water
Analysis Batch: 238853

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 12:21	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 12:21	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 12:21	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 12:21	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 12:21	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 12:21	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 12:21	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 12:21	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 12:21	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 12:21	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 12:21	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 12:21	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 12:21	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 12:21	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 12:21	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 12:21	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 12:21	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 12:21	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 12:21	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 12:21	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 12:21	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 12:21	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 12:21	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 12:21	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 12:21	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 12:21	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 12:21	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 12:21	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 12:21	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/30/12 12:21*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/30/12 12:21*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/30/12 12:21*	*1*

Lab Sample ID: LCS 680-238853/4
Matrix: Water
Analysis Batch: 238853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	99.7		ug/L		100	26 - 180
Benzene	50.0	53.1		ug/L		106	70 - 130
Bromobenzene	50.0	50.1		ug/L		100	70 - 130
Bromoform	50.0	43.0		ug/L		86	70 - 130
Bromomethane	50.0	49.0		ug/L		98	23 - 165

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

Lab Sample ID: LCS 680-238853/4
Matrix: Water
Analysis Batch: 238853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	100	95.3		ug/L		95	49 - 172
Carbon tetrachloride	50.0	59.7		ug/L		119	70 - 130
Chlorobenzene	50.0	49.3		ug/L		99	70 - 130
Chlorobromomethane	50.0	51.2		ug/L		102	70 - 130
Chlorodibromomethane	50.0	55.1		ug/L		110	70 - 130
Chloroethane	50.0	46.1		ug/L		92	56 - 152
Chloroform	50.0	51.1		ug/L		102	70 - 130
Chloromethane	50.0	44.8		ug/L		90	70 - 130
2-Chlorotoluene	50.0	50.3		ug/L		101	70 - 130
4-Chlorotoluene	50.0	51.6		ug/L		103	70 - 130
cis-1,2-Dichloroethene	50.0	49.7		ug/L		99	70 - 130
cis-1,3-Dichloropropene	50.0	57.2		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	48.2		ug/L		96	70 - 130
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	70 - 130
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	50.5		ug/L		101	70 - 130
Dichlorobromomethane	50.0	56.9		ug/L		114	70 - 130
Dichlorodifluoromethane	50.0	48.6		ug/L		97	44 - 146
1,1-Dichloroethane	50.0	50.8		ug/L		102	70 - 130
1,2-Dichloroethane	50.0	56.2		ug/L		112	70 - 130
1,1-Dichloroethene	50.0	50.5		ug/L		101	66 - 131
1,2-Dichloropropane	50.0	52.5		ug/L		105	70 - 130
1,3-Dichloropropane	50.0	51.4		ug/L		103	70 - 130
2,2-Dichloropropane	50.0	55.6		ug/L		111	70 - 135
1,1-Dichloropropene	50.0	53.6		ug/L		107	70 - 130
Ethylbenzene	50.0	51.0		ug/L		102	70 - 130
Ethylene Dibromide	50.0	50.1		ug/L		100	70 - 130
Hexachlorobutadiene	50.0	54.2		ug/L		108	70 - 130
Isopropylbenzene	50.0	50.6		ug/L		101	70 - 130
4-Isopropyltoluene	50.0	53.2		ug/L		106	70 - 130
Methylene Chloride	50.0	49.3		ug/L		99	67 - 130
4-Methyl-2-pentanone (MIBK)	100	100		ug/L		100	70 - 130
Methyl tert-butyl ether	100	98.0		ug/L		98	64 - 131
Naphthalene	50.0	47.4		ug/L		95	70 - 130
n-Butylbenzene	50.0	52.4		ug/L		105	70 - 130
N-Propylbenzene	50.0	51.3		ug/L		103	70 - 130
sec-Butylbenzene	50.0	52.5		ug/L		105	70 - 130
Styrene	50.0	51.3		ug/L		103	70 - 130
tert-Butylbenzene	50.0	51.4		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	50.0	54.5		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	50.0	47.5		ug/L		95	70 - 130
Tetrachloroethene	50.0	48.9		ug/L		98	70 - 130
Toluene	50.0	53.0		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	57.7		ug/L		115	70 - 130
1,2,3-Trichlorobenzene	50.0	49.4		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	50.0	50.6		ug/L		101	65 - 130
1,1,1-Trichloroethane	50.0	57.9		ug/L		116	70 - 130
1,1,2-Trichloroethane	50.0	50.6		ug/L		101	70 - 130
Trichloroethene	50.0	51.2		ug/L		102	70 - 130

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

Lab Sample ID: LCS 680-238853/4
Matrix: Water
Analysis Batch: 238853

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	50.0	49.6		ug/L		99	55 - 156
1,2,3-Trichloropropane	50.0	47.6		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	50.0	52.3		ug/L		105	70 - 130
Vinyl chloride	50.0	46.4		ug/L		93	67 - 134
Isopropyl ether	50.0	76.8		ug/L		154	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 680-238853/5
Matrix: Water
Analysis Batch: 238853

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	94.8		ug/L		95	26 - 180	5	50
Benzene	50.0	52.4		ug/L		105	70 - 130	1	30
Bromobenzene	50.0	50.8		ug/L		102	70 - 130	1	30
Bromoform	50.0	43.9		ug/L		88	70 - 130	2	30
Bromomethane	50.0	53.5		ug/L		107	23 - 165	9	50
2-Butanone (MEK)	100	97.1		ug/L		97	49 - 172	2	30
Carbon tetrachloride	50.0	59.1		ug/L		118	70 - 130	1	30
Chlorobenzene	50.0	49.6		ug/L		99	70 - 130	1	30
Chlorobromomethane	50.0	52.4		ug/L		105	70 - 130	2	30
Chlorodibromomethane	50.0	54.6		ug/L		109	70 - 130	1	50
Chloroethane	50.0	42.7		ug/L		85	56 - 152	8	40
Chloroform	50.0	52.0		ug/L		104	70 - 130	2	30
Chloromethane	50.0	44.8		ug/L		90	70 - 130	0	30
2-Chlorotoluene	50.0	50.6		ug/L		101	70 - 130	1	30
4-Chlorotoluene	50.0	51.7		ug/L		103	70 - 130	0	30
cis-1,2-Dichloroethene	50.0	49.5		ug/L		99	70 - 130	0	30
cis-1,3-Dichloropropene	50.0	57.5		ug/L		115	70 - 130	0	30
1,2-Dibromo-3-Chloropropane	50.0	47.5		ug/L		95	70 - 130	2	50
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	70 - 130	0	30
1,3-Dichlorobenzene	50.0	50.6		ug/L		101	70 - 130	0	30
1,4-Dichlorobenzene	50.0	51.1		ug/L		102	70 - 130	1	30
Dichlorobromomethane	50.0	57.3		ug/L		115	70 - 130	1	30
Dichlorodifluoromethane	50.0	48.0		ug/L		96	44 - 146	1	50
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130	1	30
1,2-Dichloroethane	50.0	55.5		ug/L		111	70 - 130	1	30
1,1-Dichloroethene	50.0	47.0		ug/L		94	66 - 131	7	30
1,2-Dichloropropane	50.0	53.2		ug/L		106	70 - 130	1	30
1,3-Dichloropropane	50.0	51.6		ug/L		103	70 - 130	0	30
2,2-Dichloropropane	50.0	54.4		ug/L		109	70 - 135	2	30
1,1-Dichloropropene	50.0	54.7		ug/L		109	70 - 130	2	30
Ethylbenzene	50.0	51.5		ug/L		103	70 - 130	1	30
Ethylene Dibromide	50.0	50.7		ug/L		101	70 - 130	1	30

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

Lab Sample ID: LCSD 680-238853/5
Matrix: Water
Analysis Batch: 238853

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
Hexachlorobutadiene	50.0	53.3		ug/L		107	70 - 130	2	30
Isopropylbenzene	50.0	51.7		ug/L		103	70 - 130	2	30
4-Isopropyltoluene	50.0	52.6		ug/L		105	70 - 130	1	50
Methylene Chloride	50.0	49.2		ug/L		98	67 - 130	0	30
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	70 - 130	1	30
Methyl tert-butyl ether	100	98.5		ug/L		98	64 - 131	0	30
Naphthalene	50.0	48.0		ug/L		96	70 - 130	1	30
n-Butylbenzene	50.0	52.6		ug/L		105	70 - 130	0	30
N-Propylbenzene	50.0	51.3		ug/L		103	70 - 130	0	30
sec-Butylbenzene	50.0	52.4		ug/L		105	70 - 130	0	30
Styrene	50.0	51.8		ug/L		104	70 - 130	1	30
tert-Butylbenzene	50.0	52.6		ug/L		105	70 - 130	2	30
1,1,1,2-Tetrachloroethane	50.0	54.4		ug/L		109	70 - 130	0	30
1,1,2,2-Tetrachloroethane	50.0	47.1		ug/L		94	70 - 130	1	30
Tetrachloroethene	50.0	49.0		ug/L		98	70 - 130	0	30
Toluene	50.0	53.1		ug/L		106	70 - 130	0	30
trans-1,2-Dichloroethene	50.0	50.8		ug/L		102	70 - 130	0	30
trans-1,3-Dichloropropene	50.0	57.7		ug/L		115	70 - 130	0	50
1,2,3-Trichlorobenzene	50.0	49.5		ug/L		99	70 - 130	0	30
1,2,4-Trichlorobenzene	50.0	50.5		ug/L		101	65 - 130	0	30
1,1,1-Trichloroethane	50.0	57.6		ug/L		115	70 - 130	1	30
1,1,2-Trichloroethane	50.0	50.4		ug/L		101	70 - 130	0	30
Trichloroethene	50.0	52.4		ug/L		105	70 - 130	2	30
Trichlorofluoromethane	50.0	49.5		ug/L		99	55 - 156	0	30
1,2,3-Trichloropropane	50.0	46.3		ug/L		93	70 - 130	3	30
1,2,4-Trimethylbenzene	50.0	52.9		ug/L		106	70 - 130	2	50
1,3,5-Trimethylbenzene	50.0	53.3		ug/L		107	70 - 130	2	50
Vinyl chloride	50.0	46.3		ug/L		93	67 - 134	0	30
Isopropyl ether	50.0	76.4		ug/L		153	10 - 200	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 680-238959/8
Matrix: Water
Analysis Batch: 238959

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			05/31/12 12:41	1
Benzene	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/31/12 12:41	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/31/12 12:41	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/31/12 12:41	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/31/12 12:41	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/31/12 12:41	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/31/12 12:41	1

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

Lab Sample ID: MB 680-238959/8
Matrix: Water
Analysis Batch: 238959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/31/12 12:41	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/31/12 12:41	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/31/12 12:41	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/31/12 12:41	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/31/12 12:41	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/31/12 12:41	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/31/12 12:41	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 12:41	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/31/12 12:41	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/31/12 12:41	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/31/12 12:41	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/31/12 12:41	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/31/12 12:41	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/31/12 12:41	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 12:41	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/31/12 12:41	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/31/12 12:41	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/31/12 12:41	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/31/12 12:41	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 12:41	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/31/12 12:41	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/31/12 12:41	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/31/12 12:41	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/31/12 12:41	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/31/12 12:41	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/31/12 12:41	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/31/12 12:41	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/31/12 12:41	1
Styrene	0.11	U	1.0	0.11	ug/L			05/31/12 12:41	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/31/12 12:41	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/31/12 12:41	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/31/12 12:41	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/31/12 12:41	1
Toluene	0.33	U	1.0	0.33	ug/L			05/31/12 12:41	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/31/12 12:41	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/31/12 12:41	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/31/12 12:41	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/31/12 12:41	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/31/12 12:41	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/31/12 12:41	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/31/12 12:41	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/31/12 12:41	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 12:41	1

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

Lab Sample ID: MB 680-238959/8
Matrix: Water
Analysis Batch: 238959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/31/12 12:41	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/31/12 12:41	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/31/12 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*05/31/12 12:41*	*1*
Dibromofluoromethane	*100*		*70 - 130*		*05/31/12 12:41*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/31/12 12:41*	*1*

Lab Sample ID: LCS 680-238959/4
Matrix: Water
Analysis Batch: 238959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	109		ug/L		109	26 - 180
Benzene	50.0	55.2		ug/L		110	70 - 130
Bromobenzene	50.0	52.7		ug/L		105	70 - 130
Bromoform	50.0	46.0		ug/L		92	70 - 130
Bromomethane	50.0	47.0		ug/L		94	23 - 165
2-Butanone (MEK)	100	107		ug/L		107	49 - 172
Carbon tetrachloride	50.0	62.0		ug/L		124	70 - 130
Chlorobenzene	50.0	51.7		ug/L		103	70 - 130
Chlorobromomethane	50.0	55.5		ug/L		111	70 - 130
Chlorodibromomethane	50.0	57.7		ug/L		115	70 - 130
Chloroethane	50.0	43.5		ug/L		87	56 - 152
Chloroform	50.0	54.7		ug/L		109	70 - 130
Chloromethane	50.0	46.8		ug/L		94	70 - 130
2-Chlorotoluene	50.0	52.5		ug/L		105	70 - 130
4-Chlorotoluene	50.0	52.8		ug/L		106	70 - 130
cis-1,2-Dichloroethene	50.0	52.5		ug/L		105	70 - 130
cis-1,3-Dichloropropene	50.0	62.1		ug/L		124	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	49.6		ug/L		99	70 - 130
1,2-Dichlorobenzene	50.0	51.7		ug/L		103	70 - 130
1,3-Dichlorobenzene	50.0	52.5		ug/L		105	70 - 130
1,4-Dichlorobenzene	50.0	52.7		ug/L		105	70 - 130
Dichlorobromomethane	50.0	60.4		ug/L		121	70 - 130
Dichlorodifluoromethane	50.0	48.8		ug/L		98	44 - 146
1,1-Dichloroethane	50.0	54.7		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	58.3		ug/L		117	70 - 130
1,1-Dichloroethene	50.0	48.4		ug/L		97	66 - 131
1,2-Dichloropropane	50.0	56.1		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	54.4		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	59.7		ug/L		119	70 - 135
1,1-Dichloropropene	50.0	57.1		ug/L		114	70 - 130
Ethylbenzene	50.0	53.3		ug/L		107	70 - 130
Ethylene Dibromide	50.0	52.9		ug/L		106	70 - 130
Hexachlorobutadiene	50.0	54.8		ug/L		110	70 - 130
Isopropylbenzene	50.0	53.0		ug/L		106	70 - 130
4-Isopropyltoluene	50.0	54.8		ug/L		110	70 - 130

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

Lab Sample ID: LCS 680-238959/4
Matrix: Water
Analysis Batch: 238959

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	50.0	52.1		ug/L		104	67 - 130
4-Methyl-2-pentanone (MIBK)	100	107		ug/L		107	70 - 130
Methyl tert-butyl ether	100	105		ug/L		105	64 - 131
Naphthalene	50.0	50.0		ug/L		100	70 - 130
n-Butylbenzene	50.0	54.2		ug/L		108	70 - 130
N-Propylbenzene	50.0	53.4		ug/L		107	70 - 130
sec-Butylbenzene	50.0	54.1		ug/L		108	70 - 130
Styrene	50.0	54.3		ug/L		109	70 - 130
tert-Butylbenzene	50.0	53.8		ug/L		108	70 - 130
1,1,1,2-Tetrachloroethane	50.0	57.2		ug/L		114	70 - 130
1,1,2,2-Tetrachloroethane	50.0	49.4		ug/L		99	70 - 130
Tetrachloroethene	50.0	50.2		ug/L		100	70 - 130
Toluene	50.0	55.9		ug/L		112	70 - 130
trans-1,2-Dichloroethene	50.0	52.9		ug/L		106	70 - 130
trans-1,3-Dichloropropene	50.0	60.5		ug/L		121	70 - 130
1,2,3-Trichlorobenzene	50.0	51.1		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	50.0	52.0		ug/L		104	65 - 130
1,1,1-Trichloroethane	50.0	60.0		ug/L		120	70 - 130
1,1,2-Trichloroethane	50.0	52.5		ug/L		105	70 - 130
Trichloroethene	50.0	53.5		ug/L		107	70 - 130
Trichlorofluoromethane	50.0	48.5		ug/L		97	55 - 156
1,2,3-Trichloropropane	50.0	47.6		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	50.0	54.3		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	54.5		ug/L		109	70 - 130
Vinyl chloride	50.0	46.3		ug/L		93	67 - 134
Isopropyl ether	50.0	77.8		ug/L		156	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*70 - 130*
Dibromofluoromethane	*111*		*70 - 130*
Toluene-d8 (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 680-238959/5
Matrix: Water
Analysis Batch: 238959

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	94.5		ug/L		94	26 - 180	14	50
Benzene	50.0	51.2		ug/L		102	70 - 130	8	30
Bromobenzene	50.0	48.2		ug/L		96	70 - 130	9	30
Bromoform	50.0	41.3		ug/L		83	70 - 130	11	30
Bromomethane	50.0	48.9		ug/L		98	23 - 165	4	50
2-Butanone (MEK)	100	95.6		ug/L		96	49 - 172	11	30
Carbon tetrachloride	50.0	57.6		ug/L		115	70 - 130	7	30
Chlorobenzene	50.0	47.6		ug/L		95	70 - 130	8	30
Chlorobromomethane	50.0	51.0		ug/L		102	70 - 130	8	30
Chlorodibromomethane	50.0	53.3		ug/L		107	70 - 130	8	50
Chloroethane	50.0	41.5		ug/L		83	56 - 152	5	40
Chloroform	50.0	50.1		ug/L		100	70 - 130	9	30

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

Lab Sample ID: LCSD 680-238959/5
Matrix: Water
Analysis Batch: 238959

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
Chloromethane	50.0	43.1		ug/L		86	70 - 130	8	30
2-Chlorotoluene	50.0	48.9		ug/L		98	70 - 130	7	30
4-Chlorotoluene	50.0	49.3		ug/L		99	70 - 130	7	30
cis-1,2-Dichloroethene	50.0	48.9		ug/L		98	70 - 130	7	30
cis-1,3-Dichloropropene	50.0	57.0		ug/L		114	70 - 130	9	30
1,2-Dibromo-3-Chloropropane	50.0	45.7		ug/L		91	70 - 130	8	50
1,2-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 130	9	30
1,3-Dichlorobenzene	50.0	48.1		ug/L		96	70 - 130	9	30
1,4-Dichlorobenzene	50.0	48.4		ug/L		97	70 - 130	8	30
Dichlorobromomethane	50.0	55.6		ug/L		111	70 - 130	8	30
Dichlorodifluoromethane	50.0	44.9		ug/L		90	44 - 146	8	50
1,1-Dichloroethane	50.0	50.2		ug/L		100	70 - 130	9	30
1,2-Dichloroethane	50.0	54.4		ug/L		109	70 - 130	7	30
1,1-Dichloroethene	50.0	44.1		ug/L		88	66 - 131	9	30
1,2-Dichloropropane	50.0	50.7		ug/L		101	70 - 130	10	30
1,3-Dichloropropane	50.0	50.6		ug/L		101	70 - 130	7	30
2,2-Dichloropropane	50.0	54.2		ug/L		108	70 - 135	10	30
1,1-Dichloropropene	50.0	52.6		ug/L		105	70 - 130	8	30
Ethylbenzene	50.0	49.2		ug/L		98	70 - 130	8	30
Ethylene Dibromide	50.0	48.8		ug/L		98	70 - 130	8	30
Hexachlorobutadiene	50.0	51.6		ug/L		103	70 - 130	6	30
Isopropylbenzene	50.0	49.3		ug/L		99	70 - 130	7	30
4-Isopropyltoluene	50.0	49.8		ug/L		100	70 - 130	10	50
Methylene Chloride	50.0	46.1		ug/L		92	67 - 130	12	30
4-Methyl-2-pentanone (MIBK)	100	97.5		ug/L		97	70 - 130	9	30
Methyl tert-butyl ether	100	95.4		ug/L		95	64 - 131	9	30
Naphthalene	50.0	46.3		ug/L		93	70 - 130	8	30
n-Butylbenzene	50.0	50.5		ug/L		101	70 - 130	7	30
N-Propylbenzene	50.0	49.8		ug/L		100	70 - 130	7	30
sec-Butylbenzene	50.0	50.0		ug/L		100	70 - 130	8	30
Styrene	50.0	49.5		ug/L		99	70 - 130	9	30
tert-Butylbenzene	50.0	49.4		ug/L		99	70 - 130	9	30
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	70 - 130	9	30
1,1,2,2-Tetrachloroethane	50.0	45.6		ug/L		91	70 - 130	8	30
Tetrachloroethene	50.0	46.3		ug/L		93	70 - 130	8	30
Toluene	50.0	52.1		ug/L		104	70 - 130	7	30
trans-1,2-Dichloroethene	50.0	48.8		ug/L		98	70 - 130	8	30
trans-1,3-Dichloropropene	50.0	55.4		ug/L		111	70 - 130	9	50
1,2,3-Trichlorobenzene	50.0	47.5		ug/L		95	70 - 130	7	30
1,2,4-Trichlorobenzene	50.0	49.1		ug/L		98	65 - 130	6	30
1,1,1-Trichloroethane	50.0	55.0		ug/L		110	70 - 130	9	30
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	70 - 130	7	30
Trichloroethene	50.0	49.4		ug/L		99	70 - 130	8	30
Trichlorofluoromethane	50.0	44.8		ug/L		90	55 - 156	8	30
1,2,3-Trichloropropane	50.0	45.8		ug/L		92	70 - 130	4	30
1,2,4-Trimethylbenzene	50.0	49.6		ug/L		99	70 - 130	9	50
1,3,5-Trimethylbenzene	50.0	50.1		ug/L		100	70 - 130	9	50
Vinyl chloride	50.0	42.3		ug/L		85	67 - 134	9	30
Isopropyl ether	50.0	74.5		ug/L		149	10 - 200	4	50

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

Lab Sample ID: LCSD 680-238959/5
Matrix: Water
Analysis Batch: 238959

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 130*
Dibromofluoromethane	*102*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 680-239215/7
Matrix: Water
Analysis Batch: 239215

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			06/04/12 11:52	1
Benzene	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			06/04/12 11:52	1
Bromoform	0.50	U	1.0	0.50	ug/L			06/04/12 11:52	1
Bromomethane	0.80	U	1.0	0.80	ug/L			06/04/12 11:52	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			06/04/12 11:52	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			06/04/12 11:52	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			06/04/12 11:52	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			06/04/12 11:52	1
Chloroethane	1.0	U	1.0	1.0	ug/L			06/04/12 11:52	1
Chloroform	0.14	U	1.0	0.14	ug/L			06/04/12 11:52	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			06/04/12 11:52	1
Chloromethane	0.33	U	1.0	0.33	ug/L			06/04/12 11:52	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			06/04/12 11:52	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			06/04/12 11:52	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			06/04/12 11:52	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			06/04/12 11:52	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			06/04/12 11:52	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			06/04/12 11:52	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			06/04/12 11:52	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			06/04/12 11:52	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			06/04/12 11:52	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			06/04/12 11:52	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			06/04/12 11:52	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			06/04/12 11:52	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			06/04/12 11:52	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			06/04/12 11:52	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			06/04/12 11:52	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			06/04/12 11:52	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			06/04/12 11:52	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			06/04/12 11:52	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			06/04/12 11:52	1
Naphthalene	1.0	U	5.0	1.0	ug/L			06/04/12 11:52	1

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

Lab Sample ID: MB 680-239215/7
Matrix: Water
Analysis Batch: 239215

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			06/04/12 11:52	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			06/04/12 11:52	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			06/04/12 11:52	1
Styrene	0.11	U	1.0	0.11	ug/L			06/04/12 11:52	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			06/04/12 11:52	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			06/04/12 11:52	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			06/04/12 11:52	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			06/04/12 11:52	1
Toluene	0.33	U	1.0	0.33	ug/L			06/04/12 11:52	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			06/04/12 11:52	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			06/04/12 11:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			06/04/12 11:52	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			06/04/12 11:52	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/04/12 11:52	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			06/04/12 11:52	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			06/04/12 11:52	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			06/04/12 11:52	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			06/04/12 11:52	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			06/04/12 11:52	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			06/04/12 11:52	1
Isopropyl ether	0.24	U	10	0.24	ug/L			06/04/12 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*70 - 130*		*06/04/12 11:52*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*06/04/12 11:52*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*06/04/12 11:52*	*1*

Lab Sample ID: LCS 680-239215/4
Matrix: Water
Analysis Batch: 239215

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	117		ug/L		117	26 - 180
Benzene	50.0	50.0		ug/L		100	70 - 130
Bromobenzene	50.0	46.1		ug/L		92	70 - 130
Bromoform	50.0	40.7		ug/L		81	70 - 130
Bromomethane	50.0	74.2		ug/L		148	23 - 165
2-Butanone (MEK)	100	107		ug/L		107	49 - 172
Carbon tetrachloride	50.0	56.9		ug/L		114	70 - 130
Chlorobenzene	50.0	45.4		ug/L		91	70 - 130
Chlorobromomethane	50.0	47.7		ug/L		95	70 - 130
Chlorodibromomethane	50.0	51.6		ug/L		103	70 - 130
Chloroethane	50.0	49.0		ug/L		98	56 - 152
Chloroform	50.0	48.1		ug/L		96	70 - 130
Chloromethane	50.0	36.3		ug/L		73	70 - 130
2-Chlorotoluene	50.0	44.9		ug/L		90	70 - 130
4-Chlorotoluene	50.0	45.9		ug/L		92	70 - 130
cis-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 130

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

Lab Sample ID: LCS 680-239215/4
Matrix: Water
Analysis Batch: 239215

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	50.0	56.0		ug/L		112	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	45.1		ug/L		90	70 - 130
1,2-Dichlorobenzene	50.0	44.4		ug/L		89	70 - 130
1,3-Dichlorobenzene	50.0	44.8		ug/L		90	70 - 130
1,4-Dichlorobenzene	50.0	45.1		ug/L		90	70 - 130
Dichlorobromomethane	50.0	54.6		ug/L		109	70 - 130
Dichlorodifluoromethane	50.0	41.4		ug/L		83	44 - 146
1,1-Dichloroethane	50.0	47.9		ug/L		96	70 - 130
1,2-Dichloroethane	50.0	52.3		ug/L		105	70 - 130
1,1-Dichloroethene	50.0	46.3		ug/L		93	66 - 131
1,2-Dichloropropane	50.0	50.0		ug/L		100	70 - 130
1,3-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	51.5		ug/L		103	70 - 135
1,1-Dichloropropene	50.0	52.4		ug/L		105	70 - 130
Ethylbenzene	50.0	47.1		ug/L		94	70 - 130
Ethylene Dibromide	50.0	48.1		ug/L		96	70 - 130
Hexachlorobutadiene	50.0	50.7		ug/L		101	70 - 130
Isopropylbenzene	50.0	46.3		ug/L		93	70 - 130
4-Isopropyltoluene	50.0	47.2		ug/L		94	70 - 130
Methylene Chloride	50.0	45.3		ug/L		91	67 - 130
4-Methyl-2-pentanone (MIBK)	100	99.4		ug/L		99	70 - 130
Methyl tert-butyl ether	100	92.1		ug/L		92	64 - 131
Naphthalene	50.0	44.4		ug/L		89	70 - 130
n-Butylbenzene	50.0	47.7		ug/L		95	70 - 130
N-Propylbenzene	50.0	46.5		ug/L		93	70 - 130
sec-Butylbenzene	50.0	47.3		ug/L		95	70 - 130
Styrene	50.0	47.6		ug/L		95	70 - 130
tert-Butylbenzene	50.0	46.5		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	50.0	51.1		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	50.0	44.0		ug/L		88	70 - 130
Tetrachloroethene	50.0	44.2		ug/L		88	70 - 130
Toluene	50.0	50.5		ug/L		101	70 - 130
trans-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	55.7		ug/L		111	70 - 130
1,2,3-Trichlorobenzene	50.0	45.0		ug/L		90	70 - 130
1,2,4-Trichlorobenzene	50.0	46.4		ug/L		93	65 - 130
1,1,1-Trichloroethane	50.0	55.3		ug/L		111	70 - 130
1,1,2-Trichloroethane	50.0	48.8		ug/L		98	70 - 130
Trichloroethene	50.0	48.4		ug/L		97	70 - 130
Trichlorofluoromethane	50.0	44.5		ug/L		89	55 - 156
1,2,3-Trichloropropane	50.0	41.7		ug/L		83	70 - 130
1,2,4-Trimethylbenzene	50.0	47.1		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	50.0	47.0		ug/L		94	70 - 130
Vinyl chloride	50.0	37.9		ug/L		76	67 - 134
Isopropyl ether	50.0	76.2		ug/L		152	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*70 - 130*
Dibromofluoromethane	*98*		*70 - 130*

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

Lab Sample ID: LCS 680-239215/4
Matrix: Water
Analysis Batch: 239215

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 680-239215/5
Matrix: Water
Analysis Batch: 239215

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	120		ug/L		120	26 - 180	3	50
Benzene	50.0	53.3		ug/L		107	70 - 130	6	30
Bromobenzene	50.0	48.1		ug/L		96	70 - 130	4	30
Bromoform	50.0	44.3		ug/L		89	70 - 130	9	30
Bromomethane	50.0	80.3		ug/L		161	23 - 165	8	50
2-Butanone (MEK)	100	113		ug/L		113	49 - 172	5	30
Carbon tetrachloride	50.0	61.0		ug/L		122	70 - 130	7	30
Chlorobenzene	50.0	49.3		ug/L		99	70 - 130	8	30
Chlorobromomethane	50.0	53.8		ug/L		108	70 - 130	12	30
Chlorodibromomethane	50.0	56.7		ug/L		113	70 - 130	9	50
Chloroethane	50.0	51.5		ug/L		103	56 - 152	5	40
Chloroform	50.0	53.2		ug/L		106	70 - 130	10	30
Chloromethane	50.0	38.6		ug/L		77	70 - 130	6	30
2-Chlorotoluene	50.0	49.5		ug/L		99	70 - 130	10	30
4-Chlorotoluene	50.0	49.2		ug/L		98	70 - 130	7	30
cis-1,2-Dichloroethene	50.0	51.6		ug/L		103	70 - 130	10	30
cis-1,3-Dichloropropene	50.0	59.9		ug/L		120	70 - 130	7	30
1,2-Dibromo-3-Chloropropane	50.0	48.1		ug/L		96	70 - 130	7	50
1,2-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130	8	30
1,3-Dichlorobenzene	50.0	48.1		ug/L		96	70 - 130	7	30
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	70 - 130	8	30
Dichlorobromomethane	50.0	58.5		ug/L		117	70 - 130	7	30
Dichlorodifluoromethane	50.0	45.2		ug/L		90	44 - 146	9	50
1,1-Dichloroethane	50.0	52.9		ug/L		106	70 - 130	10	30
1,2-Dichloroethane	50.0	54.9		ug/L		110	70 - 130	5	30
1,1-Dichloroethene	50.0	50.2		ug/L		100	66 - 131	8	30
1,2-Dichloropropane	50.0	53.3		ug/L		107	70 - 130	7	30
1,3-Dichloropropane	50.0	53.4		ug/L		107	70 - 130	9	30
2,2-Dichloropropane	50.0	57.4		ug/L		115	70 - 135	11	30
1,1-Dichloropropene	50.0	54.6		ug/L		109	70 - 130	4	30
Ethylbenzene	50.0	50.8		ug/L		102	70 - 130	8	30
Ethylene Dibromide	50.0	51.1		ug/L		102	70 - 130	6	30
Hexachlorobutadiene	50.0	54.5		ug/L		109	70 - 130	7	30
Isopropylbenzene	50.0	50.8		ug/L		102	70 - 130	9	30
4-Isopropyltoluene	50.0	50.6		ug/L		101	70 - 130	7	50
Methylene Chloride	50.0	48.8		ug/L		98	67 - 130	8	30
4-Methyl-2-pentanone (MIBK)	100	107		ug/L		107	70 - 130	7	30
Methyl tert-butyl ether	100	102		ug/L		102	64 - 131	10	30
Naphthalene	50.0	47.7		ug/L		95	70 - 130	7	30
n-Butylbenzene	50.0	52.1		ug/L		104	70 - 130	9	30
N-Propylbenzene	50.0	50.7		ug/L		101	70 - 130	9	30
sec-Butylbenzene	50.0	50.8		ug/L		102	70 - 130	7	30

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

Lab Sample ID: LCSD 680-239215/5
Matrix: Water
Analysis Batch: 239215

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
Styrene	50.0	51.4		ug/L		103	70 - 130	8	30
tert-Butylbenzene	50.0	50.2		ug/L		100	70 - 130	8	30
1,1,1,2-Tetrachloroethane	50.0	55.6		ug/L		111	70 - 130	8	30
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/L		96	70 - 130	9	30
Tetrachloroethene	50.0	47.7		ug/L		95	70 - 130	8	30
Toluene	50.0	53.4		ug/L		107	70 - 130	5	30
trans-1,2-Dichloroethene	50.0	51.0		ug/L		102	70 - 130	9	30
trans-1,3-Dichloropropene	50.0	59.5		ug/L		119	70 - 130	7	50
1,2,3-Trichlorobenzene	50.0	48.9		ug/L		98	70 - 130	8	30
1,2,4-Trichlorobenzene	50.0	50.2		ug/L		100	65 - 130	8	30
1,1,1-Trichloroethane	50.0	58.4		ug/L		117	70 - 130	6	30
1,1,2-Trichloroethane	50.0	51.6		ug/L		103	70 - 130	5	30
Trichloroethene	50.0	51.1		ug/L		102	70 - 130	6	30
Trichlorofluoromethane	50.0	47.5		ug/L		95	55 - 156	7	30
1,2,3-Trichloropropane	50.0	46.9		ug/L		94	70 - 130	12	30
1,2,4-Trimethylbenzene	50.0	50.8		ug/L		102	70 - 130	7	50
1,3,5-Trimethylbenzene	50.0	51.7		ug/L		103	70 - 130	10	50
Vinyl chloride	50.0	40.4		ug/L		81	67 - 134	6	30
Isopropyl ether	50.0	79.4		ug/L		159	10 - 200	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane	*106*		*70 - 130*
Toluene-d8 (Surr)	*111*		*70 - 130*

Lab Sample ID: 680-79687-20 MS
Matrix: Water
Analysis Batch: 239215

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	5.0	U	100	75.8		ug/L		76	26 - 180
Benzene	0.25	U	50.0	52.7		ug/L		105	70 - 130
Bromobenzene	0.16	U	50.0	47.5		ug/L		95	70 - 130
Bromoform	0.50	U	50.0	40.7		ug/L		81	70 - 130
Bromomethane	0.80	U	50.0	79.1		ug/L		158	23 - 165
2-Butanone (MEK)	1.0	U	100	92.1		ug/L		92	49 - 172
Carbon tetrachloride	0.50	U	50.0	59.3		ug/L		119	70 - 130
Chlorobenzene	0.25	U	50.0	47.8		ug/L		96	70 - 130
Chlorobromomethane	0.14	U	50.0	54.3		ug/L		109	70 - 130
Chlorodibromomethane	0.10	U	50.0	52.1		ug/L		104	70 - 130
Chloroethane	1.0	U J	50.0	61.0		ug/L		122	56 - 152
Chloroform	0.14	U	50.0	52.2		ug/L		104	70 - 130
Chloromethane	0.33	U J	50.0	41.1		ug/L		82	70 - 130
2-Chlorotoluene	0.17	U	50.0	49.1		ug/L		98	70 - 130
4-Chlorotoluene	0.27	U	50.0	50.2		ug/L		100	70 - 130
cis-1,2-Dichloroethene	0.15	U	50.0	50.4		ug/L		101	70 - 130
cis-1,3-Dichloropropene	0.11	U J	50.0	55.1		ug/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	0.44	U	50.0	45.4		ug/L		91	70 - 130
1,2-Dichlorobenzene	0.21	U	50.0	48.1		ug/L		96	70 - 130

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

Lab Sample ID: 680-79687-20 MS
Matrix: Water
Analysis Batch: 239215

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	0.25	U	50.0	49.0		ug/L		98	70 - 130
1,4-Dichlorobenzene	0.28	U	50.0	48.5		ug/L		97	70 - 130
Dichlorobromomethane	0.25	U	50.0	54.9		ug/L		110	70 - 130
Dichlorodifluoromethane	0.25	U J	50.0	41.1		ug/L		82	44 - 146
1,1-Dichloroethane	0.25	U J	50.0	52.0		ug/L		104	70 - 130
1,2-Dichloroethane	0.10	U	50.0	53.3		ug/L		107	70 - 130
1,1-Dichloroethene	0.11	U J	50.0	48.4		ug/L		97	66 - 131
1,2-Dichloropropane	0.13	U	50.0	50.9		ug/L		102	70 - 130
1,3-Dichloropropane	0.13	U	50.0	50.4		ug/L		101	70 - 130
2,2-Dichloropropane	0.12	U J	50.0	56.0		ug/L		112	70 - 135
1,1-Dichloropropene	0.25	U	50.0	55.5		ug/L		111	70 - 130
Ethylbenzene	0.11	U	50.0	50.8		ug/L		102	70 - 130
Ethylene Dibromide	0.25	U	50.0	48.5		ug/L		97	70 - 130
Hexachlorobutadiene	0.40	U	50.0	54.7		ug/L		109	70 - 130
Isopropylbenzene	0.10	U	50.0	50.3		ug/L		101	70 - 130
4-Isopropyltoluene	0.13	U	50.0	52.4		ug/L		105	70 - 130
Methylene Chloride	1.0	U J	50.0	48.1		ug/L		96	67 - 130
4-Methyl-2-pentanone (MIBK)	1.0	U	100	97.0		ug/L		97	70 - 130
Methyl tert-butyl ether	0.20	U J	100	91.0		ug/L		91	64 - 131
Naphthalene	1.0	U	50.0	43.4		ug/L		87	70 - 130
n-Butylbenzene	0.10	U	50.0	52.9		ug/L		106	70 - 130
N-Propylbenzene	0.15	U	50.0	51.0		ug/L		102	70 - 130
sec-Butylbenzene	0.16	U	50.0	52.7		ug/L		105	70 - 130
Styrene	0.11	U	50.0	49.8		ug/L		100	70 - 130
tert-Butylbenzene	0.12	U	50.0	52.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	0.33	U	50.0	52.1		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	0.18	U	50.0	45.8		ug/L		92	70 - 130
Tetrachloroethene	0.15	U	50.0	48.0		ug/L		96	70 - 130
Toluene	0.33	U	50.0	53.3		ug/L		107	70 - 130
trans-1,2-Dichloroethene	0.20	U J	50.0	50.9		ug/L		102	70 - 130
trans-1,3-Dichloropropene	0.21	U	50.0	54.2		ug/L		108	70 - 130
1,2,3-Trichlorobenzene	0.35	U	50.0	45.3		ug/L		91	70 - 130
1,2,4-Trichlorobenzene	0.25	U	50.0	47.0		ug/L		94	65 - 130
1,1,1-Trichloroethane	0.50	U	50.0	57.0		ug/L		114	70 - 130
1,1,2-Trichloroethane	0.13	U	50.0	48.8		ug/L		98	70 - 130
Trichloroethene	0.13	U	50.0	50.8		ug/L		102	70 - 130
Trichlorofluoromethane	0.25	U J	50.0	54.2		ug/L		108	55 - 156
1,2,3-Trichloropropane	0.41	U	50.0	44.7		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	0.33	U	50.0	51.5		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	0.33	U	50.0	51.6		ug/L		103	70 - 130
Vinyl chloride	0.18	U J	50.0	44.7		ug/L		89	67 - 134
Isopropyl ether	0.24	U	50.0	77.0		ug/L		154	10 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*70 - 130*
Dibromofluoromethane	*106*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*

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

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 239215

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	5.0	U	100	76.1		ug/L		76	26 - 180	0	50
Benzene	0.25	U	50.0	50.5		ug/L		101	70 - 130	4	30
Bromobenzene	0.16	U	50.0	45.3		ug/L		91	70 - 130	5	30
Bromoform	0.50	U	50.0	38.8		ug/L		78	70 - 130	5	30
Bromomethane	0.80	U	50.0	85.5	J	ug/L		171	23 - 165	8	50
2-Butanone (MEK)	1.0	U	100	89.3		ug/L		89	49 - 172	3	30
Carbon tetrachloride	0.50	U	50.0	58.6		ug/L		117	70 - 130	1	30
Chlorobenzene	0.25	U	50.0	45.6		ug/L		91	70 - 130	5	30
Chlorobromomethane	0.14	U	50.0	50.6		ug/L		101	70 - 130	7	30
Chlorodibromomethane	0.10	U	50.0	50.3		ug/L		101	70 - 130	4	50
Chloroethane	1.0	U J	50.0	57.5		ug/L		115	56 - 152	6	40
Chloroform	0.14	U	50.0	51.1		ug/L		102	70 - 130	2	30
Chloromethane	0.33	U J	50.0	39.4		ug/L		79	70 - 130	4	30
2-Chlorotoluene	0.17	U	50.0	47.3		ug/L		95	70 - 130	4	30
4-Chlorotoluene	0.27	U	50.0	48.5		ug/L		97	70 - 130	4	30
cis-1,2-Dichloroethene	0.15	U	50.0	49.8		ug/L		100	70 - 130	1	30
cis-1,3-Dichloropropene	0.11	U J	50.0	53.4		ug/L		107	70 - 130	3	30
1,2-Dibromo-3-Chloropropane	0.44	U	50.0	42.3		ug/L		85	70 - 130	7	50
1,2-Dichlorobenzene	0.21	U	50.0	46.5		ug/L		93	70 - 130	4	30
1,3-Dichlorobenzene	0.25	U	50.0	47.4		ug/L		95	70 - 130	3	30
1,4-Dichlorobenzene	0.28	U	50.0	46.7		ug/L		93	70 - 130	4	30
Dichlorobromomethane	0.25	U	50.0	54.2		ug/L		108	70 - 130	1	30
Dichlorodifluoromethane	0.25	U J	50.0	41.3		ug/L		83	44 - 146	0	50
1,1-Dichloroethane	0.25	U J	50.0	50.9		ug/L		102	70 - 130	2	30
1,2-Dichloroethane	0.10	U	50.0	51.9		ug/L		104	70 - 130	3	30
1,1-Dichloroethene	0.11	U J	50.0	48.1		ug/L		96	66 - 131	0	30
1,2-Dichloropropane	0.13	U	50.0	49.7		ug/L		99	70 - 130	2	30
1,3-Dichloropropane	0.13	U	50.0	47.3		ug/L		95	70 - 130	6	30
2,2-Dichloropropane	0.12	U J	50.0	53.5		ug/L		107	70 - 135	5	30
1,1-Dichloropropene	0.25	U	50.0	53.1		ug/L		106	70 - 130	4	30
Ethylbenzene	0.11	U	50.0	48.1		ug/L		96	70 - 130	5	30
Ethylene Dibromide	0.25	U	50.0	45.3		ug/L		91	70 - 130	7	30
Hexachlorobutadiene	0.40	U	50.0	53.9		ug/L		108	70 - 130	1	30
Isopropylbenzene	0.10	U	50.0	48.9		ug/L		98	70 - 130	3	30
4-Isopropyltoluene	0.13	U	50.0	50.6		ug/L		101	70 - 130	4	50
Methylene Chloride	1.0	U J	50.0	47.1		ug/L		94	67 - 130	2	30
4-Methyl-2-pentanone (MIBK)	1.0	U	100	93.6		ug/L		94	70 - 130	4	30
Methyl tert-butyl ether	0.20	U J	100	89.9		ug/L		90	64 - 131	1	30
Naphthalene	1.0	U	50.0	42.5		ug/L		85	70 - 130	2	30
n-Butylbenzene	0.10	U	50.0	50.2		ug/L		100	70 - 130	5	30
N-Propylbenzene	0.15	U	50.0	48.1		ug/L		96	70 - 130	6	30
sec-Butylbenzene	0.16	U	50.0	49.8		ug/L		100	70 - 130	6	30
Styrene	0.11	U	50.0	48.2		ug/L		96	70 - 130	3	30
tert-Butylbenzene	0.12	U	50.0	49.5		ug/L		99	70 - 130	5	30
1,1,1,2-Tetrachloroethane	0.33	U	50.0	49.6		ug/L		99	70 - 130	5	30
1,1,2,2-Tetrachloroethane	0.18	U	50.0	43.7		ug/L		87	70 - 130	5	30
Tetrachloroethene	0.15	U	50.0	45.5		ug/L		91	70 - 130	5	30
Toluene	0.33	U	50.0	51.1		ug/L		102	70 - 130	4	30
trans-1,2-Dichloroethene	0.20	U J	50.0	50.1		ug/L		100	70 - 130	1	30

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

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 239215

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	0.21	U	50.0	52.7		ug/L		105	70 - 130	3	50
1,2,3-Trichlorobenzene	0.35	U	50.0	44.2		ug/L		88	70 - 130	2	30
1,2,4-Trichlorobenzene	0.25	U	50.0	45.4		ug/L		91	65 - 130	3	30
1,1,1-Trichloroethane	0.50	U	50.0	56.3		ug/L		113	70 - 130	1	30
1,1,2-Trichloroethane	0.13	U	50.0	47.1		ug/L		94	70 - 130	4	30
Trichloroethene	0.13	U	50.0	49.2		ug/L		98	70 - 130	3	30
Trichlorofluoromethane	0.25	U J	50.0	52.7		ug/L		105	55 - 156	3	30
1,2,3-Trichloropropane	0.41	U	50.0	42.6		ug/L		85	70 - 130	5	30
1,2,4-Trimethylbenzene	0.33	U	50.0	49.5		ug/L		99	70 - 130	4	50
1,3,5-Trimethylbenzene	0.33	U	50.0	49.0		ug/L		98	70 - 130	5	50
Vinyl chloride	0.18	U J	50.0	44.0		ug/L		88	67 - 134	2	30
Isopropyl ether	0.24	U	50.0	78.0		ug/L		156	10 - 200	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*70 - 130*
Dibromofluoromethane	*103*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 680-238359/13-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 238359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.56	U	10	0.56	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,2-Dichlorobenzene	0.53	U	10	0.53	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,3-Dichlorobenzene	0.59	U	10	0.59	ug/L		05/24/12 15:47	06/11/12 11:56	1
1,4-Dichlorobenzene	0.54	U	10	0.54	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dinitrophenol	10	U	50	10	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Methylphenol	0.89	U	10	0.89	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		05/24/12 15:47	06/11/12 11:56	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		05/24/12 15:47	06/11/12 11:56	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		05/24/12 15:47	06/11/12 11:56	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		05/24/12 15:47	06/11/12 11:56	1

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

Lab Sample ID: MB 680-238359/13-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 238359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Acenaphthene	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
Acenaphthylene	0.85	U	10	0.85	ug/L		05/24/12 15:47	06/11/12 11:56	1
Anthracene	0.69	U	10	0.69	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzyl alcohol	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		05/24/12 15:47	06/11/12 11:56	1
Chrysene	0.51	U	10	0.51	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dibenzofuran	0.79	U	10	0.79	ug/L		05/24/12 15:47	06/11/12 11:56	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		05/24/12 15:47	06/11/12 11:56	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		05/24/12 15:47	06/11/12 11:56	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		05/24/12 15:47	06/11/12 11:56	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		05/24/12 15:47	06/11/12 11:56	1
Fluoranthene	0.74	U	10	0.74	ug/L		05/24/12 15:47	06/11/12 11:56	1
Fluorene	0.96	U	10	0.96	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		05/24/12 15:47	06/11/12 11:56	1
Hexachloroethane	0.76	U	10	0.76	ug/L		05/24/12 15:47	06/11/12 11:56	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Isophorone	0.90	U	10	0.90	ug/L		05/24/12 15:47	06/11/12 11:56	1
Naphthalene	0.70	U	10	0.70	ug/L		05/24/12 15:47	06/11/12 11:56	1
Nitrobenzene	0.73	U	10	0.73	ug/L		05/24/12 15:47	06/11/12 11:56	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		05/24/12 15:47	06/11/12 11:56	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		05/24/12 15:47	06/11/12 11:56	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
Phenanthrene	0.77	U	10	0.77	ug/L		05/24/12 15:47	06/11/12 11:56	1
Phenol	0.83	U	10	0.83	ug/L		05/24/12 15:47	06/11/12 11:56	1
Pyrene	0.63	U	10	0.63	ug/L		05/24/12 15:47	06/11/12 11:56	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		05/24/12 15:47	06/11/12 11:56	1
bis(chloroisopropyl) ether	0.78	U	10	0.78	ug/L		05/24/12 15:47	06/11/12 11:56	1
Benzoic acid	5.0	U	50	5.0	ug/L		05/24/12 15:47	06/11/12 11:56	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		05/24/12 15:47	06/11/12 11:56	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		05/24/12 15:47	06/11/12 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*31 - 141*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
2-Fluorobiphenyl	*75*		*38 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
2-Fluorophenol	*78*		*25 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Terphenyl-d14	*69*		*10 - 143*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Phenol-d5	*76*		*25 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*
Nitrobenzene-d5	*78*		*39 - 130*	*05/24/12 15:47*	*06/11/12 11:56*	*1*

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

Lab Sample ID: LCS 680-238359/14-A
Matrix: Water
Analysis Batch: 240036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	61.3		ug/L		61	42 - 130
1,2-Dichlorobenzene	100	60.7		ug/L		61	43 - 130
1,3-Dichlorobenzene	100	58.9		ug/L		59	41 - 130
1,4-Dichlorobenzene	100	57.7		ug/L		58	43 - 130
2,4,5-Trichlorophenol	100	80.0		ug/L		80	61 - 130
2,4,6-Trichlorophenol	100	81.7		ug/L		82	57 - 130
2,4-Dichlorophenol	100	76.7		ug/L		77	54 - 130
2,4-Dimethylphenol	100	55.4		ug/L		55	40 - 130
2,4-Dinitrophenol	100	111		ug/L		111	20 - 165
2,4-Dinitrotoluene	100	80.5		ug/L		80	63 - 130
2-Chlorophenol	100	75.1		ug/L		75	57 - 130
2-Chloronaphthalene	100	70.8		ug/L		71	53 - 130
2-Methylnaphthalene	100	70.6		ug/L		71	52 - 130
2-Methylphenol	100	75.0		ug/L		75	55 - 130
2-Nitroaniline	100	82.7		ug/L		83	60 - 130
2-Nitrophenol	100	79.0		ug/L		79	54 - 130
3 & 4 Methylphenol	100	76.5		ug/L		76	35 - 130
3,3'-Dichlorobenzidine	100	55.4	J	ug/L		55	27 - 130
3-Nitroaniline	100	77.7		ug/L		78	54 - 130
4,6-Dinitro-2-methylphenol	100	87.3		ug/L		87	45 - 134
4-Bromophenyl phenyl ether	100	65.2		ug/L		65	61 - 130
4-Chloro-3-methylphenol	100	79.5		ug/L		80	60 - 130
4-Chloroaniline	100	54.7		ug/L		55	42 - 130
4-Chlorophenyl phenyl ether	100	67.5		ug/L		67	57 - 130
4-Nitroaniline	100	82.0		ug/L		82	54 - 130
Acenaphthene	100	77.2		ug/L		77	55 - 130
Acenaphthylene	100	78.7		ug/L		79	60 - 130
Anthracene	100	66.5		ug/L		66	61 - 130
Benzo[a]anthracene	100	65.3		ug/L		65	58 - 130
Benzo[a]pyrene	100	63.6		ug/L		64	61 - 130
Benzo[b]fluoranthene	100	56.7		ug/L		57	51 - 130
Benzo[g,h,i]perylene	100	59.3		ug/L		59	54 - 130
Benzo[k]fluoranthene	100	56.4		ug/L		56	53 - 130
Benzyl alcohol	100	77.2		ug/L		77	53 - 130
Bis(2-chloroethoxy)methane	100	79.2		ug/L		79	64 - 130
Bis(2-chloroethyl)ether	100	75.1		ug/L		75	56 - 130
Bis(2-ethylhexyl) phthalate	100	54.1	Q	ug/L		54	62 - 130
Chrysene	100	61.7		ug/L		62	59 - 130
Dibenz(a,h)anthracene	100	58.1	M	ug/L		58	55 - 130
Dibenzofuran	100	73.8		ug/L		74	58 - 130
Di-n-butyl phthalate	100	64.1	Q	ug/L		64	66 - 130
Diethyl phthalate	100	76.3		ug/L		76	70 - 130
Dimethyl phthalate	100	79.2		ug/L		79	69 - 130
Di-n-octyl phthalate	100	54.1	Q	ug/L		54	64 - 130
Fluoranthene	100	65.5		ug/L		65	56 - 130
Fluorene	100	74.8		ug/L		75	61 - 130
Hexachlorobenzene	100	56.6		ug/L		57	52 - 130
Hexachlorobutadiene	100	54.0		ug/L		54	36 - 130
Hexachloroethane	100	53.6		ug/L		54	39 - 130

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

Lab Sample ID: LCS 680-238359/14-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240036 — **Prep Batch: 238359**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	100	63.8		ug/L		64	47 - 130
Isophorone	100	73.8		ug/L		74	59 - 130
Naphthalene	100	69.3		ug/L		69	50 - 130
Nitrobenzene	100	70.6		ug/L		71	56 - 130
N-Nitrosodiphenylamine	100	77.3		ug/L		77	68 - 130
N-Nitrosodi-n-propylamine	100	83.0		ug/L		83	64 - 130
Pentachlorophenol	100	91.8		ug/L		92	42 - 138
Phenanthrene	100	73.7		ug/L		74	62 - 130
Phenol	100	71.5		ug/L		72	29 - 130
Pyrene	100	67.1		ug/L		67	60 - 130
Butyl benzyl phthalate	100	64.1	Q	ug/L		64	66 - 130
bis(chloroisopropyl) ether	100	74.0		ug/L		74	55 - 130
Benzoic acid	100	78.8		ug/L		79	10 - 130
2,6-Dinitrotoluene	100	79.8		ug/L		80	65 - 130
4-Nitrophenol	100	82.4		ug/L		82	38 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*31 - 141*
2-Fluorobiphenyl	*75*		*38 - 130*
2-Fluorophenol	*80*		*25 - 130*
Terphenyl-d14	*65*		*10 - 143*
Phenol-d5	*80*		*25 - 130*
Nitrobenzene-d5	*75*		*39 - 130*

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240036 — **Prep Batch: 238359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	0.51	U J	99.7	38.4	J	ug/L		39	42 - 130
1,2-Dichlorobenzene	0.48	U J	99.7	37.2	J	ug/L		37	43 - 130
1,3-Dichlorobenzene	0.54	U J	99.7	36.4	J	ug/L		36	41 - 130
1,4-Dichlorobenzene	0.49	U J	99.7	35.6	J	ug/L		36	43 - 130
2,4,5-Trichlorophenol	1.1	U J	99.7	55.1	J	ug/L		55	61 - 130
2,4,6-Trichlorophenol	0.78	U J	99.7	56.3	J	ug/L		56	57 - 130
2,4-Dichlorophenol	1.0	U J	99.7	53.2	J	ug/L		53	54 - 130
2,4-Dimethylphenol	3.7	U	99.7	50.6		ug/L		51	40 - 130
2,4-Dinitrophenol	9.1	U	99.7	74.1		ug/L		74	20 - 165
2,4-Dinitrotoluene	1.1	U J	99.7	54.3	J	ug/L		54	63 - 130
2-Chlorophenol	0.79	U J	99.7	48.7	J	ug/L		49	57 - 130
2-Chloronaphthalene	0.73	U J	99.7	49.1	J	ug/L		49	53 - 130
2-Methylnaphthalene	0.71	U J	99.7	46.0	J	ug/L		46	52 - 130
2-Methylphenol	0.81	U J	99.7	48.7	J	ug/L		49	55 - 130
2-Nitroaniline	1.2	U J	99.7	54.6	J	ug/L		55	60 - 130
2-Nitrophenol	0.69	U J	99.7	53.2	J	ug/L		53	54 - 130
3 & 4 Methylphenol	1.2	U	99.7	51.8		ug/L		52	35 - 130
3,3'-Dichlorobenzidine	27	U J	99.7	30	U J	ug/L		0	27 - 130
3-Nitroaniline	4.6	U J	99.7	15.9	J	ug/L		16	54 - 130
4,6-Dinitro-2-methylphenol	9.1	U	99.7	59.0		ug/L		59	45 - 134

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

Lab Sample ID: 680-79687-20 MS
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl phenyl ether	0.70	U J	99.7	52.1	J	ug/L		52	61 - 130
4-Chloro-3-methylphenol	0.91	U J	99.7	53.3	J	ug/L		53	60 - 130
4-Chloroaniline	2.0	U J	99.7	12.3	J	ug/L		12	42 - 130
4-Chlorophenyl phenyl ether	0.77	U J	99.7	53.2	J	ug/L		53	57 - 130
4-Nitroaniline	4.6	U J	99.7	40.6	J	ug/L		41	54 - 130
Acenaphthene	0.69	U	99.7	54.4		ug/L		55	55 - 130
Acenaphthylene	0.78	U J	99.7	54.4	J	ug/L		55	60 - 130
Anthracene	0.63	U J	99.7	52.0	J	ug/L		52	61 - 130
Benzo[a]anthracene	0.50	U	99.7	63.6		ug/L		64	58 - 130
Benzo[a]pyrene	0.65	U	99.7	69.2		ug/L		69	61 - 130
Benzo[b]fluoranthene	2.4	U	99.7	62.7		ug/L		63	51 - 130
Benzo[g,h,i]perylene	0.79	U	99.7	64.2		ug/L		64	54 - 130
Benzo[k]fluoranthene	1.1	U	99.7	61.7		ug/L		62	53 - 130
Benzyl alcohol	1.0	U J	99.7	43.8	J	ug/L		44	53 - 130
Bis(2-chloroethoxy)methane	0.86	U J	99.7	51.5	J	ug/L		52	64 - 130
Bis(2-chloroethyl)ether	1.0	U J	99.7	48.2	J	ug/L		48	56 - 130
Bis(2-ethylhexyl) phthalate	1.5	U Q J	99.7	55.0	J	ug/L		55	62 - 130
Chrysene	0.47	U J	99.7	57.2	J	ug/L		57	59 - 130
Dibenz(a,h)anthracene	0.91	U	99.7	65.9		ug/L		66	55 - 130
Dibenzofuran	0.72	U J	99.7	53.4	J	ug/L		54	58 - 130
Di-n-butyl phthalate	0.76	U Q J	99.7	53.2	J	ug/L		53	66 - 130
Diethyl phthalate	0.80	U J	99.7	53.6	J	ug/L		54	70 - 130
Dimethyl phthalate	0.90	U J	99.7	54.6	J	ug/L		55	69 - 130
Di-n-octyl phthalate	1.3	U Q J	99.7	52.9	J	ug/L		53	64 - 130
Fluoranthene	0.68	U	99.7	57.1		ug/L		57	56 - 130
Fluorene	0.88	U J	99.7	55.0	J	ug/L		55	61 - 130
Hexachlorobenzene	0.72	U J	99.7	49.4	J	ug/L		50	52 - 130
Hexachlorobutadiene	0.57	U	99.7	36.5		ug/L		37	36 - 130
Hexachloroethane	0.69	U J	99.7	32.6	J	ug/L		33	39 - 130
Indeno[1,2,3-cd]pyrene	0.91	U	99.7	64.3		ug/L		65	47 - 130
Isophorone	0.82	U J	99.7	50.3	J	ug/L		50	59 - 130
Naphthalene	0.64	U J	99.7	44.1	J	ug/L		44	50 - 130
Nitrobenzene	0.67	U J	99.7	47.1	J	ug/L		47	56 - 130
N-Nitrosodiphenylamine	0.84	U J	99.7	44.9	J	ug/L		45	68 - 130
N-Nitrosodi-n-propylamine	0.66	U J	99.7	54.2	J	ug/L		54	64 - 130
Pentachlorophenol	1.8	U	99.7	63.4		ug/L		64	42 - 138
Phenanthrene	0.70	U J	99.7	55.9	J	ug/L		56	62 - 130
Phenol	0.76	U	99.7	45.1		ug/L		45	29 - 130
Pyrene	0.58	U J	99.7	56.1	J	ug/L		56	60 - 130
Butyl benzyl phthalate	1.1	U Q J	99.7	57.2	J	ug/L		57	66 - 130
bis(chloroisopropyl) ether	0.71	U J	99.7	46.2	J	ug/L		46	55 - 130
Benzoic acid	4.6	U	99.7	42.1	J M	ug/L		42	10 - 130
2,6-Dinitrotoluene	1.0	U J	99.7	54.8	J	ug/L		55	65 - 130
4-Nitrophenol	1.7	U	99.7	54.7		ug/L		55	38 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*73*		*31 - 141*
2-Fluorobiphenyl	*64*		*38 - 130*
2-Fluorophenol	*60*		*25 - 130*

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

Lab Sample ID: 680-79687-20 MS
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 238359

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*65*		*10 - 143*
Phenol-d5	*60*		*25 - 130*
Nitrobenzene-d5	*60*		*39 - 130*

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 240036

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 238359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	0.51	U J	89.8	37.6		ug/L		42	42 - 130	2	50
1,2-Dichlorobenzene	0.48	U J	89.8	38.2		ug/L		43	43 - 130	3	50
1,3-Dichlorobenzene	0.54	U J	89.8	36.9		ug/L		41	41 - 130	2	50
1,4-Dichlorobenzene	0.49	U J	89.8	36.2	J	ug/L		40	43 - 130	2	50
2,4,5-Trichlorophenol	1.1	U J	89.8	51.2	J	ug/L		57	61 - 130	7	50
2,4,6-Trichlorophenol	0.78	U J	89.8	52.1		ug/L		58	57 - 130	8	50
2,4-Dichlorophenol	1.0	U J	89.8	49.8		ug/L		55	54 - 130	7	50
2,4-Dimethylphenol	3.7	U	89.8	48.5		ug/L		54	40 - 130	4	50
2,4-Dinitrophenol	9.1	U	89.8	76.3		ug/L		85	20 - 165	3	50
2,4-Dinitrotoluene	1.1	U J	89.8	53.2	J	ug/L		59	63 - 130	2	50
2-Chlorophenol	0.79	U J	89.8	49.0	J	ug/L		55	57 - 130	0	50
2-Chloronaphthalene	0.73	U J	89.8	45.7	J	ug/L		51	53 - 130	7	50
2-Methylnaphthalene	0.71	U J	89.8	44.7	J	ug/L		50	52 - 130	3	50
2-Methylphenol	0.81	U J	89.8	47.5	J	ug/L		53	55 - 130	3	50
2-Nitroaniline	1.2	U J	89.8	51.8	J	ug/L		58	60 - 130	5	50
2-Nitrophenol	0.69	U J	89.8	50.7		ug/L		56	54 - 130	5	50
3 & 4 Methylphenol	1.2	U	89.8	50.1		ug/L		56	35 - 130	3	50
3,3'-Dichlorobenzidine	27	U J	89.8	27	U J	ug/L		0	27 - 130	NC	50
3-Nitroaniline	4.6	U J	89.8	13.2	J	ug/L		15	54 - 130	19	50
4,6-Dinitro-2-methylphenol	9.1	U	89.8	57.1		ug/L		64	45 - 134	3	50
4-Bromophenyl phenyl ether	0.70	U J	89.8	50.0	J	ug/L		56	61 - 130	4	50
4-Chloro-3-methylphenol	0.91	U J	89.8	51.4	J	ug/L		57	60 - 130	4	50
4-Chloroaniline	2.0	U J	89.8	8.31	J	ug/L		9	42 - 130	39	50
4-Chlorophenyl phenyl ether	0.77	U J	89.8	51.8		ug/L		58	57 - 130	3	50
4-Nitroaniline	4.6	U J	89.8	38.0	J	ug/L		42	54 - 130	7	50
Acenaphthene	0.69	U	89.8	51.2		ug/L		57	55 - 130	6	50
Acenaphthylene	0.78	U J	89.8	51.5	J	ug/L		57	60 - 130	6	50
Anthracene	0.63	U J	89.8	49.1	J	ug/L		55	61 - 130	6	50
Benzo[a]anthracene	0.50	U	89.8	53.0		ug/L		59	58 - 130	18	50
Benzo[a]pyrene	0.65	U	89.8	60.3		ug/L		67	61 - 130	14	50
Benzo[b]fluoranthene	2.4	U	89.8	54.9		ug/L		61	51 - 130	13	50
Benzo[g,h,i]perylene	0.79	U	89.8	57.5		ug/L		64	54 - 130	11	50
Benzo[k]fluoranthene	1.1	U	89.8	55.8		ug/L		62	53 - 130	10	50
Benzyl alcohol	1.0	U J	89.8	44.0	J	ug/L		49	53 - 130	1	50
Bis(2-chloroethoxy)methane	0.86	U J	89.8	49.8	J	ug/L		55	64 - 130	3	50
Bis(2-chloroethyl)ether	1.0	U J	89.8	48.6	J	ug/L		54	56 - 130	1	50
Bis(2-ethylhexyl) phthalate	1.5	U Q J	89.8	52.6	J	ug/L		59	62 - 130	5	50
Chrysene	0.47	U J	89.8	52.8		ug/L		59	59 - 130	8	50
Dibenz(a,h)anthracene	0.91	U	89.8	58.4		ug/L		65	55 - 130	12	50
Dibenzofuran	0.72	U J	89.8	50.3	J	ug/L		56	58 - 130	6	50

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

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240036 — **Prep Batch: 238359**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-butyl phthalate	0.76	U Q J	89.8	52.3	J	ug/L		58	66 - 130	2	50
Diethyl phthalate	0.80	U J	89.8	52.6	J	ug/L		59	70 - 130	2	50
Dimethyl phthalate	0.90	U J	89.8	52.8	J	ug/L		59	69 - 130	3	50
Di-n-octyl phthalate	1.3	U Q J	89.8	50.1	J	ug/L		56	64 - 130	5	50
Fluoranthene	0.68	U	89.8	53.7		ug/L		60	56 - 130	6	50
Fluorene	0.88	U J	89.8	52.5	J	ug/L		58	61 - 130	5	50
Hexachlorobenzene	0.72	U J	89.8	47.7		ug/L		53	52 - 130	4	50
Hexachlorobutadiene	0.57	U	89.8	35.9		ug/L		40	36 - 130	2	50
Hexachloroethane	0.69	U J	89.8	32.6	J	ug/L		36	39 - 130	0	50
Indeno[1,2,3-cd]pyrene	0.91	U	89.8	58.3		ug/L		65	47 - 130	10	50
Isophorone	0.82	U J	89.8	47.5	J	ug/L		53	59 - 130	6	50
Naphthalene	0.64	U J	89.8	43.1	J	ug/L		48	50 - 130	2	50
Nitrobenzene	0.67	U J	89.8	45.1	J	ug/L		50	56 - 130	4	50
N-Nitrosodiphenylamine	0.84	U J	89.8	40.9	J	ug/L		46	68 - 130	9	50
N-Nitrosodi-n-propylamine	0.66	U J	89.8	53.7	J	ug/L		60	64 - 130	1	50
Pentachlorophenol	1.8	U	89.8	58.8		ug/L		65	42 - 138	8	50
Phenanthrene	0.70	U J	89.8	53.2	J	ug/L		59	62 - 130	5	50
Phenol	0.76	U	89.8	43.9		ug/L		49	29 - 130	3	50
Pyrene	0.58	U J	89.8	56.2		ug/L		63	60 - 130	0	50
Butyl benzyl phthalate	1.1	U Q J	89.8	55.4	J	ug/L		62	66 - 130	3	50
bis(chloroisopropyl) ether	0.71	U J	89.8	46.5	J	ug/L		52	55 - 130	1	50
Benzoic acid	4.6	U	89.8	42.3	J M	ug/L		47	10 - 130	0	50
2,6-Dinitrotoluene	1.0	U J	89.8	52.9	J	ug/L		59	65 - 130	4	50
4-Nitrophenol	1.7	U	89.8	48.9		ug/L		54	38 - 130	11	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*71*		*31 - 141*
2-Fluorobiphenyl	*61*		*38 - 130*
2-Fluorophenol	*62*		*25 - 130*
Terphenyl-d14	*64*		*10 - 143*
Phenol-d5	*60*		*25 - 130*
Nitrobenzene-d5	*59*		*39 - 130*

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

Lab Sample ID: MB 680-238208/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		05/23/12 16:07	05/30/12 15:43	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		05/23/12 16:07	05/30/12 15:43	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		05/23/12 16:07	05/30/12 15:43	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		05/23/12 16:07	05/30/12 15:43	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		05/23/12 16:07	05/30/12 15:43	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		05/23/12 16:07	05/30/12 15:43	1
Endrin	0.0097	U	0.10	0.0097	ug/L		05/23/12 16:07	05/30/12 15:43	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		05/23/12 16:07	05/30/12 15:43	1

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

Lab Sample ID: MB 680-238208/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.0084	U	0.10	0.0084	ug/L		05/23/12 16:07	05/30/12 15:43	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		05/23/12 16:07	05/30/12 15:43	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		05/23/12 16:07	05/30/12 15:43	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		05/23/12 16:07	05/30/12 15:43	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1016	0.071	U	1.0	0.071	ug/L		05/23/12 16:07	05/30/12 15:43	1
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		05/23/12 16:07	05/30/12 15:43	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		05/23/12 16:07	05/30/12 15:43	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		05/23/12 16:07	05/30/12 15:43	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		05/23/12 16:07	05/30/12 15:43	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		05/23/12 16:07	05/30/12 15:43	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		05/23/12 16:07	05/30/12 15:43	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1221	0.28	U	2.0	0.28	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1232	0.11	U	1.0	0.11	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1242	0.18	U	1.0	0.18	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1248	0.36	U	1.0	0.36	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1254	0.26	U	1.0	0.26	ug/L		05/23/12 16:07	05/30/12 15:43	1
PCB-1260	0.20	U	1.0	0.20	ug/L		05/23/12 16:07	05/30/12 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*36 - 130*	*05/23/12 16:07*	*05/30/12 15:43*	*1*
Tetrachloro-m-xylene	*74*		*36 - 130*	*05/23/12 16:07*	*05/30/12 15:43*	*1*
DCB Decachlorobiphenyl	*48*		*40 - 130*	*05/23/12 16:07*	*05/30/12 15:43*	*1*
DCB Decachlorobiphenyl	*47*		*40 - 130*	*05/23/12 16:07*	*05/30/12 15:43*	*1*

Lab Sample ID: LCS 680-238208/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.100	0.0908		ug/L		91	23 - 191
Dieldrin	0.200	0.180		ug/L		90	61 - 136
Endosulfan I	0.100	0.0847		ug/L		85	52 - 141
Endosulfan II	0.200	0.181		ug/L		91	60 - 140
Endosulfan sulfate	0.200	0.191		ug/L		96	60 - 151
Endrin	0.200	0.180		ug/L		90	66 - 150
Endrin aldehyde	0.200	0.194		ug/L		97	16 - 200
Endrin ketone	0.200	0.187		ug/L		93	55 - 156
gamma-BHC (Lindane)	0.100	0.0885		ug/L		89	54 - 134
Heptachlor	0.100	0.0813		ug/L		81	10 - 200
Heptachlor epoxide	0.100	0.0879		ug/L		88	49 - 142
Methoxychlor	0.200	0.180		ug/L		90	13 - 186
4,4'-DDD	0.200	0.176		ug/L		88	49 - 144
4,4'-DDE	0.200	0.173		ug/L		87	46 - 144
4,4'-DDT	0.200	0.186		ug/L		93	48 - 166
Aldrin	0.100	0.0796		ug/L		80	14 - 168
alpha-BHC	0.100	0.0829		ug/L		83	43 - 138

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

Lab Sample ID: LCS 680-238208/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	0.100	0.132		ug/L		132	38 - 158

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*75*		*36 - 130*
Tetrachloro-m-xylene	*73*		*36 - 130*
DCB Decachlorobiphenyl	*51*		*40 - 130*
DCB Decachlorobiphenyl	*51*		*40 - 130*

Lab Sample ID: LCS 680-238208/20-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	9.03		ug/L		90	38 - 172
PCB-1260	10.0	7.56		ug/L		76	46 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*36 - 130*
Tetrachloro-m-xylene	*75*		*36 - 130*
DCB Decachlorobiphenyl	*41*		*40 - 130*
DCB Decachlorobiphenyl	*40*		*40 - 130*

Lab Sample ID: LCS 680-238208/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238905 — **Prep Batch: 238208**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	10.0	8.12		ug/L		81	35 - 138
Chlordane (technical)	5.00	5.27		ug/L		105	56 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*71*		*36 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*
DCB Decachlorobiphenyl	*50*		*40 - 130*
DCB Decachlorobiphenyl	*48*		*40 - 130*

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.0048	U J	0.0985	0.0901		ug/L		91	23 - 191
Dieldrin	0.0091	U J	0.197	0.171		ug/L		87	61 - 136
Endosulfan I	0.0042	U J	0.0985	0.0774		ug/L		79	52 - 141
Endosulfan II	0.0097	U J	0.197	0.172		ug/L		87	60 - 140
Endosulfan sulfate	0.0068	U J	0.197	0.185		ug/L		94	60 - 151
Endrin	0.0096	U J	0.197	0.176		ug/L		89	66 - 150
Endrin aldehyde	0.016	U J	0.197	0.191		ug/L		97	16 - 200

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

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin ketone	0.0084	U J	0.197	0.184		ug/L		93	55 - 156
gamma-BHC (Lindane)	0.0059	U J	0.0985	0.0854		ug/L		87	54 - 134
Heptachlor	0.0070	U J	0.0985	0.0752		ug/L		76	10 - 200
Heptachlor epoxide	0.0060	U J	0.0985	0.0850		ug/L		86	49 - 142
Methoxychlor	0.013	U	0.197	0.196		ug/L		100	13 - 186
4,4'-DDD	0.0065	U J	0.197	0.177		ug/L		90	49 - 144
4,4'-DDE	0.0077	U J	0.197	0.163		ug/L		83	46 - 144
4,4'-DDT	0.0096	U J	0.197	0.184		ug/L		94	48 - 166
Aldrin	0.0070	U J	0.0985	0.0719		ug/L		73	14 - 168
alpha-BHC	0.0057	U J	0.0985	0.0690		ug/L		70	43 - 138
beta-BHC	0.0067	U J	0.0985	0.0850	J	ug/L		86	38 - 158

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*58*		*36 - 130*
Tetrachloro-m-xylene	*60*		*36 - 130*
DCB Decachlorobiphenyl	*54*		*40 - 130*
DCB Decachlorobiphenyl	*54*		*40 - 130*

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.071	U	9.81	8.11		ug/L		83	38 - 172
PCB-1260	0.20	U	9.81	7.16		ug/L		73	46 - 138

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*67*		*36 - 130*
Tetrachloro-m-xylene	*64*		*36 - 130*
DCB Decachlorobiphenyl	*65*		*40 - 130*
DCB Decachlorobiphenyl	*61*		*40 - 130*

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	0.50	U	9.81	8.69		ug/L		89	35 - 138
Chlordane (technical)	0.099	U	4.90	5.49		ug/L		112	56 - 144

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*75*		*36 - 130*
Tetrachloro-m-xylene	*71*		*36 - 130*
DCB Decachlorobiphenyl	*74*		*40 - 130*
DCB Decachlorobiphenyl	*72*		*40 - 130*

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

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	0.0048	U J	0.0909	0.0920		ug/L		101	23 - 191	2	50
Dieldrin	0.0091	U J	0.182	0.181		ug/L		100	61 - 136	6	50
Endosulfan I	0.0042	U J	0.0909	0.0838		ug/L		92	52 - 141	8	50
Endosulfan II	0.0097	U J	0.182	0.177		ug/L		97	60 - 140	3	50
Endosulfan sulfate	0.0068	U J	0.182	0.190		ug/L		104	60 - 151	3	50
Endrin	0.0096	U J	0.182	0.186		ug/L		102	66 - 150	5	50
Endrin aldehyde	0.016	U J	0.182	0.193		ug/L		106	16 - 200	1	50
Endrin ketone	0.0084	U J	0.182	0.181		ug/L		99	55 - 156	2	50
gamma-BHC (Lindane)	0.0059	U J	0.0909	0.0886		ug/L		97	54 - 134	4	50
Heptachlor	0.0070	U J	0.0909	0.0864		ug/L		95	10 - 200	14	50
Heptachlor epoxide	0.0060	U J	0.0909	0.0906		ug/L		100	49 - 142	6	50
Methoxychlor	0.013	U	0.182	0.189		ug/L		104	13 - 186	4	50
4,4'-DDD	0.0065	U J	0.182	0.179		ug/L		98	49 - 144	1	50
4,4'-DDE	0.0077	U J	0.182	0.180		ug/L		99	46 - 144	10	50
4,4'-DDT	0.0096	U J	0.182	0.195		ug/L		107	48 - 166	6	50
Aldrin	0.0070	U J	0.0909	0.0846		ug/L		93	14 - 168	16	50
alpha-BHC	0.0057	U J	0.0909	0.0854		ug/L		94	43 - 138	21	50
beta-BHC	0.0067	U J	0.0909	0.107		ug/L		118	38 - 158	23	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*83*		*36 - 130*
Tetrachloro-m-xylene	*81*		*36 - 130*
DCB Decachlorobiphenyl	*72*		*40 - 130*
DCB Decachlorobiphenyl	*71*		*40 - 130*

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.071	U	9.25	8.34		ug/L		90	38 - 172	3	50
PCB-1260	0.20	U	9.25	7.08		ug/L		77	46 - 138	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*71*		*36 - 130*
Tetrachloro-m-xylene	*68*		*36 - 130*
DCB Decachlorobiphenyl	*67*		*40 - 130*
DCB Decachlorobiphenyl	*64*		*40 - 130*

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238947 — **Prep Batch: 238208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene	0.50	U	9.36	8.52		ug/L		91	35 - 138	2	50
Chlordane (technical)	0.099	U	4.68	5.30		ug/L		113	56 - 144	4	50

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

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 238947

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 238208

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*73*		*36 - 130*
Tetrachloro-m-xylene	*69*		*36 - 130*
DCB Decachlorobiphenyl	*74*		*40 - 130*
DCB Decachlorobiphenyl	*71*		*40 - 130*

Lab Sample ID: MB 680-239184/9-A
Matrix: Water
Analysis Batch: 240235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	0.50	U	5.0	0.50	ug/L		06/04/12 15:15	06/12/12 11:35	1
delta-BHC	0.0048	U	0.050	0.0048	ug/L		06/04/12 15:15	06/12/12 11:35	1
Dieldrin	0.0091	U	0.10	0.0091	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endosulfan I	0.0042	U	0.050	0.0042	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endosulfan II	0.0098	U	0.10	0.0098	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endosulfan sulfate	0.0068	U	0.10	0.0068	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endrin	0.0097	U	0.10	0.0097	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endrin aldehyde	0.016	U	0.10	0.016	ug/L		06/04/12 15:15	06/12/12 11:35	1
Endrin ketone	0.0084	U	0.10	0.0084	ug/L		06/04/12 15:15	06/12/12 11:35	1
gamma-BHC (Lindane)	0.0059	U	0.050	0.0059	ug/L		06/04/12 15:15	06/12/12 11:35	1
Heptachlor	0.0070	U	0.050	0.0070	ug/L		06/04/12 15:15	06/12/12 11:35	1
Heptachlor epoxide	0.0060	U	0.050	0.0060	ug/L		06/04/12 15:15	06/12/12 11:35	1
Methoxychlor	0.013	U	0.10	0.013	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1016	0.071	U	1.0	0.071	ug/L		06/04/12 15:15	06/12/12 11:35	1
4,4'-DDD	0.0065	U	0.10	0.0065	ug/L		06/04/12 15:15	06/12/12 11:35	1
4,4'-DDE	0.0077	U	0.10	0.0077	ug/L		06/04/12 15:15	06/12/12 11:35	1
4,4'-DDT	0.0097	U	0.10	0.0097	ug/L		06/04/12 15:15	06/12/12 11:35	1
Aldrin	0.0070	U	0.050	0.0070	ug/L		06/04/12 15:15	06/12/12 11:35	1
alpha-BHC	0.0057	U	0.050	0.0057	ug/L		06/04/12 15:15	06/12/12 11:35	1
beta-BHC	0.0067	U	0.050	0.0067	ug/L		06/04/12 15:15	06/12/12 11:35	1
Chlordane (technical)	0.10	U	0.50	0.10	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1221	0.28	U	2.0	0.28	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1232	0.11	U	1.0	0.11	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1242	0.18	U	1.0	0.18	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1248	0.36	U	1.0	0.36	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1254	0.26	U	1.0	0.26	ug/L		06/04/12 15:15	06/12/12 11:35	1
PCB-1260	0.20	U	1.0	0.20	ug/L		06/04/12 15:15	06/12/12 11:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*36 - 130*	*06/04/12 15:15*	*06/12/12 11:35*	*1*
Tetrachloro-m-xylene	*71*		*36 - 130*	*06/04/12 15:15*	*06/12/12 11:35*	*1*
DCB Decachlorobiphenyl	*76*		*40 - 130*	*06/04/12 15:15*	*06/12/12 11:35*	*1*
DCB Decachlorobiphenyl	*66*		*40 - 130*	*06/04/12 15:15*	*06/12/12 11:35*	*1*

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

Lab Sample ID: LCS 680-239184/10-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240235 — **Prep Batch: 239184**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
delta-BHC	0.100	0.0872		ug/L		87	23 - 191
Dieldrin	0.200	0.176		ug/L		88	61 - 136
Endosulfan I	0.100	0.0852		ug/L		85	52 - 141
Endosulfan II	0.200	0.188		ug/L		94	60 - 140
Endosulfan sulfate	0.200	0.205		ug/L		102	60 - 151
Endrin	0.200	0.184	M	ug/L		92	66 - 150
Endrin aldehyde	0.200	0.208		ug/L		104	16 - 200
Endrin ketone	0.200	0.350	Q	ug/L		175	55 - 156
gamma-BHC (Lindane)	0.100	0.0829		ug/L		83	54 - 134
Heptachlor	0.100	0.0815		ug/L		82	10 - 200
Heptachlor epoxide	0.100	0.0841		ug/L		84	49 - 142
Methoxychlor	0.200	0.205		ug/L		103	13 - 186
4,4'-DDD	0.200	0.184		ug/L		92	49 - 144
4,4'-DDE	0.200	0.172		ug/L		86	46 - 144
4,4'-DDT	0.200	0.194		ug/L		97	48 - 166
Aldrin	0.100	0.0753		ug/L		75	14 - 168
alpha-BHC	0.100	0.0798		ug/L		80	43 - 138
beta-BHC	0.100	0.116		ug/L		116	38 - 158

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*70*		*36 - 130*
Tetrachloro-m-xylene	*68*		*36 - 130*
DCB Decachlorobiphenyl	*84*		*40 - 130*
DCB Decachlorobiphenyl	*66*		*40 - 130*

Lab Sample ID: LCS 680-239184/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240235 — **Prep Batch: 239184**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	7.93		ug/L		79	38 - 172
PCB-1260	10.0	7.40		ug/L		74	46 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*66*		*36 - 130*
Tetrachloro-m-xylene	*65*		*36 - 130*
DCB Decachlorobiphenyl	*75*		*40 - 130*
DCB Decachlorobiphenyl	*62*		*40 - 130*

Lab Sample ID: LCS 680-239184/16-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240235 — **Prep Batch: 239184**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	10.0	7.37		ug/L		74	35 - 138
Chlordane (technical)	5.00	5.04		ug/L		101	56 - 144

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

Lab Sample ID: LCS 680-239184/16-A
Matrix: Water
Analysis Batch: 240235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239184

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	*72*		*36 - 130*
Tetrachloro-m-xylene	*69*		*36 - 130*
DCB Decachlorobiphenyl	*68*		*40 - 130*
DCB Decachlorobiphenyl	*51*		*40 - 130*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique

Lab Sample ID: MB 180-36944/1-A
Matrix: Water
Analysis Batch: 38389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	0.11	U	1.0	0.11	ug/L		05/23/12 12:00	06/07/12 18:10	1
Bolstar	0.11	U	1.0	0.11	ug/L		05/23/12 12:00	06/07/12 18:10	1
Chlorpyrifos	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1
Coumaphos	0.15	U	1.0	0.15	ug/L		05/23/12 12:00	06/07/12 18:10	1
Demeton, Total	0.16	U	2.0	0.16	ug/L		05/23/12 12:00	06/07/12 18:10	1
Demeton-O	0.094	U	1.0	0.094	ug/L		05/23/12 12:00	06/07/12 18:10	1
Demeton-S	0.071	U	1.0	0.071	ug/L		05/23/12 12:00	06/07/12 18:10	1
Diazinon	0.094	U	1.0	0.094	ug/L		05/23/12 12:00	06/07/12 18:10	1
Dichlorvos	0.085	U	1.0	0.085	ug/L		05/23/12 12:00	06/07/12 18:10	1
Dimethoate	0.12	U	1.0	0.12	ug/L		05/23/12 12:00	06/07/12 18:10	1
Disulfoton	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1
EPN	0.12	U	1.0	0.12	ug/L		05/23/12 12:00	06/07/12 18:10	1
Mocap	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1
Famphur	0.12	U	1.0	0.12	ug/L		05/23/12 12:00	06/07/12 18:10	1
Fensulfothion	0.17	U	1.0	0.17	ug/L		05/23/12 12:00	06/07/12 18:10	1
Fenthion	0.085	U	1.0	0.085	ug/L		05/23/12 12:00	06/07/12 18:10	1
Malathion	0.11	U	1.0	0.11	ug/L		05/23/12 12:00	06/07/12 18:10	1
Parathion	0.16	U	1.0	0.16	ug/L		05/23/12 12:00	06/07/12 18:10	1
Methyl parathion	0.11	U	1.0	0.11	ug/L		05/23/12 12:00	06/07/12 18:10	1
Mevinphos	0.098	U	1.0	0.098	ug/L		05/23/12 12:00	06/07/12 18:10	1
Phorate	0.092	U	1.0	0.092	ug/L		05/23/12 12:00	06/07/12 18:10	1
Ronnel	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1
Stirophos	0.096	U	1.0	0.096	ug/L		05/23/12 12:00	06/07/12 18:10	1
Sulfotepp	0.095	U	1.0	0.095	ug/L		05/23/12 12:00	06/07/12 18:10	1
Thionazin	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1
Tokuthion	0.094	U	1.0	0.094	ug/L		05/23/12 12:00	06/07/12 18:10	1
Trichloronate	0.099	U	1.0	0.099	ug/L		05/23/12 12:00	06/07/12 18:10	1
O,O,O-Triethyl phosphorothioate	0.10	U	1.0	0.10	ug/L		05/23/12 12:00	06/07/12 18:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tributyl phosphate	*90*		*49 - 122*	*05/23/12 12:00*	*06/07/12 18:10*	*1*
Tributyl phosphate	*96*		*49 - 122*	*05/23/12 12:00*	*06/07/12 18:10*	*1*
Triphenylphosphate	*91*		*45 - 145*	*05/23/12 12:00*	*06/07/12 18:10*	*1*
Triphenylphosphate	*99*		*45 - 145*	*05/23/12 12:00*	*06/07/12 18:10*	*1*

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: LCS 180-36944/2-A | **Client Sample ID: Lab Control Sample**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 38389 | **Prep Batch: 36944**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Azinphos-methyl	10.0	9.56		ug/L		96	40 - 150
Bolstar	10.0	11.3		ug/L		113	50 - 150
Chlorpyrifos	10.0	10.6		ug/L		106	50 - 130
Coumaphos	10.0	10.0		ug/L		100	50 - 150
Demeton-O	10.0	12.2		ug/L		122	10 - 150
Demeton-S	10.0	10.3		ug/L		103	10 - 150
Diazinon	10.0	10.6		ug/L		106	50 - 150
Dichlorvos	10.0	12.3		ug/L		123	30 - 150
Dimethoate	10.0	12.5		ug/L		125	26 - 136
Disulfoton	10.0	11.1		ug/L		111	45 - 124
EPN	10.0	10.2		ug/L		102	50 - 150
Mocap	10.0	12.0		ug/L		120	40 - 150
Famphur	10.0	11.3		ug/L		113	52 - 131
Fensulfothion	10.0	11.5		ug/L		115	38 - 150
Fenthion	10.0	11.9		ug/L		119	10 - 150
Malathion	10.0	10.9		ug/L		109	50 - 150
Parathion	10.0	6.63	J	ug/L		66	56 - 125
Methyl parathion	10.0	10.6		ug/L		106	41 - 148
Mevinphos	10.0	11.9		ug/L		119	30 - 150
Phorate	10.0	11.6		ug/L		116	41 - 135
Ronnel	10.0	10.4		ug/L		104	50 - 150
Stirophos	10.0	11.4		ug/L		114	50 - 150
Sulfotepp	10.0	10.7		ug/L		107	56 - 128
Thionazin	10.0	11.1		ug/L		111	44 - 128
Tokuthion	10.0	10.1		ug/L		101	50 - 150
Trichloronate	10.0	11.0		ug/L		110	10 - 150
O,O,O-Triethyl phosphorothioate	10.0	9.94		ug/L		99	31 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tributyl phosphate	*118*		*49 - 122*
Tributyl phosphate	*126*	*J*	*49 - 122*
Triphenylphosphate	*106*		*45 - 145*
Triphenylphosphate	*109*		*45 - 145*

Lab Sample ID: 680-79687-20 MS | **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 38389 | **Prep Batch: 36944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Azinphos-methyl	0.11	U	9.43	9.39		ug/L		100	40 - 150
Bolstar	0.10	U	9.43	10.8		ug/L		115	50 - 150
Chlorpyrifos	0.097	U	9.43	9.97		ug/L		106	50 - 130
Coumaphos	0.14	U	9.43	9.76		ug/L		103	50 - 150
Demeton-O	0.089	U	9.43	11.8		ug/L		125	10 - 150
Demeton-S	0.068	U	9.43	10.2		ug/L		108	10 - 150
Diazinon	0.090	U	9.43	9.79		ug/L		104	50 - 150
Dichlorvos	0.081	U	9.43	11.4		ug/L		121	30 - 150
Dimethoate	0.11	U	9.43	11.8		ug/L		125	26 - 136

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: 680-79687-20 MS | **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 38389 | **Prep Batch: 36944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Disulfoton	0.096	U	9.43	10.5		ug/L		111	45 - 124
EPN	0.11	U	9.43	10.5		ug/L		111	50 - 150
Mocap	0.096	U	9.43	11.3		ug/L		120	40 - 150
Famphur	0.12	U	9.43	10.8		ug/L		114	52 - 131
Fensulfothion	0.16	U	9.43	11.2		ug/L		119	38 - 150
Fenthion	0.081	U	9.43	11.3		ug/L		120	10 - 150
Malathion	0.10	U	9.43	10.3		ug/L		109	50 - 150
Parathion	0.15	U	9.43	11.3		ug/L		119	56 - 125
Methyl parathion	0.11	U	9.43	10.4		ug/L		110	41 - 148
Mevinphos	0.093	U	9.43	11.3		ug/L		120	30 - 150
Phorate	0.088	U	9.43	10.9		ug/L		116	41 - 135
Ronnel	0.097	U	9.43	9.85		ug/L		104	50 - 150
Stirophos	0.091	U	9.43	10.8		ug/L		115	50 - 150
Sulfotepp	0.090	U	9.43	9.99		ug/L		106	56 - 128
Thionazin	0.095	U	9.43	10.3		ug/L		110	44 - 128
Tokuthion	0.089	U	9.43	9.75		ug/L		103	50 - 150
Trichloronate	0.094	U	9.43	10.3		ug/L		109	10 - 150
O,O,O-Triethyl phosphorothioate	0.095	U	9.43	9.18		ug/L		97	31 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tributyl phosphate	*116*		*49 - 122*
Tributyl phosphate	*121*		*49 - 122*
Triphenylphosphate	*105*		*45 - 145*
Triphenylphosphate	*108*		*45 - 145*

Lab Sample ID: 680-79687-20 MSD | **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 38389 | **Prep Batch: 36944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Azinphos-methyl	0.11	U	9.52	9.78		ug/L		103	40 - 150	4	30
Bolstar	0.10	U	9.52	11.0		ug/L		116	50 - 150	2	30
Chlorpyrifos	0.097	U	9.52	9.97		ug/L		105	50 - 130	0	25
Coumaphos	0.14	U	9.52	10.0		ug/L		105	50 - 150	2	30
Demeton-O	0.089	U	9.52	11.8		ug/L		124	10 - 150	1	30
Demeton-S	0.068	U	9.52	10.5		ug/L		110	10 - 150	3	30
Diazinon	0.090	U	9.52	9.91		ug/L		104	50 - 150	1	30
Dichlorvos	0.081	U	9.52	11.6		ug/L		121	30 - 150	1	30
Dimethoate	0.11	U	9.52	12.1		ug/L		127	26 - 136	2	22
Disulfoton	0.096	U	9.52	10.6		ug/L		111	45 - 124	1	30
EPN	0.11	U	9.52	10.8		ug/L		113	50 - 150	3	30
Mocap	0.096	U	9.52	11.4		ug/L		120	40 - 150	1	30
Famphur	0.12	U	9.52	10.9		ug/L		115	52 - 131	2	24
Fensulfothion	0.16	U	9.52	11.5		ug/L		121	38 - 150	2	30
Fenthion	0.081	U	9.52	11.3		ug/L		118	10 - 150	0	30
Malathion	0.10	U	9.52	10.3		ug/L		109	50 - 150	0	30
Parathion	0.15	U	9.52	11.5		ug/L		121	56 - 125	3	21
Methyl parathion	0.11	U	9.52	10.5		ug/L		110	41 - 148	2	30

Method: 8141B - Organophosphorous Compounds by Gas Chromatography, Capillary Column Technique (Continued)

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 38389 — **Prep Batch: 36944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mevinphos	0.093	U	9.52	11.5		ug/L		121	30 - 150	1	30
Phorate	0.088	U	9.52	10.9		ug/L		115	41 - 135	0	24
Ronnel	0.097	U	9.52	10.0		ug/L		105	50 - 150	2	30
Stirophos	0.091	U	9.52	11.1		ug/L		117	50 - 150	3	30
Sulfotepp	0.090	U	9.52	10.1		ug/L		106	56 - 128	1	23
Thionazin	0.095	U	9.52	10.4		ug/L		109	44 - 128	1	21
Tokuthion	0.089	U	9.52	9.78		ug/L		103	50 - 150	0	30
Trichloronate	0.094	U	9.52	10.5		ug/L		110	10 - 150	2	30
O,O,O-Triethyl phosphorothioate	0.095	U	9.52	9.36		ug/L		98	31 - 131	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tributyl phosphate	*116*		*49 - 122*
Tributyl phosphate	*121*		*49 - 122*
Triphenylphosphate	*104*		*45 - 145*
Triphenylphosphate	*107*		*45 - 145*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 680-238328/17-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

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		05/24/12 08:36	05/26/12 17:00	1
2,4-DB	0.15	U	0.50	0.15	ug/L		05/24/12 08:36	05/26/12 17:00	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		05/24/12 08:36	05/26/12 17:00	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dalapon	0.10	U	10	0.10	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dicamba	0.085	U	0.50	0.085	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		05/24/12 08:36	05/26/12 17:00	1
Dinoseb	0.16	U	6.0	0.16	ug/L		05/24/12 08:36	05/26/12 17:00	1
MCPA	17	U	120	17	ug/L		05/24/12 08:36	05/26/12 17:00	1
Mecoprop	19	U	120	19	ug/L		05/24/12 08:36	05/26/12 17:00	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		05/24/12 08:36	05/26/12 17:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*81*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:00*	*1*
DCAA	*76*		*52 - 151*	*05/24/12 08:36*	*05/26/12 17:00*	*1*

Lab Sample ID: LCS 680-238328/18-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

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	2.43		ug/L		121	34 - 157
2,4,5-T	2.00	1.49		ug/L		74	59 - 130
Silvex (2,4,5-TP)	2.00	1.55		ug/L		78	64 - 130

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

Lab Sample ID: LCS 680-238328/18-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	2.00	1.56	J	ug/L		78	24 - 130
Dicamba	2.00	1.88		ug/L		94	66 - 130
Dichlorprop	2.00	1.53		ug/L		77	65 - 152
Dinoseb	2.00	1.51	J	ug/L		75	10 - 130
MCPA	200	167		ug/L		83	40 - 130
Mecoprop	200	190		ug/L		95	53 - 130
Pentachlorophenol	2.00	1.37	Q	ug/L		68	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*89*		*52 - 151*

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.035	U	2.00	1.68		ug/L		84	63 - 130
2,4-DB	0.14	U	2.00	2.12		ug/L		106	34 - 157
2,4,5-T	0.059	U	2.00	1.55		ug/L		78	59 - 130
Silvex (2,4,5-TP)	0.059	U	2.00	1.45		ug/L		73	64 - 130
Dalapon	0.095	U	2.00	1.37	J	ug/L		68	24 - 130
Dicamba	0.081	U	2.00	1.57		ug/L		79	66 - 130
Dichlorprop	0.14	U	2.00	1.42		ug/L		71	65 - 152
Dinoseb	0.15	U	2.00	1.06	J	ug/L		53	10 - 130
MCPA	16	U	200	160		ug/L		80	40 - 130
Mecoprop	18	U	200	161		ug/L		81	53 - 130
Pentachlorophenol	0.035	U J Q	2.00	1.34	J	ug/L		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCAA	*78*		*52 - 151*
DCAA	*82*		*52 - 151*

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238607 — **Prep Batch: 238328**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	0.035	U	2.00	2.04		ug/L		102	63 - 130	19	50
2,4-DB	0.14	U	2.00	2.56		ug/L		128	34 - 157	19	50
2,4,5-T	0.059	U	2.00	1.79		ug/L		90	59 - 130	14	50
Silvex (2,4,5-TP)	0.059	U	2.00	1.77		ug/L		88	64 - 130	19	50
Dalapon	0.095	U	2.00	1.70	J	ug/L		85	24 - 130	22	50
Dicamba	0.081	U	2.00	1.90		ug/L		95	66 - 130	19	50
Dichlorprop	0.14	U	2.00	1.71		ug/L		86	65 - 152	19	50
Dinoseb	0.15	U	2.00	1.31	J	ug/L		66	10 - 130	22	50
MCPA	16	U	200	192		ug/L		96	40 - 130	18	50
Mecoprop	18	U	200	192		ug/L		96	53 - 130	18	50
Pentachlorophenol	0.035	U J Q	2.00	1.63	M	ug/L		82	70 - 130	20	50

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

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 238607

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 238328

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCAA	87		52 - 151
DCAA	95		52 - 151

Lab Sample ID: MB 680-239271/16-A
Matrix: Water
Analysis Batch: 239683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239271

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		06/05/12 07:51	06/06/12 17:29	1
2,4-DB	0.15	U	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 17:29	1
2,4,5-T	0.062	U	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 17:29	1
Silvex (2,4,5-TP)	0.062	U	0.50	0.062	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dalapon	0.10	U	10	0.10	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dicamba	0.085	U	0.50	0.085	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dichlorprop	0.15	U	0.50	0.15	ug/L		06/05/12 07:51	06/06/12 17:29	1
Dinoseb	0.16	U	6.0	0.16	ug/L		06/05/12 07:51	06/06/12 17:29	1
MCPA	17	U	120	17	ug/L		06/05/12 07:51	06/06/12 17:29	1
Mecoprop	19	U	120	19	ug/L		06/05/12 07:51	06/06/12 17:29	1
Pentachlorophenol	0.037	U	0.25	0.037	ug/L		06/05/12 07:51	06/06/12 17:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	45	J	52 - 151	06/05/12 07:51	06/06/12 17:29	1
DCAA	49	M J	52 - 151	06/05/12 07:51	06/06/12 17:29	1

Lab Sample ID: LCS 680-239271/17-A
Matrix: Water
Analysis Batch: 239683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	2.00	1.54		ug/L		77	63 - 130
2,4-DB	2.00	2.25		ug/L		113	34 - 157
2,4,5-T	2.00	1.65		ug/L		83	59 - 130
Silvex (2,4,5-TP)	2.00	1.55		ug/L		78	64 - 130
Dalapon	2.00	1.33	J	ug/L		67	24 - 130
Dicamba	2.00	1.75		ug/L		88	66 - 130
Dichlorprop	2.00	1.48		ug/L		74	65 - 152
Dinoseb	2.00	1.04	J	ug/L		52	10 - 130
MCPA	200	187		ug/L		93	40 - 130
Mecoprop	200	218		ug/L		109	53 - 130
Pentachlorophenol	2.00	1.68	J M	ug/L		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCAA	72		52 - 151
DCAA	86		52 - 151

Method: 8151A - Herbicides (GC) - RE

Lab Sample ID: 680-79687-20 MS
Matrix: Water
Analysis Batch: 239981

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 239271

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D - RE	0.037	U H	2.00	1.42	H	ug/L		71	63 - 130
2,4-DB - RE	0.15	U H	2.00	2.05	H	ug/L		103	34 - 157
2,4,5-T - RE	0.062	U H	2.00	1.36	H	ug/L		68	59 - 130
Silvex (2,4,5-TP) - RE	0.062	U H	2.00	1.42	H	ug/L		71	64 - 130
Dalapon - RE	0.10	U H	2.00	1.22	J H M	ug/L		61	24 - 130
Dicamba - RE	0.085	U H	2.00	1.72	H	ug/L		86	66 - 130
Dichlorprop - RE	0.15	U H	2.00	1.42	H	ug/L		71	65 - 152
Dinoseb - RE	0.16	U H J	2.00	0.954	J H	ug/L		48	10 - 130
MCPA - RE	17	U H	200	151	H	ug/L		75	40 - 130
Mecoprop - RE	19	U H	200	201	H	ug/L		101	53 - 130
Pentachlorophenol - RE	0.037	U H J	2.00	1.43	H	ug/L		71	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCAA - RE	*71*		*52 - 151*
DCAA - RE	*84*		*52 - 151*

Lab Sample ID: 680-79687-20 MSD
Matrix: Water
Analysis Batch: 239981

Client Sample ID: SLMW-12BR-5-12
Prep Type: Total/NA
Prep Batch: 239271

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D - RE	0.037	U H	2.00	1.53	H	ug/L		77	63 - 130	8	50
2,4-DB - RE	0.15	U H	2.00	2.19	H	ug/L		109	34 - 157	6	50
2,4,5-T - RE	0.062	U H	2.00	1.45	H	ug/L		73	59 - 130	6	50
Silvex (2,4,5-TP) - RE	0.062	U H	2.00	1.37	H	ug/L		68	64 - 130	4	50
Dalapon - RE	0.10	U H	2.00	1.24	J H	ug/L		62	24 - 130	2	50
Dicamba - RE	0.085	U H	2.00	1.57	H	ug/L		78	66 - 130	9	50
Dichlorprop - RE	0.15	U H	2.00	1.37	H	ug/L		68	65 - 152	4	50
Dinoseb - RE	0.16	U H J	2.00	1.16	J H	ug/L		58	10 - 130	19	50
MCPA - RE	17	U H	200	172	H	ug/L		86	40 - 130	13	50
Mecoprop - RE	19	U H	200	202	H	ug/L		101	53 - 130	0	50
Pentachlorophenol - RE	0.037	U H J	2.00	1.29	H J	ug/L		65	70 - 130	10	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCAA - RE	*67*		*52 - 151*
DCAA - RE	*80*		*52 - 151*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-238259/1-A
Matrix: Water
Analysis Batch: 238534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 238259

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Barium	0.15	U	1.0	0.15	ug/L		05/24/12 08:00	05/25/12 03:31	1
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 03:31	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 03:31	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 03:31	1

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

Lab Sample ID: MB 680-238259/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.078	U	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 03:31	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 03:31	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 03:31	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:31	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 03:31	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 03:31	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:31	1
Tin	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:31	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 03:31	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 03:31	1
Mercury	0.080	U	0.20	0.080	ug/L		05/24/12 08:00	05/25/12 03:31	1

Lab Sample ID: LCS 680-238259/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	20.0	22.1		ug/L		110	75 - 125
Barium	20.0	21.3		ug/L		106	75 - 125
Antimony	10.0	12.2		ug/L		122	75 - 125
Beryllium	10.0	11.7		ug/L		117	75 - 125
Cadmium	10.0	11.6		ug/L		116	75 - 125
Cobalt	10.0	10.4		ug/L		104	75 - 125
Chromium	20.0	19.2		ug/L		96	75 - 125
Copper	20.0	20.4		ug/L		102	75 - 125
Silver	10.0	11.2		ug/L		112	75 - 125
Lead	10.0	11.1		ug/L		111	75 - 125
Nickel	20.0	19.7		ug/L		99	75 - 125
Selenium	20.0	24.5		ug/L		123	75 - 125
Thallium	8.00	8.29		ug/L		104	75 - 125
Tin	20.0	20.8		ug/L		104	75 - 125
Vanadium	20.0	19.0		ug/L		95	75 - 125
Zinc	20.0	23.7		ug/L		119	75 - 125
Mercury	1.00	0.995		ug/L		99	75 - 125

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.40	U	20.0	20.5		ug/L		102	75 - 125
Barium	41		20.0	60.9		ug/L		98	75 - 125
Antimony	0.99	U	10.0	11.8		ug/L		118	75 - 125
Beryllium	0.39		10.0	11.3		ug/L		109	75 - 125
Cadmium	0.20	U	10.0	10.8		ug/L		108	75 - 125
Cobalt	1.2		10.0	10.9		ug/L		97	75 - 125
Chromium	0.16	U	20.0	18.3		ug/L		91	75 - 125
Copper	0.88	J	20.0	20.3		ug/L		97	75 - 125
Silver	0.10	U	10.0	10.3		ug/L		103	75 - 125

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

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.26	J	10.0	10.8		ug/L		105	75 - 125
Nickel	1.6		20.0	20.6		ug/L		95	75 - 125
Selenium	0.21	U	20.0	21.8		ug/L		109	75 - 125
Thallium	0.10	U	8.00	7.95		ug/L		99	75 - 125
Tin	0.40	U	20.0	20.0		ug/L		100	75 - 125
Vanadium	1.4	U	20.0	18.2		ug/L		91	75 - 125
Zinc	8.2	J	20.0	28.3		ug/L		101	75 - 125
Mercury	0.080	U	1.00	0.922		ug/L		92	75 - 125

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 238259**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.40	U	20.0	20.7		ug/L		103	75 - 125	1	20
Barium	41		20.0	61.7		ug/L		102	75 - 125	1	20
Antimony	0.99	U	10.0	12.1		ug/L		121	75 - 125	3	20
Beryllium	0.39		10.0	11.9		ug/L		115	75 - 125	5	20
Cadmium	0.20	U	10.0	11.3		ug/L		113	75 - 125	4	20
Cobalt	1.2		10.0	11.0		ug/L		98	75 - 125	1	20
Chromium	0.16	U	20.0	18.3		ug/L		91	75 - 125	0	20
Copper	0.88	J	20.0	20.5		ug/L		98	75 - 125	1	20
Silver	0.10	U	10.0	10.6		ug/L		106	75 - 125	3	20
Lead	0.26	J	10.0	10.9		ug/L		107	75 - 125	1	20
Nickel	1.6		20.0	20.6		ug/L		95	75 - 125	0	20
Selenium	0.21	U	20.0	22.5		ug/L		112	75 - 125	3	20
Thallium	0.10	U	8.00	8.05		ug/L		101	75 - 125	1	20
Tin	0.40	U	20.0	20.7		ug/L		103	75 - 125	3	20
Vanadium	1.4	U	20.0	18.3		ug/L		91	75 - 125	0	20
Zinc	8.2	J	20.0	28.7		ug/L		102	75 - 125	1	20
Mercury	0.080	U	1.00	0.939		ug/L		94	75 - 125	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-238269/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238269

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.072	U	0.22	0.072	mg/L			05/23/12 10:36	1

Lab Sample ID: LCS 680-238269/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-NO3	4.42	4.06		mg/L		92	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-238269/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3			4.42	4.07		mg/L		92	90 - 110	0	30

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3	0.36	U	22.1	21.9		mg/L		99	90 - 110		

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	0.36	U	22.1	21.1		mg/L		95	90 - 110	4	30

Lab Sample ID: MB 680-238396/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/23/12 10:36	5

Lab Sample ID: LCS 680-238396/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3			22.1	20.3		mg/L		92	90 - 110		

Lab Sample ID: LCSD 680-238396/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3			22.1	20.4		mg/L		92	90 - 110	0	30

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3	0.36	U	22.1	21.9		mg/L		99	90 - 110		

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	0.36	U	22.1	21.1		mg/L		96	90 - 110	4	30

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-79687-21 MS — **Client Sample ID: SLMW-12AR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-NO3	1.5		22.1	22.9		mg/L		97	90 - 110

Lab Sample ID: 680-79687-21 MSD — **Client Sample ID: SLMW-12AR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	1.5		22.1	22.9		mg/L		97	90 - 110	0	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-238312/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238387 — **Prep Batch: 238312**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0050	U	0.010	0.0050	mg/L		05/24/12 07:30	05/24/12 12:26	1

Lab Sample ID: LCS 680-238312/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238387 — **Prep Batch: 238312**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0505	0.0473		mg/L		94	85 - 115

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238387 — **Prep Batch: 238312**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0050	U	0.0505	0.0493		mg/L		98	85 - 115

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238387 — **Prep Batch: 238312**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0050	U	0.0505	0.0486		mg/L		96	85 - 115	2	20

Lab Sample ID: 680-79690-B-12-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238387 — **Prep Batch: 238312**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.0050	U	0.0050	U	mg/L		NC	20

QC Sample Results

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

TestAmerica Job ID: 680-79687-2

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

Lab Sample ID: MB 680-238478/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238481 — **Prep Batch: 238478**

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	10	U	10	10	mg/L		05/25/12 08:30	05/25/12 09:58	1

Lab Sample ID: LCS 680-238478/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238481 — **Prep Batch: 238478**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			342	264		mg/L		77	50 - 150		

Lab Sample ID: 680-79687-20 MS — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238481 — **Prep Batch: 238478**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	10	U	291	277		mg/L		95	50 - 150		

Lab Sample ID: 680-79687-20 MSD — **Client Sample ID: SLMW-12BR-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238481 — **Prep Batch: 238478**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	10	U	291	276		mg/L		95	50 - 150	0	50

QC Association Summary

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

TestAmerica Job ID: 680-79687-2

GC/MS VOA

Analysis Batch: 238833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8260B	
LCS 680-238833/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-238833/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-238833/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 238853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8260B	
680-79687-22	Trip Blank	Total/NA	Water	8260B	
LCS 680-238853/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-238853/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-238853/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 238959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-12	SLMW-8-5-12	Total/NA	Water	8260B	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8260B	
680-79687-14	SLMW-7-5-12	Total/NA	Water	8260B	
680-79687-19	SW-1-5-12	Total/NA	Water	8260B	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8260B	
LCS 680-238959/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-238959/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-238959/8	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 239215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8260B	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8260B	
LCS 680-239215/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-239215/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-239215/7	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 238359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	3520C	
680-79687-12	SLMW-8-5-12	Total/NA	Water	3520C	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	3520C	
680-79687-14	SLMW-7-5-12	Total/NA	Water	3520C	
680-79687-19	SW-1-5-12	Total/NA	Water	3520C	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	3520C	
LCS 680-238359/14-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-238359/13-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 240036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8270D	238359
680-79687-12	SLMW-8-5-12	Total/NA	Water	8270D	238359

GC/MS Semi VOA (Continued)

Analysis Batch: 240036 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8270D	238359
680-79687-14	SLMW-7-5-12	Total/NA	Water	8270D	238359
680-79687-19	SW-1-5-12	Total/NA	Water	8270D	238359
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8270D	238359
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8270D	238359
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8270D	238359
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8270D	238359
LCS 680-238359/14-A	Lab Control Sample	Total/NA	Water	8270D	238359
MB 680-238359/13-A	Method Blank	Total/NA	Water	8270D	238359

GC Semi VOA

Prep Batch: 36944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	3510C	
680-79687-12	SLMW-8-5-12	Total/NA	Water	3510C	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	3510C	
680-79687-14	SLMW-7-5-12	Total/NA	Water	3510C	
680-79687-19	SW-1-5-12	Total/NA	Water	3510C	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	3510C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3510C	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3510C	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	3510C	
LCS 180-36944/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 180-36944/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 38389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8141B	36944
680-79687-12	SLMW-8-5-12	Total/NA	Water	8141B	36944
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8141B	36944
680-79687-14	SLMW-7-5-12	Total/NA	Water	8141B	36944
680-79687-19	SW-1-5-12	Total/NA	Water	8141B	36944
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8141B	36944
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8141B	36944
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8141B	36944
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8141B	36944
LCS 180-36944/2-A	Lab Control Sample	Total/NA	Water	8141B	36944
MB 180-36944/1-A	Method Blank	Total/NA	Water	8141B	36944

Prep Batch: 238208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	3520C	
680-79687-12	SLMW-8-5-12	Total/NA	Water	3520C	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	3520C	
680-79687-14	SLMW-7-5-12	Total/NA	Water	3520C	
680-79687-19	SW-1-5-12	Total/NA	Water	3520C	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3520C	

GC Semi VOA (Continued)

Prep Batch: 238208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3520C	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	3520C	
LCS 680-238208/15-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-238208/20-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-238208/25-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-238208/14-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 238328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8151A	
680-79687-12	SLMW-8-5-12	Total/NA	Water	8151A	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8151A	
680-79687-14	SLMW-7-5-12	Total/NA	Water	8151A	
680-79687-19	SW-1-5-12	Total/NA	Water	8151A	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8151A	
LCS 680-238328/18-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-238328/17-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 238607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8151A	238328
680-79687-12	SLMW-8-5-12	Total/NA	Water	8151A	238328
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8151A	238328
680-79687-14	SLMW-7-5-12	Total/NA	Water	8151A	238328
680-79687-19	SW-1-5-12	Total/NA	Water	8151A	238328
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8151A	238328
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8151A	238328
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8151A	238328
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8151A	238328
LCS 680-238328/18-A	Lab Control Sample	Total/NA	Water	8151A	238328
MB 680-238328/17-A	Method Blank	Total/NA	Water	8151A	238328

Analysis Batch: 238905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-12	SLMW-8-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-14	SLMW-7-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-19	SW-1-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	8081B/8082A	238208
LCS 680-238208/15-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238208
LCS 680-238208/20-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238208
LCS 680-238208/25-A	Lab Control Sample	Total/NA	Water	8081B/8082A	238208
MB 680-238208/14-A	Method Blank	Total/NA	Water	8081B/8082A	238208

GC Semi VOA (Continued)

Analysis Batch: 238947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	8081B/8082A	238208

Prep Batch: 239184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11 - RE	SLMW-10-5-12	Total/NA	Water	3520C	
680-79687-13 - RE	SLMW-Dup-1-5-12	Total/NA	Water	3520C	
680-79687-19 - RE	SW-1-5-12	Total/NA	Water	3520C	
LCS 680-239184/10-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-239184/13-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-239184/16-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-239184/9-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 239271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11 - RE	SLMW-10-5-12	Total/NA	Water	8151A	
680-79687-13 - RE	SLMW-Dup-1-5-12	Total/NA	Water	8151A	
680-79687-19 - RE	SW-1-5-12	Total/NA	Water	8151A	
680-79687-20 - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-20 MS - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-20 MSD - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	
680-79687-21 - RE	SLMW-12AR-5-12	Total/NA	Water	8151A	
LCS 680-239271/17-A	Lab Control Sample	Total/NA	Water	8151A	
MB 680-239271/16-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 239683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11 - RE	SLMW-10-5-12	Total/NA	Water	8151A	239271
680-79687-13 - RE	SLMW-Dup-1-5-12	Total/NA	Water	8151A	239271
680-79687-19 - RE	SW-1-5-12	Total/NA	Water	8151A	239271
LCS 680-239271/17-A	Lab Control Sample	Total/NA	Water	8151A	239271
MB 680-239271/16-A	Method Blank	Total/NA	Water	8151A	239271

Analysis Batch: 239981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-20 - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	239271
680-79687-20 MS - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	239271
680-79687-20 MSD - RE	SLMW-12BR-5-12	Total/NA	Water	8151A	239271
680-79687-21 - RE	SLMW-12AR-5-12	Total/NA	Water	8151A	239271

Analysis Batch: 240235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11 - RE	SLMW-10-5-12	Total/NA	Water	8081B/8082A	239184
680-79687-13 - RE	SLMW-Dup-1-5-12	Total/NA	Water	8081B/8082A	239184
680-79687-19 - RE	SW-1-5-12	Total/NA	Water	8081B/8082A	239184
LCS 680-239184/10-A	Lab Control Sample	Total/NA	Water	8081B/8082A	239184
LCS 680-239184/13-A	Lab Control Sample	Total/NA	Water	8081B/8082A	239184
LCS 680-239184/16-A	Lab Control Sample	Total/NA	Water	8081B/8082A	239184

GC Semi VOA (Continued)

Analysis Batch: 240235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-239184/9-A	Method Blank	Total/NA	Water	8081B/8082A	239184

Metals

Prep Batch: 238259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-15	SLMW-10-5-12	Total/NA	Water	3030C	
680-79687-16	SLMW-8-5-12	Total/NA	Water	3030C	
680-79687-17	SLMW-Dup-1-5-12	Total/NA	Water	3030C	
680-79687-18	SLMW-7-5-12	Total/NA	Water	3030C	
680-79687-19	SW-1-5-12	Total/NA	Water	3030C	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	3030C	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	3030C	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	3030C	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	3030C	
LCS 680-238259/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-238259/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 238534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-15	SLMW-10-5-12	Total/NA	Water	6020A	238259
680-79687-16	SLMW-8-5-12	Total/NA	Water	6020A	238259
680-79687-17	SLMW-Dup-1-5-12	Total/NA	Water	6020A	238259
680-79687-18	SLMW-7-5-12	Total/NA	Water	6020A	238259
680-79687-19	SW-1-5-12	Total/NA	Water	6020A	238259
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	6020A	238259
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	6020A	238259
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	6020A	238259
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	6020A	238259
LCS 680-238259/2-A	Lab Control Sample	Total/NA	Water	6020A	238259
MB 680-238259/1-A	Method Blank	Total/NA	Water	6020A	238259

General Chemistry

Analysis Batch: 238269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	300.0	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	300.0	
LCS 680-238269/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-238269/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-238269/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 238312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	9012B	
680-79687-12	SLMW-8-5-12	Total/NA	Water	9012B	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	9012B	
680-79687-14	SLMW-7-5-12	Total/NA	Water	9012B	
680-79687-19	SW-1-5-12	Total/NA	Water	9012B	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	9012B	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	9012B	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	9012B	

General Chemistry (Continued)

Prep Batch: 238312 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	9012B	
680-79690-B-12-B DU	Duplicate	Total/NA	Water	9012B	
LCS 680-238312/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 680-238312/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 238387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	9012B	238312
680-79687-12	SLMW-8-5-12	Total/NA	Water	9012B	238312
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	9012B	238312
680-79687-14	SLMW-7-5-12	Total/NA	Water	9012B	238312
680-79687-19	SW-1-5-12	Total/NA	Water	9012B	238312
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	9012B	238312
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	9012B	238312
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	9012B	238312
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	9012B	238312
680-79690-B-12-B DU	Duplicate	Total/NA	Water	9012B	238312
LCS 680-238312/2-A	Lab Control Sample	Total/NA	Water	9012B	238312
MB 680-238312/1-A	Method Blank	Total/NA	Water	9012B	238312

Analysis Batch: 238396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-15	SLMW-10-5-12	Total/NA	Water	300.0	
680-79687-16	SLMW-8-5-12	Total/NA	Water	300.0	
680-79687-17	SLMW-Dup-1-5-12	Total/NA	Water	300.0	
680-79687-18	SLMW-7-5-12	Total/NA	Water	300.0	
680-79687-19	SW-1-5-12	Total/NA	Water	300.0	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	300.0	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	300.0	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	300.0	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	300.0	
680-79687-21 MS	SLMW-12AR-5-12	Total/NA	Water	300.0	
680-79687-21 MSD	SLMW-12AR-5-12	Total/NA	Water	300.0	
LCS 680-238396/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-238396/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-238396/2	Method Blank	Total/NA	Water	300.0	

Prep Batch: 238478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	9030B	
680-79687-12	SLMW-8-5-12	Total/NA	Water	9030B	
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	9030B	
680-79687-14	SLMW-7-5-12	Total/NA	Water	9030B	
680-79687-19	SW-1-5-12	Total/NA	Water	9030B	
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	9030B	
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	9030B	
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	9030B	
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	9030B	
LCS 680-238478/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 680-238478/1-A	Method Blank	Total/NA	Water	9030B	

General Chemistry (Continued)

Analysis Batch: 238481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-11	SLMW-10-5-12	Total/NA	Water	9034	238478
680-79687-12	SLMW-8-5-12	Total/NA	Water	9034	238478
680-79687-13	SLMW-Dup-1-5-12	Total/NA	Water	9034	238478
680-79687-14	SLMW-7-5-12	Total/NA	Water	9034	238478
680-79687-19	SW-1-5-12	Total/NA	Water	9034	238478
680-79687-20	SLMW-12BR-5-12	Total/NA	Water	9034	238478
680-79687-20 MS	SLMW-12BR-5-12	Total/NA	Water	9034	238478
680-79687-20 MSD	SLMW-12BR-5-12	Total/NA	Water	9034	238478
680-79687-21	SLMW-12AR-5-12	Total/NA	Water	9034	238478
LCS 680-238478/2-A	Lab Control Sample	Total/NA	Water	9034	238478
MB 680-238478/1-A	Method Blank	Total/NA	Water	9034	238478

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-11

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238833	05/30/12 15:56	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 12:52	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 14:37	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 17:32	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 17:43	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239683	06/06/12 18:01	GM	TAL SAV
Total/NA	Prep	3520C	RE		239184	06/04/12 15:15	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A	RE	1	240235	06/12/12 13:26	CAR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:29	DAM	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-8-5-12

Lab Sample ID: 680-79687-12

Date Collected: 05/20/12 13:42

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238959	05/31/12 17:11	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 13:20	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 15:03	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 17:47	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 18:07	CAR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:30	DAM	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238959	05/31/12 17:33	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV

Client Sample ID: SLMW-Dup-1-5-12

Lab Sample ID: 680-79687-13

Date Collected: 05/20/12 12:00

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	240036	06/11/12 13:48	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 15:30	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 18:03	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 18:31	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239683	06/06/12 18:17	GM	TAL SAV
Total/NA	Prep	3520C	RE		239184	06/04/12 15:15	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A	RE	1	240235	06/12/12 13:54	CAR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:31	DAM	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-7-5-12

Lab Sample ID: 680-79687-14

Date Collected: 05/20/12 16:00

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238959	05/31/12 17:56	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 14:16	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 15:57	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 18:19	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 18:55	CAR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:32	DAM	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-10-5-12

Lab Sample ID: 680-79687-15

Date Collected: 05/21/12 08:55

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:15	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 15:13	PAT	TAL SAV

Client Sample ID: SLMW-8-5-12 — Lab Sample ID: 680-79687-16

Date Collected: 05/21/12 09:31 — **Matrix: Water**
Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:23	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 15:29	PAT	TAL SAV

Client Sample ID: SLMW-Dup-1-5-12 — Lab Sample ID: 680-79687-17

Date Collected: 05/21/12 12:00 — **Matrix: Water**
Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:30	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 13:41	PAT	TAL SAV

Client Sample ID: SLMW-7-5-12 — Lab Sample ID: 680-79687-18

Date Collected: 05/21/12 09:45 — **Matrix: Water**
Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:37	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 15:44	PAT	TAL SAV

Client Sample ID: SW-1-5-12 — Lab Sample ID: 680-79687-19

Date Collected: 05/21/12 14:30 — **Matrix: Water**
Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238959	05/31/12 18:18	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 14:44	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 16:23	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 18:35	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 19:19	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239683	06/06/12 18:33	GM	TAL SAV
Total/NA	Prep	3520C	RE		239184	06/04/12 15:15	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A	RE	1	240235	06/12/12 14:22	CAR	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:59	BR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:33	DAM	TAL SAV

Client Sample ID: SW-1-5-12

Lab Sample ID: 680-79687-19

Date Collected: 05/21/12 14:30

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	238396	05/23/12 12:24	PAT	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-12BR-5-12

Lab Sample ID: 680-79687-20

Date Collected: 05/21/12 15:30

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238959	05/31/12 14:56	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 15:11	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 16:50	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 18:51	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 19:43	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 19:20	GM	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 05:07	BR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:34	DAM	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 12:39	PAT	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: SLMW-12AR-5-12

Lab Sample ID: 680-79687-21

Date Collected: 05/21/12 16:25

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238853	05/30/12 17:36	RB	TAL SAV
Total/NA	Prep	3520C			238359	05/24/12 15:47	RBS	TAL SAV
Total/NA	Analysis	8270D		1	240036	06/11/12 15:39	MES	TAL SAV
Total/NA	Prep	3510C			36944	05/23/12 12:00	CY	TAL PIT
Total/NA	Analysis	8141B		1	38389	06/07/12 19:56	DE	TAL PIT
Total/NA	Prep	8151A			238328	05/24/12 08:36	CTR	TAL SAV
Total/NA	Analysis	8151A		1	238607	05/26/12 19:07	JK	TAL SAV
Total/NA	Prep	3520C			238208	05/23/12 16:07	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	238905	05/30/12 20:06	CAR	TAL SAV
Total/NA	Prep	8151A	RE		239271	06/05/12 07:51	CTR	TAL SAV
Total/NA	Analysis	8151A	RE	1	239981	06/06/12 19:36	GM	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-79687-2

Client Sample ID: SLMW-12AR-5-12

Lab Sample ID: 680-79687-21

Date Collected: 05/21/12 16:25

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 05:43	BR	TAL SAV
Total/NA	Prep	9012B			238312	05/24/12 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	238387	05/24/12 12:39	DAM	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 14:27	PAT	TAL SAV
Total/NA	Prep	9030B			238478	05/25/12 08:30	CN	TAL SAV
Total/NA	Analysis	9034		1	238481	05/25/12 09:58	CN	TAL SAV

Client Sample ID: Trip Blank

Lab Sample ID: 680-79687-22

Date Collected: 05/20/12 09:43

Matrix: Water

Date Received: 05/22/12 09:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238853	05/30/12 18:08	RB	TAL SAV

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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

Serial Number 53935

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	PROJECT NO.	PROJECT LOCATION (STATE) NC
TAL (LAB) PROJECT MANAGER: Linda Wolfe	P.O. NUMBER: BPA #0048	CONTRACT NO.
CLIENT (SITE) PM: Kevin Haborake	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 West Oglethorpe Ave Savannah GA		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ( )

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ( )

DATE DUE 8

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, ...)	8081B-8082A	8141B	8151A	8270D	9034	9012B	300-45HR	6020A-AP2			REMARKS
								Ice	Ice	Ice	Ice	Ice	NaOH	Ice	HNO3			
								NUMBER OF CONTAINERS SUBMITTED										
5-20-12	0943	SLMW-10-5-12	G	X				2	2	2	2	2	1	—	—			
5-20-12	1342	SLMW-8-5-12	G	X				1	1	1	1	2	1	—	—			
5-20-12	1200	SLMW-Dup-1-5-12	G	X				2	2	2	2	2	1	—	—			
5-20-12	1600	SLMW-7-5-12	G	X				1	1	1	1	2	1	—	—			
5-21-12	0855	SLMW-10-5-12	G	X				—	—	—	—	—	—	1	1			
5-21-12	0930	SLMW-8-5-12	G	X				—	—	—	—	—	—	1	1			
5-21-12	1200	SLMW-Dup-1-5-12	G	X				—	—	—	—	—	—	1	1			
5-21-12	0945	SLMW-7-5-12	G	X				—	—	—	—	—	—	1	1			
5-21-12	1430	SW-1-5-12	G	X				2	2	2	2	2	1	1	1			
5-21-12	1530	SLMW-12BR-5-12	G	X				2	2	2	2	2	1	1	1			
5-21-12	1530	SLMW-MS/MSD-5-12	G	X				2	2	2	2	2	1	1	1			
5-21-12	1625	SLMW-12AR-5-12	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
[signature]	5-21-12	1800						
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
[signature]	5/22/12	0936	YES ( ) NO ( )		680-79637	

TAL 8240-680 (1008)

Serial Number 53934

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	PROJECT NO.	PROJECT LOCATION (STATE) NC
TAL (LAB) PROJECT MANAGER: Linda Wolfe	P.O. NUMBER: BPA # 0048	CONTRACT NO.
CLIENT (SITE) PM: Kevin Huborake	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: US ACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 West Oglethorpe Ave Savannah GA		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY (✓)

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) RA

DATE DUE 8/1

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 826013

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
5-20-12	0943	SLMW-10-5-12	G	X				3	
5-20-12	0943	Trip Blank	G	X				2	
5-20-12	1342	SLMW-8-5-12	G	X				3	
5-20-12	1200	SLMW-Dup-1-5-12	G	X				3	
5-20-12	1600	SLMW-7-5-12	G	X				3	
5-21-12	1430	SW-1-5-12	G	X				3	
5-21-12	1530	SLMW-12BR-5-12	G	X				3	
5-21-12	1530	SLMW-MS/MSD-5-12	G	X				3	
5-21-12	1625	SLMW-12AR-5-12	G	X				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	5/21/12	1800						

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
[signature]	5/22/12	0935	YES ( ) NO ( )		680-79687	

TAL 8240-680 (1008)

Certification Summary

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

TestAmerica Job ID: 680-79687-2

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	Alaska (UST)	State Program	10	UST-104
TestAmerica Savannah	Arkansas DEQ	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	Florida	NELAC	4	E87052
TestAmerica Savannah	GA Dept. of Agriculture	State Program	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Georgia	State Program	4	N/A
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	State Program	4	90084
TestAmerica Savannah	Kentucky (UST)	State Program	4	18
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 DENR	State Program	4	269
TestAmerica Savannah	North Carolina DHHS	State Program	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	Federal		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	State Program	3	9950C
TestAmerica Savannah	West Virginia DEP	State Program	3	94
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAC	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAC	4	E871008
TestAmerica Pittsburgh	Illinois	NELAC	5	002602
TestAmerica Pittsburgh	Kansas	NELAC	7	E-10350

Certification Summary

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

TestAmerica Job ID: 680-79687-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	L-A-B	DoD ELAP		L2314
TestAmerica Pittsburgh	Louisiana	NELAC	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAC	1	203011
TestAmerica Pittsburgh	New Jersey	NELAC	2	PA005
TestAmerica Pittsburgh	New York	NELAC	2	11182
TestAmerica Pittsburgh	North Carolina DENR	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
TestAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014002
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAC	8	STLP
TestAmerica Pittsburgh	Virginia	NELAC	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

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

US Army Corps
of Engineers
Savannah District

DIRECTORATE OF PUBLIC
WORKS and ENVIRONMENT
Fort Bragg, North Carolina

Statistical Analysis of Ground-Water Data
Longstreet Road MSW Landfill
Fort Bragg, North Carolina
Rounds N1 through N31

Permit No. 26-02

October 2012

Prepared by
U.S. Army Corps of Engineers, Savannah District
100 West Oglethorpe Ave.
Savannah, Georgia 31401

Statistical Analysis of Ground-Water Data
Longstreet Road MSW Landfill
Fort Bragg, North Carolina
Rounds N1 through N31

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=31) were conducted June 2012. 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. Both tests confirmed the SSI in MW-10. The well is currently in assessment monitoring and should remain in assessment monitoring.

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, MW-8, and MW-10. The possible SSIs were confirmed by the Sens's Slope Analysis but not the Shewhart-CUSUM Control Chart for all wells. Since the results of the tests 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 beryllium 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 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 except for MW-8. Sen's Slope analysis indicated a possible upward trend in the MW-8 data. The fluctuations in the chlorobenzene data in MW-9, and MW-10 are not considered to be SSIs. MW-8 is currently in assessment monitoring and should remain in assessment monitoring.

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 Cobalt 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 indicated a possible SSI in MW-10. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the cobalt data are not SSIs.

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 diisopropyl ether data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well MW-10. The possible SSI was not confirmed by the Sens's Slope Analysisor the Shewhart-CUSUM Control Chart. The fluctuations in the data 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 selenium 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 toluene 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 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 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: October 2012

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3.0 SELECTION OF STATISTICAL METHOD 2

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Attachment A: ..... Statistical Calculations

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=31) were conducted June 2012. 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.

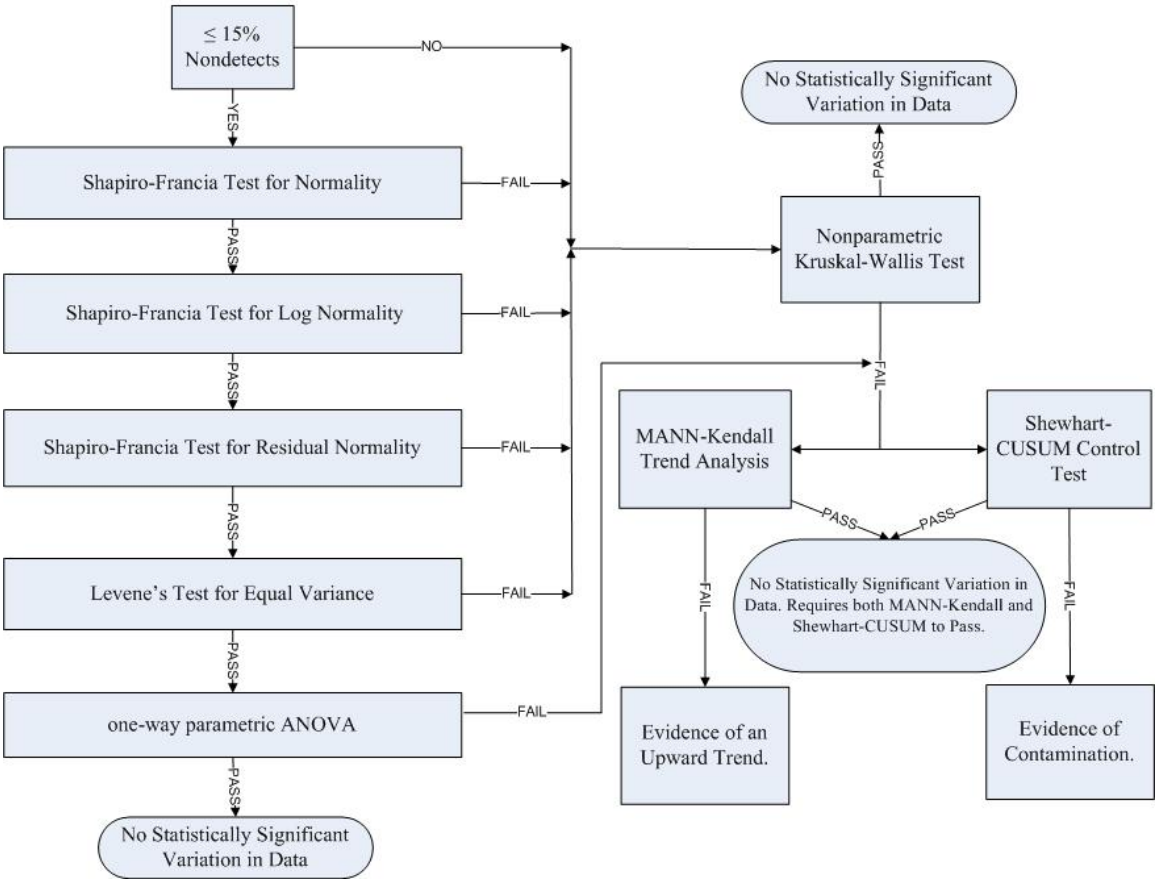
In this case, the Kruskal-Wallis Test performs post-hoc comparisons between background and compliance well data to determine which wells, if any, show evidence of contamination. If the difference between the average ranks and the mean background rank of any individual well exceeds the critical difference 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 June 2012. 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. Both tests confirmed the SSI in MW-10. The well is currently in assessment monitoring and should remain in assessment monitoring.

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, MW-8, and MW-10. The possible SSIs were confirmed by the Sens's Slope Analysis but not the Shewhart-CUSUM Control Chart for all wells. Since the results of the tests 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 beryllium 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 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 except for MW-8. Sen's Slope analysis indicated a possible upward trend in the MW-8 data. The fluctuations in the chlorobenzene data in MW-9, and MW-10 are not considered to be SSIs. MW-8 is currently in assessment monitoring and should remain in assessment monitoring.

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 Cobalt 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 indicated a possible SSI in MW-10. The SSI was not confirmed by either the Sens's Slope Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the cobalt data are not SSIs.

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 diisopropyl ether data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well MW-10. The possible SSI was not confirmed by the Sens's Slope Analysisor the Shewhart-CUSUM Control Chart. The fluctuations in the data 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 selenium 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 toluene 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 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 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

The results of the analysis indicate that assessment monitoring should be continued. 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: 254
Total Non-Detect: 139
Percent Non-Detects: 54.7244%
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-11R	32	10 (31.25%)	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
			6/5/2012	0.29 J	0.29 J	
MW-10	32	8 (25%)	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	
			6/5/2012	1	1	
MW-8	31	6 (19.3548%)	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
			6/5/2012	2.1	2.1
MW-7	32	24 (75%)	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
			6/5/2012	ND<0.25 U	ND<0.25 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<0.25		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
			6/5/2012	ND<0.25 U	ND<0.25 U	
MW-9	32	11 (34.375%)	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	
			6/5/2012	2.3	2.3	
MW-12BR	22	19 (86.3636%)	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	
		6/5/2012	ND<0.25 U	ND<0.25 U		
MW-12AR	22	10 (45.4545%)	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	
		6/5/2012	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: 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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.747777	7.55021	-0.343471
2	0.125	-2.457271	3.5884	-0.65063
3	0.125	-2.290361	8.8342	-0.936925
4	0.125	-2.170092	3.5435	-1.20819
5	0.125	-2.074852	7.8485	-1.46754
6	0.125	-1.995393	1.8301	-1.71697
7	0.125	-1.926843	5.5428	-1.95782
8	0.125	-1.866293	9.0258	-2.19111
9	0.125	-1.811914	2.3088	-2.4176
10	0.125	-1.762414	5.4149	-2.6379
11	0.125	-1.716884	8.3626	-2.85251
12	0.125	-1.674665	1.1671	-3.06184
13	0.125	-1.644855	3.8726	-3.26745
14	0.125	-1.607255	6.4559	-3.46835
15	0.125	-1.571795	8.9264	-3.66483
16	0.125	-1.5382	61.2925	-3.8571
17	0.125	-1.506263	5.5613	-4.04539
18	0.125	-1.475796	5.7393	-4.22986
19	0.125	-1.446636	7.832	-4.41069
20	0.125	-1.418656	9.8446	-4.58802
21	0.125	-1.391757	1.7815	-4.76199
22	0.125	-1.365817	3.647	-4.93271
23	0.125	-1.340757	5.4446	-5.10031
24	0.125	-1.316527	7.1778	-5.26487
25	0.125	-1.293037	8.8498	-5.4265
26	0.125	-1.275888	0.4776	-5.58599
27	0.125	-1.253578	2.049	-5.74268
28	0.125	-1.231878	3.5665	-5.89667
29	0.125	-1.210738	5.0324	-6.04801
30	0.125	-1.190128	6.4488	-6.19677
31	0.125	-1.17	87.8177	-6.34302
32	0.125	-1.150358	9.141	-6.48682
33	0.125	-1.131139	0.4204	-6.62821
34	0.125	-1.112329	1.6577	-6.76725
35	0.125	-1.0939	92.8543	-6.90398
36	0.125	-1.075849	4.0117	-7.03846
37	0.125	-1.058129	5.1314	-7.17073
38	0.125	-1.040739	6.2145	-7.30082
39	0.29	-1.027899	7.271	-7.59891
40	0.35	-1.011049	8.2932	-7.95277
41	0.41	-0.994457	99.2822	-8.3605
42	0.42	-0.978151	00.239	-8.77132
43	0.47	-0.9621	101.165	-9.22351
44	0.49	-0.946291	102.06	-9.68719
45	0.56	-0.930718	102.926	-10.2084
46	0.62	-0.915365	103.764	-10.7759
47	0.71	-0.900227	104.575	-11.4151
48	0.8	-0.885291	105.358	-12.1233
49	0.83	-0.870551	06.116	-12.8459
50	0.84	-0.855996	106.849	-13.5649
51	0.84	-0.841621	107.557	-14.2719

52	0.92	-0.830953	108.248	-15.0363
53	0.97	-0.816874	108.915	-15.8287
54	1	-0.802956	109.56	-16.6317
55	1	-0.789191	110.183	-17.4209
56	1	-0.775574	110.784	-18.1964
57	1	-0.7621	111.365	-18.9585
58	1	-0.748762	111.926	-19.7073
59	1	-0.735557	112.467	-20.4429
60	1	-0.722479	112.989	-21.1653
61	1	-0.709522	113.492	-21.8749
62	1	-0.696684	113.977	-22.5715
63	1	-0.68396	114.445	-23.2555
64	1	-0.67449	114.9	-23.93
65	1	-0.661955	115.338	-24.5919
66	1	-0.649522	115.76	-25.2415
67	1	-0.637192	116.166	-25.8787
68	1	-0.624956	116.557	-26.5036
69	1	-0.612813	116.932	-27.1164
70	1	-0.60076	117.293	-27.7172
71	1	-0.588793	117.64	-28.306
72	1	-0.576911	117.973	-28.8829
73	1	-0.565108	118.292	-29.448
74	1	-0.553384	118.598	-30.0014
75	1	-0.541736	118.892	-30.5431
76	1	-0.530162	119.173	-31.0733
77	1	-0.521527	119.445	-31.5948
78	1	-0.510074	119.705	-32.1049
79	1	-0.498687	119.954	-32.6036
80	1	-0.487364	120.191	-33.0909
81	1	-0.476105	120.418	-33.567
82	1	-0.464904	120.634	-34.0319
83	1	-0.453763	120.84	-34.4857
84	1	-0.442676	121.036	-34.9284
85	1	-0.431644	121.222	-35.36
86	1	-0.420664	121.399	-35.7807
87	1	-0.409735	121.567	-36.1904
88	1	-0.398855	121.726	-36.5893
89	1	-0.388022	121.877	-36.9773
90	1	-0.379927	122.021	-37.3572
91	1	-0.369171	122.157	-37.7264
92	1	-0.358459	122.286	-38.0849
93	1	-0.347787	122.407	-38.4326
94	1	-0.337155	122.52	-38.7698
95	1	-0.326561	122.627	-39.0964
96	1	-0.316004	122.727	-39.4124
97	1	-0.305481	122.82	-39.7178
98	1	-0.294992	122.907	-40.0128
99	1	-0.284535	122.988	-40.2974
100	1	-0.27411	123.063	-40.5715
101	1	-0.263715	123.133	-40.8352
102	1	-0.253347	123.197	-41.0885
103	1	-0.24559	123.257	-41.3341
104	1	-0.235269	123.313	-41.5694
105	1	-0.224974	123.363	-41.7944
106	1	-0.214702	123.409	-42.0091
107	1	-0.204452	123.451	-42.2135
108	1	-0.194225	123.489	-42.4078
109	1	-0.184017	123.523	-42.5918
110	1	-0.173829	123.553	-42.7656
111	1	-0.163659	123.58	-42.9293
112	1	-0.153505	123.603	-43.0828
113	1	-0.143367	123.624	-43.2261

114	1	-0.133244	123.642	-43.3594
115	1	-0.125661	123.658	-43.485
116	1	-0.115562	123.671	-43.6006
117	1	-0.105474	123.682	-43.7061
118	1	-0.0953969	123.691	-43.8015
119	1	-0.0853288	123.698	-43.8868
120	1	-0.0752698	123.704	-43.9621
121	1	-0.0652187	123.708	-44.0273
122	1	-0.0551734	123.711	-44.0825
123	1	-0.0451348	123.713	-44.1276
124	1	-0.0350997	123.715	-44.1627
125	1	-0.0250691	123.715	-44.1878
126	1	-0.0150408	123.715	-44.2028
127	1	-0.00501359	123.715	-44.2078
128	1	0.00501359	123.716	-44.2028
129	1	0.0150408	123.716	-44.1878
130	1	0.0250691	123.716	-44.1627
131	1	0.0350997	123.718	-44.1276
132	1	0.0451348	123.72	-44.0825
133	1	0.0551734	123.723	-44.0273
134	1	0.0652187	123.727	-43.9621
135	1	0.0752698	123.733	-43.8868
136	1	0.0853288	123.74	-43.8015
137	1	0.0953969	123.749	-43.7061
138	1	0.105474	123.76	-43.6006
139	1	0.115562	123.773	-43.485
140	1	0.125661	123.789	-43.3594
141	1	0.133244	123.807	-43.2261
142	1	0.143367	123.828	-43.0828
143	1	0.153505	123.851	-42.9293
144	1	0.163659	123.878	-42.7656
145	1	0.173829	123.908	-42.5918
146	1	0.184017	123.942	-42.4078
147	1	0.194225	123.98	-42.2135
148	1	0.204452	124.022	-42.0091
149	1	0.214702	124.068	-41.7944
150	1	0.224974	124.118	-41.5694
151	1	0.235269	124.174	-41.3341
152	1	0.24559	124.234	-41.0885
153	1	0.253347	124.298	-40.8352
154	1	0.263715	124.368	-40.5715
155	1	0.27411	124.443	-40.2974
156	1	0.284535	124.524	-40.0128
157	1	0.294992	124.611	-39.7178
158	1	0.305481	124.704	-39.4124
159	1	0.316004	124.804	-39.0964
160	1	0.326561	124.911	-38.7698
161	1.1	0.337155	125.024	-38.3989
162	1.1	0.347787	125.145	-38.0164
163	1.12	0.358459	125.274	-37.6149
164	1.15	0.369171	125.41	-37.1903
165	1.21	0.379927	125.554	-36.7306
166	1.25	0.388022	125.705	-36.2456
167	1.25	0.398855	125.864	-35.747
168	1.26	0.409735	126.032	-35.2308
169	1.3	0.420664	126.209	-34.6839
170	1.35	0.431644	126.395	-34.1012
171	1.38	0.442676	126.591	-33.4903
172	1.39	0.453763	126.797	-32.8596
173	1.5	0.464904	127.013	-32.1622
174	1.6	0.476105	127.24	-31.4004
175	1.6	0.487364	127.477	-30.6207

176	1.68	0.498687		127.726	-29.7829
177	1.91	0.510074		127.986	-28.8086
178	1.91	0.521527		128.258	-27.8125
179	2	0.530162		128.539	-26.7522
180	2	0.541736		128.833	-25.6687
181	2.04	0.553384		129.139	-24.5398
182	2.07	0.565108		129.458	-23.37
183	2.1	0.576911		129.791	-22.1585
184	2.11	0.588793		130.138	-20.9162
185	2.18	0.60076	130.499	-19.6065	
186	2.2	0.612813		130.874	-18.2583
187	2.2	0.624956		131.265	-16.8834
188	2.3	0.637192		131.671	-15.4179
189	2.4	0.649522		132.093	-13.859
190	2.5	0.661955		132.531	-12.2041
191	2.5	0.67449	132.986	-10.5179	
192	2.5	0.68396	133.454	-8.80801	
193	2.6	0.696684		133.939	-6.99663
194	2.86	0.709522		134.442	-4.9674
195	2.9	0.722479		134.964	-2.87221
196	2.9	0.735557		135.505	-0.739093
197	2.99	0.748762		136.066	1.49971
198	3	0.7621	136.647	3.786	
199	3.08	0.775574		137.248	6.17477
200	3.1	0.789191		137.871	8.62127
201	3.11	0.802956		138.516	11.1185
202	3.17	0.816874		139.183	13.708
203	3.24	0.830953		139.874	16.4002
204	3.43	0.841621		140.582	19.287
205	3.5	0.855996		141.315	22.283
206	3.5	0.87055	142.073	25.3299	
207	3.6	0.885291		142.856	28.517
208	3.8	0.900227		143.667	31.9378
209	3.86	0.915365		144.505	35.4711
210	4.05	0.930718		145.371	39.2405
211	4.11	0.946291		146.266	43.1298
212	4.25	0.9621	147.192	47.2187	
213	4.43	0.97815	148.149	51.5519	
214	4.6	0.994457		149.138	56.1264
215	4.7	1.01104	150.16	60.8783	
216	4.8	1.02789	151.217	65.8122	
217	5	1.04073	152.3	71.0158	
218	5.1	1.05812	153.419	76.4123	
219	5.2	1.07584	154.577	82.0066	
220	5.3	1.0939	155.773	87.8043	
221	5.5	1.11232	157.011	93.922	
222	5.7	1.13113	158.29	100.369	
223	5.8	1.15035	159.613	107.042	
224	5.9	1.17	160.982	113.945	
225	6	1.19012	162.399	121.085	
226	6.1	1.21073	163.864	128.471	
227	6.3	1.23187	165.382	136.231	
228	6.9	1.25357	166.953	144.881	
229	7	1.27588	168.581	153.812	
230	7.2	1.29303	170.253	163.122	
231	7.3	1.31652	171.986	172.733	
232	7.6	1.34075	173.784	182.922	
233	8.4	1.36581	175.649	194.395	
234	8.5	1.39175	177.586	206.225	
235	9	1.41865	179.599	218.993	
236	9.9	1.44663	181.692	233.314	
237	10.8	1.47579	183.87	249.253	

238	11	1.50626	186.139	265.822
239	12	1.5382	188.505	284.28
240	12	1.57179	190.975	303.142
241	12	1.60725	193.558	322.429
242	13	1.64485	196.264	343.812
243	14	1.67466	199.068	367.257
244	16	1.71688	202.016	394.727
245	16.2	1.76241	205.122	423.278
246	16.3	1.81191	208.405	452.813
247	18	1.86629	211.888	486.406
248	19	1.92684	215.601	523.016
249	19	1.99539	219.583	560.928
250	19	2.07485	223.888	600.35
251	21	2.17009	228.597	645.922
252	22	2.29036	233.843	696.31
253	22	2.45727	239.881	750.37
254	28	2.74777	247.431	827.308

Data Set Standard Deviation = 4.43079
Numerator = 684438
Denominator = 1.22896e+006
W Statistic = 0.556925 = 684438 / 1.22896e+006

5% Critical value of 0.976 exceeds 0.556925
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.556925
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 = 0.74816
0.74816 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00392157	-2.747	77	41.2292	348.683
2	0.125	0.00784314	-2.457	27	41.2292	334.497
3	0.125	0.0117647	-2.290	36	41.2292	326.346
4	0.125	0.0156863	-2.170	09	41.2292	320.473
5	0.125	0.0196078	-2.074	85	41.2292	315.822
6	0.125	0.0235294	-1.995	39	41.2292	311.942
7	0.125	0.027451	-1.926	84	41.2292	308.594
8	0.125	0.0313725	-1.866	29	41.2292	305.637
9	0.125	0.0352941	-1.811	91	41.2292	302.982
10	0.125	0.0392157	-1.762	41	41.2292	300.564
11	0.125	0.0431373	-1.716	88	41.2292	298.341
12	0.125	0.0470588	-1.674	66	41.2292	296.279
13	0.125	0.0509804	-1.644	85	41.2292	294.824
14	0.125	0.054902	-1.607	25	41.2292	292.987
15	0.125	0.0588235	-1.571	79	41.2292	291.256
16	0.125	0.0627451	-1.538	2	41.2292	289.615
17	0.125	0.0666667	-1.506	26	41.2292	288.056
18	0.125	0.0705882	-1.475	79	41.2292	286.568
19	0.125	0.0745098	-1.446	63	41.2292	285.144
20	0.125	0.0784314	-1.418	65	41.2292	283.778
21	0.125	0.0823529	-1.391	75	41.2292	282.464
22	0.125	0.0862745	-1.365	81	41.2292	281.197
23	0.125	0.0901961	-1.340	75	41.2292	279.974
24	0.125	0.0941176	-1.316	52	41.2292	278.79
25	0.125	0.0980392	-1.293	03	41.2292	277.643
26	0.125	0.101961	-1.275	88	41.2292	276.805
27	0.125	0.105882	-1.253	57	41.2292	275.716
28	0.125	0.109804	-1.231	87	41.2292	274.656
29	0.125	0.113725	-1.210	73	41.2292	273.624
30	0.125	0.117647	-1.190	12	41.2292	272.617
31	0.125	0.121569	-1.17		41.2292	271.635
32	0.125	0.12549	-1.150	35	41.2292	270.675
33	0.125	0.129412	-1.131	13	41.2292	269.737
34	0.125	0.133333	-1.112	32	41.2292	268.818
35	0.125	0.137255	-1.093	9	41.2292	267.919
36	0.125	0.141176	-1.075	84	41.2292	267.037
37	0.125	0.145098	-1.058	12	41.2292	266.172
38	0.125	0.14902	-1.040	73	41.2292	265.322
39	0.29	0.152941	-1.027	89	44.1717	264.695
40	0.35	0.156863	-1.011	04	45.2417	263.872
41	0.41	0.160784	-0.994457		46.3117	263.063
42	0.42	0.164706	-0.978	15	46.49	262.266
43	0.47	0.168627	-0.962	1	47.3817	261.483
44	0.49	0.172549	-0.946291		47.7383	260.711
45	0.56	0.176471	-0.930718		48.9867	259.95
46	0.62	0.180392	-0.915365		50.0567	259.2
47	0.71	0.184314	-0.900227		51.6617	258.461
48	0.8	0.188235	-0.885291		53.2667	257.732

49	0.83	0.192157	-0.870553	53.8017	257.012
50	0.84	0.196078	-0.855996	53.98	256.301
51	0.84	0.2	-0.841621	53.98	255.599
52	0.92	0.203922	-0.830953	55.4067	255.078
53	0.97	0.207843	-0.816874	56.2983	254.391
54	1	0.211765	-0.802956	56.8333	253.711
55	1	0.215686	-0.789191	56.8333	253.039
56	1	0.219608	-0.775574	56.8333	252.374
57	1	0.223529	-0.7621	56.8333	251.716
58	1	0.227451	-0.748762	56.8333	251.065
59	1	0.231373	-0.735557	56.8333	250.42
60	1	0.235294	-0.722479	56.8333	249.781
61	1	0.239216	-0.709522	56.8333	249.148
62	1	0.243137	-0.696684	56.8333	248.521
63	1	0.247059	-0.683965	56.8333	247.9
64	1	0.25098	-0.674495	56.8333	247.438
65	1	0.254902	-0.661955	56.8333	246.825
66	1	0.258824	-0.649522	56.8333	246.218
67	1	0.262745	-0.637192	56.8333	245.616
68	1	0.266667	-0.624956	56.8333	245.019
69	1	0.270588	-0.612813	56.8333	244.426
70	1	0.27451	-0.600765	56.8333	243.837
71	1	0.278431	-0.588793	56.8333	243.253
72	1	0.282353	-0.576911	56.8333	242.672
73	1	0.286275	-0.565108	56.8333	242.096
74	1	0.290196	-0.553384	56.8333	241.524
75	1	0.294118	-0.541736	56.8333	240.955
76	1	0.298039	-0.530162	56.8333	240.39
77	1	0.301961	-0.521527	56.8333	239.968
78	1	0.305882	-0.510074	56.8333	239.409
79	1	0.309804	-0.498687	56.8333	238.853
80	1	0.313725	-0.487364	56.8333	238.3
81	1	0.317647	-0.476105	56.8333	237.75
82	1	0.321569	-0.464904	56.8333	237.203
83	1	0.32549	-0.453763	56.8333	236.659
84	1	0.329412	-0.442676	56.8333	236.117
85	1	0.333333	-0.431644	56.8333	235.579
86	1	0.337255	-0.420664	56.8333	235.042
87	1	0.341176	-0.409735	56.8333	234.509
88	1	0.345098	-0.398855	56.8333	233.977
89	1	0.34902	-0.388022	56.8333	233.448
90	1	0.352941	-0.379927	56.8333	233.053
91	1	0.356863	-0.369171	56.8333	232.528
92	1	0.360784	-0.358459	56.8333	232.005
93	1	0.364706	-0.347787	56.8333	231.484
94	1	0.368627	-0.337155	56.8333	230.964
95	1	0.372549	-0.326561	56.8333	230.447
96	1	0.376471	-0.316004	56.8333	229.932
97	1	0.380392	-0.305481	56.8333	229.418
98	1	0.384314	-0.294992	56.8333	228.905
99	1	0.388235	-0.284535	56.8333	228.395
100	1	0.392157	-0.274115	56.8333	227.886
101	1	0.396078	-0.263715	56.8333	227.378
102	1	0.4	-0.253347	56.8333	226.872
103	1	0.403922	-0.245595	56.8333	226.493
104	1	0.407843	-0.235269	56.8333	225.989
105	1	0.411765	-0.224974	56.8333	225.486
106	1	0.415686	-0.214702	56.8333	224.985
107	1	0.419608	-0.204452	56.8333	224.484
108	1	0.423529	-0.194225	56.8333	223.985
109	1	0.427451	-0.184017	56.8333	223.486
110	1	0.431373	-0.173829	56.8333	222.989

111	1	0.435294	-0.163659	56.8333	222.492
112	1	0.439216	-0.153505	56.8333	221.996
113	1	0.443137	-0.143367	56.8333	221.501
114	1	0.447059	-0.133244	56.8333	221.007
115	1	0.45098	-0.125661	56.8333	220.636
116	1	0.454902	-0.115562	56.8333	220.143
117	1	0.458824	-0.105474	56.8333	219.651
118	1	0.462745	-0.0953969	56.8333	219.159
119	1	0.466667	-0.0853288	56.8333	218.667
120	1	0.470588	-0.0752698	56.8333	218.176
121	1	0.47451	-0.0652187	56.8333	217.685
122	1	0.478431	-0.0551734	56.8333	217.194
123	1	0.482353	-0.0451348	56.8333	216.704
124	1	0.486275	-0.0350997	56.8333	216.214
125	1	0.490196	-0.0250691	56.8333	215.724
126	1	0.494118	-0.0150408	56.8333	215.234
127	1	0.498039	-0.00501359	56.8333	214.745
128	1	0.501961	0.00501359	56.8333	214.255
129	1	0.505882	0.0150408	56.8333	213.766
130	1	0.509804	0.0250691	56.8333	213.276
131	1	0.513725	0.0350997	56.8333	212.786
132	1	0.517647	0.0451348	56.8333	212.296
133	1	0.521569	0.0551734	56.8333	211.806
134	1	0.52549	0.0652187	56.8333	211.315
135	1	0.529412	0.0752698	56.8333	210.824
136	1	0.533333	0.0853288	56.8333	210.333
137	1	0.537255	0.0953969	56.8333	209.841
138	1	0.541176	0.105474	56.8333	209.349
139	1	0.545098	0.115562	56.8333	208.857
140	1	0.54902	0.125661	56.8333	208.364
141	1	0.552941	0.133244	56.8333	207.993
142	1	0.556863	0.143367	56.8333	207.499
143	1	0.560784	0.153505	56.8333	207.004
144	1	0.564706	0.163659	56.8333	206.508
145	1	0.568627	0.173829	56.8333	206.011
146	1	0.572549	0.184017	56.8333	205.514
147	1	0.576471	0.194225	56.8333	205.015
148	1	0.580392	0.204452	56.8333	204.516
149	1	0.584314	0.214702	56.8333	204.015
150	1	0.588235	0.224974	56.8333	203.514
151	1	0.592157	0.235269	56.8333	203.011
152	1	0.596078	0.24559	56.8333	202.507
153	1	0.6	0.253347	56.8333	202.128
154	1	0.603922	0.263715	56.8333	201.622
155	1	0.607843	0.27411	56.8333	201.114
156	1	0.611765	0.284535	56.8333	200.605
157	1	0.615686	0.294992	56.8333	200.095
158	1	0.619608	0.305481	56.8333	199.582
159	1	0.623529	0.316004	56.8333	199.068
160	1	0.627451	0.326561	56.8333	198.553
161	1.1	0.631373	0.337155	58.6167	198.036
162	1.1	0.635294	0.347787	58.6167	197.516
163	1.12	0.639216	0.358459	58.9733	196.995
164	1.15	0.643137	0.369171	59.5083	196.472
165	1.21	0.647059	0.379927	60.5783	195.947
166	1.25	0.65098	0.388022	61.2917	195.552
167	1.25	0.654902	0.398855	61.2917	195.023
168	1.26	0.658824	0.409735	61.47	194.491
169	1.3	0.662745	0.420664	62.1833	193.958
170	1.35	0.666667	0.431644	63.075	193.421
171	1.38	0.670588	0.442676	63.61	192.883
172	1.39	0.67451	0.453763	63.7883	192.341

173	1.5	0.678431	0.464904	65.75	191.797
174	1.6	0.682353	0.476105	67.5333	191.25
175	1.6	0.686275	0.487364	67.5333	190.7
176	1.68	0.690196	0.498687	68.96	190.147
177	1.91	0.694118	0.510074	73.0617	189.591
178	1.91	0.698039	0.521527	73.0617	189.032
179	2	0.701961	0.530162	74.6667	188.61
180	2	0.705882	0.541736	74.6667	188.045
181	2.04	0.709804	0.553384	75.38	187.476
182	2.07	0.713725	0.565108	75.915	186.904
183	2.1	0.717647	0.576911	76.45	186.328
184	2.11	0.721569	0.588793	76.6283	185.747
185	2.18	0.72549	0.60076	77.8767	185.163
186	2.2	0.729412	0.612813	78.2333	184.574
187	2.2	0.733333	0.624956	78.2333	183.981
188	2.3	0.737255	0.637192	80.0167	183.384
189	2.4	0.741176	0.649522	81.8	182.782
190	2.5	0.745098	0.661955	83.5833	182.175
191	2.5	0.74902	0.67449	83.5833	181.562
192	2.5	0.752941	0.68396	83.5833	181.1
193	2.6	0.756863	0.696684	85.3667	180.479
194	2.86	0.760784	0.709522	90.0033	179.852
195	2.9	0.764706	0.722479	90.7167	179.219
196	2.9	0.768627	0.735557	90.7167	178.58
197	2.99	0.772549	0.748762	92.3217	177.935
198	3	0.776471	0.7621	92.5	177.284
199	3.08	0.780392	0.775574	93.9267	176.626
200	3.1	0.784314	0.789191	94.2833	175.961
201	3.11	0.788235	0.802956	94.4617	175.289
202	3.17	0.792157	0.816874	95.5317	174.609
203	3.24	0.796078	0.830953	96.78	173.922
204	3.43	0.8	0.841621	100.168	173.401
205	3.5	0.803922	0.855996	101.417	172.699
206	3.5	0.807843	0.87055	101.417	171.988
207	3.6	0.811765	0.885291	103.2	171.268
208	3.8	0.815686	0.900227	106.767	170.539
209	3.86	0.819608	0.915365	107.837	169.8
210	4.05	0.823529	0.930718	111.225	169.05
211	4.11	0.827451	0.946291	112.295	168.289
212	4.25	0.831373	0.9621	114.792	167.517
213	4.43	0.835294	0.97815	118.002	166.734
214	4.6	0.839216	0.994457	121.033	165.937
215	4.7	0.843137	1.01104	122.817	165.128
216	4.8	0.847059	1.02789	124.6	164.305
217	5	0.85098	1.04073	128.167	163.678
218	5.1	0.854902	1.05812	129.95	162.828
219	5.2	0.858824	1.07584	131.733	161.963
220	5.3	0.862745	1.0939	133.517	161.081
221	5.5	0.866667	1.11232	137.083	160.182
222	5.7	0.870588	1.13113	140.65	159.263
223	5.8	0.87451	1.15035	142.433	158.325
224	5.9	0.878431	1.17	144.217	157.365
225	6	0.882353	1.19012	146	156.383
226	6.1	0.886275	1.21073	147.783	155.376
227	6.3	0.890196	1.23187	151.35	154.344
228	6.9	0.894118	1.25357	162.05	153.284
229	7	0.898039	1.27588	163.833	152.195
230	7.2	0.901961	1.29303	167.4	151.357
231	7.3	0.905882	1.31652	169.183	150.21
232	7.6	0.909804	1.34075	174.533	149.026
233	8.4	0.913725	1.36581	188.8	147.803
234	8.5	0.917647	1.39175	190.583	146.536

235	9	0.921569		1.41865	199.5	145.222
236	9.9	0.92549	1.44663	215.55	143.856	
237	10.8	0.929412		1.47579	231.6	142.432
238	11	0.933333		1.50626	235.167	140.944
239	12	0.937255		1.5382	253	139.385
240	12	0.941176		1.57179	253	137.744
241	12	0.945098		1.60725	253	136.013
242	13	0.94902	1.64485	270.833	134.176	
243	14	0.952941		1.67466	288.667	132.721
244	16	0.956863		1.71688	324.333	130.659
245	16.2	0.960784		1.76241	327.9	128.436
246	16.3	0.964706		1.81191	329.683	126.018
247	18	0.968627		1.86629	360	123.363
248	19	0.972549		1.92684	377.833	120.406
249	19	0.976471		1.99539	377.833	117.058
250	19	0.980392		2.07485	377.833	113.178
251	21	0.984314		2.17009	413.5	108.527
252	22	0.988235		2.29036	431.333	102.654
253	22	0.992157		2.45727	431.333	94.5032
254	28	0.996078		2.74777	538.333	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.07944	-2.74777	7.55021	5.71382
2	-2.07944	-2.45727	13.5884	10.8236
3	-2.07944	-2.29036	18.8342	15.5862
4	-2.07944	-2.17009	23.5435	20.0988
5	-2.07944	-2.07485	27.8485	24.4134
6	-2.07944	-1.99539	31.8301	28.5627
7	-2.07944	-1.92684	35.5428	32.5694
8	-2.07944	-1.86629	39.0258	36.4502
9	-2.07944	-1.81191	42.3088	40.218
10	-2.07944	-1.76241	45.4149	43.8828
11	-2.07944	-1.71688	48.3626	47.453
12	-2.07944	-1.67466	51.1671	50.9354
13	-2.07944	-1.64485	53.8726	54.3557
14	-2.07944	-1.60725	56.4559	57.6979
15	-2.07944	-1.57179	58.9264	60.9664
16	-2.07944	-1.5382	61.2925	64.165
17	-2.07944	-1.50626	63.5613	67.2971
18	-2.07944	-1.47579	65.7393	70.366
19	-2.07944	-1.44663	67.832	73.3742
20	-2.07944	-1.41865	69.8446	76.3242
21	-2.07944	-1.39175	71.7815	79.2182
22	-2.07944	-1.36581	73.647	82.0583
23	-2.07944	-1.34075	75.4446	84.8464
24	-2.07944	-1.31652	77.1778	87.584
25	-2.07944	-1.29303	78.8498	90.2728
26	-2.07944	-1.27588	80.4776	92.9259
27	-2.07944	-1.25357	82.049	95.5326
28	-2.07944	-1.23187	83.5665	98.0942
29	-2.07944	-1.21073	85.0324	100.612
30	-2.07944	-1.19012	86.4488	103.087
31	-2.07944	-1.17	87.8177	105.52
32	-2.07944	-1.15035	89.141	107.912
33	-2.07944	-1.13113	90.4204	110.264
34	-2.07944	-1.11232	91.6577	112.577
35	-2.07944	-1.0939	92.8543	114.851
36	-2.07944	-1.07584	94.0117	117.089
37	-2.07944	-1.05812	95.1314	119.289
38	-2.07944	-1.04073	96.2145	121.453
39	-1.23787	-1.02789	97.271	122.725
40	-1.04982	-1.01104	98.2932	123.787
41	-0.891598	-0.994457	99.2822	124.674
42	-0.867501	-0.97815	100.239	125.522
43	-0.755023	-0.9621	101.165	126.248
44	-0.71335	-0.946291	102.06	126.924
45	-0.579818	-0.930718	102.926	127.463
46	-0.478036	-0.915365	103.764	127.901
47	-0.34249	-0.900227	104.575	128.209
48	-0.223144	-0.885291	105.358	128.407
49	-0.18633	-0.87055	106.116	128.569
50	-0.174353	-0.855996	106.849	128.718
51	-0.174353	-0.841621	107.557	128.865

52	-0.0833816	-0.830953	108.248	128.934
53	-0.0304592	-0.816874	108.915	128.959
54	0	-0.802956	109.56	128.959
55	0	-0.789191	110.183	128.959
56	0	-0.775574	110.784	128.959
57	0	-0.7621	111.365	128.959
58	0	-0.748762	111.926	128.959
59	0	-0.735557	112.467	128.959
60	0	-0.722479	112.989	128.959
61	0	-0.709522	113.492	128.959
62	0	-0.696684	113.977	128.959
63	0	-0.68396	114.445	128.959
64	0	-0.67449	114.9	128.959
65	0	-0.661955	115.338	128.959
66	0	-0.649522	115.76	128.959
67	0	-0.637192	116.166	128.959
68	0	-0.624956	116.557	128.959
69	0	-0.612813	116.932	128.959
70	0	-0.60076	117.293	128.959
71	0	-0.588793	117.64	128.959
72	0	-0.576911	117.973	128.959
73	0	-0.565108	118.292	128.959
74	0	-0.553384	118.598	128.959
75	0	-0.541736	118.892	128.959
76	0	-0.530162	119.173	128.959
77	0	-0.521527	119.445	128.959
78	0	-0.510074	119.705	128.959
79	0	-0.498687	119.954	128.959
80	0	-0.487364	120.191	128.959
81	0	-0.476105	120.418	128.959
82	0	-0.464904	120.634	128.959
83	0	-0.453763	120.84	128.959
84	0	-0.442676	121.036	128.959
85	0	-0.431644	121.222	128.959
86	0	-0.420664	121.399	128.959
87	0	-0.409735	121.567	128.959
88	0	-0.398855	121.726	128.959
89	0	-0.388022	121.877	128.959
90	0	-0.379927	122.021	128.959
91	0	-0.369171	122.157	128.959
92	0	-0.358459	122.286	128.959
93	0	-0.347787	122.407	128.959
94	0	-0.337155	122.52	128.959
95	0	-0.326561	122.627	128.959
96	0	-0.316004	122.727	128.959
97	0	-0.305481	122.82	128.959
98	0	-0.294992	122.907	128.959
99	0	-0.284535	122.988	128.959
100	0	-0.27411	123.063	128.959
101	0	-0.263715	123.133	128.959
102	0	-0.253347	123.197	128.959
103	0	-0.24559	123.257	128.959
104	0	-0.235269	123.313	128.959
105	0	-0.224974	123.363	128.959
106	0	-0.214702	123.409	128.959
107	0	-0.204452	123.451	128.959
108	0	-0.194225	123.489	128.959
109	0	-0.184017	123.523	128.959
110	0	-0.173829	123.553	128.959
111	0	-0.163659	123.58	128.959
112	0	-0.153505	123.603	128.959
113	0	-0.143367	123.624	128.959

114	0	-0.133244	123.642	128.959
115	0	-0.125661	123.658	128.959
116	0	-0.115562	123.671	128.959
117	0	-0.105474	123.682	128.959
118	0	-0.0953969	123.691	128.959
119	0	-0.0853288	123.698	128.959
120	0	-0.0752698	123.704	128.959
121	0	-0.0652187	123.708	128.959
122	0	-0.0551734	123.711	128.959
123	0	-0.0451348	123.713	128.959
124	0	-0.0350997	123.715	128.959
125	0	-0.0250691	123.715	128.959
126	0	-0.0150408	123.715	128.959
127	0	-0.00501359	123.715	128.959
128	0	0.00501359	123.716	128.959
129	0	0.0150408	123.716	128.959
130	0	0.0250691	123.716	128.959
131	0	0.0350997	123.718	128.959
132	0	0.0451348	123.72	128.959
133	0	0.0551734	123.723	128.959
134	0	0.0652187	123.727	128.959
135	0	0.0752698	123.733	128.959
136	0	0.0853288	123.74	128.959
137	0	0.0953969	123.749	128.959
138	0	0.105474	123.76	128.959
139	0	0.115562	123.773	128.959
140	0	0.125661	123.789	128.959
141	0	0.133244	123.807	128.959
142	0	0.143367	123.828	128.959
143	0	0.153505	123.851	128.959
144	0	0.163659	123.878	128.959
145	0	0.173829	123.908	128.959
146	0	0.184017	123.942	128.959
147	0	0.194225	123.98	128.959
148	0	0.204452	124.022	128.959
149	0	0.214702	124.068	128.959
150	0	0.224974	124.118	128.959
151	0	0.235269	124.174	128.959
152	0	0.24559	124.234	128.959
153	0	0.253347	124.298	128.959
154	0	0.263715	124.368	128.959
155	0	0.27411	124.443	128.959
156	0	0.284535	124.524	128.959
157	0	0.294992	124.611	128.959
158	0	0.305481	124.704	128.959
159	0	0.316004	124.804	128.959
160	0	0.326561	124.911	128.959
161	0.0953102	0.337155	125.024	128.991
162	0.0953102	0.347787	125.145	129.024
163	0.113329	0.358459	125.274	129.065
164	0.139762	0.369171	125.41	129.116
165	0.19062	0.379927	125.554	129.189
166	0.223144	0.388022	125.705	129.275
167	0.223144	0.398855	125.864	129.364
168	0.231112	0.409735	126.032	129.459
169	0.262364	0.420664	126.209	129.57
170	0.300105	0.431644	126.395	129.699
171	0.322083	0.442676	126.591	129.842
172	0.329304	0.453763	126.797	129.991
173	0.405465	0.464904	127.013	130.18
174	0.470004	0.476105	127.24	130.403
175	0.470004	0.487364	127.477	130.632

176	0.518794		0.498687	127.726	130.891
177	0.647103		0.510074	127.986	131.221
178	0.647103		0.521527	128.258	131.559
179	0.693147		0.530162	128.539	131.926
180	0.693147		0.541736	128.833	132.302
181	0.71295	0.553384		129.139	132.696
182	0.727549		0.565108	129.458	133.107
183	0.741937		0.576911	129.791	133.535
184	0.746688		0.588793	130.138	133.975
185	0.779325		0.60076	130.499	134.443
186	0.788457		0.612813	130.874	134.926
187	0.788457		0.624956	131.265	135.419
188	0.832909		0.637192	131.671	135.95
189	0.875469		0.649522	132.093	136.518
190	0.916291		0.661955	132.531	137.125
191	0.916291		0.67449	132.986	137.743
192	0.916291		0.68396	133.454	138.37
193	0.955511		0.696684	133.939	139.035
194	1.05082	0.709522		134.442	139.781
195	1.06471	0.722479		134.964	140.55
196	1.06471	0.735557		135.505	141.333
197	1.09527	0.748762		136.066	142.154
198	1.09861	0.7621	136.647	142.991	
199	1.12493	0.775574		137.248	143.863
200	1.1314	0.789191		137.871	144.756
201	1.13462	0.802956		138.516	145.667
202	1.15373	0.816874		139.183	146.61
203	1.17557	0.830953		139.874	147.586
204	1.23256	0.841621		140.582	148.624
205	1.25276	0.855996		141.315	149.696
206	1.25276	0.87055	142.073	150.787	
207	1.28093	0.885291		142.856	151.921
208	1.335	0.900227		143.667	153.123
209	1.35067	0.915365		144.505	154.359
210	1.39872	0.930718		145.371	155.661
211	1.41342	0.946291		146.266	156.998
212	1.44692	0.9621	147.192	158.39	
213	1.4884	0.97815	148.149	159.846	
214	1.52606	0.994457		149.138	161.364
215	1.54756	1.01104	150.16	162.928	
216	1.56862	1.02789	151.217	164.541	
217	1.60944	1.04073	152.3	166.216	
218	1.62924	1.05812	153.419	167.94	
219	1.64866	1.07584	154.577	169.713	
220	1.66771	1.0939	155.773	171.538	
221	1.70475	1.11232	157.011	173.434	
222	1.74047	1.13113	158.29	175.403	
223	1.75786	1.15035	159.613	177.425	
224	1.77495	1.17	160.982	179.502	
225	1.79176	1.19012	162.399	181.634	
226	1.80829	1.21073	163.864	183.823	
227	1.84055	1.23187	165.382	186.091	
228	1.93152	1.25357	166.953	188.512	
229	1.94591	1.27588	168.581	190.995	
230	1.97408	1.29303	170.253	193.547	
231	1.98787	1.31652	171.986	196.164	
232	2.02815	1.34075	173.784	198.883	
233	2.12823	1.36581	175.649	201.79	
234	2.14007	1.39175	177.586	204.769	
235	2.19722	1.41865	179.599	207.886	
236	2.29253	1.44663	181.692	211.202	
237	2.37955	1.47579	183.87	214.714	

238	2.3979	1.50626	186.139	218.326
239	2.48491	1.5382	188.505	222.148
240	2.48491	1.57179	190.975	226.054
241	2.48491	1.60725	193.558	230.048
242	2.56495	1.64485	196.264	234.267
243	2.63906	1.67466	199.068	238.686
244	2.77259	1.71688	202.016	243.446
245	2.78501	1.76241	205.122	248.355
246	2.79117	1.81191	208.405	253.412
247	2.89037	1.86629	211.888	258.806
248	2.94444	1.92684	215.601	264.48
249	2.94444	1.99539	219.583	270.355
250	2.94444	2.07485	223.888	276.464
251	3.04452	2.17009	228.597	283.071
252	3.09104	2.29036	233.843	290.151
253	3.09104	2.45727	239.881	297.746
254	3.3322	2.74777	247.431	306.903

Data Set Standard Deviation = 1.29346
Numerator = 94189.2
Denominator = 104732
W Statistic = 0.899334 = 94189.2 / 104732

5% Critical value of 0.976 exceeds 0.899334
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.899334
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 = 0.94779
0.94779 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00392157	-2.74777	109.357	348.683
2	-2.07944	0.00784314	-2.45727	109.357	334.497
3	-2.07944	0.0117647	-2.29036	109.357	326.346
4	-2.07944	0.0156863	-2.17009	109.357	320.473
5	-2.07944	0.0196078	-2.07485	109.357	315.822
6	-2.07944	0.0235294	-1.99539	109.357	311.942
7	-2.07944	0.027451	-1.92684	109.357	308.594
8	-2.07944	0.0313725	-1.86629	109.357	305.637
9	-2.07944	0.0352941	-1.81191	109.357	302.982
10	-2.07944	0.0392157	-1.76241	109.357	300.564
11	-2.07944	0.0431373	-1.71688	109.357	298.341
12	-2.07944	0.0470588	-1.67466	109.357	296.279
13	-2.07944	0.0509804	-1.64485	109.357	294.824
14	-2.07944	0.054902	-1.60725	109.357	292.987
15	-2.07944	0.0588235	-1.57179	109.357	291.256
16	-2.07944	0.0627451	-1.5382	109.357	289.615
17	-2.07944	0.0666667	-1.50626	109.357	288.056
18	-2.07944	0.0705882	-1.47579	109.357	286.568
19	-2.07944	0.0745098	-1.44663	109.357	285.144
20	-2.07944	0.0784314	-1.41865	109.357	283.778
21	-2.07944	0.0823529	-1.39175	109.357	282.464
22	-2.07944	0.0862745	-1.36581	109.357	281.197
23	-2.07944	0.0901961	-1.34075	109.357	279.974
24	-2.07944	0.0941176	-1.31652	109.357	278.79
25	-2.07944	0.0980392	-1.29303	109.357	277.643
26	-2.07944	0.101961	-1.27588	109.357	276.805
27	-2.07944	0.105882	-1.25357	109.357	275.716
28	-2.07944	0.109804	-1.23187	109.357	274.656
29	-2.07944	0.113725	-1.21073	109.357	273.624
30	-2.07944	0.117647	-1.19012	109.357	272.617
31	-2.07944	0.121569	-1.17	109.357	271.635
32	-2.07944	0.12549	-1.15035	109.357	270.675
33	-2.07944	0.129412	-1.13113	109.357	269.737
34	-2.07944	0.133333	-1.11232	109.357	268.818
35	-2.07944	0.137255	-1.0939	109.357	267.919
36	-2.07944	0.141176	-1.07584	109.357	267.037
37	-2.07944	0.145098	-1.05812	109.357	266.172
38	-2.07944	0.14902	-1.04073	109.357	265.322
39	-1.23787	0.152941	-1.02789	173.677	264.695
40	-1.04982	0.156863	-1.01104	188.049	263.872
41	-0.891598	0.160784	-0.994457	200.142	263.063
42	-0.867501	0.164706	-0.97815	201.984	262.266
43	-0.755023	0.168627	-0.9621	210.58	261.483
44	-0.71335	0.172549	-0.946291	213.765	260.711
45	-0.579818	0.176471	-0.930718	223.971	259.95
46	-0.478036	0.180392	-0.915365	231.75	259.2
47	-0.34249	0.184314	-0.900227	242.11	258.461
48	-0.223144	0.188235	-0.885291	251.231	257.732

49	-0.186330	0.192157	-0.87055	254.045	257.012	
50	-0.174353	0.196078	-0.855996	254.96	256.301	
51	-0.174353	0.2	-0.841621	254.96	255.599	
52	-0.0833816	0.203922	-0.830953	261.913	255.078	
53	-0.0304592	0.207843	-0.816874	265.958	254.391	
54	0	0.211765	-0.802956	268.286	253.711	
55	0	0.215686	-0.789191	268.286	253.039	
56	0	0.219608	-0.775574	268.286	252.374	
57	0	0.223529	-0.7621	268.286	251.716	
58	0	0.227451	-0.748762	268.286	251.065	
59	0	0.231373	-0.735557	268.286	250.42	
60	0	0.235294	-0.722479	268.286	249.781	
61	0	0.239216	-0.709522	268.286	249.148	
62	0	0.243137	-0.696684	268.286	248.521	
63	0	0.247059	-0.68396	268.286	247.9	
64	0	0.25098	-0.67449	268.286	247.438	
65	0	0.254902	-0.661955	268.286	246.825	
66	0	0.258824	-0.649522	268.286	246.218	
67	0	0.262745	-0.637192	268.286	245.616	
68	0	0.266667	-0.624956	268.286	245.019	
69	0	0.270588	-0.612813	268.286	244.426	
70	0	0.27451	-0.60076	268.286	243.837	
71	0	0.278431	-0.588793	268.286	243.253	
72	0	0.282353	-0.576911	268.286	242.672	
73	0	0.286275	-0.565108	268.286	242.096	
74	0	0.290196	-0.553384	268.286	241.524	
75	0	0.294118	-0.541736	268.286	240.955	
76	0	0.298039	-0.530162	268.286	240.39	
77	0	0.301961	-0.521527	268.286	239.968	
78	0	0.305882	-0.510074	268.286	239.409	
79	0	0.309804	-0.498687	268.286	238.853	
80	0	0.313725	-0.487364	268.286	238.3	
81	0	0.317647	-0.476105	268.286	237.75	
82	0	0.321569	-0.464904	268.286	237.203	
83	0	0.32549	-0.453763	268.286	236.659	
84	0	0.329412	-0.442676	268.286	236.117	
85	0	0.333333	-0.431644	268.286	235.579	
86	0	0.337255	-0.420664	268.286	235.042	
87	0	0.341176	-0.409735	268.286	234.509	
88	0	0.345098	-0.398855	268.286	233.977	
89	0	0.34902	-0.388022	268.286	233.448	
90	0	0.352941	-0.379927	268.286	233.053	
91	0	0.356863	-0.369171	268.286	232.528	
92	0	0.360784	-0.358459	268.286	232.005	
93	0	0.364706	-0.347787	268.286	231.484	
94	0	0.368627	-0.337155	268.286	230.964	
95	0	0.372549	-0.326561	268.286	230.447	
96	0	0.376471	-0.316004	268.286	229.932	
97	0	0.380392	-0.305481	268.286	229.418	
98	0	0.384314	-0.294992	268.286	228.905	
99	0	0.388235	-0.284535	268.286	228.395	
100	0	0.392157	-0.27411	268.286	227.886	
101	0	0.396078	-0.263715	268.286	227.378	
102	0	0.4	-0.253347	268.286	226.872	
103	0	0.403922	-0.24559	268.286	226.493	
104	0	0.407843	-0.235269	268.286	225.989	
105	0	0.411765	-0.224974	268.286	225.486	
106	0	0.415686	-0.214702	268.286	224.985	
107	0	0.419608	-0.204452	268.286	224.484	
108	0	0.423529	-0.194225	268.286	223.985	
109	0	0.427451	-0.184017	268.286	223.486	
110	0	0.431373	-0.173829	268.286	222.989	

111	0	0.435294	-0.163659	268.286	222.492
112	0	0.439216	-0.153505	268.286	221.996
113	0	0.443137	-0.143367	268.286	221.501
114	0	0.447059	-0.133244	268.286	221.007
115	0	0.45098	-0.125661	268.286	220.636
116	0	0.454902	-0.115562	268.286	220.143
117	0	0.458824	-0.105474	268.286	219.651
118	0	0.462745	-0.0953969	268.286	219.159
119	0	0.466667	-0.0853288	268.286	218.667
120	0	0.470588	-0.0752698	268.286	218.176
121	0	0.47451	-0.0652187	268.286	217.685
122	0	0.478431	-0.0551734	268.286	217.194
123	0	0.482353	-0.0451348	268.286	216.704
124	0	0.486275	-0.0350997	268.286	216.214
125	0	0.490196	-0.0250691	268.286	215.724
126	0	0.494118	-0.0150408	268.286	215.234
127	0	0.498039	-0.00501359	268.286	214.745
128	0	0.501961	0.00501359	268.286	214.255
129	0	0.505882	0.0150408	268.286	213.766
130	0	0.509804	0.0250691	268.286	213.276
131	0	0.513725	0.0350997	268.286	212.786
132	0	0.517647	0.0451348	268.286	212.296
133	0	0.521569	0.0551734	268.286	211.806
134	0	0.52549	0.0652187	268.286	211.315
135	0	0.529412	0.0752698	268.286	210.824
136	0	0.533333	0.0853288	268.286	210.333
137	0	0.537255	0.0953969	268.286	209.841
138	0	0.541176	0.105474	268.286	209.349
139	0	0.545098	0.115562	268.286	208.857
140	0	0.54902	0.125661	268.286	208.364
141	0	0.552941	0.133244	268.286	207.993
142	0	0.556863	0.143367	268.286	207.499
143	0	0.560784	0.153505	268.286	207.004
144	0	0.564706	0.163659	268.286	206.508
145	0	0.568627	0.173829	268.286	206.011
146	0	0.572549	0.184017	268.286	205.514
147	0	0.576471	0.194225	268.286	205.015
148	0	0.580392	0.204452	268.286	204.516
149	0	0.584314	0.214702	268.286	204.015
150	0	0.588235	0.224974	268.286	203.514
151	0	0.592157	0.235269	268.286	203.011
152	0	0.596078	0.24559	268.286	202.507
153	0	0.6	0.253347	268.286	202.128
154	0	0.603922	0.263715	268.286	201.622
155	0	0.607843	0.27411	268.286	201.114
156	0	0.611765	0.284535	268.286	200.605
157	0	0.615686	0.294992	268.286	200.095
158	0	0.619608	0.305481	268.286	199.582
159	0	0.623529	0.316004	268.286	199.068
160	0	0.627451	0.326561	268.286	198.553
161	0.0953102	0.631373	0.337155	275.57	198.036
162	0.0953102	0.635294	0.347787	275.57	197.516
163	0.113329	0.639216	0.358459	276.947	196.995
164	0.139762	0.643137	0.369171	278.968	196.472
165	0.19062	0.647059	0.379927	282.855	195.947
166	0.223144	0.65098	0.388022	285.34	195.552
167	0.223144	0.654902	0.398855	285.34	195.023
168	0.231112	0.658824	0.409735	285.949	194.491
169	0.262364	0.662745	0.420664	288.338	193.958
170	0.300105	0.666667	0.431644	291.222	193.421
171	0.322083	0.670588	0.442676	292.902	192.883
172	0.329304	0.67451	0.453763	293.454	192.341

173	0.405465	0.678431	0.464904	299.275	191.797
174	0.470004	0.682353	0.476105	304.207	191.25
175	0.470004	0.686275	0.487364	304.207	190.7
176	0.518794	0.690196	0.498687	307.936	190.147
177	0.647103	0.694118	0.510074	317.743	189.591
178	0.647103	0.698039	0.521527	317.743	189.032
179	0.693147	0.701961	0.530162	321.262	188.61
180	0.693147	0.705882	0.541736	321.262	188.045
181	0.71295	0.709804	0.553384	322.775	187.476
182	0.727549	0.713725	0.565108	323.891	186.904
183	0.741937	0.717647	0.576911	324.991	186.328
184	0.746688	0.721569	0.588793	325.354	185.747
185	0.779325	0.72549	0.60076	327.848	185.163
186	0.788457	0.729412	0.612813	328.546	184.574
187	0.788457	0.733333	0.624956	328.546	183.981
188	0.832909	0.737255	0.637192	331.944	183.384
189	0.875469	0.741176	0.649522	335.197	182.782
190	0.916291	0.745098	0.661955	338.317	182.175
191	0.916291	0.74902	0.67449	338.317	181.562
192	0.916291	0.752941	0.68396	338.317	181.1
193	0.955511	0.756863	0.696684	341.314	180.479
194	1.05082	0.760784	0.709522	348.599	179.852
195	1.06471	0.764706	0.722479	349.66	179.219
196	1.06471	0.768627	0.735557	349.66	178.58
197	1.09527	0.772549	0.748762	351.996	177.935
198	1.09861	0.776471	0.7621	352.251	177.284
199	1.12493	0.780392	0.775574	354.262	176.626
200	1.1314	0.784314	0.789191	354.757	175.961
201	1.13462	0.788235	0.802956	355.003	175.289
202	1.15373	0.792157	0.816874	356.464	174.609
203	1.17557	0.796078	0.830953	358.133	173.922
204	1.23256	0.8	0.841621	362.489	173.401
205	1.25276	0.803922	0.855996	364.033	172.699
206	1.25276	0.807843	0.87055	364.033	171.988
207	1.28093	0.811765	0.885291	366.186	171.268
208	1.335	0.815686	0.900227	370.318	170.539
209	1.35067	0.819608	0.915365	371.515	169.8
210	1.39872	0.823529	0.930718	375.188	169.05
211	1.41342	0.827451	0.946291	376.312	168.289
212	1.44692	0.831373	0.9621	378.872	167.517
213	1.4884	0.835294	0.97815	382.042	166.734
214	1.52606	0.839216	0.994457	384.92	165.937
215	1.54756	0.843137	1.01104	386.564	165.128
216	1.56862	0.847059	1.02789	388.173	164.305
217	1.60944	0.85098	1.04073	391.293	163.678
218	1.62924	0.854902	1.05812	392.806	162.828
219	1.64866	0.858824	1.07584	394.29	161.963
220	1.66771	0.862745	1.0939	395.746	161.081
221	1.70475	0.866667	1.11232	398.577	160.182
222	1.74047	0.870588	1.13113	401.307	159.263
223	1.75786	0.87451	1.15035	402.636	158.325
224	1.77495	0.878431	1.17	403.943	157.365
225	1.79176	0.882353	1.19012	405.227	156.383
226	1.80829	0.886275	1.21073	406.491	155.376
227	1.84055	0.890196	1.23187	408.956	154.344
228	1.93152	0.894118	1.25357	415.909	153.284
229	1.94591	0.898039	1.27588	417.009	152.195
230	1.97408	0.901961	1.29303	419.162	151.357
231	1.98787	0.905882	1.31652	420.216	150.21
232	2.02815	0.909804	1.34075	423.294	149.026
233	2.12823	0.913725	1.36581	430.943	147.803
234	2.14007	0.917647	1.39175	431.848	146.536

235	2.19722	0.921569		1.41865	436.216	145.222
236	2.29253	0.92549	1.44663	443.501	143.856	
237	2.37955	0.929412		1.47579	450.151	142.432
238	2.3979	0.933333		1.50626	451.553	140.944
239	2.48491	0.937255		1.5382	458.204	139.385
240	2.48491	0.941176		1.57179	458.204	137.744
241	2.48491	0.945098		1.60725	458.204	136.013
242	2.56495	0.94902	1.64485	464.321	134.176	
243	2.63906	0.952941		1.67466	469.985	132.721
244	2.77259	0.956863		1.71688	480.191	130.659
245	2.78501	0.960784		1.76241	481.14	128.436
246	2.79117	0.964706		1.81191	481.61	126.018
247	2.89037	0.968627		1.86629	489.193	123.363
248	2.94444	0.972549		1.92684	493.325	120.406
249	2.94444	0.976471		1.99539	493.325	117.058
250	2.94444	0.980392		2.07485	493.325	113.178
251	3.04452	0.984314		2.17009	500.974	108.527
252	3.09104	0.988235		2.29036	504.53	102.654
253	3.09104	0.992157		2.45727	504.53	94.5032
254	3.3322	0.996078		2.74777	522.961	80.3175

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	70
	9/23/1999	ND<0	70
	3/15/2000	ND<0	70
	9/24/2003	ND<0	70
	3/11/2004	ND<0	70
	10/12/2004	ND<0	70
	4/1/2005	ND<0	70
	10/25/2005	ND<0	70
	4/29/2006	ND<0	70
	11/18/2006	ND<0	70
	5/23/2007	ND<0	70
	11/28/2007	ND<0	70
	6/5/2008	ND<0	70
	11/20/2008	ND<0	70
	6/11/2009	ND<-2.07944	70
	11/16/2009	ND<-2.07944	70
	6/30/2010	ND<-2.07944	70
	11/12/2010	ND<-2.07944 U	70
	7/5/2011	ND<-2.07944 U	70

Rank Sum = 1330
Rank Mean = 70

Background Rank Sum = 1330
Background Rank Mean = 70

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	2.14007	234
	8/24/1995	3.04452	251
	9/28/1995	2.94444	248
	10/26/1995	3.09104	252
	11/19/1996	ND<0	70
	12/19/1996	2.94444	249
	3/24/1997	ND<0	70
	9/24/1997	1.62924	218
	4/7/1998	2.12823	233
	9/23/1998	2.56495	242
	3/16/1999	2.37955	237
	9/23/1999	1.70475	221
	3/15/2000	2.29253	236
	9/24/2003	ND<0	70
	3/11/2004	ND<0	70
	10/12/2004	ND<0	70
	4/1/2005	1.35067	209
	10/25/2005	0.779325	185
	4/29/2006	0.518794 J	176
	11/18/2006	0.727549	182
	5/23/2007	ND<0	70

	11/28/2007	1.39872		210
	6/5/2008	ND<0	70	
	11/20/2008	-0.579818	J	146
	6/11/2009	1.06471		195
	11/16/2009	-0.867501	J	143
	6/30/2010	1.06471		196
	11/12/2010	ND<-2.07944	U	70
	7/5/2011	-0.891598	J	142
	11/22/2011	ND<-2.07944	U	70
	11/22/2011	ND<-2.07944	U	70
	6/5/2012	-1.23787	J	140

Rank Sum = 5245
Rank Mean = 163.906

MW-10	7/20/1995	-0.223144	J	149
	8/24/1995	1.25276		205
	9/28/1995	1.94591		229
	10/26/1995	1.79176		225
	11/19/1996	ND<0	70	
	12/19/1996	1.60944		217
	3/24/1997	2.63906		243
	9/24/1997	1.75786		223
	4/7/1998	ND<0	70	
	9/23/1998	ND<0	70	
	3/16/1999	1.54756		215
	9/23/1999	0.955511		193
	3/15/2000	ND<0	70	
	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	0.223144	J	166
	10/25/2005	0.470004	J	174
	4/29/2006	0.647103	J	177
	11/18/2006	0.113329	J	163
	5/23/2007	ND<0	70	
	11/28/2007	0.300105		170
	6/5/2008	0.231112	J	168
	11/20/2008	-0.0833816	J	153
	6/11/2009	-0.0304592	J	154
	11/16/2009	0.0953102		161
	6/30/2010	-0.71335	J	145
	11/12/2010	-0.34249	J	148
	7/5/2011	0.262364		169
	11/22/2011	0		155
	11/22/2011	0		156
	6/5/2012	0		157

Rank Sum = 4875
Rank Mean = 152.344

MW-8	7/20/1995	-0.755023	J	144
	8/24/1995	2.48491		239
	9/28/1995	2.3979	238	
	10/26/1995	0	J	158
	11/19/1996	ND<0	70	
	12/19/1996	2.94444		250
	3/24/1997	2.89037		247
	9/24/1997	3.09104		253
	4/7/1998	2.77259		244
	9/23/1998	3.3322	254	
	3/16/1999	2.79117		246
	9/23/1999	2.78501		245
	3/15/2000	ND<0	70	

	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	0.647103 J	178	
	10/25/2005	1.23256		204
	4/29/2006	0.746688		184
	11/18/2006	1.05082		194
	5/23/2007	ND<0	70	
	11/28/2007	1.41342		211
	6/5/2008	1.4884	213	
	11/20/2008	1.12493		199
	6/11/2009	1.64866		219
	6/30/2010	0.916291		190
	11/12/2010	0.875469		189
	7/5/2011	1.1314	200	
	11/22/2011	0.916291		191
	11/22/2011	0.916291		192
	6/5/2012	0.741937	183	

Rank Sum = 5685
Rank Mean = 183.387

MW-7	7/20/1995	0.470004 J		175
	8/24/1995	0.0953102 J		162
	9/28/1995	0 J	159	
	10/26/1995	0.693147		179
	11/19/1996	ND<0	70	
	12/19/1996	2.19722		235
	3/24/1997	ND<0	70	
	9/24/1997	ND<0	70	
	4/7/1998	2.48491	240	
	9/23/1998	2.48491		241
	3/16/1999	ND<0	70	
	9/23/1999	1.77495		224
	3/15/2000	ND<0	70	
	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	ND<0	70	
	10/25/2005	ND<0	70	
	4/29/2006	ND<0	70	
	11/18/2006	ND<0	70	
	5/23/2007	ND<0	70	
	11/28/2007	ND<0	70	
	6/5/2008	ND<0	70	
	11/20/2008	ND<0	70	
	6/11/2009	ND<-2.07944		70
	11/16/2009	ND<-2.07944		70
	6/30/2010	ND<-2.07944		70
	11/12/2010	ND<-2.07944 U		70
	7/5/2011	ND<-2.07944 U	70	
	11/22/2011	ND<-2.07944 U		70
	11/22/2011	ND<-2.07944 U		70
	6/5/2012	ND<-2.07944 U	70	

Rank Sum = 3295
Rank Mean = 102.969

MW-6	7/20/1995	ND<0	70	
	8/24/1995	ND<0	70	
	9/28/1995	ND<0	70	
	10/26/1995	ND<0	70	
	11/19/1996	ND<0	70	
	12/19/1996	ND<0	70	

	3/24/1997	ND<0	70	
	9/24/1997	ND<0	70	
	4/7/1998	ND<0	70	
	9/23/1998	ND<0	70	
	3/16/1999	ND<0	70	
	9/23/1999	ND<0	70	
	3/15/2000	ND<0	70	
	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	ND<0	70	
	10/25/2005	ND<0	70	
	4/29/2006	ND<0	70	
	11/18/2006	ND<0	70	
	5/23/2007	ND<0	70	
	11/28/2007	ND<0	70	
	6/5/2008	ND<0	70	
	11/20/2008	ND<0	70	
	6/11/2009	ND<-2.07944		70
	11/16/2009	ND<-2.07944		70
	6/30/2010	ND<-2.07944		70
	11/12/2010	ND<-2.07944 U		70
	7/5/2011	ND<-2.07944 U	70	
	11/22/2011	ND<-2.07944 U		70
	11/22/2011	ND<-2.07944 U		70
	6/5/2012	ND<-2.07944 U	70	

Rank Sum = 2240
Rank Mean = 70

MW-9	7/20/1995	-0.174353 J		151
	8/24/1995	-0.174353 J		152
	9/28/1995	0.693147		180
	10/26/1995	1.09861		198
	11/19/1996	ND<0	70	
	12/19/1996	ND<0	70	
	3/24/1997	ND<0	70	
	9/24/1997	ND<0	70	
	4/7/1998	ND<0	70	
	9/23/1998	1.66771		220
	3/16/1999	1.28093		207
	9/23/1999	1.25276		206
	3/15/2000	ND<0	70	
	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	1.09527	197	
	10/25/2005	0.71295		181
	4/29/2006	0.322083 J		171
	11/18/2006	ND<0	70	
	5/23/2007	ND<0	70	
	11/28/2007	1.15373		202
	6/5/2008	1.17557	203	
	11/20/2008	1.13462		201
	6/11/2009	2.02815		232
	11/16/2009	1.56862		216
	6/30/2010	1.52606		214
	11/12/2010	1.335	208	
	7/5/2011	0.405465	173	
	11/22/2011	0.788457		186
	11/22/2011	0.788457		187
	6/5/2012	0.832909	188	

Rank Sum = 4843

Rank Mean = 151.344

MW-12BR	3/16/1999	1.98787		231
	9/23/1999	1.74047		222
	3/15/2000	ND<0	70	
	9/24/2003	ND<0	70	
	3/11/2004	ND<0	70	
	10/12/2004	ND<0	70	
	4/1/2005	1.44692		212
	10/25/2005	ND<0	70	
	4/29/2006	ND<0	70	
	11/18/2006	ND<0	70	
	5/23/2007	ND<0	70	
	11/28/2007	ND<0	70	
	6/5/2008	ND<0	70	
	11/20/2008	ND<0	70	
	6/11/2009	ND<-2.07944		70
	11/16/2009	ND<-2.07944		70
	6/30/2010	ND<-2.07944		70
	11/12/2010	ND<-2.07944 U		70
	7/5/2011	ND<-2.07944 U	70	
	11/22/2011	ND<-2.07944 U		70
	11/22/2011	ND<-2.07944 U		70
	6/5/2012	ND<-2.07944 U	70	

Rank Sum = 1995
Rank Mean = 90.6818

MW-12AR	3/16/1999	ND<0	70	
	9/23/1999	ND<0	70	
	3/15/2000	1.97408		230
	9/24/2003	1.93152		228
	3/11/2004	1.80829		226
	10/12/2004	1.84055		227
	4/1/2005	ND<0	70	
	10/25/2005	0.19062 J		165
	4/29/2006	0.329304 J		172
	11/18/2006	-0.18633 J		150
	5/23/2007	ND<0	70	
	11/28/2007	0.139762 J		164
	6/5/2008	0.223144 J	167	
	11/20/2008	-0.478036 J		147
	6/11/2009	ND<-2.07944		70
	11/16/2009	-1.04982 J		141
	6/30/2010	ND<-2.07944		70
	11/12/2010	0	160	
	7/5/2011	ND<-2.07944 U	70	
	11/22/2011	ND<-2.07944 U		70
	11/22/2011	ND<-2.07944 U		70
	6/5/2012	ND<-2.07944 U	70	

Rank Sum = 2877
Rank Mean = 130.773

Calculation Results:

Kruskal-Wallis H Statistic = 73.2034
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 87.5514
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
73.2034 > 15.5073 indicating a significant group difference at 5% significance level
87.5514 > 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 70

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	163.906	93.9063	49.4998
MW-10	152.344	82.3438	49.4998
MW-8	183.387	113.387	49.7963
MW-7	102.969	32.9688	49.4998
MW-6	70	0	49.4998
MW-9	151.344	81.3438	49.4998
MW-12BR	90.6818	20.6818	53.5271
MW-12AR	130.773	60.7727	53.5271

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 70

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	163.906	93.9063	53.453
MW-10	152.344	82.3438	53.453
MW-8	183.387	113.387	53.7733
MW-7	102.969	32.9688	53.453
MW-6	70	0	53.453
MW-9	151.344	81.3438	53.453
MW-12BR	90.6818	20.6818	57.802
MW-12AR	130.773	60.7727	57.802

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	-2.079440	0	-3.6737
11/12/2010	-2.079440	0	-3.6737
7/5/2011	-0.891598	0	-2.69091

7/5/2011	-0.891598	0	-2.69091
11/22/2011	-2.079440		-5.19539
11/22/2011	-2.079440		-5.19539
6/5/2012	-1.237870	-2.97741	
6/5/2012	-1.237870	-2.97741	

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
6/5/2012	0	0	-1.12917
6/5/2012	0	0	-1.12917

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
6/5/2012	0.741937	0	-0.272676
6/5/2012	0.741937	0	-0.272676

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	
6/5/2012	0.832909	8.45697	1.11908	
6/5/2012	0.832909	8.45697	1.11908	

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	0.19062	0	-1.09348
10/25/2005	0.19062	0	-1.09348
4/29/2006	0.329304	0	-0.951552
4/29/2006	0.329304	0	-0.951552
11/18/2006	-0.18633	0	-1.47927
11/18/2006	-0.18633	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
6/5/2012	-2.07944	0	-3.41673
6/5/2012	-2.07944	0	-3.41673

Sen's Slope Analysis
Parameter: 1,1-Dichloroethane
Location: MW-13
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
ND<0	(3/15/2000)	ND<0 (3/16/1999)	(0 - 0)/(3 - 1) 0
ND<0	(9/24/2003)	ND<0 (3/16/1999)	(0 - 0)/(4 - 1) 0
ND<0	(3/11/2004)	ND<0 (3/16/1999)	(0 - 0)/(5 - 1) 0
ND<0	(10/12/2004)	ND<0 (3/16/1999)	(0 - 0)/(6 - 1) 0
ND<0	(4/1/2005)	ND<0 (3/16/1999)	(0 - 0)/(7 - 1) 0
ND<0	(10/25/2005)	ND<0 (3/16/1999)	(0 - 0)/(8 - 1) 0
ND<0	(4/29/2006)	ND<0 (3/16/1999)	(0 - 0)/(9 - 1) 0
ND<0	(11/18/2006)	ND<0 (3/16/1999)	(0 - 0)/(10 - 1) 0
ND<0	(5/23/2007)	ND<0 (3/16/1999)	(0 - 0)/(11 - 1) 0
ND<0	(11/28/2007)	ND<0 (3/16/1999)	(0 - 0)/(12 - 1) 0
ND<0	(6/5/2008)	ND<0 (3/16/1999)	(0 - 0)/(13 - 1) 0
ND<0	(11/20/2008)	ND<0 (3/16/1999)	(0 - 0)/(14 - 1) 0
ND<-2.07944	(6/11/2009)	ND<0 (3/16/1999)	(-2.07944 - 0)/(15 - 1) -0.148532
ND<-2.07944	(11/16/2009)	ND<0 (3/16/1999)	(-2.07944 - 0)/(16 - 1) -0.138629
ND<-2.07944	(6/30/2010)	ND<0 (3/16/1999)	(-2.07944 - 0)/(17 - 1) -0.129965
ND<-2.07944 U	(11/12/2010)	ND<0 (3/16/1999)	(-2.07944 - 0)/(18 - 1) -0.12232
ND<-2.07944 U	(7/5/2011)	ND<0 (3/16/1999)	(-2.07944 - 0)/(19 - 1) -0.115525
ND<0	(3/15/2000)	ND<0 (9/23/1999)	(0 - 0)/(3 - 2) 0
ND<0	(9/24/2003)	ND<0 (9/23/1999)	(0 - 0)/(4 - 2) 0
ND<0	(3/11/2004)	ND<0 (9/23/1999)	(0 - 0)/(5 - 2) 0
ND<0	(10/12/2004)	ND<0 (9/23/1999)	(0 - 0)/(6 - 2) 0
ND<0	(4/1/2005)	ND<0 (9/23/1999)	(0 - 0)/(7 - 2) 0
ND<0	(10/25/2005)	ND<0 (9/23/1999)	(0 - 0)/(8 - 2) 0
ND<0	(4/29/2006)	ND<0 (9/23/1999)	(0 - 0)/(9 - 2) 0
ND<0	(11/18/2006)	ND<0 (9/23/1999)	(0 - 0)/(10 - 2) 0
ND<0	(5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(11 - 2) 0
ND<0	(11/28/2007)	ND<0 (9/23/1999)	(0 - 0)/(12 - 2) 0
ND<0	(6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(13 - 2) 0
ND<0	(11/20/2008)	ND<0 (9/23/1999)	(0 - 0)/(14 - 2) 0
ND<-2.07944	(6/11/2009)	ND<0 (9/23/1999)	(-2.07944 - 0)/(15 - 2) -0.159957
ND<-2.07944	(11/16/2009)	ND<0 (9/23/1999)	(-2.07944 - 0)/(16 - 2) -0.148532
ND<-2.07944	(6/30/2010)	ND<0 (9/23/1999)	(-2.07944 - 0)/(17 - 2) -0.138629
ND<-2.07944 U	(11/12/2010)	ND<0 (9/23/1999)	(-2.07944 - 0)/(18 - 2) -0.129965
ND<-2.07944 U	(7/5/2011)	ND<0 (9/23/1999)	(-2.07944 - 0)/(19 - 2) -0.12232
ND<0	(9/24/2003)	ND<0 (3/15/2000)	(0 - 0)/(4 - 3) 0
ND<0	(3/11/2004)	ND<0 (3/15/2000)	(0 - 0)/(5 - 3) 0
ND<0	(10/12/2004)	ND<0 (3/15/2000)	(0 - 0)/(6 - 3) 0
ND<0	(4/1/2005)	ND<0 (3/15/2000)	(0 - 0)/(7 - 3) 0
ND<0	(10/25/2005)	ND<0 (3/15/2000)	(0 - 0)/(8 - 3) 0

ND<0	(4/29/2006)	ND<0	(3/15/2000)	(0 - 0)/(9 - 3)	0	
ND<0	(11/18/2006)	ND<0	(3/15/2000)	(0 - 0)/(10 - 3)	0	
ND<0	(5/23/2007)	ND<0	(3/15/2000)	(0 - 0)/(11 - 3)	0	
ND<0	(11/28/2007)	ND<0	(3/15/2000)	(0 - 0)/(12 - 3)	0	
ND<0	(6/5/2008)	ND<0	(3/15/2000)	(0 - 0)/(13 - 3)	0	
ND<0	(11/20/2008)	ND<0	(3/15/2000)	(0 - 0)/(14 - 3)	0	
ND<-2.07944	(6/11/2009)	ND<0	(3/15/2000)	(-2.07944 - 0)/(15 - 3)	-0.173287	
ND<-2.07944	(11/16/2009)	ND<0	(3/15/2000)	(-2.07944 - 0)/(16 - 3)	-0.159957	
ND<-2.07944	(6/30/2010)	ND<0	(3/15/2000)	(-2.07944 - 0)/(17 - 3)	-0.148532	
ND<-2.07944 U	(11/12/2010)	ND<0	(3/15/2000)	(-2.07944 - 0)/(18 - 3)	-0.138629	
ND<-2.07944 U	(7/5/2011)	ND<0	(3/15/2000)	(-2.07944 - 0)/(19 - 3)	-0.129965	
ND<0	(3/11/2004)	ND<0	(9/24/2003)	(0 - 0)/(5 - 4)	0	
ND<0	(10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(6 - 4)	0	
ND<0	(4/1/2005)	ND<0	(9/24/2003)	(0 - 0)/(7 - 4)	0	
ND<0	(10/25/2005)	ND<0	(9/24/2003)	(0 - 0)/(8 - 4)	0	
ND<0	(4/29/2006)	ND<0	(9/24/2003)	(0 - 0)/(9 - 4)	0	
ND<0	(11/18/2006)	ND<0	(9/24/2003)	(0 - 0)/(10 - 4)	0	
ND<0	(5/23/2007)	ND<0	(9/24/2003)	(0 - 0)/(11 - 4)	0	
ND<0	(11/28/2007)	ND<0	(9/24/2003)	(0 - 0)/(12 - 4)	0	
ND<0	(6/5/2008)	ND<0	(9/24/2003)	(0 - 0)/(13 - 4)	0	
ND<0	(11/20/2008)	ND<0	(9/24/2003)	(0 - 0)/(14 - 4)	0	
ND<-2.07944	(6/11/2009)	ND<0	(9/24/2003)	(-2.07944 - 0)/(15 - 4)	-0.18904	
ND<-2.07944	(11/16/2009)	ND<0	(9/24/2003)	(-2.07944 - 0)/(16 - 4)	-0.173287	
ND<-2.07944	(6/30/2010)	ND<0	(9/24/2003)	(-2.07944 - 0)/(17 - 4)	-0.159957	
ND<-2.07944 U	(11/12/2010)	ND<0	(9/24/2003)	(-2.07944 - 0)/(18 - 4)	-0.148532	
ND<-2.07944 U	(7/5/2011)	ND<0	(9/24/2003)	(-2.07944 - 0)/(19 - 4)	-0.138629	
ND<0	(10/12/2004)	ND<0	(3/11/2004)	(0 - 0)/(6 - 5)	0	
ND<0	(4/1/2005)	ND<0	(3/11/2004)	(0 - 0)/(7 - 5)	0	
ND<0	(10/25/2005)	ND<0	(3/11/2004)	(0 - 0)/(8 - 5)	0	
ND<0	(4/29/2006)	ND<0	(3/11/2004)	(0 - 0)/(9 - 5)	0	
ND<0	(11/18/2006)	ND<0	(3/11/2004)	(0 - 0)/(10 - 5)	0	
ND<0	(5/23/2007)	ND<0	(3/11/2004)	(0 - 0)/(11 - 5)	0	
ND<0	(11/28/2007)	ND<0	(3/11/2004)	(0 - 0)/(12 - 5)	0	
ND<0	(6/5/2008)	ND<0	(3/11/2004)	(0 - 0)/(13 - 5)	0	
ND<0	(11/20/2008)	ND<0	(3/11/2004)	(0 - 0)/(14 - 5)	0	
ND<-2.07944	(6/11/2009)	ND<0	(3/11/2004)	(-2.07944 - 0)/(15 - 5)	-0.207944	
ND<-2.07944	(11/16/2009)	ND<0	(3/11/2004)	(-2.07944 - 0)/(16 - 5)	-0.18904	
ND<-2.07944	(6/30/2010)	ND<0	(3/11/2004)	(-2.07944 - 0)/(17 - 5)	-0.173287	
ND<-2.07944 U	(11/12/2010)	ND<0	(3/11/2004)	(-2.07944 - 0)/(18 - 5)	-0.159957	
ND<-2.07944 U	(7/5/2011)	ND<0	(3/11/2004)	(-2.07944 - 0)/(19 - 5)	-0.148532	
ND<0	(4/1/2005)	ND<0	(10/12/2004)	(0 - 0)/(7 - 6)	0	
ND<0	(10/25/2005)	ND<0	(10/12/2004)	(0 - 0)/(8 - 6)	0	
ND<0	(4/29/2006)	ND<0	(10/12/2004)	(0 - 0)/(9 - 6)	0	
ND<0	(11/18/2006)	ND<0	(10/12/2004)	(0 - 0)/(10 - 6)	0	
ND<0	(5/23/2007)	ND<0	(10/12/2004)	(0 - 0)/(11 - 6)	0	

ND<0 (11/28/2007)	ND<0 (10/12/2004)	(0 - 0)/(12 - 6)	0	
ND<0 (6/5/2008)	ND<0 (10/12/2004)	(0 - 0)/(13 - 6)	0	
ND<0 (11/20/2008)	ND<0 (10/12/2004)	(0 - 0)/(14 - 6)	0	
ND<-2.07944 (6/11/2009)	ND<0 (10/12/2004)	(-2.07944 - 0)/(15 - 6)		
-0.231049				
ND<-2.07944 (11/16/2009)	ND<0 (10/12/2004)	(-2.07944 - 0)/(16 - 6)		
-0.207944				
ND<-2.07944 (6/30/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(17 - 6)		-0.18904
ND<-2.07944 U (11/12/2010)	ND<0 (10/12/2004)	(-2.07944 - 0)/(18 - 6)		
-0.173287				
ND<-2.07944 U (7/5/2011)	ND<0 (10/12/2004)	(-2.07944 - 0)/(19 - 6)		
-0.159957				
ND<0 (10/25/2005)	ND<0 (4/1/2005)	(0 - 0)/(8 - 7)	0	
ND<0 (4/29/2006)	ND<0 (4/1/2005)	(0 - 0)/(9 - 7)	0	
ND<0 (11/18/2006)	ND<0 (4/1/2005)	(0 - 0)/(10 - 7)	0	
ND<0 (5/23/2007)	ND<0 (4/1/2005)	(0 - 0)/(11 - 7)	0	
ND<0 (11/28/2007)	ND<0 (4/1/2005)	(0 - 0)/(12 - 7)	0	
ND<0 (6/5/2008)	ND<0 (4/1/2005)	(0 - 0)/(13 - 7)	0	
ND<0 (11/20/2008)	ND<0 (4/1/2005)	(0 - 0)/(14 - 7)	0	
ND<-2.07944 (6/11/2009)	ND<0 (4/1/2005)	(-2.07944 - 0)/(15 - 7)		-0.25993
ND<-2.07944 (11/16/2009)	ND<0 (4/1/2005)	(-2.07944 - 0)/(16 - 7)		
-0.231049				
ND<-2.07944 (6/30/2010)	ND<0 (4/1/2005)	(-2.07944 - 0)/(17 - 7)		
-0.207944				
ND<-2.07944 U (11/12/2010)	ND<0 (4/1/2005)	(-2.07944 - 0)/(18 - 7)		
-0.18904				
ND<-2.07944 U (7/5/2011)	ND<0 (4/1/2005)	(-2.07944 - 0)/(19 - 7)		
-0.173287				
ND<0 (4/29/2006)	ND<0 (10/25/2005)	(0 - 0)/(9 - 8)	0	
ND<0 (11/18/2006)	ND<0 (10/25/2005)	(0 - 0)/(10 - 8)	0	
ND<0 (5/23/2007)	ND<0 (10/25/2005)	(0 - 0)/(11 - 8)	0	
ND<0 (11/28/2007)	ND<0 (10/25/2005)	(0 - 0)/(12 - 8)	0	
ND<0 (6/5/2008)	ND<0 (10/25/2005)	(0 - 0)/(13 - 8)	0	
ND<0 (11/20/2008)	ND<0 (10/25/2005)	(0 - 0)/(14 - 8)	0	
ND<-2.07944 (6/11/2009)	ND<0 (10/25/2005)	(-2.07944 - 0)/(15 - 8)		
-0.297063				
ND<-2.07944 (11/16/2009)	ND<0 (10/25/2005)	(-2.07944 - 0)/(16 - 8)		
-0.25993				
ND<-2.07944 (6/30/2010)	ND<0 (10/25/2005)	(-2.07944 - 0)/(17 - 8)		
-0.231049				
ND<-2.07944 U (11/12/2010)	ND<0 (10/25/2005)	(-2.07944 - 0)/(18 - 8)		
-0.207944				
ND<-2.07944 U (7/5/2011)	ND<0 (10/25/2005)	(-2.07944 - 0)/(19 - 8)		-0.18904
ND<0 (11/18/2006)	ND<0 (4/29/2006)	(0 - 0)/(10 - 9)	0	
ND<0 (5/23/2007)	ND<0 (4/29/2006)	(0 - 0)/(11 - 9)	0	
ND<0 (11/28/2007)	ND<0 (4/29/2006)	(0 - 0)/(12 - 9)	0	
ND<0 (6/5/2008)	ND<0 (4/29/2006)	(0 - 0)/(13 - 9)	0	
ND<0 (11/20/2008)	ND<0 (4/29/2006)	(0 - 0)/(14 - 9)	0	
ND<-2.07944 (6/11/2009)	ND<0 (4/29/2006)	(-2.07944 - 0)/(15 - 9)		
-0.346574				
ND<-2.07944 (11/16/2009)	ND<0 (4/29/2006)	(-2.07944 - 0)/(16 - 9)		
-0.297063				
ND<-2.07944 (6/30/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(17 - 9)		-0.25993
ND<-2.07944 U (11/12/2010)	ND<0 (4/29/2006)	(-2.07944 - 0)/(18 - 9)		
-0.231049				
ND<-2.07944 U (7/5/2011)	ND<0 (4/29/2006)	(-2.07944 - 0)/(19 - 9)		
-0.207944				
ND<0 (5/23/2007)	ND<0 (11/18/2006)	(0 - 0)/(11 - 10)	0	

ND<0 (11/28/2007) ND<0 (11/18/2006) (0 - 0)/(12 - 10) 0
ND<0 (6/5/2008) ND<0 (11/18/2006) (0 - 0)/(13 - 10) 0
ND<0 (11/20/2008) ND<0 (11/18/2006) (0 - 0)/(14 - 10) 0
ND<-2.07944 (6/11/2009) ND<0 (11/18/2006) (-2.07944 - 0)/(15 - 10)
-0.415888
ND<-2.07944 (11/16/2009) ND<0 (11/18/2006) (-2.07944 - 0)/(16 - 10)
-0.346574
ND<-2.07944 (6/30/2010) ND<0 (11/18/2006) (-2.07944 - 0)/(17 - 10)
-0.297063
ND<-2.07944 U (11/12/2010) ND<0 (11/18/2006) (-2.07944 - 0)/(18 - 10)
-0.25993
ND<-2.07944 U (7/5/2011) ND<0 (11/18/2006) (-2.07944 - 0)/(19 - 10)
-0.231049

ND<0 (11/28/2007) ND<0 (5/23/2007) (0 - 0)/(12 - 11) 0
ND<0 (6/5/2008) ND<0 (5/23/2007) (0 - 0)/(13 - 11) 0
ND<0 (11/20/2008) ND<0 (5/23/2007) (0 - 0)/(14 - 11) 0
ND<-2.07944 (6/11/2009) ND<0 (5/23/2007) (-2.07944 - 0)/(15 - 11) -0.51986
ND<-2.07944 (11/16/2009) ND<0 (5/23/2007) (-2.07944 - 0)/(16 - 11)
-0.415888
ND<-2.07944 (6/30/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(17 - 11)
-0.346574
ND<-2.07944 U (11/12/2010) ND<0 (5/23/2007) (-2.07944 - 0)/(18 - 11)
-0.297063
ND<-2.07944 U (7/5/2011) ND<0 (5/23/2007) (-2.07944 - 0)/(19 - 11) -0.25993

ND<0 (6/5/2008) ND<0 (11/28/2007) (0 - 0)/(13 - 12) 0
ND<0 (11/20/2008) ND<0 (11/28/2007) (0 - 0)/(14 - 12) 0
ND<-2.07944 (6/11/2009) ND<0 (11/28/2007) (-2.07944 - 0)/(15 - 12)
-0.693147
ND<-2.07944 (11/16/2009) ND<0 (11/28/2007) (-2.07944 - 0)/(16 - 12)
-0.51986
ND<-2.07944 (6/30/2010) ND<0 (11/28/2007) (-2.07944 - 0)/(17 - 12)
-0.415888
ND<-2.07944 U (11/12/2010) ND<0 (11/28/2007) (-2.07944 - 0)/(18 - 12)
-0.346574
ND<-2.07944 U (7/5/2011) ND<0 (11/28/2007) (-2.07944 - 0)/(19 - 12)
-0.297063

ND<0 (11/20/2008) ND<0 (6/5/2008) (0 - 0)/(14 - 13) 0
ND<-2.07944 (6/11/2009) ND<0 (6/5/2008) (-2.07944 - 0)/(15 - 13) -1.03972
ND<-2.07944 (11/16/2009) ND<0 (6/5/2008) (-2.07944 - 0)/(16 - 13)
-0.693147
ND<-2.07944 (6/30/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(17 - 13) -0.51986
ND<-2.07944 U (11/12/2010) ND<0 (6/5/2008) (-2.07944 - 0)/(18 - 13)
-0.415888
ND<-2.07944 U (7/5/2011) ND<0 (6/5/2008) (-2.07944 - 0)/(19 - 13)
-0.346574

ND<-2.07944 (6/11/2009) ND<0 (11/20/2008) (-2.07944 - 0)/(15 - 14) -2.07944
ND<-2.07944 (11/16/2009) ND<0 (11/20/2008) (-2.07944 - 0)/(16 - 14)
-1.03972
ND<-2.07944 (6/30/2010) ND<0 (11/20/2008) (-2.07944 - 0)/(17 - 14)
-0.693147
ND<-2.07944 U (11/12/2010) ND<0 (11/20/2008) (-2.07944 - 0)/(18 - 14)
-0.51986
ND<-2.07944 U (7/5/2011) ND<0 (11/20/2008) (-2.07944 - 0)/(19 - 14)
-0.415888

ND<-2.07944 (11/16/2009) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(16 - 15)
0

ND<-2.07944 (6/30/2010) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(17 - 15)
0
ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(18 - 15)
0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(19 - 15)
0

ND<-2.07944 (6/30/2010) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(17 - 16)
0
ND<-2.07944 U (11/12/2010) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(18 -
16) 0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(19 - 16)
0

ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(18 - 17)
0
ND<-2.07944 U (7/5/2011) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(19 - 17)
0

ND<-2.07944 U (7/5/2011) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(19 - 18)
0

Number of Q values = 171

Ordered Q Values

n	Q
1	-2.07944
2	-1.03972
3	-1.03972
4	-0.693147
5	-0.693147
6	-0.693147
7	-0.51986
8	-0.51986
9	-0.51986
10	-0.51986
11	-0.415888
12	-0.415888
13	-0.415888
14	-0.415888
15	-0.415888
16	-0.346574
17	-0.346574
18	-0.346574
19	-0.346574
20	-0.346574
21	-0.297063
22	-0.297063
23	-0.297063
24	-0.297063
25	-0.297063
26	-0.25993
27	-0.25993
28	-0.25993
29	-0.25993
30	-0.25993
31	-0.231049
32	-0.231049
33	-0.231049
34	-0.231049

35	-0.231049
36	-0.207944
37	-0.207944
38	-0.207944
39	-0.207944
40	-0.207944
41	-0.18904
42	-0.18904
43	-0.18904
44	-0.18904
45	-0.18904
46	-0.173287
47	-0.173287
48	-0.173287
49	-0.173287
50	-0.173287
51	-0.159957
52	-0.159957
53	-0.159957
54	-0.159957
55	-0.159957
56	-0.148532
57	-0.148532
58	-0.148532
59	-0.148532
60	-0.148532
61	-0.138629
62	-0.138629
63	-0.138629
64	-0.138629
65	-0.129965
66	-0.129965
67	-0.129965
68	-0.12232
69	-0.12232
70	-0.115525
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

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	14
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	

There are 0 time periods with multiple data

A = 6306
B = 0
C = 2244
D = 0
E = 202
F = 0
a = 14706
b = 52326
c = 684
Group Variance = 466.667
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 35.5329
M1 = (171 - 35.5329)/2.0 = 67.7336
M2 = (171 + 35.5329)/2.0 + 1 = 104.266
Lower limit is -0.12232 = Q(68)
Upper limit is 0 = Q(104)
-0.12232 < 0 < 0 indicating no trend in data.

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
-1.23787 J (6/5/2012) 2.14007 (7/20/1995) (-1.23787 - 2.14007)/(31 - 1)
-0.112598

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
-1.23787 J (6/5/2012) 3.04452 (8/24/1995) (-1.23787 - 3.04452)/(31 - 2)
-0.147669

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
-1.23787 J (6/5/2012) 2.94444 (9/28/1995) (-1.23787 - 2.94444)/(31 - 3)
-0.149368

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
-1.23787 J	(6/5/2012)	3.09104	(10/26/1995)	(-1.23787 - 3.09104)/(31 - 4)	-0.16033

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					
-1.23787 J (6/5/2012)	ND<0 (11/19/1996)	(-1.23787 - 0)/(31 - 5)			
-0.0476106					
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
-1.23787 J (6/5/2012)	2.94444 (12/19/1996)	(-1.23787 - 2.94444)/(31 - 6)	-0.167293

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
-1.23787 J (6/5/2012) ND<0 (3/24/1997) (-1.23787 - 0)/(31 - 7)
-0.0515781

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
-1.23787 J (6/5/2012) 1.62924 (9/24/1997) (-1.23787 - 1.62924)/(31 - 8)
-0.124657

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
-1.23787 J (6/5/2012) 2.12823 (4/7/1998) (-1.23787 - 2.12823)/(31 - 9)
-0.153005

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)
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-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)
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-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
-1.23787 J (6/5/2012) 2.56495 (9/23/1998) (-1.23787 - 2.56495)/(31 - 10)
-0.181087

1.70475 (9/23/1999) 2.37955 (3/16/1999) (1.70475 - 2.37955)/(12 - 11)
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2.29253 (3/15/2000) 2.37955 (3/16/1999) (2.29253 - 2.37955)/(13 - 11)
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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)
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ND<0 (10/12/2004) 2.37955 (3/16/1999) (0 - 2.37955)/(16 - 11)
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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)
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0.727549 (11/18/2006) 2.37955 (3/16/1999) (0.727549 - 2.37955)/(20 - 11)
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ND<0 (5/23/2007) 2.37955 (3/16/1999) (0 - 2.37955)/(21 - 11)
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1.39872 (11/28/2007) 2.37955 (3/16/1999) (1.39872 - 2.37955)/(22 - 11)
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ND<0 (6/5/2008) 2.37955 (3/16/1999) (0 - 2.37955)/(23 - 11)
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-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)
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-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)
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ND<-2.07944 U (11/12/2010) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(28 - 11)
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-0.18173

ND<-2.07944 U (11/22/2011) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(30 - 11)
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ND<-2.07944 U (11/22/2011) 2.37955 (3/16/1999) (-2.07944 - 2.37955)/(30 - 11)
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-1.23787 J (6/5/2012) 2.37955 (3/16/1999) (-1.23787 - 2.37955)/(31 - 11)
-0.180871

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ND<0 (9/24/2003) 1.70475 (9/23/1999) (0 - 1.70475)/(14 - 12)
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ND<0 (3/11/2004) 1.70475 (9/23/1999) (0 - 1.70475)/(15 - 12)
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ND<0 (10/12/2004) 1.70475 (9/23/1999) (0 - 1.70475)/(16 - 12)
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1.35067 (4/1/2005) 1.70475 (9/23/1999) (1.35067 - 1.70475)/(17 - 12)
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0.779325 (10/25/2005) 1.70475 (9/23/1999) (0.779325 - 1.70475)/(18 - 12)
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ND<0 (5/23/2007) 1.70475 (9/23/1999) (0 - 1.70475)/(21 - 12)
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ND<0 (6/5/2008) 1.70475 (9/23/1999) (0 - 1.70475)/(23 - 12)
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-0.867501 J (11/16/2009) 1.70475 (9/23/1999) (-0.867501 - 1.70475)/(26 - 12)
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1.06471 (6/30/2010) 1.70475 (9/23/1999) (1.06471 - 1.70475)/(27 - 12)
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ND<-2.07944 U (11/12/2010) 1.70475 (9/23/1999) (-2.07944 - 1.70475)/(28 - 12)
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-0.891598 J (7/5/2011) 1.70475 (9/23/1999) (-0.891598 - 1.70475)/(29 - 12)
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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)
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-1.23787 J (6/5/2012) 1.70475 (9/23/1999) (-1.23787 - 1.70475)/(31 - 12)
-0.154875

ND<0 (9/24/2003) 2.29253 (3/15/2000) (0 - 2.29253)/(14 - 13) -2.29253
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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)
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ND<0 (5/23/2007) 2.29253 (3/15/2000) (0 - 2.29253)/(21 - 13)
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1.39872 (11/28/2007) 2.29253 (3/15/2000) (1.39872 - 2.29253)/(22 - 13)
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ND<0 (6/5/2008) 2.29253 (3/15/2000) (0 - 2.29253)/(23 - 13)
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-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)
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-0.867501 J (11/16/2009) 2.29253 (3/15/2000) (-0.867501 - 2.29253)/(26 - 13)
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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)
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-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)
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ND<-2.07944 U (11/22/2011) 2.29253 (3/15/2000) (-2.07944 - 2.29253)/(30 - 13)
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-0.196134

ND<0 (3/11/2004) ND<0 (9/24/2003) (0 - 0)/(15 - 14) 0
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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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-0.891598 J (7/5/2011) ND<0 (9/24/2003) (-0.891598 - 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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-1.23787 J (6/5/2012) ND<0 (9/24/2003) (-1.23787 - 0)/(31 - 14)
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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)
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0.779325 (10/25/2005) ND<0 (3/11/2004) (0.779325 - 0)/(18 - 15)
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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)
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1.06471 (6/11/2009) ND<0 (3/11/2004) (1.06471 - 0)/(25 - 15)
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-0.867501 J (11/16/2009) ND<0 (3/11/2004) (-0.867501 - 0)/(26 - 15)
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1.06471 (6/30/2010) ND<0 (3/11/2004) (1.06471 - 0)/(27 - 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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-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)
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-1.23787 J (6/5/2012) ND<0 (3/11/2004) (-1.23787 - 0)/(31 - 15)
-0.0773671

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)
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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)
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1.06471 (6/11/2009) ND<0 (10/12/2004) (1.06471 - 0)/(25 - 16)
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1.06471 (6/30/2010) ND<0 (10/12/2004) (1.06471 - 0)/(27 - 16)
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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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-0.891598 J (7/5/2011) ND<0 (10/12/2004) (-0.891598 - 0)/(29 - 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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ND<-2.07944 U (11/22/2011) ND<0 (10/12/2004) (-2.07944 - 0)/(30 - 16)
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-1.23787 J (6/5/2012) ND<0 (10/12/2004) (-1.23787 - 0)/(31 - 16)
-0.082525

0.779325 (10/25/2005) 1.35067 (4/1/2005) (0.779325 - 1.35067)/(18 - 17)
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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
-1.23787 J (6/5/2012)	1.35067 (4/1/2005)	(-1.23787 - 1.35067)/(31 - 17)	-0.184896
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
-1.23787 J (6/5/2012)	0.779325 (10/25/2005)	(-1.23787 - 0.779325)/(31 - 18)	-0.155169
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
-1.23787 J (6/5/2012)	0.518794 J (4/29/2006)	(-1.23787 - 0.518794)/(31 - 19)	-0.146389
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
-1.23787 J (6/5/2012)	0.727549 (11/18/2006)	(-1.23787 - 0.727549)/(31 - 20)	-0.178675
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
-1.23787 J (6/5/2012)	ND<0 (5/23/2007)	(-1.23787 - 0)/(31 - 21)	-0.123787
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)
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-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)
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ND<-2.07944 U (11/12/2010) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(28 - 22)
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-0.891598 J (7/5/2011) 1.39872 (11/28/2007) (-0.891598 - 1.39872)/(29 - 22)
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ND<-2.07944 U (11/22/2011) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(30 - 22)
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ND<-2.07944 U (11/22/2011) 1.39872 (11/28/2007) (-2.07944 - 1.39872)/(30 - 22)
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-1.23787 J (6/5/2012) 1.39872 (11/28/2007) (-1.23787 - 1.39872)/(31 - 22)
-0.292955

-0.579818 J (11/20/2008) ND<0 (6/5/2008) (-0.579818 - 0)/(24 - 23)
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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
-1.23787 J (6/5/2012) ND<0 (6/5/2008) (-1.23787 - 0)/(31 - 23)
-0.154734

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
-1.23787 J (6/5/2012) -0.579818 J (11/20/2008) (-1.23787 - -0.579818)/(31 - 24)
-0.094008

-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
-1.23787 J (6/5/2012) 1.06471 (6/11/2009) (-1.23787 - 1.06471)/(31 - 25)
-0.383764

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
-1.23787 J (6/5/2012) -0.867501 J (11/16/2009) (-1.23787 - -0.867501)/(31 - 26)
-0.0740748

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
-1.23787 J (6/5/2012) 1.06471 (6/30/2010) (-1.23787 - 1.06471)/(31 - 27)
-0.575646

-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
-1.23787 J (6/5/2012) ND<-2.07944 U (11/12/2010) (-1.23787 - -2.07944)/(31 - 28)
0.280522

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
-1.23787 J (6/5/2012) -0.891598 J (7/5/2011) (-1.23787 - -0.891598)/(31 - 29)
-0.173138

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date
-1.23787 J (6/5/2012) ND<-2.07944 U (11/22/2011) (-1.23787 - -2.07944)/(31 - 30)
0.841567

-1.23787 J (6/5/2012) ND<-2.07944 U (11/22/2011) (-1.23787 - -2.07944)/(31 - 30)
0.841567

Number of Q values = 495

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	-0.575646
34	-0.571342
35	-0.568249
36	-0.566554
37	-0.535017
38	-0.51299
39	-0.489077
40	-0.475909
41	-0.43477
42	-0.43477
43	-0.430101
44	-0.427492
45	-0.426187
46	-0.425646
47	-0.415937
48	-0.415888
49	-0.383764
50	-0.374906
51	-0.368055
52	-0.36545
53	-0.356678
54	-0.354705
55	-0.350874
56	-0.337667
57	-0.327188
58	-0.32716
59	-0.326842
60	-0.311828
61	-0.309104
62	-0.304033
63	-0.302985

64	-0.302985
65	-0.302642
66	-0.297063
67	-0.297063
68	-0.297063
69	-0.295623
70	-0.294444
71	-0.292955
72	-0.291465
73	-0.289167
74	-0.288693
75	-0.286567
76	-0.285877
77	-0.281004
78	-0.280699
79	-0.280699
80	-0.275784
81	-0.272069
82	-0.27154
83	-0.267676
84	-0.265842
85	-0.263855
86	-0.263855
87	-0.26304
88	-0.262293
89	-0.261123
90	-0.260531
91	-0.259775
92	-0.259397
93	-0.258022
94	-0.257587
95	-0.257175
96	-0.257175
97	-0.25371
98	-0.249937
99	-0.249937
100	-0.246463
101	-0.24537
102	-0.24308
103	-0.242516
104	-0.238231
105	-0.238231
106	-0.237955
107	-0.236512
108	-0.236203
109	-0.236203
110	-0.23588
111	-0.235467
112	-0.234684
113	-0.234684
114	-0.234194
115	-0.233177
116	-0.232749
117	-0.232594
118	-0.23222
119	-0.23222
120	-0.231049
121	-0.231049
122	-0.229253
123	-0.228603
124	-0.228358
125	-0.227643

126	-0.227351
127	-0.226524
128	-0.226495
129	-0.225111
130	-0.224626
131	-0.223569
132	-0.223203
133	-0.221456
134	-0.219722
135	-0.217466
136	-0.21647
137	-0.215437
138	-0.214528
139	-0.210233
140	-0.210233
141	-0.209328
142	-0.209328
143	-0.207706
144	-0.206615
145	-0.205853
146	-0.203655
147	-0.200955
148	-0.200365
149	-0.200365
150	-0.199008
151	-0.198865
152	-0.198865
153	-0.198296
154	-0.198042
155	-0.197304
156	-0.197076
157	-0.196296
158	-0.196134
159	-0.195792
160	-0.193273
161	-0.192562
162	-0.190597
163	-0.190381
164	-0.189416
165	-0.186855
166	-0.186588
167	-0.18607
168	-0.18607
169	-0.185434
170	-0.185403
171	-0.184896
172	-0.18374
173	-0.183732
174	-0.183555
175	-0.183543
176	-0.182999
177	-0.182999
178	-0.181924
179	-0.181826
180	-0.18173
181	-0.181087
182	-0.180871
183	-0.180537
184	-0.180426
185	-0.179934
186	-0.179905
187	-0.178675

188	-0.177353
189	-0.17622
190	-0.1735
191	-0.173469
192	-0.173287
193	-0.173287
194	-0.173202
195	-0.173138
196	-0.171483
197	-0.17148
198	-0.169422
199	-0.168576
200	-0.168576
201	-0.167822
202	-0.167293
203	-0.166784
204	-0.165737
205	-0.165123
206	-0.164743
207	-0.16462
208	-0.16358
209	-0.163001
210	-0.162686
211	-0.160944
212	-0.16033
213	-0.160238
214	-0.159957
215	-0.159306
216	-0.158349
217	-0.156278
218	-0.155865
219	-0.155169
220	-0.154977
221	-0.154875
222	-0.154734
223	-0.154237
224	-0.153005
225	-0.152862
226	-0.152726
227	-0.152017
228	-0.151902
229	-0.151603
230	-0.150991
231	-0.149879
232	-0.149368
233	-0.1486
234	-0.148572
235	-0.148532
236	-0.148532
237	-0.148532
238	-0.147718
239	-0.147669
240	-0.14754
241	-0.147222
242	-0.146389
243	-0.145782
244	-0.1455
245	-0.1455
246	-0.144977
247	-0.144888
248	-0.144341
249	-0.143841

250	-0.142671
251	-0.141575
252	-0.141161
253	-0.141039
254	-0.138708
255	-0.138629
256	-0.138629
257	-0.138066
258	-0.137743
259	-0.136035
260	-0.133977
261	-0.133875
262	-0.130899
263	-0.130405
264	-0.129965
265	-0.129965
266	-0.129698
267	-0.128721
268	-0.127335
269	-0.125326
270	-0.124657
271	-0.123787
272	-0.12215
273	-0.120303
274	-0.12004
275	-0.118256
276	-0.113841
277	-0.112979
278	-0.112924
279	-0.112598
280	-0.11145
281	-0.111335
282	-0.108616
283	-0.108274
284	-0.107003
285	-0.102319
286	-0.101642
287	-0.10095
288	-0.100083
289	-0.100016
290	-0.0993131
291	-0.099021
292	-0.0989331
293	-0.0972757
294	-0.0971956
295	-0.097186
296	-0.0966076
297	-0.096492
298	-0.0948724
299	-0.0940181
300	-0.094008
301	-0.0939168
302	-0.0931292
303	-0.0908049
304	-0.0904105
305	-0.0904105
306	-0.0904105
307	-0.0900707
308	-0.0895109
309	-0.0891663
310	-0.0887231
311	-0.0882493

312	-0.0881014
313	-0.0877017
314	-0.0876822
315	-0.0867501
316	-0.0860788
317	-0.0854422
318	-0.0849916
319	-0.0831777
320	-0.0831777
321	-0.082525
322	-0.0822903
323	-0.0821772
324	-0.0813538
325	-0.0800436
326	-0.0791925
327	-0.0788637
328	-0.078322
329	-0.0773671
330	-0.075141
331	-0.074343
332	-0.0740748
333	-0.0738863
334	-0.0733017
335	-0.0729751
336	-0.0728161
337	-0.0724773
338	-0.0722917
339	-0.0708162
340	-0.0706116
341	-0.0685845
342	-0.0683625
343	-0.0668012
344	-0.0664701
345	-0.0651904
346	-0.0644243
347	-0.0636856
348	-0.0623559
349	-0.0599466
350	-0.0594399
351	-0.0590845
352	-0.0579818
353	-0.0561165
354	-0.0542128
355	-0.0515781
356	-0.0493374
357	-0.0492336
358	-0.0476106
359	-0.0456579
360	-0.0448065
361	-0.0435057
362	-0.0426692
363	-0.0413598
364	-0.0413096
365	-0.0405272
366	-0.0395744
367	-0.0371499
368	-0.0357446
369	-0.0353023
370	-0.034107
371	-0.0332076
372	-0.0309526
373	-0.0306031

374	-0.0305168
375	-0.0297121
376	-0.0285956
377	-0.0258881
378	-0.0250209
379	-0.016466
380	-0.00803252
381	-0.00147931
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	0.00960994
408	0.0127057
409	0.0188769
410	0.02326
411	0.023948
412	0.0317095
413	0.0370567
414	0.0407694
415	0.0410758
416	0.0432328
417	0.0472092
418	0.048166
419	0.0483959
420	0.0485032
421	0.0532355
422	0.0532355
423	0.0559653
424	0.0591506
425	0.0599481
426	0.0674324
427	0.0682396
428	0.0708477
429	0.0819008
430	0.0822775
431	0.0887259
432	0.0909862
433	0.0932478
434	0.0967919
435	0.0967919

436	0.103759
437	0.106471
438	0.112556
439	0.118301
440	0.121258
441	0.125657
442	0.129698
443	0.132659
444	0.135067
445	0.14551
446	0.146603
447	0.154848
448	0.160875
449	0.172931
450	0.17484
451	0.177452
452	0.181887
453	0.194831
454	0.199817
455	0.208755
456	0.233119
457	0.243535
458	0.250102
459	0.259775
460	0.266178
461	0.266178
462	0.280522
463	0.286567
464	0.293308
465	0.316992
466	0.335584
467	0.34095
468	0.382089
469	0.389662
470	0.396591
471	0.402186
472	0.436718
473	0.450222
474	0.467854
475	0.498991
476	0.51299
477	0.532058
478	0.532355
479	0.54308
480	0.548176
481	0.587787
482	0.594887
483	0.675334
484	0.841567
485	0.841567
486	0.854983
487	0.904456
488	1.06412
489	1.18784
490	1.35067
491	1.39872
492	1.62924
493	1.64453
494	1.93221
495	2.94444

Sen's Estimator (Median Q) is -0.144341

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 900
B = 18
C = 216
D = 0
E = 52
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3751.72
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 100.749
M1 = (495 - 100.749)/2.0 = 197.125
M2 = (495 + 100.749)/2.0 + 1 = 298.875
Lower limit is -0.17148 = Q(197)
Upper limit is -0.0940181 = Q(299)
-0.0940181 < 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
0 (6/5/2012)	-0.223144 J (7/20/1995)	(0 - -0.223144)/(31 - 1)	0.00743812

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
0	(6/5/2012)	1.25276	(8/24/1995)	(0 - 1.25276)/(31 - 2)	-0.0431987
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)	-0.194591
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
0	(6/5/2012)	1.94591	(9/28/1995)	(0 - 1.94591)/(31 - 3)	-0.0694968

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
0	(6/5/2012)	1.79176	(10/26/1995)	(0 - 1.79176)/(31 - 4)	-0.0663615

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		
0 (6/5/2012)	ND<0 (11/19/1996)	(0 - 0)/(31 - 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)	-0.0940455
-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)	-0.088724
0.262364	(7/5/2011)	1.60944	(12/19/1996)	(0.262364 - 1.60944)/(29 - 6)	-0.0585684
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
0	(6/5/2012)	1.60944	(12/19/1996)	(0 - 1.60944)/(31 - 6)	-0.0643775

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)	-0.879686
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	
0 (6/5/2012)	2.63906 (3/24/1997)	(0 - 2.63906)/(31 - 7)	-0.109961	

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	
0.231112 J (6/5/2008)	1.75786 (9/24/1997)	(0.231112 - 1.75786)/(23 - 8)	-0.101783	
-0.0833816 J (11/20/2008)	1.75786 (9/24/1997)	(-0.0833816 - 1.75786)/(24 - 8)	-0.115077	
-0.0304592 J (6/11/2009)	1.75786 (9/24/1997)	(-0.0304592 - 1.75786)/(25 - 8)	-0.105195	
0.0953102 (11/16/2009)	1.75786 (9/24/1997)	(0.0953102 - 1.75786)/(26 - 8)	-0.0923638	
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-0.34249 J (11/12/2010)	1.75786 (9/24/1997)	(-0.34249 - 1.75786)/(28 - 8)	-0.105017	
0.262364 (7/5/2011)	1.75786 (9/24/1997)	(0.262364 - 1.75786)/(29 - 8)	-0.071214	
0 (11/22/2011)	1.75786 (9/24/1997)	(0 - 1.75786)/(30 - 8)	-0.0799026	
0 (11/22/2011)	1.75786 (9/24/1997)	(0 - 1.75786)/(30 - 8)	-0.0799026	
0 (6/5/2012)	1.75786 (9/24/1997)	(0 - 1.75786)/(31 - 8)	-0.0764286	

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	
0.955511 (9/23/1999)	ND<0 (4/7/1998)	(0.955511 - 0)/(12 - 9)	0.318504	
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	
0.223144 J (4/1/2005)	ND<0 (4/7/1998)	(0.223144 - 0)/(17 - 9)	0.0278929	

0.470004 J (10/25/2005) ND<0 (4/7/1998) (0.470004 - 0)/(18 - 9)
0.0522226
0.647103 J (4/29/2006) ND<0 (4/7/1998) (0.647103 - 0)/(19 - 9)
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0.113329 J (11/18/2006) ND<0 (4/7/1998) (0.113329 - 0)/(20 - 9)
0.0103026
ND<0 (5/23/2007) ND<0 (4/7/1998) (0 - 0)/(21 - 9) 0
0.300105 (11/28/2007) ND<0 (4/7/1998) (0.300105 - 0)/(22 - 9)
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0.231112 J (6/5/2008) ND<0 (4/7/1998) (0.231112 - 0)/(23 - 9)
0.016508
-0.0833816 J (11/20/2008) ND<0 (4/7/1998) (-0.0833816 - 0)/(24 - 9)
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-0.34249 J (11/12/2010) ND<0 (4/7/1998) (-0.34249 - 0)/(28 - 9)
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1.54756 (3/16/1999) ND<0 (9/23/1998) (1.54756 - 0)/(11 - 10) 1.54756
0.955511 (9/23/1999) ND<0 (9/23/1998) (0.955511 - 0)/(12 - 10)
0.477756
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
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ND<0 (10/12/2004) ND<0 (9/23/1998) (0 - 0)/(16 - 10) 0
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ND<0 (5/23/2007) ND<0 (9/23/1998) (0 - 0)/(21 - 10) 0
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-0.0833816 J (11/20/2008) ND<0 (9/23/1998) (-0.0833816 - 0)/(24 - 10)
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-0.34249 J (11/12/2010) ND<0 (9/23/1998) (-0.34249 - 0)/(28 - 10)
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0.955511 (9/23/1999) 1.54756 (3/16/1999) (0.955511 - 1.54756)/(12 - 11)
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0.470004 J (10/25/2005) 1.54756 (3/16/1999) (0.470004 - 1.54756)/(18 - 11)
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0.647103 J (4/29/2006) 1.54756 (3/16/1999) (0.647103 - 1.54756)/(19 - 11)
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0.113329 J (11/18/2006) 1.54756 (3/16/1999) (0.113329 - 1.54756)/(20 - 11)
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ND<0 (5/23/2007) 1.54756 (3/16/1999) (0 - 1.54756)/(21 - 11)
-0.154756
0.300105 (11/28/2007) 1.54756 (3/16/1999) (0.300105 - 1.54756)/(22 - 11)
-0.113405
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-0.0833816 J (11/20/2008) 1.54756 (3/16/1999) (-0.0833816 - 1.54756)/(24 - 11)
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-0.112716
0.0953102 (11/16/2009) 1.54756 (3/16/1999) (0.0953102 - 1.54756)/(26 - 11)
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-0.71335 J (6/30/2010) 1.54756 (3/16/1999) (-0.71335 - 1.54756)/(27 - 11)
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-0.34249 J (11/12/2010) 1.54756 (3/16/1999) (-0.34249 - 1.54756)/(28 - 11)
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0.262364 (7/5/2011) 1.54756 (3/16/1999) (0.262364 - 1.54756)/(29 - 11)
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0 (11/22/2011) 1.54756 (3/16/1999) (0 - 1.54756)/(30 - 11) -0.0814507
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0 (6/5/2012) 1.54756 (3/16/1999) (0 - 1.54756)/(31 - 11) -0.0773781

ND<0 (3/15/2000) 0.955511 (9/23/1999) (0 - 0.955511)/(13 - 12)
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ND<0 (3/11/2004) 0.955511 (9/23/1999) (0 - 0.955511)/(15 - 12)
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0.647103 J (4/29/2006) 0.955511 (9/23/1999) (0.647103 - 0.955511)/(19 - 12)
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ND<0 (5/23/2007) 0.955511 (9/23/1999) (0 - 0.955511)/(21 - 12)
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0.300105 (11/28/2007) 0.955511 (9/23/1999) (0.300105 - 0.955511)/(22 - 12)
-0.0655407

0.231112 J (6/5/2008)	0.955511	(9/23/1999)	(0.231112 - 0.955511)/(23 - 12)	-0.0658545
-0.0833816 J (11/20/2008)	0.955511	(9/23/1999)	(-0.0833816 - 0.955511)/(24 - 12)	-0.0865744
-0.0304592 J (6/11/2009)	0.955511	(9/23/1999)	(-0.0304592 - 0.955511)/(25 - 12)	-0.0758439
0.0953102 (11/16/2009)	0.955511	(9/23/1999)	(0.0953102 - 0.955511)/(26 - 12)	-0.0614429
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0.262364 (7/5/2011)	0.955511	(9/23/1999)	(0.262364 - 0.955511)/(29 - 12)	-0.0407734
0 (11/22/2011)	0.955511	(9/23/1999)	(0 - 0.955511)/(30 - 12)	-0.053084
0 (11/22/2011)	0.955511	(9/23/1999)	(0 - 0.955511)/(30 - 12)	-0.053084
0 (6/5/2012)	0.955511	(9/23/1999)	(0 - 0.955511)/(31 - 12)	-0.0502901

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
0.223144 J (4/1/2005)	ND<0	(3/15/2000)	(0.223144 - 0)/(17 - 13)	0.0557859
0.470004 J (10/25/2005)	ND<0	(3/15/2000)	(0.470004 - 0)/(18 - 13)	0.0940007
0.647103 J (4/29/2006)	ND<0	(3/15/2000)	(0.647103 - 0)/(19 - 13)	0.107851
0.113329 J (11/18/2006)	ND<0	(3/15/2000)	(0.113329 - 0)/(20 - 13)	0.0161898
ND<0 (5/23/2007)	ND<0	(3/15/2000)	(0 - 0)/(21 - 13)	0
0.300105 (11/28/2007)	ND<0	(3/15/2000)	(0.300105 - 0)/(22 - 13)	0.033345
0.231112 J (6/5/2008)	ND<0	(3/15/2000)	(0.231112 - 0)/(23 - 13)	0.0231112
-0.0833816 J (11/20/2008)	ND<0	(3/15/2000)	(-0.0833816 - 0)/(24 - 13)	-0.00758015
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0.0953102 (11/16/2009)	ND<0	(3/15/2000)	(0.0953102 - 0)/(26 - 13)	0.00733155
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0.262364 (7/5/2011)	ND<0	(3/15/2000)	(0.262364 - 0)/(29 - 13)	0.0163978
0 (11/22/2011)	ND<0	(3/15/2000)	(0 - 0)/(30 - 13)	0
0 (11/22/2011)	ND<0	(3/15/2000)	(0 - 0)/(30 - 13)	0
0 (6/5/2012)	ND<0	(3/15/2000)	(0 - 0)/(31 - 13)	0

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
0.223144 J (4/1/2005)	ND<0	(9/24/2003)	(0.223144 - 0)/(17 - 14)	0.0743812
0.470004 J (10/25/2005)	ND<0	(9/24/2003)	(0.470004 - 0)/(18 - 14)	0.117501
0.647103 J (4/29/2006)	ND<0	(9/24/2003)	(0.647103 - 0)/(19 - 14)	0.129421
0.113329 J (11/18/2006)	ND<0	(9/24/2003)	(0.113329 - 0)/(20 - 14)	0.0188881
ND<0 (5/23/2007)	ND<0	(9/24/2003)	(0 - 0)/(21 - 14)	0

0.300105 (11/28/2007) ND<0 (9/24/2003) (0.300105 - 0)/(22 - 14)
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ND<0 (10/12/2004) ND<0 (3/11/2004) (0 - 0)/(16 - 15) 0
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0.647103 J (4/29/2006) ND<0 (3/11/2004) (0.647103 - 0)/(19 - 15)
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0.113329 J (11/18/2006) ND<0 (3/11/2004) (0.113329 - 0)/(20 - 15)
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ND<0 (5/23/2007) ND<0 (3/11/2004) (0 - 0)/(21 - 15) 0
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0.300105 (11/28/2007) ND<0 (10/12/2004) (0.300105 - 0)/(22 - 16)
0.0500174

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-0.0833816 J (11/20/2008)	ND<0 (10/12/2004)	(-0.0833816 - 0)/(24 - 16)	-0.0104227	
-0.0304592 J (6/11/2009)	ND<0 (10/12/2004)	(-0.0304592 - 0)/(25 - 16)	-0.00338436	
0.0953102 (11/16/2009)	ND<0 (10/12/2004)	(0.0953102 - 0)/(26 - 16)	0.00953102	
-0.71335 J (6/30/2010)	ND<0 (10/12/2004)	(-0.71335 - 0)/(27 - 16)	-0.06485	
-0.34249 J (11/12/2010)	ND<0 (10/12/2004)	(-0.34249 - 0)/(28 - 16)	-0.0285409	
0.262364 (7/5/2011)	ND<0 (10/12/2004)	(0.262364 - 0)/(29 - 16)	0.0201819	
0 (11/22/2011)	ND<0 (10/12/2004)	(0 - 0)/(30 - 16)	0	
0 (11/22/2011)	ND<0 (10/12/2004)	(0 - 0)/(30 - 16)	0	
0 (6/5/2012)	ND<0 (10/12/2004)	(0 - 0)/(31 - 16)	0	

0.470004 J (10/25/2005)	0.223144 J (4/1/2005)	(0.470004 - 0.223144)/(18 - 17)	0.24686
0.647103 J (4/29/2006)	0.223144 J (4/1/2005)	(0.647103 - 0.223144)/(19 - 17)	0.21198
0.113329 J (11/18/2006)	0.223144 J (4/1/2005)	(0.113329 - 0.223144)/(20 - 17)	-0.036605
ND<0 (5/23/2007)	0.223144 J (4/1/2005)	(0 - 0.223144)/(21 - 17)	-0.0557859
0.300105 (11/28/2007)	0.223144 J (4/1/2005)	(0.300105 - 0.223144)/(22 - 17)	0.0153922
0.231112 J (6/5/2008)	0.223144 J (4/1/2005)	(0.231112 - 0.223144)/(23 - 17)	0.00132803
-0.0833816 J (11/20/2008)	0.223144 J (4/1/2005)	(-0.0833816 - 0.223144)/(24 - 17)	-0.0437893
-0.0304592 J (6/11/2009)	0.223144 J (4/1/2005)	(-0.0304592 - 0.223144)/(25 - 17)	-0.0317003
0.0953102 (11/16/2009)	0.223144 J (4/1/2005)	(0.0953102 - 0.223144)/(26 - 17)	-0.0142037
-0.71335 J (6/30/2010)	0.223144 J (4/1/2005)	(-0.71335 - 0.223144)/(27 - 17)	-0.0936493
-0.34249 J (11/12/2010)	0.223144 J (4/1/2005)	(-0.34249 - 0.223144)/(28 - 17)	-0.0514213
0.262364 (7/5/2011)	0.223144 J (4/1/2005)	(0.262364 - 0.223144)/(29 - 17)	0.00326839
0 (11/22/2011)	0.223144 J (4/1/2005)	(0 - 0.223144)/(30 - 17)	-0.0171649
0 (11/22/2011)	0.223144 J (4/1/2005)	(0 - 0.223144)/(30 - 17)	-0.0171649
0 (6/5/2012)	0.223144 J (4/1/2005)	(0 - 0.223144)/(31 - 17)	-0.0159388

0.647103 J (4/29/2006)	0.470004 J (10/25/2005)	(0.647103 - 0.470004)/(19 - 18)	0.1771
0.113329 J (11/18/2006)	0.470004 J (10/25/2005)	(0.113329 - 0.470004)/(20 - 18)	-0.178337
ND<0 (5/23/2007)	0.470004 J (10/25/2005)	(0 - 0.470004)/(21 - 18)	-0.156668
0.300105 (11/28/2007)	0.470004 J (10/25/2005)	(0.300105 - 0.470004)/(22 - 18)	-0.0424748
0.231112 J (6/5/2008)	0.470004 J (10/25/2005)	(0.231112 - 0.470004)/(23 - 18)	-0.0477784
-0.0833816 J (11/20/2008)	0.470004 J (10/25/2005)	(-0.0833816 - 0.470004)/(24 - 18)	-0.0922309
-0.0304592 J (6/11/2009)	0.470004 J (10/25/2005)	(-0.0304592 - 0.470004)/(25 - 18)	-0.0714947
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 (6/5/2012)	0.470004 J (10/25/2005)	(0 - 0.470004)/(31 - 18)	-0.0361541

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
0.0953102 (11/16/2009)	0.647103 J (4/29/2006)	(0.0953102 - 0.647103)/(26 - 19)	-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)	-0.109955
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
0 (6/5/2012)	0.647103 J (4/29/2006)	(0 - 0.647103)/(31 - 19)	-0.0539253

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)	0.093388
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
0.0953102 (11/16/2009)	0.113329 J (11/18/2006)	(0.0953102 - 0.113329)/(26 - 20)	-0.00300308
-0.71335 J (6/30/2010)	0.113329 J (11/18/2006)	(-0.71335 - 0.113329)/(27 - 20)	-0.118097
-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)	0.0165595
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 (6/5/2012)	0.113329 J (11/18/2006)	(0 - 0.113329)/(31 - 20)	-0.0103026

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)
-0.0489272
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 (6/5/2012) ND<0 (5/23/2007) (0 - 0)/(31 - 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 (6/5/2012) 0.300105 (11/28/2007) (0 - 0.300105)/(31 - 22) -0.033345

-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 (6/5/2012) 0.231112 J (6/5/2008) (0 - 0.231112)/(31 - 23) -0.028889

-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 (6/5/2012) -0.0833816 J (11/20/2008) (0 - -0.0833816)/(31 - 24) 0.0119117

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 (6/5/2012)	-0.0304592 J (6/11/2009)	(0 - -0.0304592)/(31 - 25)	0.00507653
-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 (6/5/2012)	0.0953102 (11/16/2009)	(0 - 0.0953102)/(31 - 26)	-0.019062
-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 (6/5/2012)	-0.71335 J (6/30/2010)	(0 - -0.71335)/(31 - 27)	0.178337
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 (6/5/2012)	-0.34249 J (11/12/2010)	(0 - -0.34249)/(31 - 28)	0.114163
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 (6/5/2012)	0.262364 (7/5/2011)	(0 - 0.262364)/(31 - 29)	-0.131182
0 (11/22/2011)	0 (11/22/2011)	(0 - 0)/(30 - 30)	Same Date
0 (6/5/2012)	0 (11/22/2011)	(0 - 0)/(31 - 30)	0
0 (6/5/2012)	0 (11/22/2011)	(0 - 0)/(31 - 30)	0

Number of Q values = 495

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	-0.131182
89	-0.130785
90	-0.130064
91	-0.128785
92	-0.126027
93	-0.125457
94	-0.123055
95	-0.120663
96	-0.118892
97	-0.118097
98	-0.115666
99	-0.115077
100	-0.114742
101	-0.114742
102	-0.11472
103	-0.113888
104	-0.113405
105	-0.113329
106	-0.112927
107	-0.112716
108	-0.112557
109	-0.112157
110	-0.111257
111	-0.11118
112	-0.110803
113	-0.110609
114	-0.110188
115	-0.110044
116	-0.109961
117	-0.109955
118	-0.109704
119	-0.108988
120	-0.108918
121	-0.108106
122	-0.108032
123	-0.107799
124	-0.107296
125	-0.107099
126	-0.106865
127	-0.106168
128	-0.105398
129	-0.105273
130	-0.105195
131	-0.105017
132	-0.104902
133	-0.104531
134	-0.104397
135	-0.104125

136	-0.10401
137	-0.103998
138	-0.101783
139	-0.100978
140	-0.0983938
141	-0.0968168
142	-0.0966329
143	-0.0963664
144	-0.0949529
145	-0.0944111
146	-0.0940455
147	-0.0937571
148	-0.0936493
149	-0.0923638
150	-0.0922309
151	-0.091536
152	-0.0911608
153	-0.089835
154	-0.0894831
155	-0.0889271
156	-0.088724
157	-0.0867723
158	-0.0866213
159	-0.0865744
160	-0.0863104
161	-0.0857399
162	-0.0828697
163	-0.0821394
164	-0.0818333
165	-0.0814507
166	-0.0814507
167	-0.0812494
168	-0.0811754
169	-0.0811251
170	-0.081078
171	-0.080918
172	-0.0804609
173	-0.0799026
174	-0.0799026
175	-0.0788276
176	-0.0786445
177	-0.0773781
178	-0.0771113
179	-0.0764286
180	-0.0763104
181	-0.0758439
182	-0.0757064
183	-0.0740257
184	-0.0720707
185	-0.0720707
186	-0.0714947
187	-0.0713999
188	-0.071214
189	-0.0700985
190	-0.0694968
191	-0.0689929
192	-0.0689138
193	-0.0689138
194	-0.0686413
195	-0.0670599
196	-0.0670599
197	-0.0663615

198	-0.0659349
199	-0.0658545
200	-0.0655407
201	-0.06485
202	-0.0647772
203	-0.0647518
204	-0.0643775
205	-0.0633019
206	-0.0614429
207	-0.0613559
208	-0.0611758
209	-0.0607338
210	-0.0594458
211	-0.0588276
212	-0.0588276
213	-0.0585684
214	-0.0569774
215	-0.0557923
216	-0.0557859
217	-0.0548731
218	-0.0539253
219	-0.053084
220	-0.053084
221	-0.0514213
222	-0.0511986
223	-0.0509536
224	-0.0502901
225	-0.0497935
226	-0.0491776
227	-0.0489272
228	-0.0489225
229	-0.0486501
230	-0.0482272
231	-0.0477784
232	-0.0476329
233	-0.0468367
234	-0.0452672
235	-0.0447415
236	-0.0447415
237	-0.0440583
238	-0.0437893
239	-0.0431987
240	-0.0424748
241	-0.0419618
242	-0.0407734
243	-0.0396305
244	-0.039167
245	-0.039167
246	-0.0384739
247	-0.0376104
248	-0.0375131
249	-0.0375131
250	-0.0366814
251	-0.036605
252	-0.0361541
253	-0.035627
254	-0.0348853
255	-0.033345
256	-0.033016
257	-0.033016
258	-0.032425
259	-0.0317003

260	-0.0297252
261	-0.028889
262	-0.0287576
263	-0.0285409
264	-0.0277939
265	-0.0263454
266	-0.0244636
267	-0.0238275
268	-0.0238275
269	-0.0228327
270	-0.019062
271	-0.0190272
272	-0.0188763
273	-0.0188541
274	-0.0180258
275	-0.0171649
276	-0.0171649
277	-0.0159388
278	-0.0148909
279	-0.0142037
280	-0.0123751
281	-0.0113329
282	-0.0113329
283	-0.0104227
284	-0.0103026
285	-0.00926462
286	-0.00847539
287	-0.00833816
288	-0.0076148
289	-0.00758015
290	-0.00595583
291	-0.00555877
292	-0.00539148
293	-0.00442025
294	-0.00438851
295	-0.00338436
296	-0.00304592
297	-0.00300308
298	-0.00276902
299	-0.00253827
300	-0.00203061
301	-0.0019037
302	-0.00152296
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	0.00132803
358	0.00326839
359	0.00453858
360	0.00507653
361	0.00520876
362	0.00560648
363	0.00595689
364	0.00607661
365	0.00609184
366	0.00609184
367	0.00733155
368	0.00743812
369	0.00755525
370	0.00769461
371	0.00769461
372	0.00794251
373	0.00802851
374	0.00866456
375	0.00953102
376	0.0103026
377	0.0109318
378	0.0111572
379	0.0113329
380	0.0119117
381	0.0127381
382	0.0128395
383	0.0131182

384	0.0138086
385	0.0138969
386	0.0138969
387	0.0148762
388	0.0153922
389	0.0159388
390	0.0161898
391	0.0163978
392	0.016508
393	0.0165595
394	0.0171649
395	0.0173396
396	0.017491
397	0.0176532
398	0.0177091
399	0.0177778
400	0.0185953
401	0.0185953
402	0.0187403
403	0.0188881
404	0.019062
405	0.0201819
406	0.020648
407	0.0226657
408	0.023085
409	0.0231112
410	0.0247937
411	0.0249166
412	0.0250087
413	0.0256791
414	0.0278929
415	0.0278929
416	0.0278929
417	0.0283322
418	0.028889
419	0.0318777
420	0.0327555
421	0.0327955
422	0.033016
423	0.033345
424	0.0361541
425	0.0375131
426	0.039261
427	0.0407734
428	0.0428721
429	0.0462217
430	0.048347
431	0.0500174
432	0.0522226
433	0.0529224
434	0.0556847
435	0.0557859
436	0.0557859
437	0.0587505
438	0.0647103
439	0.0691492
440	0.0719004
441	0.0732059
442	0.07421
443	0.0743812
444	0.0841825
445	0.0891687

446	0.0893459
447	0.093388
448	0.0940007
449	0.10715
450	0.107851
451	0.111572
452	0.114163
453	0.115556
454	0.117501
455	0.125769
456	0.129421
457	0.136502
458	0.156668
459	0.161776
460	0.171245
461	0.171245
462	0.173287
463	0.177071
464	0.1771
465	0.178337
466	0.21198
467	0.215701
468	0.223144
469	0.235002
470	0.237783
471	0.237783
472	0.24686
473	0.257927
474	0.269498
475	0.277259
476	0.282433
477	0.283
478	0.300105
479	0.318504
480	0.366516
481	0.37086
482	0.477033
483	0.477756
484	0.487857
485	0.585953
486	0.604855
487	0.671634
488	0.693147
489	0.773781
490	1.02962
491	1.08453
492	1.31953
493	1.47591
494	1.54756
495	1.60944

Sen's Estimator (Median Q) is -0.0375131

Tied Group	Value	Members
1	0	11

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 2970
B = 18
C = 990
D = 0
E = 110
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3636.78
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 99.194
M1 = (495 - 99.194)/2.0 = 197.903
M2 = (495 + 99.194)/2.0 + 1 = 298.097
Lower limit is -0.0659349 = Q(198)
Upper limit is -0.00276902 = Q(298)
-0.00276902 < 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
0.741937 (6/5/2012) -0.755023 J (7/20/1995) (0.741937 - -0.755023)/(30 - 1)
0.0516193

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
0.741937 (6/5/2012) 2.48491 (8/24/1995) (0.741937 - 2.48491)/(30 - 2)
-0.0622489

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
0.741937 (6/5/2012) 2.3979 (9/28/1995) (0.741937 - 2.3979)/(30 - 3)
-0.0613318

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
0.741937 (6/5/2012)	0 J (10/26/1995)	(0.741937 - 0)/(30 - 4)		0.0285361

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					
0.741937	(6/5/2012)	ND<0	(11/19/1996)	(0.741937 - 0)/(30 - 5)	
0.0296775					
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					
0.741937	(6/5/2012)	2.94444	(12/19/1996)	(0.741937 - 2.94444)/(30 - 6)	
-0.0917709					
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				
0.741937	(6/5/2012)	2.89037	(3/24/1997)	(0.741937 - 2.89037)/(30 - 7)	
	-0.0934102				
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
0.741937	(6/5/2012)	3.09104	(9/24/1997)	(0.741937 - 3.09104)/(30 - 8)	-0.106778
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						
0.741937	(6/5/2012)	2.77259	(4/7/1998)	(0.741937 - 2.77259)/(30 - 9)		
-0.0966977						
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						
0.741937	(6/5/2012)	3.3322	(9/23/1998)	(0.741937 - 3.3322)/(30 - 10)		
-0.129513						
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				
0.741937 (6/5/2012)	2.79117	(3/16/1999)	(0.741937 - 2.79117)/(30 - 11)	
-0.107854				
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						
0.741937	(6/5/2012)	2.78501	(9/23/1999)	(0.741937 - 2.78501)/(30 - 12)		
-0.113504						
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						
0.741937	(6/5/2012)	ND<0	(3/15/2000)	(0.741937 - 0)/(30 - 13)		
0.0436434						
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
0.741937 (6/5/2012)	ND<0 (9/24/2003)	(0.741937 - 0)/(30 - 14)			0.0463711
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
0.741937 (6/5/2012)	ND<0 (3/11/2004)	(0.741937 - 0)/(30 - 15)			0.0494625
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		
0.741937 (6/5/2012)	ND<0 (10/12/2004)	(0.741937 - 0)/(30 - 16)
0.0529955		
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		
0.741937 (6/5/2012)	0.647103 J (4/1/2005)	(0.741937 - 0.647103)/(30 - 17)
0.00729493		
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		

0.741937	(6/5/2012)	1.23256	(10/25/2005)	(0.741937 - 1.23256)/(30 - 18)		-0.0408852
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
0.741937	(6/5/2012)	0.746688	(4/29/2006)	(0.741937 - 0.746688)/(30 - 19)		-0.000431873
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
0.741937	(6/5/2012)	1.05082	(11/18/2006)	(0.741937 - 1.05082)/(30 - 20)		-0.0308884
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
0.741937	(6/5/2012)	ND<0	(5/23/2007)	(0.741937 - 0)/(30 - 21)	0.0824375
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
0.741937	(6/5/2012)	1.41342	(11/28/2007)	(0.741937 - 1.41342)/(30 - 22)	-0.0839357
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
0.741937	(6/5/2012)	1.4884	(6/5/2008)	(0.741937 - 1.4884)/(30 - 23)	-0.106637
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
0.741937	(6/5/2012)	1.12493	(11/20/2008)	(0.741937 - 1.12493)/(30 - 24)	-0.063832
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				
0.741937	(6/5/2012)	1.64866	(6/11/2009)	(0.741937 - 1.64866)/(30 - 25)
-0.181344				
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				
0.741937	(6/5/2012)	0.916291	(6/30/2010)	(0.741937 - 0.916291)/(30 - 26)
-0.0435883				
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				
0.741937	(6/5/2012)	0.875469	(11/12/2010)	(0.741937 - 0.875469)/(30 - 27)
-0.0445105				
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				
0.741937	(6/5/2012)	1.1314	(7/5/2011)	(0.741937 - 1.1314)/(30 - 28)
-0.194732				
0.916291	(11/22/2011)	0.916291	(11/22/2011)	(0.916291 - 0.916291)/(29 - 29)
Same Date				
0.741937	(6/5/2012)	0.916291	(11/22/2011)	(0.741937 - 0.916291)/(30 - 29)
-0.174353				
0.741937	(6/5/2012)	0.916291	(11/22/2011)	(0.741937 - 0.916291)/(30 - 29)
-0.174353				

Number of Q values = 464

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	-0.194732

75	-0.193371
76	-0.191147
77	-0.190703
78	-0.185848
79	-0.184453
80	-0.183092
81	-0.183092
82	-0.181344
83	-0.17864
84	-0.177493
85	-0.174353
86	-0.174353
87	-0.172419
88	-0.171114
89	-0.170018
90	-0.169058
91	-0.161776
92	-0.159898
93	-0.157662
94	-0.156524
95	-0.153233
96	-0.150995
97	-0.15071
98	-0.144514
99	-0.144247
100	-0.142657
101	-0.141831
102	-0.141504
103	-0.13834
104	-0.137159
105	-0.135258
106	-0.13348
107	-0.133216
108	-0.130785
109	-0.129513
110	-0.128172
111	-0.127303
112	-0.127153
113	-0.127153
114	-0.125249
115	-0.125057
116	-0.124992
117	-0.124283
118	-0.122882
119	-0.12252
120	-0.122267
121	-0.12082
122	-0.11983
123	-0.119731
124	-0.117874
125	-0.116609
126	-0.113504
127	-0.112236
128	-0.109925
129	-0.109925
130	-0.109844
131	-0.109194
132	-0.108564
133	-0.107854
134	-0.107591
135	-0.106843
136	-0.106778

137	-0.106637
138	-0.105396
139	-0.104551
140	-0.104319
141	-0.10416
142	-0.10416
143	-0.103899
144	-0.10385
145	-0.10356
146	-0.10356
147	-0.103351
148	-0.1032
149	-0.102248
150	-0.101407
151	-0.101084
152	-0.100745
153	-0.0999591
154	-0.0985224
155	-0.0984632
156	-0.097982
157	-0.0976331
158	-0.0966977
159	-0.0956885
160	-0.0953515
161	-0.0953515
162	-0.0934102
163	-0.0928149
164	-0.0928149
165	-0.0917709
166	-0.0917278
167	-0.0908693
168	-0.089731
169	-0.089731
170	-0.0881804
171	-0.0881804
172	-0.0876233
173	-0.0874117
174	-0.0870114
175	-0.0863782
176	-0.0856494
177	-0.0848461
178	-0.0839357
179	-0.0837605
180	-0.0831536
181	-0.0824108
182	-0.0816076
183	-0.0796714
184	-0.0792396
185	-0.0782716
186	-0.077689
187	-0.0765078
188	-0.0713995
189	-0.0710189
190	-0.0710189
191	-0.0702456
192	-0.0689841
193	-0.068199
194	-0.065359
195	-0.0644176
196	-0.0643775
197	-0.063832
198	-0.0634344

199	-0.0622489
200	-0.0618171
201	-0.0613318
202	-0.0606174
203	-0.0588915
204	-0.0580969
205	-0.0580969
206	-0.0572834
207	-0.0569848
208	-0.0569848
209	-0.0540672
210	-0.0535742
211	-0.0520579
212	-0.0518143
213	-0.0506597
214	-0.0474527
215	-0.0470035
216	-0.0454748
217	-0.0445105
218	-0.0435883
219	-0.0417278
220	-0.0417278
221	-0.0408852
222	-0.040822
223	-0.0396768
224	-0.0395337
225	-0.0363586
226	-0.0340562
227	-0.0308884
228	-0.0306548
229	-0.0287518
230	-0.0287518
231	-0.0265713
232	-0.0250504
233	-0.0248017
234	-0.0224218
235	-0.0210721
236	-0.0179384
237	-0.0149479
238	-0.0149479
239	-0.0101158
240	-0.00615387
241	-0.000431873
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	0.00161813
266	0.00414084
267	0.00729493
268	0.00928819
269	0.0100726
270	0.0160976
271	0.0169603
272	0.0169603
273	0.018527
274	0.020411
275	0.020411
276	0.0224323
277	0.0224323
278	0.0228365
279	0.024229
280	0.0285361
281	0.0296775
282	0.0299097
283	0.0300105
284	0.0340287
285	0.0366516
286	0.0366516
287	0.0377511
288	0.0380639
289	0.0381788
290	0.0381788
291	0.039794
292	0.0410974
293	0.0416496
294	0.042746
295	0.0430129
296	0.0436329
297	0.0436434
298	0.0440272
299	0.0452157
300	0.0463711
301	0.0471418
302	0.0491587
303	0.0491914
304	0.0494625
305	0.0497772
306	0.0497792
307	0.0497924
308	0.0503348
309	0.0511679
310	0.0516193
311	0.0529955
312	0.0533349
313	0.0539253
314	0.0539302
315	0.0562465
316	0.0572682
317	0.0572682
318	0.0580787
319	0.0592068
320	0.0594426
321	0.0596898
322	0.0596898

323	0.061086
324	0.061086
325	0.0624489
326	0.0625335
327	0.0627112
328	0.0629185
329	0.0654493
330	0.0654493
331	0.0656764
332	0.0668525
333	0.0673437
334	0.0682609
335	0.0698676
336	0.0700548
337	0.0704839
338	0.0704839
339	0.0704839
340	0.0729557
341	0.0733017
342	0.0749766
343	0.0754268
344	0.0756483
345	0.0763576
346	0.0783368
347	0.0784119
348	0.0785076
349	0.0785235
350	0.0795881
351	0.0801295
352	0.0808144
353	0.081093
354	0.0817371
355	0.0824329
356	0.0824375
357	0.0826889
358	0.0831425
359	0.0832992
360	0.0834284
361	0.0870309
362	0.0876329
363	0.08804
364	0.0916291
365	0.0942835
366	0.0948123
367	0.0950444
368	0.0969414
369	0.100153
370	0.101023
371	0.101974
372	0.102266
373	0.103259
374	0.105912
375	0.107556
376	0.112493
377	0.114536
378	0.114536
379	0.114883
380	0.116917
381	0.119567
382	0.120581
383	0.123119
384	0.124448

385	0.124992
386	0.125194
387	0.133473
388	0.134573
389	0.137388
390	0.138629
391	0.140216
392	0.140616
393	0.145859
394	0.145911
395	0.147278
396	0.14884
397	0.149338
398	0.149878
399	0.150117
400	0.150328
401	0.153264
402	0.157047
403	0.161629
404	0.161776
405	0.164866
406	0.165378
407	0.175137
408	0.176678
409	0.181301
410	0.182181
411	0.183184
412	0.183258
413	0.185428
414	0.18605
415	0.186672
416	0.188756
417	0.200671
418	0.201918
419	0.210164
420	0.212629
421	0.215701
422	0.222245
423	0.235571
424	0.246512
425	0.248896
426	0.251674
427	0.255933
428	0.262705
429	0.304134
430	0.30814
431	0.321821
432	0.323552
433	0.348126
434	0.354619
435	0.374977
436	0.397859
437	0.398738
438	0.410853
439	0.412165
440	0.440951
441	0.454136
442	0.465194
443	0.523729
444	0.549438
445	0.554518
446	0.555367

447	0.559616
448	0.585457
449	0.607566
450	0.61628
451	0.647103
452	0.666441
453	0.693147
454	0.739892
455	0.7442
456	0.772761
457	0.963457
458	1.03035
459	1.41342
460	1.44519
461	1.47222
462	1.57646
463	2.94444
464	3.23993

Sen's Estimator (Median Q) is -0.024926

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
6/5/2012	1

There are 1 time periods with multiple data

A = 864
B = 18
C = 216
D = 0

E = 48
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3412.72
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.0898
M1 = (464 - 96.0898)/2.0 = 183.955
M2 = (464 + 96.0898)/2.0 + 1 = 281.045
Lower limit is -0.0792396 = Q(184)
Upper limit is 0.0296775 = Q(281)
-0.0792396 < 0 < 0.0296775 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		
0.832909 (6/5/2012)	-0.174353 J (7/20/1995)	(0.832909 - -0.174353)/(31 - 1)
0.0335754		
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		
0.832909 (6/5/2012)	-0.174353 J (8/24/1995)	(0.832909 - -0.174353)/(31 - 2)
0.0347332		
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					
0.832909	(6/5/2012)	0.693147	(9/28/1995)	(0.832909 - 0.693147)/(31 - 3)		
	0.0049915					
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			
0.832909 (6/5/2012)	1.09861 (10/26/1995)	(0.832909 - 1.09861)/(31 - 4)	
-0.00984086			
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			
0.832909 (6/5/2012)	ND<0 (11/19/1996)	(0.832909 - 0)/(31 - 5)	
0.032035			
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			
0.832909 (6/5/2012)	ND<0 (12/19/1996)	(0.832909 - 0)/(31 - 6)	
0.0333164			
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				
0.832909 (6/5/2012)	ND<0 (3/24/1997)	(0.832909 - 0)/(31 - 7)		
0.0347045				
ND<0 (4/7/1998)	ND<0 (9/24/1997)	(0 - 0)/(9 - 8)	0	
1.66771 (9/23/1998)	ND<0 (9/24/1997)	(1.66771 - 0)/(10 - 8)		
0.833853				
1.28093 (3/16/1999)	ND<0 (9/24/1997)	(1.28093 - 0)/(11 - 8)		
0.426978				
1.25276 (9/23/1999)	ND<0 (9/24/1997)	(1.25276 - 0)/(12 - 8)		
0.313191				
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)	ND<0 (9/24/1997)	(1.09527 - 0)/(17 - 8)		
0.121697				
0.71295 (10/25/2005)	ND<0 (9/24/1997)	(0.71295 - 0)/(18 - 8)		
0.071295				
0.322083 J (4/29/2006)	ND<0 (9/24/1997)	(0.322083 - 0)/(19 - 8)		
0.0292803				
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)	ND<0 (9/24/1997)	(1.15373 - 0)/(22 - 8)		
0.0824094				
1.17557 (6/5/2008)	ND<0 (9/24/1997)	(1.17557 - 0)/(23 - 8)		
0.0783716				
1.13462 (11/20/2008)	ND<0 (9/24/1997)	(1.13462 - 0)/(24 - 8)		
0.0709139				
2.02815 (6/11/2009)	ND<0 (9/24/1997)	(2.02815 - 0)/(25 - 8)		
0.119303				
1.56862 (11/16/2009)	ND<0 (9/24/1997)	(1.56862 - 0)/(26 - 8)		
0.0871453				
1.52606 (6/30/2010)	ND<0 (9/24/1997)	(1.52606 - 0)/(27 - 8)		
0.0803188				
1.335 (11/12/2010)	ND<0 (9/24/1997)	(1.335 - 0)/(28 - 8)		
0.0667501				
0.405465 (7/5/2011)	ND<0 (9/24/1997)	(0.405465 - 0)/(29 - 8)		
0.0193079				
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				
0.832909 (6/5/2012)	ND<0 (9/24/1997)	(0.832909 - 0)/(31 - 8)		
0.0362134				
1.66771 (9/23/1998)	ND<0 (4/7/1998)	(1.66771 - 0)/(10 - 9)		1.66771
1.28093 (3/16/1999)	ND<0 (4/7/1998)	(1.28093 - 0)/(11 - 9)		
0.640467				
1.25276 (9/23/1999)	ND<0 (4/7/1998)	(1.25276 - 0)/(12 - 9)		
0.417588				
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)	ND<0	(4/7/1998)	(1.09527 - 0)/(17 - 9)	
0.136909					
0.71295	(10/25/2005)	ND<0	(4/7/1998)	(0.71295 - 0)/(18 - 9)	
0.0792166					
0.322083 J	(4/29/2006)	ND<0	(4/7/1998)	(0.322083 - 0)/(19 - 9)	
0.0322083					
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)	ND<0	(4/7/1998)	(1.15373 - 0)/(22 - 9)	
0.0887486					
1.17557	(6/5/2008)	ND<0	(4/7/1998)	(1.17557 - 0)/(23 - 9)	
0.0839695					
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					
0.832909	(6/5/2012)	ND<0	(4/7/1998)	(0.832909 - 0)/(31 - 9)	
0.0378595					

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				
0.832909 (6/5/2012)	1.66771 (9/23/1998)	(0.832909 - 1.66771)/(31 - 10)		
-0.0397523				
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				
0.832909 (6/5/2012)	1.28093 (3/16/1999)	(0.832909 - 1.28093)/(31 - 11)		
-0.0224012				
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						
0.832909	(6/5/2012)	1.25276	(9/23/1999)	(0.832909 - 1.25276)/(31 - 12)		
-0.0220976						
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				
0.832909 (6/5/2012)	ND<0 (3/15/2000)	(0.832909 - 0)/(31 - 13)		
0.0462727				
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				
0.832909 (6/5/2012)	ND<0 (9/24/2003)	(0.832909 - 0)/(31 - 14)		
0.0489947				
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					
0.832909 (6/5/2012)	ND<0 (3/11/2004)	(0.832909 - 0)/(31 - 15)			
0.0520568					
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					
0.832909 (6/5/2012)	ND<0 (10/12/2004)	(0.832909 - 0)/(31 - 16)			
0.0555273					
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				
0.832909 (6/5/2012)	1.09527 (4/1/2005)	(0.832909 - 1.09527)/(31 - 17)		
-0.0187403				
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				
0.832909 (6/5/2012)	0.71295 (10/25/2005)	(0.832909 - 0.71295)/(31 - 18)		
0.00922764				
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				

0.832909 (6/5/2012)	0.322083 J (4/29/2006)	(0.832909 - 0.322083)/(31 - 19)		
0.0425688				
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				
0.832909 (6/5/2012)	ND<0 (11/18/2006)	(0.832909 - 0)/(31 - 20)		
0.075719				
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				
0.832909 (6/5/2012)	ND<0 (5/23/2007)	(0.832909 - 0)/(31 - 21)		
0.0832909				
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
0.832909	(6/5/2012)	1.15373	(11/28/2007)	(0.832909 - 1.15373)/(31 - 22)	-0.0356469
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
0.832909	(6/5/2012)	1.17557	(6/5/2008)	(0.832909 - 1.17557)/(31 - 23)	-0.042833
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
0.832909	(6/5/2012)	1.13462	(11/20/2008)	(0.832909 - 1.13462)/(31 - 24)	-0.0431019
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
0.832909	(6/5/2012)	2.02815	(6/11/2009)	(0.832909 - 2.02815)/(31 - 25)	-0.199207
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
0.832909	(6/5/2012)	1.56862	(11/16/2009)	(0.832909 - 1.56862)/(31 - 26)	-0.147141
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
0.832909	(6/5/2012)	1.52606	(6/30/2010)	(0.832909 - 1.52606)/(31 - 27)	-0.173287
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
0.832909	(6/5/2012)	1.335	(11/12/2010)	(0.832909 - 1.335)/(31 - 28)	-0.167364
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
0.832909	(6/5/2012)	0.405465	(7/5/2011)	(0.832909 - 0.405465)/(31 - 29)	0.213722
0.788457	(11/22/2011)	0.788457	(11/22/2011)	(0.788457 - 0.788457)/(30 - 30)	Same Date
0.832909	(6/5/2012)	0.788457	(11/22/2011)	(0.832909 - 0.788457)/(31 - 30)	0.0444518
0.832909	(6/5/2012)	0.788457	(11/22/2011)	(0.832909 - 0.788457)/(31 - 30)	0.0444518

Number of Q values = 495

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	-0.199207
44	-0.19504
45	-0.19504
46	-0.191055
47	-0.173287
48	-0.173287
49	-0.167364
50	-0.166771
51	-0.161042
52	-0.156595
53	-0.15161
54	-0.149514
55	-0.147141
56	-0.145832
57	-0.142326
58	-0.139196
59	-0.138629
60	-0.132954
61	-0.128351
62	-0.128093
63	-0.122068
64	-0.119856
65	-0.119345
66	-0.116807
67	-0.115525
68	-0.109861
69	-0.106895
70	-0.0998738
71	-0.091551
72	-0.0899689
73	-0.0817762
74	-0.0811406

75	-0.0693147
76	-0.0686633
77	-0.0664338
78	-0.0646243
79	-0.0630134
80	-0.0577623
81	-0.0576942
82	-0.0576942
83	-0.057484
84	-0.0553023
85	-0.0553023
86	-0.053319
87	-0.0517686
88	-0.0498411
89	-0.0486372
90	-0.0456593
91	-0.0456593
92	-0.0439625
93	-0.0439625
94	-0.0431019
95	-0.042833
96	-0.0428313
97	-0.0425596
98	-0.0409506
99	-0.0407734
100	-0.0397523
101	-0.0385082
102	-0.0380774
103	-0.0378564
104	-0.0356469
105	-0.0314979
106	-0.0309434
107	-0.0281709
108	-0.0279532
109	-0.0277259
110	-0.0275473
111	-0.0259198
112	-0.0259198
113	-0.0257948
114	-0.0257948
115	-0.0236012
116	-0.0236012
117	-0.0231915
118	-0.0224012
119	-0.0220976
120	-0.0187403
121	-0.0184837
122	-0.011929
123	-0.011929
124	-0.0115638
125	-0.0112547
126	-0.0110647
127	-0.00990314
128	-0.00984502
129	-0.00984086
130	-0.00955443
131	-0.00878004
132	-0.00833238
133	-0.00701724
134	-0.00619318
135	-0.000256839
136	0

137	0
138	0
139	0
140	0
141	0
142	0
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144	0
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184	0
185	0
186	0
187	0
188	0
189	0
190	0
191	0
192	0.00132018
193	0.00180052
194	0.00306218
195	0.00318042
196	0.00353001
197	0.00353001
198	0.00405058

199	0.0049915
200	0.00513988
201	0.00562133
202	0.0062923
203	0.0062923
204	0.00833816
205	0.00871767
206	0.00917649
207	0.00917649
208	0.00922764
209	0.0096863
210	0.00984953
211	0.0116236
212	0.0116916
213	0.0124538
214	0.0124538
215	0.0133833
216	0.0134118
217	0.0134118
218	0.0145294
219	0.0145294
220	0.0153202
221	0.0158503
222	0.0168944
223	0.0176289
224	0.0182196
225	0.0184302
226	0.0185845
227	0.0191788
228	0.0192688
229	0.0193079
230	0.0202733
231	0.0207078
232	0.0210226
233	0.0213638
234	0.0214748
235	0.0217934
236	0.0217942
237	0.0218417
238	0.0225609
239	0.023006
240	0.0240294
241	0.0241213
242	0.0242413
243	0.0247757
244	0.0249076
245	0.0249076
246	0.0253416
247	0.0256742
248	0.0260459
249	0.0268403
250	0.027031
251	0.0275798
252	0.0287233
253	0.0289618
254	0.0290589
255	0.0290589
256	0.0292022
257	0.0292803
258	0.0302116
259	0.0311896
260	0.0315383

261	0.0315383
262	0.0318855
263	0.032035
264	0.0322083
265	0.0328524
266	0.0328524
267	0.0332004
268	0.0332004
269	0.0333164
270	0.0335754
271	0.0342808
272	0.0342808
273	0.0343861
274	0.0343861
275	0.0347045
276	0.0347045
277	0.0347332
278	0.0348707
279	0.0348707
280	0.035839
281	0.035839
282	0.0362134
283	0.0375456
284	0.0375456
285	0.0378595
286	0.0380639
287	0.0423976
288	0.0423976
289	0.0425688
290	0.0430783
291	0.0435883
292	0.0435883
293	0.0442636
294	0.0444518
295	0.0444518
296	0.0450517
297	0.0462727
298	0.0463798
299	0.0463798
300	0.0489947
301	0.0492786
302	0.0492786
303	0.0500946
304	0.0506831
305	0.0520568
306	0.0521943
307	0.0525638
308	0.0525638
309	0.0525936
310	0.0533725
311	0.0536806
312	0.0548423
313	0.0554564
314	0.0555273
315	0.055902
316	0.0563184
317	0.0563184
318	0.056912
319	0.0580435
320	0.0580521
321	0.0581178
322	0.0594125

323	0.0594989
324	0.059645
325	0.059717
326	0.0606819
327	0.0606819
328	0.0613603
329	0.0621795
330	0.0622051
331	0.0630346
332	0.0632421
333	0.0635715
334	0.0642822
335	0.0644167
336	0.0648136
337	0.0653096
338	0.0654004
339	0.0664042
340	0.0667425
341	0.0667501
342	0.0678666
343	0.0680164
344	0.0691514
345	0.0693662
346	0.0697188
347	0.0702632
348	0.0702788
349	0.0709139
350	0.071295
351	0.0721082
352	0.0726237
353	0.0726693
354	0.0734733
355	0.0734733
356	0.0744649
357	0.074696
358	0.0756415
359	0.075719
360	0.0763028
361	0.0769154
362	0.0783716
363	0.0784308
364	0.0788457
365	0.0788457
366	0.0792166
367	0.0793517
368	0.0803188
369	0.0805209
370	0.0824094
371	0.0825587
372	0.0832909
373	0.0839695
374	0.0846418
375	0.0847809
376	0.0871453
377	0.0876064
378	0.0876064
379	0.0876207
380	0.0887486
381	0.0890001
382	0.0903452
383	0.0912728
384	0.0917709

385	0.0922715
386	0.0925247
387	0.0948491
388	0.0953572
389	0.0957609
390	0.0995703
391	0.101407
392	0.102692
393	0.103148
394	0.103721
395	0.106745
396	0.106958
397	0.107361
398	0.109004
399	0.109527
400	0.110195
401	0.11125
402	0.112546
403	0.112675
404	0.113462
405	0.116609
406	0.117389
407	0.117557
408	0.119303
409	0.120663
410	0.121697
411	0.126069
412	0.126759
413	0.127171
414	0.128192
415	0.129738
416	0.130478
417	0.130619
418	0.130718
419	0.131014
420	0.136909
421	0.138732
422	0.139223
423	0.141828
424	0.14259
425	0.142601
426	0.142712
427	0.144216
428	0.145529
429	0.146947
430	0.150497
431	0.156862
432	0.161699
433	0.162508
434	0.164819
435	0.166875
436	0.167939
437	0.169012
438	0.178076
439	0.178237
440	0.178966
441	0.184377
442	0.187885
443	0.190714
444	0.192289
445	0.202815
446	0.204673

447	0.208794
448	0.213372
449	0.213489
450	0.213722
451	0.216997
452	0.218008
453	0.22535
454	0.230258
455	0.23765
456	0.250553
457	0.254343
458	0.256187
459	0.261436
460	0.273818
461	0.277216
462	0.283656
463	0.284344
464	0.291472
465	0.313191
466	0.313723
467	0.320233
468	0.333541
469	0.356475
470	0.365091
471	0.378208
472	0.382992
473	0.382992
474	0.391858
475	0.405465
476	0.40563
477	0.416927
478	0.417588
479	0.424322
480	0.426287
481	0.426978
482	0.43375
483	0.507037
484	0.547637
485	0.555902
486	0.576866
487	0.587787
488	0.636483
489	0.640467
490	0.833853
491	0.867501
492	0.893526
493	1.09527
494	1.15373
495	1.66771

Sen's Estimator (Median Q) is 0.0260459

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 3006
B = 18
C = 990
D = 0
E = 114
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3634.78
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 99.1668
M1 = (495 - 99.1668)/2.0 = 197.917
M2 = (495 + 99.1668)/2.0 + 1 = 298.083
Lower limit is 0.00405058 = Q(198)
Upper limit is 0.0463798 = Q(298)
0.00405058 > 0 indicating an upward 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
ND<-2.07944 U (6/5/2012)	ND<0 (3/16/1999)	(-2.07944 - 0)/(21 - 1)	-0.103972
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
ND<-2.07944 U (6/5/2012) ND<0 (9/23/1999) (-2.07944 - 0)/(21 - 2) -0.109444

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
ND<-2.07944 U (6/5/2012) 1.97408 (3/15/2000) (-2.07944 - 1.97408)/(21 - 3) -0.225196

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
ND<-2.07944 U (6/5/2012) 1.93152 (9/24/2003) (-2.07944 - 1.93152)/(21 - 4)
-0.235939

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<-2.07944 U (6/5/2012) 1.80829 (3/11/2004) (-2.07944 - 1.80829)/(21 - 5)
-0.242983

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
ND<-2.07944 U (6/5/2012) 1.84055 (10/12/2004) (-2.07944 - 1.84055)/(21 - 6)
-0.261333

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
ND<-2.07944 U (6/5/2012) ND<0 (4/1/2005) (-2.07944 - 0)/(21 - 7)
-0.148532

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
ND<-2.07944 U (6/5/2012) 0.19062 J (10/25/2005) (-2.07944 - 0.19062)/(21 - 8)
-0.17462

-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<-2.07944 U (6/5/2012) 0.329304 J (4/29/2006) (-2.07944 - 0.329304)/(21 - 9)
-0.200729

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
ND<-2.07944 U (6/5/2012) -0.18633 J (11/18/2006) (-2.07944 - -0.18633)/(21 - 10) -0.172101

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
ND<-2.07944 U (6/5/2012) ND<0 (5/23/2007) (-2.07944 - 0)/(21 - 11) -0.207944

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
ND<-2.07944 U (6/5/2012) 0.139762 J (11/28/2007) (-2.07944 - 0.139762)/(21 - 12) -0.246578

-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 U (6/5/2012) 0.223144 J (6/5/2008) (-2.07944 - 0.223144)/(21 - 13)
-0.287823

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
ND<-2.07944 U (6/5/2012) -0.478036 J (11/20/2008) (-2.07944 - -0.478036)/(21 - 14)
-0.228772

-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 U (6/5/2012) ND<-2.07944 (6/11/2009) (-2.07944 - -2.07944)/(21 - 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
ND<-2.07944 U (6/5/2012) -1.04982 J (11/16/2009) (-2.07944 - -1.04982)/(21 - 16)
-0.205924

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 (6/5/2012) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(21 - 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 (6/5/2012) 0 (11/12/2010) (-2.07944 - 0)/(21 - 18) -0.693147

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 (6/5/2012) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(21 - 19)
0

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(20 -
20) Same Date
ND<-2.07944 U (6/5/2012) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(21 - 20)
0

ND<-2.07944 U (6/5/2012) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(21 - 20)
0

Number of Q values = 230

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	-0.693147
13	-0.64384
14	-0.575646
15	-0.539223
16	-0.533802
17	-0.51986
18	-0.515633
19	-0.50672
20	-0.503749
21	-0.49352
22	-0.443841
23	-0.435555
24	-0.435225
25	-0.424322
26	-0.401458
27	-0.398924
28	-0.388773
29	-0.383764
30	-0.378622
31	-0.369746
32	-0.36811
33	-0.364633
34	-0.356692
35	-0.356363
36	-0.352975

37	-0.346574
38	-0.343206
39	-0.337794
40	-0.328941
41	-0.328941
42	-0.324295
43	-0.323978
44	-0.320444
45	-0.320281
46	-0.317029
47	-0.308899
48	-0.30863
49	-0.308536
50	-0.301538
51	-0.301381
52	-0.301093
53	-0.297396
54	-0.289823
55	-0.289537
56	-0.289037
57	-0.287823
58	-0.285893
59	-0.283465
60	-0.279999
61	-0.279999
62	-0.277695
63	-0.2774
64	-0.2774
65	-0.275932
66	-0.27413
67	-0.270445
68	-0.267398
69	-0.266901
70	-0.266901
71	-0.261333
72	-0.25993
73	-0.25993
74	-0.259828
75	-0.259182
76	-0.259182
77	-0.257405
78	-0.257405
79	-0.254036
80	-0.253345
81	-0.252229
82	-0.250685
83	-0.250685
84	-0.248445
85	-0.24676
86	-0.246578
87	-0.242983
88	-0.240956
89	-0.240875
90	-0.238443
91	-0.238443
92	-0.238361
93	-0.235939
94	-0.232608
95	-0.231058
96	-0.231049
97	-0.231049
98	-0.228772

99	-0.225196
100	-0.22397
101	-0.22292
102	-0.218977
103	-0.218977
104	-0.210346
105	-0.209964
106	-0.207944
107	-0.207944
108	-0.206369
109	-0.205924
110	-0.203813
111	-0.200729
112	-0.198143
113	-0.197018
114	-0.18982
115	-0.189311
116	-0.189311
117	-0.189172
118	-0.189172
119	-0.188475
120	-0.175094
121	-0.17462
122	-0.173287
123	-0.172101
124	-0.164652
125	-0.161468
126	-0.159957
127	-0.159957
128	-0.159957
129	-0.159345
130	-0.155055
131	-0.153379
132	-0.148532
133	-0.148532
134	-0.143915
135	-0.139099
136	-0.138629
137	-0.137966
138	-0.131605
139	-0.129965
140	-0.123233
141	-0.12232
142	-0.116647
143	-0.115525
144	-0.115525
145	-0.115525
146	-0.111443
147	-0.109444
148	-0.109444
149	-0.109444
150	-0.103972
151	-0.0828961
152	-0.0749873
153	-0.0729266
154	-0.0699881
155	-0.0682908
156	-0.0635401
157	-0.0631806
158	-0.0621099
159	-0.0454859
160	-0.0446287

161	-0.0445105
162	-0.0425596
163	-0.0398363
164	-0.036772
165	-0.0365893
166	-0.02654
167	-0.0232937
168	-0.0232912
169	-0.0207033
170	-0.019062
171	-0.0127146
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	0.00650464
197	0.0127056
198	0.0139762
199	0.0185953
200	0.0202858
201	0.0232912
202	0.0272315
203	0.0279524
204	0.0317701
205	0.0322609
206	0.0371906
207	0.041163
208	0.0470434
209	0.0833816
210	0.111572
211	0.119509
212	0.136491
213	0.138683
214	0.139762
215	0.163046
216	0.164652
217	0.18633
218	0.19062
219	0.36811
220	0.452072
221	0.460137
222	0.524911

223	0.602763
224	0.64384
225	0.693147
226	0.965761
227	0.987041
228	1.02962
229	1.97408
230	2.07944

Sen's Estimator (Median Q) is -0.189311

Tied Group	Value	Members
1	0	5
2	-2.079	446

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 810
B = 18
C = 180
D = 0
E = 50
F = 2
a = 22638
b = 83160
c = 924
Group Variance = 1211.77
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 57.2582
M1 = (230 - 57.2582)/2.0 = 86.3709
M2 = (230 + 57.2582)/2.0 + 1 = 144.629
Lower limit is -0.246578 = Q(86)
Upper limit is -0.115525 = Q(145)
-0.115525 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: 1,2-Dichloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 243
Percent Non-Detects: 95.6693%
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-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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-11R	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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-9	32	31 (96.875%)	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-10	32	22 (68.75%)	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
			6/5/2012	0.54 J	0.54 J
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<0.1	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	
			6/5/2012	ND<0.1 U	ND<0.1 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<0.1	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	
			6/5/2012	ND<0.1 U	ND<0.1 U	
MW-12AR	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<0.1	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	
		6/5/2012	ND<0.1 U	ND<0.1 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<0.1	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	
		6/5/2012	ND<0.1 U	ND<0.1 U	

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.05	-2.74777	7.55021	-0.137388
2	0.05	-2.45727	13.5884	-0.260252
3	0.05	-2.29036	18.8342	-0.37477
4	0.05	-2.17009	23.5435	-0.483275
5	0.05	-2.07485	27.8485	-0.587017
6	0.05	-1.99539	31.8301	-0.686787
7	0.05	-1.92684	35.5428	-0.783129
8	0.05	-1.86629	39.0258	-0.876443
9	0.05	-1.81191	42.3088	-0.967039
10	0.05	-1.76241	45.4149	-1.05516
11	0.05	-1.71688	48.3626	-1.141
12	0.05	-1.67466	51.1671	-1.22474
13	0.05	-1.64485	53.8726	-1.30698
14	0.05	-1.60725	56.4559	-1.38734
15	0.05	-1.57179	58.9264	-1.46593
16	0.05	-1.5382	61.2925	-1.54284
17	0.05	-1.50626	63.5613	-1.61815
18	0.05	-1.47579	65.7393	-1.69194
19	0.05	-1.44663	67.832	-1.76428
20	0.05	-1.41865	69.8446	-1.83521
21	0.05	-1.39175	71.7815	-1.9048
22	0.05	-1.36581	73.647	-1.97309
23	0.05	-1.34075	75.4446	-2.04012
24	0.05	-1.31652	77.1778	-2.10595
25	0.05	-1.29303	78.8498	-2.1706
26	0.05	-1.27588	80.4776	-2.23439
27	0.05	-1.25357	82.049	-2.29707
28	0.05	-1.23187	83.5665	-2.35867
29	0.05	-1.21073	85.0324	-2.4192
30	0.05	-1.19012	86.4488	-2.47871
31	0.05	-1.17	87.8177	-2.53721
32	0.05	-1.15035	89.141	-2.59473
33	0.05	-1.13113	90.4204	-2.65128
34	0.05	-1.11232	91.6577	-2.7069
35	0.05	-1.0939	92.8543	-2.76159
36	0.05	-1.07584	94.0117	-2.81539
37	0.05	-1.05812	95.1314	-2.86829
38	0.05	-1.04073	96.2145	-2.92033
39	0.05	-1.02789	97.271	-2.97172
40	0.05	-1.01104	98.2932	-3.02227
41	0.05	-0.994457	99.2822	-3.072
42	0.05	-0.97815	100.239	-3.12091
43	0.05	-0.9621	101.165	-3.16901
44	0.05	-0.946291	102.06	-3.21632
45	0.05	-0.930718	102.926	-3.26286
46	0.05	-0.915365	103.764	-3.30863
47	0.05	-0.900227	104.575	-3.35364
48	0.05	-0.885291	105.358	-3.3979
49	0.05	-0.87055	106.116	-3.44143
50	0.05	-0.855996	106.849	-3.48423
51	0.05	-0.841621	107.557	-3.52631

52	0.05	-0.830953	108.248	-3.56786
53	0.05	-0.816874	108.915	-3.6087
54	0.05	-0.802956	109.56	-3.64885
55	0.05	-0.789191	110.183	-3.68831
56	0.05	-0.775574	110.784	-3.72709
57	0.05	-0.7621	111.365	-3.7652
58	0.05	-0.748762	111.926	-3.80263
59	0.05	-0.735557	112.467	-3.83941
60	0.05	-0.722479	112.989	-3.87554
61	0.05	-0.709522	113.492	-3.91101
62	0.2	-0.696684	113.977	-4.05035
63	0.35	-0.68396	114.445	-4.28973
64	0.41	-0.67449	114.9	-4.56628
65	0.41	-0.661955	115.338	-4.83768
66	0.42	-0.649522	115.76	-5.11048
67	0.45	-0.637192	116.166	-5.39721
68	0.53	-0.624956	116.557	-5.72844
69	0.54	-0.612813	116.932	-6.05936
70	0.58	-0.60076	117.293	-6.4078
71	0.67	-0.588793	117.64	-6.80229
72	1	-0.576911	117.973	-7.3792
73	1	-0.565108	118.292	-7.94431
74	1	-0.553384	118.598	-8.49769
75	1	-0.541736	118.892	-9.03943
76	1	-0.530162	119.173	-9.56959
77	1	-0.521527	119.445	-10.0911
78	1	-0.510074	119.705	-10.6012
79	1	-0.498687	119.954	-11.0999
80	1	-0.487364	120.191	-11.5872
81	1	-0.476105	120.418	-12.0633
82	1	-0.464904	120.634	-12.5283
83	1	-0.453763	120.84	-12.982
84	1	-0.442676	121.036	-13.4247
85	1	-0.431644	121.222	-13.8563
86	1	-0.420664	121.399	-14.277
87	1	-0.409735	121.567	-14.6867
88	1	-0.398855	121.726	-15.0856
89	1	-0.388022	121.877	-15.4736
90	1	-0.379927	122.021	-15.8535
91	1	-0.369171	122.157	-16.2227
92	1	-0.358459	122.286	-16.5812
93	1	-0.347787	122.407	-16.929
94	1	-0.337155	122.52	-17.2661
95	1	-0.326561	122.627	-17.5927
96	1	-0.316004	122.727	-17.9087
97	1	-0.305481	122.82	-18.2142
98	1	-0.294992	122.907	-18.5091
99	1	-0.284535	122.988	-18.7937
100	1	-0.27411	123.063	-19.0678
101	1	-0.263715	123.133	-19.3315
102	1	-0.253347	123.197	-19.5849
103	1	-0.24559	123.257	-19.8304
104	1	-0.235269	123.313	-20.0657
105	1	-0.224974	123.363	-20.2907
106	1	-0.214702	123.409	-20.5054
107	1	-0.204452	123.451	-20.7098
108	1	-0.194225	123.489	-20.9041
109	1	-0.184017	123.523	-21.0881
110	1	-0.173829	123.553	-21.2619
111	1	-0.163659	123.58	-21.4256
112	1	-0.153505	123.603	-21.5791
113	1	-0.143367	123.624	-21.7224

114	1	-0.133244	123.642	-21.8557
115	1	-0.125661	123.658	-21.9814
116	1	-0.115562	123.671	-22.0969
117	1	-0.105474	123.682	-22.2024
118	1	-0.0953969	123.691	-22.2978
119	1	-0.0853288	123.698	-22.3831
120	1	-0.0752698	123.704	-22.4584
121	1	-0.0652187	123.708	-22.5236
122	1	-0.0551734	123.711	-22.5788
123	1	-0.0451348	123.713	-22.6239
124	1	-0.0350997	123.715	-22.659
125	1	-0.0250691	123.715	-22.6841
126	1	-0.0150408	123.715	-22.6991
127	1	-0.00501359	123.715	-22.7041
128	1	0.00501359	123.716	-22.6991
129	1	0.0150408	123.716	-22.6841
130	1	0.0250691	123.716	-22.659
131	1	0.0350997	123.718	-22.6239
132	1	0.0451348	123.72	-22.5788
133	1	0.0551734	123.723	-22.5236
134	1	0.0652187	123.727	-22.4584
135	1	0.0752698	123.733	-22.3831
136	1	0.0853288	123.74	-22.2978
137	1	0.0953969	123.749	-22.2024
138	1	0.105474	123.76	-22.0969
139	1	0.115562	123.773	-21.9814
140	1	0.125661	123.789	-21.8557
141	1	0.133244	123.807	-21.7224
142	1	0.143367	123.828	-21.5791
143	1	0.153505	123.851	-21.4256
144	1	0.163659	123.878	-21.2619
145	1	0.173829	123.908	-21.0881
146	1	0.184017	123.942	-20.9041
147	1	0.194225	123.98	-20.7098
148	1	0.204452	124.022	-20.5054
149	1	0.214702	124.068	-20.2907
150	1	0.224974	124.118	-20.0657
151	1	0.235269	124.174	-19.8304
152	1	0.24559	124.234	-19.5849
153	1	0.253347	124.298	-19.3315
154	1	0.263715	124.368	-19.0678
155	1	0.27411	124.443	-18.7937
156	1	0.284535	124.524	-18.5091
157	1	0.294992	124.611	-18.2142
158	1	0.305481	124.704	-17.9087
159	1	0.316004	124.804	-17.5927
160	1	0.326561	124.911	-17.2661
161	1	0.337155	125.024	-16.929
162	1	0.347787	125.145	-16.5812
163	1	0.358459	125.274	-16.2227
164	1	0.369171	125.41	-15.8535
165	1	0.379927	125.554	-15.4736
166	1	0.388022	125.705	-15.0856
167	1	0.398855	125.864	-14.6867
168	1	0.409735	126.032	-14.277
169	1	0.420664	126.209	-13.8563
170	1	0.431644	126.395	-13.4247
171	1	0.442676	126.591	-12.982
172	1	0.453763	126.797	-12.5283
173	1	0.464904	127.013	-12.0633
174	1	0.476105	127.24	-11.5872
175	1	0.487364	127.477	-11.0999

176	1	0.498687		127.726	-10.6012
177	1	0.510074		127.986	-10.0911
178	1	0.521527		128.258	-9.56959
179	1	0.530162		128.539	-9.03943
180	1	0.541736		128.833	-8.49769
181	1	0.553384		129.139	-7.94431
182	1	0.565108		129.458	-7.3792
183	1	0.576911		129.791	-6.80229
184	1	0.588793		130.138	-6.2135
185	1	0.60076	130.499	-5.61274	
186	1	0.612813		130.874	-4.99992
187	1	0.624956		131.265	-4.37497
188	1	0.637192		131.671	-3.73778
189	1	0.649522		132.093	-3.08825
190	1	0.661955		132.531	-2.4263
191	1	0.67449	132.986	-1.75181	
192	1	0.68396	133.454	-1.06785	
193	1	0.696684		133.939	-0.371164
194	1	0.709522		134.442	0.338358
195	1	0.722479		134.964	1.06084
196	1	0.735557		135.505	1.79639
197	1	0.748762		136.066	2.54516
198	1	0.7621	136.647	3.30726	
199	1	0.775574		137.248	4.08283
200	1	0.789191		137.871	4.87202
201	1	0.802956		138.516	5.67498
202	1	0.816874		139.183	6.49185
203	1	0.830953		139.874	7.3228
204	1	0.841621		140.582	8.16443
205	1	0.855996		141.315	9.02042
206	1	0.87055	142.073	9.89097	
207	1	0.885291		142.856	10.7763
208	1	0.900227		143.667	11.6765
209	1	0.915365		144.505	12.5919
210	1	0.930718		145.371	13.5226
211	1	0.946291		146.266	14.4689
212	1	0.9621	147.192	15.431	
213	1	0.97815	148.149	16.4091	
214	1	0.994457		149.138	17.4036
215	1	1.01104	150.16	18.4146	
216	1	1.02789	151.217	19.4425	
217	1	1.04073	152.3	20.4832	
218	1	1.05812	153.419	21.5414	
219	1	1.07584	154.577	22.6172	
220	1	1.0939	155.773	23.7111	
221	1	1.11232	157.011	24.8234	
222	1	1.13113	158.29	25.9545	
223	1	1.15035	159.613	27.1049	
224	1	1.17	160.982	28.2749	
225	1	1.19012	162.399	29.465	
226	1	1.21073	163.864	30.6757	
227	1	1.23187	165.382	31.9076	
228	1	1.25357	166.953	33.1612	
229	1	1.27588	168.581	34.437	
230	1	1.29303	170.253	35.7301	
231	1	1.31652	171.986	37.0466	
232	1	1.34075	173.784	38.3874	
233	1	1.36581	175.649	39.7532	
234	1	1.39175	177.586	41.1449	
235	1	1.41865	179.599	42.5636	
236	1	1.44663	181.692	44.0102	
237	1	1.47579	183.87	45.486	

238	1	1.50626	186.139	46.9922
239	1	1.5382	188.505	48.5304
240	1	1.57179	190.975	50.1022
241	1	1.60725	193.558	51.7095
242	1	1.64485	196.264	53.3543
243	1	1.67466	199.068	55.029
244	1	1.71688	202.016	56.7459
245	1	1.76241	205.122	58.5083
246	1	1.81191	208.405	60.3202
247	1	1.86629	211.888	62.1865
248	1	1.92684	215.601	64.1133
249	1	1.99539	219.583	66.1087
250	1	2.07485	223.888	68.1836
251	1	2.17009	228.597	70.3537
252	1	2.29036	233.843	72.644
253	1	2.45727	239.881	75.1013
254	1.39	2.74777	247.431	78.9207

Data Set Standard Deviation = 0.410793
Numerator = 6228.48
Denominator = 10563.8
W Statistic = 0.589604 = 6228.48 / 10563.8

5% Critical value of 0.976 exceeds 0.589604
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.589604
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 = 0.766657
0.766657 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.05	0.00392157	-2.747775	2.375	348.683	
2	0.05	0.00784314	-2.457275	2.375	334.497	
3	0.05	0.0117647	-2.290365	2.375	326.346	
4	0.05	0.0156863	-2.170095	2.375	320.473	
5	0.05	0.0196078	-2.074855	2.375	315.822	
6	0.05	0.0235294	-1.995395	2.375	311.942	
7	0.05	0.027451	-1.926845	2.375	308.594	
8	0.05	0.0313725	-1.866295	2.375	305.637	
9	0.05	0.0352941	-1.811915	2.375	302.982	
10	0.05	0.0392157	-1.762415	2.375	300.564	
11	0.05	0.0431373	-1.716885	2.375	298.341	
12	0.05	0.0470588	-1.674665	2.375	296.279	
13	0.05	0.0509804	-1.644855	2.375	294.824	
14	0.05	0.054902	-1.607255	2.375	292.987	
15	0.05	0.0588235	-1.571795	2.375	291.256	
16	0.05	0.0627451	-1.5382	52.375	289.615	
17	0.05	0.0666667	-1.506265	2.375	288.056	
18	0.05	0.0705882	-1.475795	2.375	286.568	
19	0.05	0.0745098	-1.446635	2.375	285.144	
20	0.05	0.0784314	-1.418655	2.375	283.778	
21	0.05	0.0823529	-1.391755	2.375	282.464	
22	0.05	0.0862745	-1.365815	2.375	281.197	
23	0.05	0.0901961	-1.340755	2.375	279.974	
24	0.05	0.0941176	-1.316525	2.375	278.79	
25	0.05	0.0980392	-1.293035	2.375	277.643	
26	0.05	0.101961	-1.275885	2.375	276.805	
27	0.05	0.105882	-1.253575	2.375	275.716	
28	0.05	0.109804	-1.231875	2.375	274.656	
29	0.05	0.113725	-1.210735	2.375	273.624	
30	0.05	0.117647	-1.190125	2.375	272.617	
31	0.05	0.121569	-1.17	52.375	271.635	
32	0.05	0.12549	-1.150355	2.375	270.675	
33	0.05	0.129412	-1.131135	2.375	269.737	
34	0.05	0.133333	-1.112325	2.375	268.818	
35	0.05	0.137255	-1.0939	52.375	267.919	
36	0.05	0.141176	-1.075845	2.375	267.037	
37	0.05	0.145098	-1.058125	2.375	266.172	
38	0.05	0.14902	-1.040735	2.375	265.322	
39	0.05	0.152941	-1.027895	2.375	264.695	
40	0.05	0.156863	-1.011045	2.375	263.872	
41	0.05	0.160784	-0.994457	52.375	263.063	
42	0.05	0.164706	-0.978155	2.375	262.266	
43	0.05	0.168627	-0.9621	52.375	261.483	
44	0.05	0.172549	-0.946291	52.375	260.711	
45	0.05	0.176471	-0.930718	52.375	259.95	
46	0.05	0.180392	-0.915365	52.375	259.2	
47	0.05	0.184314	-0.900227	52.375	258.461	
48	0.05	0.188235	-0.885291	52.375	257.732	

49	0.05	0.192157	-0.870552.375	257.012	
50	0.05	0.196078	-0.855996	52.375	256.301
51	0.05	0.2	-0.841621	52.375	255.599
52	0.05	0.203922	-0.830953	52.375	255.078
53	0.05	0.207843	-0.816874	52.375	254.391
54	0.05	0.211765	-0.802956	52.375	253.711
55	0.05	0.215686	-0.789191	52.375	253.039
56	0.05	0.219608	-0.775574	52.375	252.374
57	0.05	0.223529	-0.7621 52.375	251.716	
58	0.05	0.227451	-0.748762	52.375	251.065
59	0.05	0.231373	-0.735557	52.375	250.42
60	0.05	0.235294	-0.722479	52.375	249.781
61	0.05	0.239216	-0.709522	52.375	249.148
62	0.2	0.243137	-0.696684	92.5	248.521
63	0.35	0.247059	-0.68396132.625	247.9	
64	0.41	0.25098 -0.67449148.675	247.438		
65	0.41	0.254902	-0.661955	148.675	246.825
66	0.42	0.258824	-0.649522	151.35	246.218
67	0.45	0.262745	-0.637192	159.375	245.616
68	0.53	0.266667	-0.624956	180.775	245.019
69	0.54	0.270588	-0.612813	183.45	244.426
70	0.58	0.27451 -0.60076194.15	243.837		
71	0.67	0.278431	-0.588793	218.225	243.253
72	1	0.282353	-0.576911	306.5	242.672
73	1	0.286275	-0.565108	306.5	242.096
74	1	0.290196	-0.553384	306.5	241.524
75	1	0.294118	-0.541736	306.5	240.955
76	1	0.298039	-0.530162	306.5	240.39
77	1	0.301961	-0.521527	306.5	239.968
78	1	0.305882	-0.510074	306.5	239.409
79	1	0.309804	-0.498687	306.5	238.853
80	1	0.313725	-0.487364	306.5	238.3
81	1	0.317647	-0.476105	306.5	237.75
82	1	0.321569	-0.464904	306.5	237.203
83	1	0.32549 -0.453763	306.5	236.659	
84	1	0.329412	-0.442676	306.5	236.117
85	1	0.333333	-0.431644	306.5	235.579
86	1	0.337255	-0.420664	306.5	235.042
87	1	0.341176	-0.409735	306.5	234.509
88	1	0.345098	-0.398855	306.5	233.977
89	1	0.34902 -0.388022	306.5	233.448	
90	1	0.352941	-0.379927	306.5	233.053
91	1	0.356863	-0.369171	306.5	232.528
92	1	0.360784	-0.358459	306.5	232.005
93	1	0.364706	-0.347787	306.5	231.484
94	1	0.368627	-0.337155	306.5	230.964
95	1	0.372549	-0.326561	306.5	230.447
96	1	0.376471	-0.316004	306.5	229.932
97	1	0.380392	-0.305481	306.5	229.418
98	1	0.384314	-0.294992	306.5	228.905
99	1	0.388235	-0.284535	306.5	228.395
100	1	0.392157	-0.27411306.5	227.886	
101	1	0.396078	-0.263715	306.5	227.378
102	1	0.4	-0.253347	306.5	226.872
103	1	0.403922	-0.24559306.5	226.493	
104	1	0.407843	-0.235269	306.5	225.989
105	1	0.411765	-0.224974	306.5	225.486
106	1	0.415686	-0.214702	306.5	224.985
107	1	0.419608	-0.204452	306.5	224.484
108	1	0.423529	-0.194225	306.5	223.985
109	1	0.427451	-0.184017	306.5	223.486
110	1	0.431373	-0.173829	306.5	222.989

111	1	0.435294	-0.163659	306.5	222.492
112	1	0.439216	-0.153505	306.5	221.996
113	1	0.443137	-0.143367	306.5	221.501
114	1	0.447059	-0.133244	306.5	221.007
115	1	0.45098	-0.125661	306.5	220.636
116	1	0.454902	-0.115562	306.5	220.143
117	1	0.458824	-0.105474	306.5	219.651
118	1	0.462745	-0.0953969	306.5	219.159
119	1	0.466667	-0.0853288	306.5	218.667
120	1	0.470588	-0.0752698	306.5	218.176
121	1	0.47451	-0.0652187	306.5	217.685
122	1	0.478431	-0.0551734	306.5	217.194
123	1	0.482353	-0.0451348	306.5	216.704
124	1	0.486275	-0.0350997	306.5	216.214
125	1	0.490196	-0.0250691	306.5	215.724
126	1	0.494118	-0.0150408	306.5	215.234
127	1	0.498039	-0.00501359	306.5	214.745
128	1	0.501961	0.00501359	306.5	214.255
129	1	0.505882	0.0150408	306.5	213.766
130	1	0.509804	0.0250691	306.5	213.276
131	1	0.513725	0.0350997	306.5	212.786
132	1	0.517647	0.0451348	306.5	212.296
133	1	0.521569	0.0551734	306.5	211.806
134	1	0.52549	0.0652187	306.5	211.315
135	1	0.529412	0.0752698	306.5	210.824
136	1	0.533333	0.0853288	306.5	210.333
137	1	0.537255	0.0953969	306.5	209.841
138	1	0.541176	0.105474	306.5	209.349
139	1	0.545098	0.115562	306.5	208.857
140	1	0.54902	0.125661	306.5	208.364
141	1	0.552941	0.133244	306.5	207.993
142	1	0.556863	0.143367	306.5	207.499
143	1	0.560784	0.153505	306.5	207.004
144	1	0.564706	0.163659	306.5	206.508
145	1	0.568627	0.173829	306.5	206.011
146	1	0.572549	0.184017	306.5	205.514
147	1	0.576471	0.194225	306.5	205.015
148	1	0.580392	0.204452	306.5	204.516
149	1	0.584314	0.214702	306.5	204.015
150	1	0.588235	0.224974	306.5	203.514
151	1	0.592157	0.235269	306.5	203.011
152	1	0.596078	0.24559	306.5	202.507
153	1	0.6	0.253347	306.5	202.128
154	1	0.603922	0.263715	306.5	201.622
155	1	0.607843	0.27411	306.5	201.114
156	1	0.611765	0.284535	306.5	200.605
157	1	0.615686	0.294992	306.5	200.095
158	1	0.619608	0.305481	306.5	199.582
159	1	0.623529	0.316004	306.5	199.068
160	1	0.627451	0.326561	306.5	198.553
161	1	0.631373	0.337155	306.5	198.036
162	1	0.635294	0.347787	306.5	197.516
163	1	0.639216	0.358459	306.5	196.995
164	1	0.643137	0.369171	306.5	196.472
165	1	0.647059	0.379927	306.5	195.947
166	1	0.65098	0.388022	306.5	195.552
167	1	0.654902	0.398855	306.5	195.023
168	1	0.658824	0.409735	306.5	194.491
169	1	0.662745	0.420664	306.5	193.958
170	1	0.666667	0.431644	306.5	193.421
171	1	0.670588	0.442676	306.5	192.883
172	1	0.67451	0.453763	306.5	192.341

173	1	0.678431	0.464904	306.5	191.797
174	1	0.682353	0.476105	306.5	191.25
175	1	0.686275	0.487364	306.5	190.7
176	1	0.690196	0.498687	306.5	190.147
177	1	0.694118	0.510074	306.5	189.591
178	1	0.698039	0.521527	306.5	189.032
179	1	0.701961	0.530162	306.5	188.61
180	1	0.705882	0.541736	306.5	188.045
181	1	0.709804	0.553384	306.5	187.476
182	1	0.713725	0.565108	306.5	186.904
183	1	0.717647	0.576911	306.5	186.328
184	1	0.721569	0.588793	306.5	185.747
185	1	0.72549	0.60076	306.5	185.163
186	1	0.729412	0.612813	306.5	184.574
187	1	0.733333	0.624956	306.5	183.981
188	1	0.737255	0.637192	306.5	183.384
189	1	0.741176	0.649522	306.5	182.782
190	1	0.745098	0.661955	306.5	182.175
191	1	0.74902	0.67449	306.5	181.562
192	1	0.752941	0.68396	306.5	181.1
193	1	0.756863	0.696684	306.5	180.479
194	1	0.760784	0.709522	306.5	179.852
195	1	0.764706	0.722479	306.5	179.219
196	1	0.768627	0.735557	306.5	178.58
197	1	0.772549	0.748762	306.5	177.935
198	1	0.776471	0.7621	306.5	177.284
199	1	0.780392	0.775574	306.5	176.626
200	1	0.784314	0.789191	306.5	175.961
201	1	0.788235	0.802956	306.5	175.289
202	1	0.792157	0.816874	306.5	174.609
203	1	0.796078	0.830953	306.5	173.922
204	1	0.8	0.841621	306.5	173.401
205	1	0.803922	0.855996	306.5	172.699
206	1	0.807843	0.87055	306.5	171.988
207	1	0.811765	0.885291	306.5	171.268
208	1	0.815686	0.900227	306.5	170.539
209	1	0.819608	0.915365	306.5	169.8
210	1	0.823529	0.930718	306.5	169.05
211	1	0.827451	0.946291	306.5	168.289
212	1	0.831373	0.9621	306.5	167.517
213	1	0.835294	0.97815	306.5	166.734
214	1	0.839216	0.994457	306.5	165.937
215	1	0.843137	1.01104	306.5	165.128
216	1	0.847059	1.02789	306.5	164.305
217	1	0.85098	1.04073	306.5	163.678
218	1	0.854902	1.05812	306.5	162.828
219	1	0.858824	1.07584	306.5	161.963
220	1	0.862745	1.0939	306.5	161.081
221	1	0.866667	1.11232	306.5	160.182
222	1	0.870588	1.13113	306.5	159.263
223	1	0.87451	1.15035	306.5	158.325
224	1	0.878431	1.17	306.5	157.365
225	1	0.882353	1.19012	306.5	156.383
226	1	0.886275	1.21073	306.5	155.376
227	1	0.890196	1.23187	306.5	154.344
228	1	0.894118	1.25357	306.5	153.284
229	1	0.898039	1.27588	306.5	152.195
230	1	0.901961	1.29303	306.5	151.357
231	1	0.905882	1.31652	306.5	150.21
232	1	0.909804	1.34075	306.5	149.026
233	1	0.913725	1.36581	306.5	147.803
234	1	0.917647	1.39175	306.5	146.536

235	1	0.921569	1.41865	306.5	145.222
236	1	0.92549	1.44663	306.5	143.856
237	1	0.929412	1.47579	306.5	142.432
238	1	0.933333	1.50626	306.5	140.944
239	1	0.937255	1.5382	306.5	139.385
240	1	0.941176	1.57179	306.5	137.744
241	1	0.945098	1.60725	306.5	136.013
242	1	0.94902	1.64485	306.5	134.176
243	1	0.952941	1.67466	306.5	132.721
244	1	0.956863	1.71688	306.5	130.659
245	1	0.960784	1.76241	306.5	128.436
246	1	0.964706	1.81191	306.5	126.018
247	1	0.968627	1.86629	306.5	123.363
248	1	0.972549	1.92684	306.5	120.406
249	1	0.976471	1.99539	306.5	117.058
250	1	0.980392	2.07485	306.5	113.178
251	1	0.984314	2.17009	306.5	108.527
252	1	0.988235	2.29036	306.5	102.654
253	1	0.992157	2.45727	306.5	94.5032
254	1.39	0.996078	2.74777	410.825	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.99573	-2.74777	7.55021	8.23157
2	-2.99573	-2.45727	13.5884	15.5929
3	-2.99573	-2.29036	18.8342	22.4542
4	-2.99573	-2.17009	23.5435	28.9552
5	-2.99573	-2.07485	27.8485	35.1709
6	-2.99573	-1.99539	31.8301	41.1486
7	-2.99573	-1.92684	35.5428	46.9209
8	-2.99573	-1.86629	39.0258	52.5118
9	-2.99573	-1.81191	42.3088	57.9398
10	-2.99573	-1.76241	45.4149	63.2195
11	-2.99573	-1.71688	48.3626	68.3628
12	-2.99573	-1.67466	51.1671	73.3797
13	-2.99573	-1.64485	53.8726	78.3072
14	-2.99573	-1.60725	56.4559	83.1221
15	-2.99573	-1.57179	58.9264	87.8308
16	-2.99573	-1.5382	61.2925	92.4388
17	-2.99573	-1.50626	63.5613	96.9511
18	-2.99573	-1.47579	65.7393	101.372
19	-2.99573	-1.44663	67.832	105.706
20	-2.99573	-1.41865	69.8446	109.956
21	-2.99573	-1.39175	71.7815	114.125
22	-2.99573	-1.36581	73.647	118.217
23	-2.99573	-1.34075	75.4446	122.233
24	-2.99573	-1.31652	77.1778	126.177
25	-2.99573	-1.29303	78.8498	130.051
26	-2.99573	-1.27588	80.4776	133.873
27	-2.99573	-1.25357	82.049	137.628
28	-2.99573	-1.23187	83.5665	141.319
29	-2.99573	-1.21073	85.0324	144.946
30	-2.99573	-1.19012	86.4488	148.511
31	-2.99573	-1.17	87.8177	152.016
32	-2.99573	-1.15035	89.141	155.462
33	-2.99573	-1.13113	90.4204	158.851
34	-2.99573	-1.11232	91.6577	162.183
35	-2.99573	-1.0939	92.8543	165.46
36	-2.99573	-1.07584	94.0117	168.683
37	-2.99573	-1.05812	95.1314	171.853
38	-2.99573	-1.04073	96.2145	174.97
39	-2.99573	-1.02789	97.271	178.05
40	-2.99573	-1.01104	98.2932	181.079
41	-2.99573	-0.994457	99.2822	184.058
42	-2.99573	-0.97815	100.239	186.988
43	-2.99573	-0.9621	101.165	189.87
44	-2.99573	-0.946291	102.06	192.705
45	-2.99573	-0.930718	102.926	195.493
46	-2.99573	-0.915365	103.764	198.235
47	-2.99573	-0.900227	104.575	200.932
48	-2.99573	-0.885291	105.358	203.584
49	-2.99573	-0.87055	106.116	206.192
50	-2.99573	-0.855996	106.849	208.757
51	-2.99573	-0.841621	107.557	211.278

52	-2.99573	-0.830953	108.248	213.767	
53	-2.99573	-0.816874	108.915	216.214	
54	-2.99573	-0.802956	109.56	218.62	
55	-2.99573	-0.789191	110.183	220.984	
56	-2.99573	-0.775574	110.784	223.307	
57	-2.99573	-0.7621	111.365	225.59	
58	-2.99573	-0.748762	111.926	227.833	
59	-2.99573	-0.735557	112.467	230.037	
60	-2.99573	-0.722479	112.989	232.201	
61	-2.99573	-0.709522	113.492	234.327	
62	-1.60944	-0.696684	113.977	235.448	
63	-1.04982	-0.68396	114.445	236.166	
64	-0.891598	-0.67449	114.9	236.768	
65	-0.891598	-0.661955	115.338	237.358	
66	-0.867501	-0.649522	115.76	237.921	
67	-0.798508	-0.637192	116.166	238.43	
68	-0.634878	-0.624956	116.557	238.827	
69	-0.616186	-0.612813	116.932	239.204	
70	-0.544727	-0.60076	117.293	239.532	
71	-0.400478	-0.588793	117.64	239.767	
72	0	-0.576911	117.973	239.767	
73	0	-0.565108	118.292	239.767	
74	0	-0.553384	118.598	239.767	
75	0	-0.541736	118.892	239.767	
76	0	-0.530162	119.173	239.767	
77	0	-0.521527	119.445	239.767	
78	0	-0.510074	119.705	239.767	
79	0	-0.498687	119.954	239.767	
80	0	-0.487364	120.191	239.767	
81	0	-0.476105	120.418	239.767	
82	0	-0.464904	120.634	239.767	
83	0	-0.453763	120.84	239.767	
84	0	-0.442676	121.036	239.767	
85	0	-0.431644	121.222	239.767	
86	0	-0.420664	121.399	239.767	
87	0	-0.409735	121.567	239.767	
88	0	-0.398855	121.726	239.767	
89	0	-0.388022	121.877	239.767	
90	0	-0.379927	122.021	239.767	
91	0	-0.369171	122.157	239.767	
92	0	-0.358459	122.286	239.767	
93	0	-0.347787	122.407	239.767	
94	0	-0.337155	122.52	239.767	
95	0	-0.326561	122.627	239.767	
96	0	-0.316004	122.727	239.767	
97	0	-0.305481	122.82	239.767	
98	0	-0.294992	122.907	239.767	
99	0	-0.284535	122.988	239.767	
100	0	-0.27411	123.063	239.767	
101	0	-0.263715	123.133	239.767	
102	0	-0.253347	123.197	239.767	
103	0	-0.24559	123.257	239.767	
104	0	-0.235269	123.313	239.767	
105	0	-0.224974	123.363	239.767	
106	0	-0.214702	123.409	239.767	
107	0	-0.204452	123.451	239.767	
108	0	-0.194225	123.489	239.767	
109	0	-0.184017	123.523	239.767	
110	0	-0.173829	123.553	239.767	
111	0	-0.163659	123.58	239.767	
112	0	-0.153505	123.603	239.767	
113	0	-0.143367	123.624	239.767	

114	0	-0.133244	123.642	239.767
115	0	-0.125661	123.658	239.767
116	0	-0.115562	123.671	239.767
117	0	-0.105474	123.682	239.767
118	0	-0.0953969	123.691	239.767
119	0	-0.0853288	123.698	239.767
120	0	-0.0752698	123.704	239.767
121	0	-0.0652187	123.708	239.767
122	0	-0.0551734	123.711	239.767
123	0	-0.0451348	123.713	239.767
124	0	-0.0350997	123.715	239.767
125	0	-0.0250691	123.715	239.767
126	0	-0.0150408	123.715	239.767
127	0	-0.00501359	123.715	239.767
128	0	0.00501359	123.716	239.767
129	0	0.0150408	123.716	239.767
130	0	0.0250691	123.716	239.767
131	0	0.0350997	123.718	239.767
132	0	0.0451348	123.72	239.767
133	0	0.0551734	123.723	239.767
134	0	0.0652187	123.727	239.767
135	0	0.0752698	123.733	239.767
136	0	0.0853288	123.74	239.767
137	0	0.0953969	123.749	239.767
138	0	0.105474	123.76	239.767
139	0	0.115562	123.773	239.767
140	0	0.125661	123.789	239.767
141	0	0.133244	123.807	239.767
142	0	0.143367	123.828	239.767
143	0	0.153505	123.851	239.767
144	0	0.163659	123.878	239.767
145	0	0.173829	123.908	239.767
146	0	0.184017	123.942	239.767
147	0	0.194225	123.98	239.767
148	0	0.204452	124.022	239.767
149	0	0.214702	124.068	239.767
150	0	0.224974	124.118	239.767
151	0	0.235269	124.174	239.767
152	0	0.24559	124.234	239.767
153	0	0.253347	124.298	239.767
154	0	0.263715	124.368	239.767
155	0	0.27411	124.443	239.767
156	0	0.284535	124.524	239.767
157	0	0.294992	124.611	239.767
158	0	0.305481	124.704	239.767
159	0	0.316004	124.804	239.767
160	0	0.326561	124.911	239.767
161	0	0.337155	125.024	239.767
162	0	0.347787	125.145	239.767
163	0	0.358459	125.274	239.767
164	0	0.369171	125.41	239.767
165	0	0.379927	125.554	239.767
166	0	0.388022	125.705	239.767
167	0	0.398855	125.864	239.767
168	0	0.409735	126.032	239.767
169	0	0.420664	126.209	239.767
170	0	0.431644	126.395	239.767
171	0	0.442676	126.591	239.767
172	0	0.453763	126.797	239.767
173	0	0.464904	127.013	239.767
174	0	0.476105	127.24	239.767
175	0	0.487364	127.477	239.767

176	0	0.498687		127.726	239.767
177	0	0.510074		127.986	239.767
178	0	0.521527		128.258	239.767
179	0	0.530162		128.539	239.767
180	0	0.541736		128.833	239.767
181	0	0.553384		129.139	239.767
182	0	0.565108		129.458	239.767
183	0	0.576911		129.791	239.767
184	0	0.588793		130.138	239.767
185	0	0.60076	130.499	239.767	
186	0	0.612813		130.874	239.767
187	0	0.624956		131.265	239.767
188	0	0.637192		131.671	239.767
189	0	0.649522		132.093	239.767
190	0	0.661955		132.531	239.767
191	0	0.67449	132.986	239.767	
192	0	0.68396	133.454	239.767	
193	0	0.696684		133.939	239.767
194	0	0.709522		134.442	239.767
195	0	0.722479		134.964	239.767
196	0	0.735557		135.505	239.767
197	0	0.748762		136.066	239.767
198	0	0.7621	136.647	239.767	
199	0	0.775574		137.248	239.767
200	0	0.789191		137.871	239.767
201	0	0.802956		138.516	239.767
202	0	0.816874		139.183	239.767
203	0	0.830953		139.874	239.767
204	0	0.841621		140.582	239.767
205	0	0.855996		141.315	239.767
206	0	0.87055	142.073	239.767	
207	0	0.885291		142.856	239.767
208	0	0.900227		143.667	239.767
209	0	0.915365		144.505	239.767
210	0	0.930718		145.371	239.767
211	0	0.946291		146.266	239.767
212	0	0.9621	147.192	239.767	
213	0	0.97815	148.149	239.767	
214	0	0.994457		149.138	239.767
215	0	1.01104	150.16	239.767	
216	0	1.02789	151.217	239.767	
217	0	1.04073	152.3	239.767	
218	0	1.05812	153.419	239.767	
219	0	1.07584	154.577	239.767	
220	0	1.0939	155.773	239.767	
221	0	1.11232	157.011	239.767	
222	0	1.13113	158.29	239.767	
223	0	1.15035	159.613	239.767	
224	0	1.17	160.982	239.767	
225	0	1.19012	162.399	239.767	
226	0	1.21073	163.864	239.767	
227	0	1.23187	165.382	239.767	
228	0	1.25357	166.953	239.767	
229	0	1.27588	168.581	239.767	
230	0	1.29303	170.253	239.767	
231	0	1.31652	171.986	239.767	
232	0	1.34075	173.784	239.767	
233	0	1.36581	175.649	239.767	
234	0	1.39175	177.586	239.767	
235	0	1.41865	179.599	239.767	
236	0	1.44663	181.692	239.767	
237	0	1.47579	183.87	239.767	

238	0	1.50626	186.139	239.767	
239	0	1.5382	188.505	239.767	
240	0	1.57179	190.975	239.767	
241	0	1.60725	193.558	239.767	
242	0	1.64485	196.264	239.767	
243	0	1.67466	199.068	239.767	
244	0	1.71688	202.016	239.767	
245	0	1.76241	205.122	239.767	
246	0	1.81191	208.405	239.767	
247	0	1.86629	211.888	239.767	
248	0	1.92684	215.601	239.767	
249	0	1.99539	219.583	239.767	
250	0	2.07485	223.888	239.767	
251	0	2.17009	228.597	239.767	
252	0	2.29036	233.843	239.767	
253	0	2.45727	239.881	239.767	
254	0.329304		2.74777	247.431	240.672

Data Set Standard Deviation = 1.27652
Numerator = 57923.2
Denominator = 102006
W Statistic = 0.567838 = 57923.2 / 102006

5% Critical value of 0.976 exceeds 0.567838
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.567838
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 = 0.752183
0.752183 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.995730	0.00392157	-2.747	77 39.5708	348.683
2	-2.995730	0.00784314	-2.457	27 39.5708	334.497
3	-2.995730	0.0117647	-2.290	36 39.5708	326.346
4	-2.995730	0.0156863	-2.170	09 39.5708	320.473
5	-2.995730	0.0196078	-2.074	85 39.5708	315.822
6	-2.995730	0.0235294	-1.995	39 39.5708	311.942
7	-2.995730	0.027451	-1.926	84 39.5708	308.594
8	-2.995730	0.0313725	-1.866	29 39.5708	305.637
9	-2.995730	0.0352941	-1.811	91 39.5708	302.982
10	-2.995730	0.0392157	-1.762	41 39.5708	300.564
11	-2.995730	0.0431373	-1.716	88 39.5708	298.341
12	-2.995730	0.0470588	-1.674	66 39.5708	296.279
13	-2.995730	0.0509804	-1.644	85 39.5708	294.824
14	-2.995730	0.054902	-1.607	25 39.5708	292.987
15	-2.995730	0.0588235	-1.571	79 39.5708	291.256
16	-2.995730	0.0627451	-1.538	2 39.5708	289.615
17	-2.995730	0.0666667	-1.506	26 39.5708	288.056
18	-2.995730	0.0705882	-1.475	79 39.5708	286.568
19	-2.995730	0.0745098	-1.446	63 39.5708	285.144
20	-2.995730	0.0784314	-1.418	65 39.5708	283.778
21	-2.995730	0.0823529	-1.391	75 39.5708	282.464
22	-2.995730	0.0862745	-1.365	81 39.5708	281.197
23	-2.995730	0.0901961	-1.340	75 39.5708	279.974
24	-2.995730	0.0941176	-1.316	52 39.5708	278.79
25	-2.995730	0.0980392	-1.293	03 39.5708	277.643
26	-2.995730	0.101961	-1.275	88 39.5708	276.805
27	-2.995730	0.105882	-1.253	57 39.5708	275.716
28	-2.995730	0.109804	-1.231	87 39.5708	274.656
29	-2.995730	0.113725	-1.210	73 39.5708	273.624
30	-2.995730	0.117647	-1.190	12 39.5708	272.617
31	-2.995730	0.121569	-1.17	39.5708	271.635
32	-2.995730	0.12549	-1.150	35 39.5708	270.675
33	-2.995730	0.129412	-1.131	13 39.5708	269.737
34	-2.995730	0.133333	-1.112	32 39.5708	268.818
35	-2.995730	0.137255	-1.093	9 39.5708	267.919
36	-2.995730	0.141176	-1.075	84 39.5708	267.037
37	-2.995730	0.145098	-1.058	12 39.5708	266.172
38	-2.995730	0.14902	-1.040	73 39.5708	265.322
39	-2.995730	0.152941	-1.027	89 39.5708	264.695
40	-2.995730	0.156863	-1.011	04 39.5708	263.872
41	-2.995730	0.160784	-0.994457	39.5708	263.063
42	-2.995730	0.164706	-0.978	15 39.5708	262.266
43	-2.995730	0.168627	-0.962	1 39.5708	261.483
44	-2.995730	0.172549	-0.946291	39.5708	260.711
45	-2.995730	0.176471	-0.930718	39.5708	259.95
46	-2.995730	0.180392	-0.915365	39.5708	259.2
47	-2.995730	0.184314	-0.900227	39.5708	258.461
48	-2.995730	0.188235	-0.885291	39.5708	257.732

49	-2.995730.192157	-0.8705	39.5708	257.012		
50	-2.995730.196078	-0.855996	39.5708	256.301		
51	-2.995730.2	-0.841621	39.5708	255.599		
52	-2.995730.203922	-0.830953	39.5708	255.078		
53	-2.995730.207843	-0.816874	39.5708	254.391		
54	-2.995730.211765	-0.802956	39.5708	253.711		
55	-2.995730.215686	-0.789191	39.5708	253.039		
56	-2.995730.219608	-0.775574	39.5708	252.374		
57	-2.995730.223529	-0.7621	39.5708	251.716		
58	-2.995730.227451	-0.748762	39.5708	251.065		
59	-2.995730.231373	-0.735557	39.5708	250.42		
60	-2.995730.235294	-0.722479	39.5708	249.781		
61	-2.995730.239216	-0.709522	39.5708	249.148		
62	-1.609440.243137	-0.696684	224.988	248.521		
63	-1.049820.247059	-0.68396	299.836	247.9		
64	-0.891598	0.25098	-0.67449	320.999	247.438	
65	-0.891598	0.254902	-0.661955	320.999	246.825	
66	-0.867501	0.258824	-0.649522	324.222	246.218	
67	-0.798508	0.262745	-0.637192	333.45	245.616	
68	-0.634878	0.266667	-0.624956	355.335	245.019	
69	-0.616186	0.270588	-0.612813	357.835	244.426	
70	-0.544727	0.27451	-0.60076	367.393	243.837	
71	-0.400478	0.278431	-0.588793	386.686	243.253	
72	0	0.282353	-0.576911	440.25	242.672	
73	0	0.286275	-0.565108	440.25	242.096	
74	0	0.290196	-0.553384	440.25	241.524	
75	0	0.294118	-0.541736	440.25	240.955	
76	0	0.298039	-0.530162	440.25	240.39	
77	0	0.301961	-0.521527	440.25	239.968	
78	0	0.305882	-0.510074	440.25	239.409	
79	0	0.309804	-0.498687	440.25	238.853	
80	0	0.313725	-0.487364	440.25	238.3	
81	0	0.317647	-0.476105	440.25	237.75	
82	0	0.321569	-0.464904	440.25	237.203	
83	0	0.32549	-0.453763	440.25	236.659	
84	0	0.329412	-0.442676	440.25	236.117	
85	0	0.333333	-0.431644	440.25	235.579	
86	0	0.337255	-0.420664	440.25	235.042	
87	0	0.341176	-0.409735	440.25	234.509	
88	0	0.345098	-0.398855	440.25	233.977	
89	0	0.34902	-0.388022	440.25	233.448	
90	0	0.352941	-0.379927	440.25	233.053	
91	0	0.356863	-0.369171	440.25	232.528	
92	0	0.360784	-0.358459	440.25	232.005	
93	0	0.364706	-0.347787	440.25	231.484	
94	0	0.368627	-0.337155	440.25	230.964	
95	0	0.372549	-0.326561	440.25	230.447	
96	0	0.376471	-0.316004	440.25	229.932	
97	0	0.380392	-0.305481	440.25	229.418	
98	0	0.384314	-0.294992	440.25	228.905	
99	0	0.388235	-0.284535	440.25	228.395	
100	0	0.392157	-0.27411	440.25	227.886	
101	0	0.396078	-0.263715	440.25	227.378	
102	0	0.4	-0.253347	440.25	226.872	
103	0	0.403922	-0.24559	440.25	226.493	
104	0	0.407843	-0.235269	440.25	225.989	
105	0	0.411765	-0.224974	440.25	225.486	
106	0	0.415686	-0.214702	440.25	224.985	
107	0	0.419608	-0.204452	440.25	224.484	
108	0	0.423529	-0.194225	440.25	223.985	
109	0	0.427451	-0.184017	440.25	223.486	
110	0	0.431373	-0.173829	440.25	222.989	

111	0	0.435294	-0.163659	440.25	222.492
112	0	0.439216	-0.153505	440.25	221.996
113	0	0.443137	-0.143367	440.25	221.501
114	0	0.447059	-0.133244	440.25	221.007
115	0	0.45098	-0.125661	440.25	220.636
116	0	0.454902	-0.115562	440.25	220.143
117	0	0.458824	-0.105474	440.25	219.651
118	0	0.462745	-0.0953969	440.25	219.159
119	0	0.466667	-0.0853288	440.25	218.667
120	0	0.470588	-0.0752698	440.25	218.176
121	0	0.47451	-0.0652187	440.25	217.685
122	0	0.478431	-0.0551734	440.25	217.194
123	0	0.482353	-0.0451348	440.25	216.704
124	0	0.486275	-0.0350997	440.25	216.214
125	0	0.490196	-0.0250691	440.25	215.724
126	0	0.494118	-0.0150408	440.25	215.234
127	0	0.498039	-0.00501359	440.25	214.745
128	0	0.501961	0.00501359	440.25	214.255
129	0	0.505882	0.0150408	440.25	213.766
130	0	0.509804	0.0250691	440.25	213.276
131	0	0.513725	0.0350997	440.25	212.786
132	0	0.517647	0.0451348	440.25	212.296
133	0	0.521569	0.0551734	440.25	211.806
134	0	0.52549	0.0652187	440.25	211.315
135	0	0.529412	0.0752698	440.25	210.824
136	0	0.533333	0.0853288	440.25	210.333
137	0	0.537255	0.0953969	440.25	209.841
138	0	0.541176	0.105474	440.25	209.349
139	0	0.545098	0.115562	440.25	208.857
140	0	0.54902	0.125661	440.25	208.364
141	0	0.552941	0.133244	440.25	207.993
142	0	0.556863	0.143367	440.25	207.499
143	0	0.560784	0.153505	440.25	207.004
144	0	0.564706	0.163659	440.25	206.508
145	0	0.568627	0.173829	440.25	206.011
146	0	0.572549	0.184017	440.25	205.514
147	0	0.576471	0.194225	440.25	205.015
148	0	0.580392	0.204452	440.25	204.516
149	0	0.584314	0.214702	440.25	204.015
150	0	0.588235	0.224974	440.25	203.514
151	0	0.592157	0.235269	440.25	203.011
152	0	0.596078	0.24559	440.25	202.507
153	0	0.6	0.253347	440.25	202.128
154	0	0.603922	0.263715	440.25	201.622
155	0	0.607843	0.27411	440.25	201.114
156	0	0.611765	0.284535	440.25	200.605
157	0	0.615686	0.294992	440.25	200.095
158	0	0.619608	0.305481	440.25	199.582
159	0	0.623529	0.316004	440.25	199.068
160	0	0.627451	0.326561	440.25	198.553
161	0	0.631373	0.337155	440.25	198.036
162	0	0.635294	0.347787	440.25	197.516
163	0	0.639216	0.358459	440.25	196.995
164	0	0.643137	0.369171	440.25	196.472
165	0	0.647059	0.379927	440.25	195.947
166	0	0.65098	0.388022	440.25	195.552
167	0	0.654902	0.398855	440.25	195.023
168	0	0.658824	0.409735	440.25	194.491
169	0	0.662745	0.420664	440.25	193.958
170	0	0.666667	0.431644	440.25	193.421
171	0	0.670588	0.442676	440.25	192.883
172	0	0.67451	0.453763	440.25	192.341

173	0	0.678431	0.464904	440.25	191.797
174	0	0.682353	0.476105	440.25	191.25
175	0	0.686275	0.487364	440.25	190.7
176	0	0.690196	0.498687	440.25	190.147
177	0	0.694118	0.510074	440.25	189.591
178	0	0.698039	0.521527	440.25	189.032
179	0	0.701961	0.530162	440.25	188.61
180	0	0.705882	0.541736	440.25	188.045
181	0	0.709804	0.553384	440.25	187.476
182	0	0.713725	0.565108	440.25	186.904
183	0	0.717647	0.576911	440.25	186.328
184	0	0.721569	0.588793	440.25	185.747
185	0	0.72549	0.60076	440.25	185.163
186	0	0.729412	0.612813	440.25	184.574
187	0	0.733333	0.624956	440.25	183.981
188	0	0.737255	0.637192	440.25	183.384
189	0	0.741176	0.649522	440.25	182.782
190	0	0.745098	0.661955	440.25	182.175
191	0	0.74902	0.67449	440.25	181.562
192	0	0.752941	0.68396	440.25	181.1
193	0	0.756863	0.696684	440.25	180.479
194	0	0.760784	0.709522	440.25	179.852
195	0	0.764706	0.722479	440.25	179.219
196	0	0.768627	0.735557	440.25	178.58
197	0	0.772549	0.748762	440.25	177.935
198	0	0.776471	0.7621	440.25	177.284
199	0	0.780392	0.775574	440.25	176.626
200	0	0.784314	0.789191	440.25	175.961
201	0	0.788235	0.802956	440.25	175.289
202	0	0.792157	0.816874	440.25	174.609
203	0	0.796078	0.830953	440.25	173.922
204	0	0.8	0.841621	440.25	173.401
205	0	0.803922	0.855996	440.25	172.699
206	0	0.807843	0.87055	440.25	171.988
207	0	0.811765	0.885291	440.25	171.268
208	0	0.815686	0.900227	440.25	170.539
209	0	0.819608	0.915365	440.25	169.8
210	0	0.823529	0.930718	440.25	169.05
211	0	0.827451	0.946291	440.25	168.289
212	0	0.831373	0.9621	440.25	167.517
213	0	0.835294	0.97815	440.25	166.734
214	0	0.839216	0.994457	440.25	165.937
215	0	0.843137	1.01104	440.25	165.128
216	0	0.847059	1.02789	440.25	164.305
217	0	0.85098	1.04073	440.25	163.678
218	0	0.854902	1.05812	440.25	162.828
219	0	0.858824	1.07584	440.25	161.963
220	0	0.862745	1.0939	440.25	161.081
221	0	0.866667	1.11232	440.25	160.182
222	0	0.870588	1.13113	440.25	159.263
223	0	0.87451	1.15035	440.25	158.325
224	0	0.878431	1.17	440.25	157.365
225	0	0.882353	1.19012	440.25	156.383
226	0	0.886275	1.21073	440.25	155.376
227	0	0.890196	1.23187	440.25	154.344
228	0	0.894118	1.25357	440.25	153.284
229	0	0.898039	1.27588	440.25	152.195
230	0	0.901961	1.29303	440.25	151.357
231	0	0.905882	1.31652	440.25	150.21
232	0	0.909804	1.34075	440.25	149.026
233	0	0.913725	1.36581	440.25	147.803
234	0	0.917647	1.39175	440.25	146.536

235	0	0.921569		1.41865	440.25	145.222
236	0	0.92549	1.44663	440.25	143.856	
237	0	0.929412		1.47579	440.25	142.432
238	0	0.933333		1.50626	440.25	140.944
239	0	0.937255		1.5382	440.25	139.385
240	0	0.941176		1.57179	440.25	137.744
241	0	0.945098		1.60725	440.25	136.013
242	0	0.94902	1.64485	440.25	134.176	
243	0	0.952941		1.67466	440.25	132.721
244	0	0.956863		1.71688	440.25	130.659
245	0	0.960784		1.76241	440.25	128.436
246	0	0.964706		1.81191	440.25	126.018
247	0	0.968627		1.86629	440.25	123.363
248	0	0.972549		1.92684	440.25	120.406
249	0	0.976471		1.99539	440.25	117.058
250	0	0.980392		2.07485	440.25	113.178
251	0	0.984314		2.17009	440.25	108.527
252	0	0.988235		2.29036	440.25	102.654
253	0	0.992157		2.45727	440.25	94.5032
254	0.329304		0.996078		2.74777	484.294 80.3175

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 = 95.6693%
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-8	6/5/2012	1	-2.99573	FALSE
MW-11R	6/5/2012	1	-2.99573	FALSE
MW-9	6/5/2012	1	-2.99573	FALSE
MW-10	6/5/2012	1	-0.616186	FALSE
MW-6	6/5/2012	1	-2.99573	FALSE
MW-7	6/5/2012	1	-2.99573	FALSE
MW-12AR	6/5/2012	1	-2.99573	FALSE
MW-12BR	6/5/2012	1	-2.99573	FALSE

Concentrations (ppb)

Parameter: 1,2-Dichloropropane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 263
Total Non-Detect: 226
Percent Non-Detects: 85.9316%
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-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<0.13	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
			6/5/2012	ND<0.13 U	ND<0.13 U
MW-11R	33	25 (75.7576%)	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
			6/5/2012	ND<0.13 U	ND<0.13 U
MW-10	33	10 (30.303%)	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	
			6/5/2012	3.7	3.7	
MW-8	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
			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
			6/5/2012	ND<0.13 U	ND<0.13 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<0.13		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
			6/5/2012	ND<0.13 U	ND<0.13 U	
MW-9	33	27 (81.8182%)	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
			6/5/2012	0.16 J	0.16 J	
MW-12BR	23	23 (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	
		6/5/2012	ND<0.13 U	ND<0.13 U		
MW-12AR	23	23 (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	
		6/5/2012	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 = 263

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.065	-2.747777	.55021	-0.178605
2	0.065	-2.457271	3.5884	-0.338327
3	0.065	-2.290361	8.8342	-0.487201
4	0.065	-2.170092	3.5435	-0.628257
5	0.065	-2.096932	7.9406	-0.764557
6	0.065	-2.014093	1.9972	-0.895474
7	0.065	-1.943143	5.7729	-1.02178
8	0.065	-1.880793	9.3103	-1.14403
9	0.065	-1.825014	2.6409	-1.26265
10	0.065	-1.786614	5.8329	-1.37878
11	0.065	-1.7392	48.8577	-1.49183
12	0.065	-1.6954	51.7321	-1.60203
13	0.065	-1.654635	4.4699	-1.70958
14	0.065	-1.616445	7.0828	-1.81465
15	0.065	-1.589275	9.6085	-1.91795
16	0.065	-1.554776	2.0259	-2.01901
17	0.065	-1.522036	4.3424	-2.11795
18	0.065	-1.490856	6.5651	-2.21485
19	0.065	-1.468386	8.7212	-2.3103
20	0.065	-1.439537	0.7935	-2.40387
21	0.065	-1.411837	2.7868	-2.49564
22	0.065	-1.385177	4.7055	-2.58567
23	0.065	-1.359467	6.5536	-2.67404
24	0.065	-1.340757	8.3512	-2.76119
25	0.065	-1.316528	0.0844	-2.84676
26	0.065	-1.293038	1.7564	-2.93081
27	0.065	-1.270248	3.3699	-3.01337
28	0.065	-1.248098	4.9276	-3.0945
29	0.065	-1.231878	6.4451	-3.17457
30	0.065	-1.210738	7.911	-3.25327
31	0.065	-1.190128	9.3273	-3.33062
32	0.065	-1.17	90.6962	-3.40667
33	0.065	-1.150359	2.0195	-3.48145
34	0.065	-1.1359	93.3098	-3.55528
35	0.065	-1.116999	4.5575	-3.62788
36	0.065	-1.098479	5.7641	-3.69928
37	0.065	-1.080329	6.9312	-3.76951
38	0.065	-1.066949	8.0695	-3.83886
39	0.065	-1.049399	9.1708	-3.90707
40	0.065	-1.032151	00.236	-3.97416
41	0.065	-1.015221	01.267	-4.04015
42	0.065	-0.998575	102.264	-4.10505
43	0.065	-0.986272	103.237	-4.16916
44	0.065	-0.970094	104.178	-4.23222
45	0.065	-0.954165	105.088	-4.29424
46	0.065	-0.938476	105.969	-4.35524
47	0.065	-0.923014	106.821	-4.41523
48	0.065	-0.911562	107.652	-4.47449
49	0.065	-0.896473	108.455	-4.53276
50	0.065	-0.881587	109.233	-4.59006
51	0.065	-0.866894	109.984	-4.64641

52	0.065	-0.855996	110.717	-4.70205
53	0.065	-0.841621	111.425	-4.75675
54	0.065	-0.827417	112.11	-4.81054
55	0.065	-0.813379	112.771	-4.86341
56	0.065	-0.7995	113.411	-4.91537
57	0.065	-0.789191	114.033	-4.96667
58	0.065	-0.775574	114.635	-5.01708
59	0.065	-0.7621	115.216	-5.06662
60	0.065	-0.748762	115.776	-5.11529
61	0.065	-0.735557	116.317	-5.1631
62	0.065	-0.725736	116.844	-5.21027
63	0.065	-0.712751	117.352	-5.2566
64	0.065	-0.699883	117.842	-5.30209
65	0.065	-0.687131	118.314	-5.34676
66	0.16	-0.67449	118.769	-5.45468
67	0.23	-0.665079	119.211	-5.60764
68	0.24	-0.652622	119.637	-5.76427
69	0.25	-0.640266	120.047	-5.92434
70	0.33	-0.628006	120.442	-6.13158
71	0.37	-0.618872	120.825	-6.36056
72	0.42	-0.606775	121.193	-6.61541
73	0.5	-0.594766	121.547	-6.91279
74	0.6	-0.582841	121.886	-7.2625
75	0.95	-0.570999	122.212	-7.80495
76	1	-0.56217	122.528	-8.36712
77	1	-0.550465	122.831	-8.91758
78	1	-0.538836	123.122	-9.45642
79	1	-0.52728	123.4	-9.9837
80	1	-0.515791	123.666	-10.4995
81	1	-0.507221	123.923	-11.0067
82	1	-0.49585	124.169	-11.5026
83	1	-0.484544	124.404	-11.9871
84	1	-0.473299	124.628	-12.4604
85	1	-0.464904	124.844	-12.9253
86	1	-0.453763	125.05	-13.3791
87	1	-0.442676	125.246	-13.8217
88	1	-0.431644	125.432	-14.2534
89	1	-0.420664	125.609	-14.6741
90	1	-0.412463	125.779	-15.0865
91	1	-0.401571	125.94	-15.4881
92	1	-0.390726	126.093	-15.8788
93	1	-0.379927	126.237	-16.2587
94	1	-0.369171	126.374	-16.6279
95	1	-0.361133	126.504	-16.989
96	1	-0.350451	126.627	-17.3395
97	1	-0.33981	126.742	-17.6793
98	1	-0.329206	126.851	-18.0085
99	1	-0.318639	126.952	-18.3271
100	1	-0.310738	127.049	-18.6379
101	1	-0.300232	127.139	-18.9381
102	1	-0.28976	127.223	-19.2279
103	1	-0.279319	127.301	-19.5072
104	1	-0.271509	127.375	-19.7787
105	1	-0.26112	127.443	-20.0398
106	1	-0.250759	127.506	-20.2906
107	1	-0.240426	127.564	-20.531
108	1	-0.230118	127.617	-20.7611
109	1	-0.222403	127.666	-20.9835
110	1	-0.212137	127.711	-21.1957
111	1	-0.201894	127.752	-21.3976
112	1	-0.191671	127.788	-21.5892
113	1	-0.181468	127.821	-21.7707

114	1	-0.173829	127.852	-21.9445
115	1	-0.163659	127.878	-22.1082
116	1	-0.153505	127.902	-22.2617
117	1	-0.143367	127.923	-22.4051
118	1	-0.135774	127.941	-22.5408
119	1	-0.125661	127.957	-22.6665
120	1	-0.115562	127.97	-22.7821
121	1	-0.105474	127.981	-22.8875
122	1	-0.0953969	127.99	-22.9829
123	1	-0.0878447	127.998	-23.0708
124	1	-0.0777834	128.004	-23.1486
125	1	-0.0677301	128.009	-23.2163
126	1	-0.0576847	128.012	-23.274
127	1	-0.0476439	128.014	-23.3216
128	1	-0.0401167	128.016	-23.3617
129	1	-0.0300838	128.017	-23.3918
130	1	-0.0200544	128.017	-23.4119
131	1	-0.0100272	128.017	-23.4219
132	1	0	128.017	-23.4219
133	1	0.0100272	128.017	-23.4119
134	1	0.0200544	128.018	-23.3918
135	1	0.0300838	128.019	-23.3617
136	1	0.0401167	128.02	-23.3216
137	1	0.0476439	128.023	-23.274
138	1	0.0576847	128.026	-23.2163
139	1	0.0677301	128.03	-23.1486
140	1	0.0777834	128.037	-23.0708
141	1	0.0878447	128.044	-22.9829
142	1	0.0953969	128.053	-22.8875
143	1	0.105474	128.064	-22.7821
144	1	0.115562	128.078	-22.6665
145	1	0.125661	128.094	-22.5408
146	1	0.135774	128.112	-22.4051
147	1	0.143367	128.133	-22.2617
148	1	0.153505	128.156	-22.1082
149	1	0.163659	128.183	-21.9445
150	1	0.173829	128.213	-21.7707
151	1	0.181468	128.246	-21.5892
152	1	0.191671	128.283	-21.3976
153	1	0.201894	128.324	-21.1957
154	1	0.212137	128.369	-20.9835
155	1	0.222403	128.418	-20.7611
156	1	0.230118	128.471	-20.531
157	1	0.240426	128.529	-20.2906
158	1	0.250759	128.592	-20.0398
159	1	0.26112	128.66	-19.7787
160	1	0.271509	128.734	-19.5072
161	1	0.279319	128.812	-19.2279
162	1	0.28976	128.896	-18.9381
163	1	0.300232	128.986	-18.6379
164	1	0.310738	129.082	-18.3271
165	1	0.318639	129.184	-18.0085
166	1	0.329206	129.292	-17.6793
167	1	0.33981	129.408	-17.3395
168	1	0.350451	129.53	-16.989
169	1	0.361133	129.661	-16.6279
170	1	0.369171	129.797	-16.2587
171	1	0.379927	129.942	-15.8788
172	1	0.390726	130.094	-15.4881
173	1	0.401571	130.255	-15.0865
174	1	0.412463	130.426	-14.6741
175	1	0.420664	130.603	-14.2534

176	1	0.431644		130.789	-13.8217
177	1	0.442676		130.985	-13.3791
178	1	0.453763		131.191	-12.9253
179	1	0.464904		131.407	-12.4604
180	1	0.473299		131.631	-11.9871
181	1	0.484544		131.866	-11.5026
182	1	0.49585	132.112	-11.0067	
183	1	0.507221		132.369	-10.4995
184	1	0.515791		132.635	-9.9837
185	1	0.52728	132.913	-9.45642	
186	1	0.538836		133.203	-8.91758
187	1	0.550465		133.506	-8.36712
188	1	0.56217	133.822	-7.80495	
189	1	0.570999		134.148	-7.23395
190	1	0.582841		134.488	-6.65111
191	1	0.594766		134.842	-6.05634
192	1	0.606775		135.21	-5.44957
193	1	0.618872		135.593	-4.83069
194	1	0.628006		135.987	-4.20269
195	1	0.640266		136.397	-3.56242
196	1	0.652622		136.823	-2.9098
197	1	0.665079		137.266	-2.24472
198	1	0.67449	137.72	-1.57023	
199	1	0.687131		138.193	-0.883098
200	1	0.699883		138.682	-0.183215
201	1	0.712751		139.19	0.529536
202	1	0.725736		139.717	1.25527
203	1	0.735557		140.258	1.99083
204	1	0.748762		140.819	2.73959
205	1	0.7621	141.4	3.50169	
206	1	0.775574		142.001	4.27726
207	1	0.789191		142.624	5.06646
208	1	0.7995	143.263	5.86596	
209	1	0.813379		143.925	6.67934
210	1	0.827417		144.609	7.50675
211	1	0.841621		145.318	8.34837
212	1	0.855996		146.05	9.20437
213	1	0.866894		146.802	10.0713
214	1	0.881587		147.579	10.9529
215	1	0.896473		148.383	11.8493
216	1	0.911562		149.214	12.7609
217	1	0.923014		150.066	13.6839
218	1	0.938476		150.946	14.6224
219	1	0.954165		151.857	15.5765
220	1	0.970094		152.798	16.5466
221	1	0.986272		153.771	17.5329
222	1	0.998575		154.768	18.5315
223	1	1.01522	155.798	19.5467	
224	1	1.03215	156.864	20.5789	
225	1	1.04939	157.965	21.6282	
226	1	1.06694	159.103	22.6952	
227	1	1.08032	160.27	23.7755	
228	1	1.09847	161.477	24.874	
229	1	1.11699	162.725	25.991	
230	1	1.1359	164.015	27.1269	
231	1	1.15035	165.338	28.2772	
232	1	1.17	166.707	29.4472	
233	1	1.19012	168.124	30.6373	
234	1	1.21073	169.589	31.8481	
235	1	1.23187	171.107	33.0799	
236	1	1.24809	172.665	34.328	
237	1.2	1.27024	174.278	35.8523	

238	1.3	1.29303	175.95	37.5332
239	1.7	1.31652	177.683	39.7713
240	2.12	1.34075	179.481	42.6137
241	2.2	1.35946	181.329	45.6045
242	2.8	1.38517	183.248	49.483
243	2.93	1.41183	185.241	53.6197
244	3	1.43953	187.313	57.9383
245	3	1.46838	189.469	62.3434
246	3	1.49085	191.692	66.816
247	3.1	1.52203	194.009	71.5343
248	3.3	1.55477	196.426	76.665
249	3.3	1.58927	198.952	81.9096
250	3.32	1.61644	201.565	87.2762
251	3.51	1.65463	204.302	93.0839
252	3.7	1.6954	207.177	99.3569
253	3.7	1.7392	210.202	105.792
254	3.78	1.78661	213.394	112.545
255	3.97	1.82501	216.724	119.791
256	4	1.88079	220.262	127.314
257	4.3	1.94314	224.037	135.669
258	5	2.01409	228.094	145.74
259	5.6	2.09693	232.491	157.483
260	5.6	2.17009	237.2	169.635
261	6	2.29036	242.446	183.377
262	7.7	2.45727	248.484	202.298
263	9.1	2.74777	256.035	227.303

Data Set Standard Deviation = 1.163
Numerator = 51666.6
Denominator = 90732
W Statistic = 0.569442 = 51666.6 / 90732

5% Critical value of 0.976 exceeds 0.569442
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.569442
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 = 0.757478
0.757478 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.065	0.00378788	-2.74777	42.4775	348.683
2	0.065	0.00757576	-2.45727	42.4775	334.497
3	0.065	0.0113636	-2.29036	42.4775	326.346
4	0.065	0.0151515	-2.17009	42.4775	320.473
5	0.065	0.0189394	-2.09693	42.4775	316.9
6	0.065	0.0227273	-2.01409	42.4775	312.855
7	0.065	0.0265152	-1.94314	42.4775	309.39
8	0.065	0.030303	-1.88079	42.4775	306.345
9	0.065	0.0340909	-1.82501	42.4775	303.621
10	0.065	0.0378788	-1.78661	42.4775	301.746
11	0.065	0.0416667	-1.7392	42.4775	299.431
12	0.065	0.0454545	-1.6954	42.4775	297.292
13	0.065	0.0492424	-1.65463	42.4775	295.301
14	0.065	0.0530303	-1.61644	42.4775	293.436
15	0.065	0.0568182	-1.58927	42.4775	292.109
16	0.065	0.0606061	-1.55477	42.4775	290.425
17	0.065	0.0643939	-1.52203	42.4775	288.826
18	0.065	0.0681818	-1.49085	42.4775	287.303
19	0.065	0.0719697	-1.46838	42.4775	286.206
20	0.065	0.0757576	-1.43953	42.4775	284.797
21	0.065	0.0795455	-1.41183	42.4775	283.444
22	0.065	0.0833333	-1.38517	42.4775	282.143
23	0.065	0.0871212	-1.35946	42.4775	280.887
24	0.065	0.0909091	-1.34075	42.4775	279.974
25	0.065	0.094697	-1.31652	42.4775	278.79
26	0.065	0.0984848	-1.29303	42.4775	277.643
27	0.065	0.102273	-1.27024	42.4775	276.53
28	0.065	0.106061	-1.24809	42.4775	275.448
29	0.065	0.109848	-1.23187	42.4775	274.656
30	0.065	0.113636	-1.21073	42.4775	273.624
31	0.065	0.117424	-1.19012	42.4775	272.617
32	0.065	0.121212	-1.17	42.4775	271.635
33	0.065	0.125	-1.15035	42.4775	270.675
34	0.065	0.128788	-1.1359	42.4775	269.97
35	0.065	0.132576	-1.11699	42.4775	269.046
36	0.065	0.136364	-1.09847	42.4775	268.142
37	0.065	0.140152	-1.08032	42.4775	267.256
38	0.065	0.143939	-1.06694	42.4775	266.602
39	0.065	0.147727	-1.04939	42.4775	265.745
40	0.065	0.151515	-1.03215	42.4775	264.904
41	0.065	0.155303	-1.01522	42.4775	264.077
42	0.065	0.159091	-0.998575	42.4775	263.264
43	0.065	0.162879	-0.986272	42.4775	262.663
44	0.065	0.166667	-0.970094	42.4775	261.873
45	0.065	0.170455	-0.954165	42.4775	261.095
46	0.065	0.174242	-0.938476	42.4775	260.329
47	0.065	0.17803	-0.923014	42.4775	259.574
48	0.065	0.181818	-0.911562	42.4775	259.015

49	0.065	0.185606	-0.896473	42.4775	258.278
50	0.065	0.189394	-0.881587	42.4775	257.551
51	0.065	0.193182	-0.866894	42.4775	256.833
52	0.065	0.19697	-0.855996	42.4775	256.301
53	0.065	0.200758	-0.841621	42.4775	255.599
54	0.065	0.204545	-0.827417	42.4775	254.906
55	0.065	0.208333	-0.813379	42.4775	254.22
56	0.065	0.212121	-0.7995	42.4775	253.542
57	0.065	0.215909	-0.789191	42.4775	253.039
58	0.065	0.219697	-0.775574	42.4775	252.374
59	0.065	0.223485	-0.7621	42.4775	251.716
60	0.065	0.227273	-0.748762	42.4775	251.065
61	0.065	0.231061	-0.735557	42.4775	250.42
62	0.065	0.234848	-0.725736	42.4775	249.94
63	0.065	0.238636	-0.712751	42.4775	249.306
64	0.065	0.242424	-0.699883	42.4775	248.678
65	0.065	0.246212	-0.687131	42.4775	248.055
66	0.16	0.25	-0.674494	7.56	247.438
67	0.23	0.253788	-0.665079	51.305	246.978
68	0.24	0.257576	-0.652622	51.84	246.37
69	0.25	0.261364	-0.640266	52.375	245.766
70	0.33	0.265152	-0.628006	56.655	245.168
71	0.37	0.268939	-0.618872	58.795	244.722
72	0.42	0.272727	-0.606775	61.47	244.131
73	0.5	0.276515	-0.594766	65.75	243.544
74	0.6	0.280303	-0.582841	71.1	242.962
75	0.95	0.284091	-0.570999	89.825	242.384
76	1	0.287879	-0.562179	2.5	241.953
77	1	0.291667	-0.550465	92.5	241.381
78	1	0.295455	-0.538836	92.5	240.813
79	1	0.299242	-0.527289	2.5	240.249
80	1	0.30303	-0.515791	92.5	239.688
81	1	0.306818	-0.507221	92.5	239.269
82	1	0.310606	-0.495859	2.5	238.714
83	1	0.314394	-0.484544	92.5	238.162
84	1	0.318182	-0.473299	92.5	237.613
85	1	0.32197	-0.464904	92.5	237.203
86	1	0.325758	-0.453763	92.5	236.659
87	1	0.329545	-0.442676	92.5	236.117
88	1	0.333333	-0.431644	92.5	235.579
89	1	0.337121	-0.420664	92.5	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	-0.339819	2.5	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	-0.289769	2.5	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	-0.261129	2.5	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	1.2	0.897727	1.27024	103.2	152.47
238	1.3	0.901515	1.29303	108.55	151.357
239	1.7	0.905303	1.31652	129.95	150.21
240	2.12	0.909091	1.34075	152.42	149.026
241	2.2	0.912879	1.35946	156.7	148.113
242	2.8	0.916667	1.38517	188.8	146.857
243	2.93	0.920455	1.41183	195.755	145.556
244	3	0.924242	1.43953	199.5	144.203
245	3	0.92803	1.46838	199.5	142.794
246	3	0.931818	1.49085	199.5	141.697
247	3.1	0.935606	1.52203	204.85	140.174
248	3.3	0.939394	1.55477	215.55	138.575
249	3.3	0.943182	1.58927	215.55	136.891
250	3.32	0.94697	1.61644	216.62	135.564
251	3.51	0.950758	1.65463	226.785	133.699
252	3.7	0.954545	1.6954	236.95	131.708
253	3.7	0.958333	1.7392	236.95	129.569
254	3.78	0.962121	1.78661	241.23	127.254
255	3.97	0.965909	1.82501	251.395	125.379
256	4	0.969697	1.88079	253	122.655
257	4.3	0.973485	1.94314	269.05	119.61
258	5	0.977273	2.01409	306.5	116.145
259	5.6	0.981061	2.09693	338.6	112.1
260	5.6	0.984848	2.17009	338.6	108.527
261	6	0.988636	2.29036	360	102.654
262	7.7	0.992424	2.45727	450.95	94.5032
263	9.1	0.996212	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 = 263

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	-2.09693	27.9406	32.151
6	-2.73337	-2.01409	31.9972	37.6563
7	-2.73337	-1.94314	35.7729	42.9676
8	-2.73337	-1.88079	39.3103	48.1085
9	-2.73337	-1.82501	42.6409	53.0969
10	-2.73337	-1.78661	45.8329	57.9804
11	-2.73337	-1.7392	48.8577	62.7342
12	-2.73337	-1.6954	51.7321	67.3684
13	-2.73337	-1.65463	54.4699	71.8911
14	-2.73337	-1.61644	57.0828	76.3094
15	-2.73337	-1.58927	59.6085	80.6535
16	-2.73337	-1.55477	62.0259	84.9032
17	-2.73337	-1.52203	64.3424	89.0635
18	-2.73337	-1.49085	66.5651	93.1385
19	-2.73337	-1.46838	68.7212	97.1522
20	-2.73337	-1.43953	70.7935	101.087
21	-2.73337	-1.41183	72.7868	104.946
22	-2.73337	-1.38517	74.7055	108.732
23	-2.73337	-1.35946	76.5536	112.448
24	-2.73337	-1.34075	78.3512	116.113
25	-2.73337	-1.31652	80.0844	119.711
26	-2.73337	-1.29303	81.7564	123.246
27	-2.73337	-1.27024	83.3699	126.718
28	-2.73337	-1.24809	84.9276	130.129
29	-2.73337	-1.23187	86.4451	133.496
30	-2.73337	-1.21073	87.911	136.806
31	-2.73337	-1.19012	89.3273	140.059
32	-2.73337	-1.17	90.6962	143.257
33	-2.73337	-1.15035	92.0195	146.401
34	-2.73337	-1.1359	93.3098	149.506
35	-2.73337	-1.11699	94.5575	152.559
36	-2.73337	-1.09847	95.7641	155.562
37	-2.73337	-1.08032	96.9312	158.515
38	-2.73337	-1.06694	98.0695	161.431
39	-2.73337	-1.04939	99.1708	164.299
40	-2.73337	-1.03215	100.236	167.12
41	-2.73337	-1.01522	101.267	169.895
42	-2.73337	-0.998575	102.264	172.625
43	-2.73337	-0.986272	103.237	175.321
44	-2.73337	-0.970094	104.178	177.972
45	-2.73337	-0.954165	105.088	180.58
46	-2.73337	-0.938476	105.969	183.146
47	-2.73337	-0.923014	106.821	185.669
48	-2.73337	-0.911562	107.652	188.16
49	-2.73337	-0.896473	108.455	190.611
50	-2.73337	-0.881587	109.233	193.02
51	-2.73337	-0.866894	109.984	195.39

52	-2.73337	-0.855996	110.717	197.73
53	-2.73337	-0.841621	111.425	200.03
54	-2.73337	-0.827417	112.11	202.292
55	-2.73337	-0.813379	112.771	204.515
56	-2.73337	-0.7995	113.411	206.7
57	-2.73337	-0.789191	114.033	208.857
58	-2.73337	-0.775574	114.635	210.977
59	-2.73337	-0.7621	115.216	213.061
60	-2.73337	-0.748762	115.776	215.107
61	-2.73337	-0.735557	116.317	217.118
62	-2.73337	-0.725736	116.844	219.101
63	-2.73337	-0.712751	117.352	221.05
64	-2.73337	-0.699883	117.842	222.963
65	-2.73337	-0.687131	118.314	224.841
66	-1.83258	-0.67449	118.769	226.077
67	-1.46968	-0.665079	119.211	227.054
68	-1.42712	-0.652622	119.637	227.986
69	-1.38629	-0.640266	120.047	228.873
70	-1.10866	-0.628006	120.442	229.57
71	-0.994252	-0.618872	120.825	230.185
72	-0.867501	-0.606775	121.193	230.711
73	-0.693147	-0.594766	121.547	231.124
74	-0.510826	-0.582841	121.886	231.421
75	-0.0512933	-0.570999	122.212	231.451
76	0	-0.56217	122.528	231.451
77	0	-0.550465	122.831	231.451
78	0	-0.538836	123.122	231.451
79	0	-0.52728	123.4	231.451
80	0	-0.515791	123.666	231.451
81	0	-0.507221	123.923	231.451
82	0	-0.49585	124.169	231.451
83	0	-0.484544	124.404	231.451
84	0	-0.473299	124.628	231.451
85	0	-0.464904	124.844	231.451
86	0	-0.453763	125.05	231.451
87	0	-0.442676	125.246	231.451
88	0	-0.431644	125.432	231.451
89	0	-0.420664	125.609	231.451
90	0	-0.412463	125.779	231.451
91	0	-0.401571	125.94	231.451
92	0	-0.390726	126.093	231.451
93	0	-0.379927	126.237	231.451
94	0	-0.369171	126.374	231.451
95	0	-0.361133	126.504	231.451
96	0	-0.350451	126.627	231.451
97	0	-0.33981	126.742	231.451
98	0	-0.329206	126.851	231.451
99	0	-0.318639	126.952	231.451
100	0	-0.310738	127.049	231.451
101	0	-0.300232	127.139	231.451
102	0	-0.28976	127.223	231.451
103	0	-0.279319	127.301	231.451
104	0	-0.271509	127.375	231.451
105	0	-0.26112	127.443	231.451
106	0	-0.250759	127.506	231.451
107	0	-0.240426	127.564	231.451
108	0	-0.230118	127.617	231.451
109	0	-0.222403	127.666	231.451
110	0	-0.212137	127.711	231.451
111	0	-0.201894	127.752	231.451
112	0	-0.191671	127.788	231.451
113	0	-0.181468	127.821	231.451

114	0	-0.173829	127.852	231.451
115	0	-0.163659	127.878	231.451
116	0	-0.153505	127.902	231.451
117	0	-0.143367	127.923	231.451
118	0	-0.135774	127.941	231.451
119	0	-0.125661	127.957	231.451
120	0	-0.115562	127.97	231.451
121	0	-0.105474	127.981	231.451
122	0	-0.0953969	127.99	231.451
123	0	-0.0878447	127.998	231.451
124	0	-0.0777834	128.004	231.451
125	0	-0.0677301	128.009	231.451
126	0	-0.0576847	128.012	231.451
127	0	-0.0476439	128.014	231.451
128	0	-0.0401167	128.016	231.451
129	0	-0.0300838	128.017	231.451
130	0	-0.0200544	128.017	231.451
131	0	-0.0100272	128.017	231.451
132	0	0	128.017	231.451
133	0	0.0100272	128.017	231.451
134	0	0.0200544	128.018	231.451
135	0	0.0300838	128.019	231.451
136	0	0.0401167	128.02	231.451
137	0	0.0476439	128.023	231.451
138	0	0.0576847	128.026	231.451
139	0	0.0677301	128.03	231.451
140	0	0.0777834	128.037	231.451
141	0	0.0878447	128.044	231.451
142	0	0.0953969	128.053	231.451
143	0	0.105474	128.064	231.451
144	0	0.115562	128.078	231.451
145	0	0.125661	128.094	231.451
146	0	0.135774	128.112	231.451
147	0	0.143367	128.133	231.451
148	0	0.153505	128.156	231.451
149	0	0.163659	128.183	231.451
150	0	0.173829	128.213	231.451
151	0	0.181468	128.246	231.451
152	0	0.191671	128.283	231.451
153	0	0.201894	128.324	231.451
154	0	0.212137	128.369	231.451
155	0	0.222403	128.418	231.451
156	0	0.230118	128.471	231.451
157	0	0.240426	128.529	231.451
158	0	0.250759	128.592	231.451
159	0	0.26112	128.66	231.451
160	0	0.271509	128.734	231.451
161	0	0.279319	128.812	231.451
162	0	0.28976	128.896	231.451
163	0	0.300232	128.986	231.451
164	0	0.310738	129.082	231.451
165	0	0.318639	129.184	231.451
166	0	0.329206	129.292	231.451
167	0	0.33981	129.408	231.451
168	0	0.350451	129.53	231.451
169	0	0.361133	129.661	231.451
170	0	0.369171	129.797	231.451
171	0	0.379927	129.942	231.451
172	0	0.390726	130.094	231.451
173	0	0.401571	130.255	231.451
174	0	0.412463	130.426	231.451
175	0	0.420664	130.603	231.451

176	0	0.431644		130.789	231.451
177	0	0.442676		130.985	231.451
178	0	0.453763		131.191	231.451
179	0	0.464904		131.407	231.451
180	0	0.473299		131.631	231.451
181	0	0.484544		131.866	231.451
182	0	0.49585	132.112	231.451	
183	0	0.507221		132.369	231.451
184	0	0.515791		132.635	231.451
185	0	0.52728	132.913	231.451	
186	0	0.538836		133.203	231.451
187	0	0.550465		133.506	231.451
188	0	0.56217	133.822	231.451	
189	0	0.570999		134.148	231.451
190	0	0.582841		134.488	231.451
191	0	0.594766		134.842	231.451
192	0	0.606775		135.21	231.451
193	0	0.618872		135.593	231.451
194	0	0.628006		135.987	231.451
195	0	0.640266		136.397	231.451
196	0	0.652622		136.823	231.451
197	0	0.665079		137.266	231.451
198	0	0.67449	137.72	231.451	
199	0	0.687131		138.193	231.451
200	0	0.699883		138.682	231.451
201	0	0.712751		139.19	231.451
202	0	0.725736		139.717	231.451
203	0	0.735557		140.258	231.451
204	0	0.748762		140.819	231.451
205	0	0.7621	141.4	231.451	
206	0	0.775574		142.001	231.451
207	0	0.789191		142.624	231.451
208	0	0.7995	143.263	231.451	
209	0	0.813379		143.925	231.451
210	0	0.827417		144.609	231.451
211	0	0.841621		145.318	231.451
212	0	0.855996		146.05	231.451
213	0	0.866894		146.802	231.451
214	0	0.881587		147.579	231.451
215	0	0.896473		148.383	231.451
216	0	0.911562		149.214	231.451
217	0	0.923014		150.066	231.451
218	0	0.938476		150.946	231.451
219	0	0.954165		151.857	231.451
220	0	0.970094		152.798	231.451
221	0	0.986272		153.771	231.451
222	0	0.998575		154.768	231.451
223	0	1.01522	155.798	231.451	
224	0	1.03215	156.864	231.451	
225	0	1.04939	157.965	231.451	
226	0	1.06694	159.103	231.451	
227	0	1.08032	160.27	231.451	
228	0	1.09847	161.477	231.451	
229	0	1.11699	162.725	231.451	
230	0	1.1359	164.015	231.451	
231	0	1.15035	165.338	231.451	
232	0	1.17	166.707	231.451	
233	0	1.19012	168.124	231.451	
234	0	1.21073	169.589	231.451	
235	0	1.23187	171.107	231.451	
236	0	1.24809	172.665	231.451	
237	0.182322		1.27024	174.278	231.682

238	0.262364		1.29303	175.95	232.021
239	0.530628		1.31652	177.683	232.72
240	0.751416		1.34075	179.481	233.727
241	0.788457		1.35946	181.329	234.799
242	1.02962	1.38517	183.248	236.226	
243	1.075	1.41183	185.241	237.743	
244	1.09861	1.43953	187.313	239.325	
245	1.09861	1.46838	189.469	240.938	
246	1.09861	1.49085	191.692	242.576	
247	1.1314	1.52203	194.009	244.298	
248	1.19392	1.55477	196.426	246.154	
249	1.19392	1.58927	198.952	248.052	
250	1.19996	1.61644	201.565	249.991	
251	1.25562	1.65463	204.302	252.069	
252	1.30833	1.6954	207.177	254.287	
253	1.30833	1.7392	210.202	256.562	
254	1.32972	1.78661	213.394	258.938	
255	1.37877	1.82501	216.724	261.454	
256	1.38629	1.88079	220.262	264.062	
257	1.45862	1.94314	224.037	266.896	
258	1.60944	2.01409	228.094	270.138	
259	1.72277	2.09693	232.491	273.75	
260	1.72277	2.17009	237.2	277.489	
261	1.79176	2.29036	242.446	281.592	
262	2.04122	2.45727	248.484	286.608	
263	2.20827	2.74777	256.035	292.676	

Data Set Standard Deviation = 1.31655
Numerator = 85659.3
Denominator = 116271
W Statistic = 0.736718 = 85659.3 / 116271

5% Critical value of 0.976 exceeds 0.736718
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.736718
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 = 0.857565
0.857565 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.73337	0.00378788	-2.74777	62.7747	348.683
2	-2.73337	0.00757576	-2.45727	62.7747	334.497
3	-2.73337	0.0113636	-2.29036	62.7747	326.346
4	-2.73337	0.0151515	-2.17009	62.7747	320.473
5	-2.73337	0.0189394	-2.09693	62.7747	316.9
6	-2.73337	0.0227273	-2.01409	62.7747	312.855
7	-2.73337	0.0265152	-1.94314	62.7747	309.39
8	-2.73337	0.030303	-1.88079	62.7747	306.345
9	-2.73337	0.0340909	-1.82501	62.7747	303.621
10	-2.73337	0.0378788	-1.78661	62.7747	301.746
11	-2.73337	0.0416667	-1.7392	62.7747	299.431
12	-2.73337	0.0454545	-1.6954	62.7747	297.292
13	-2.73337	0.0492424	-1.65463	62.7747	295.301
14	-2.73337	0.0530303	-1.61644	62.7747	293.436
15	-2.73337	0.0568182	-1.58927	62.7747	292.109
16	-2.73337	0.0606061	-1.55477	62.7747	290.425
17	-2.73337	0.0643939	-1.52203	62.7747	288.826
18	-2.73337	0.0681818	-1.49085	62.7747	287.303
19	-2.73337	0.0719697	-1.46838	62.7747	286.206
20	-2.73337	0.0757576	-1.43953	62.7747	284.797
21	-2.73337	0.0795455	-1.41183	62.7747	283.444
22	-2.73337	0.0833333	-1.38517	62.7747	282.143
23	-2.73337	0.0871212	-1.35946	62.7747	280.887
24	-2.73337	0.0909091	-1.34075	62.7747	279.974
25	-2.73337	0.094697	-1.31652	62.7747	278.79
26	-2.73337	0.0984848	-1.29303	62.7747	277.643
27	-2.73337	0.102273	-1.27024	62.7747	276.53
28	-2.73337	0.106061	-1.24809	62.7747	275.448
29	-2.73337	0.109848	-1.23187	62.7747	274.656
30	-2.73337	0.113636	-1.21073	62.7747	273.624
31	-2.73337	0.117424	-1.19012	62.7747	272.617
32	-2.73337	0.121212	-1.17	62.7747	271.635
33	-2.73337	0.125	-1.15035	62.7747	270.675
34	-2.73337	0.128788	-1.1359	62.7747	269.97
35	-2.73337	0.132576	-1.11699	62.7747	269.046
36	-2.73337	0.136364	-1.09847	62.7747	268.142
37	-2.73337	0.140152	-1.08032	62.7747	267.256
38	-2.73337	0.143939	-1.06694	62.7747	266.602
39	-2.73337	0.147727	-1.04939	62.7747	265.745
40	-2.73337	0.151515	-1.03215	62.7747	264.904
41	-2.73337	0.155303	-1.01522	62.7747	264.077
42	-2.73337	0.159091	-0.998575	62.7747	263.264
43	-2.73337	0.162879	-0.986272	62.7747	262.663
44	-2.73337	0.166667	-0.970094	62.7747	261.873
45	-2.73337	0.170455	-0.954165	62.7747	261.095
46	-2.73337	0.174242	-0.938476	62.7747	260.329
47	-2.73337	0.17803	-0.923014	62.7747	259.574
48	-2.73337	0.181818	-0.911562	62.7747	259.015

49	-2.73337	0.185606	-0.896473	62.7747	258.278
50	-2.73337	0.189394	-0.881587	62.7747	257.551
51	-2.73337	0.193182	-0.866894	62.7747	256.833
52	-2.73337	0.19697	-0.855996	62.7747	256.301
53	-2.73337	0.200758	-0.841621	62.7747	255.599
54	-2.73337	0.204545	-0.827417	62.7747	254.906
55	-2.73337	0.208333	-0.813379	62.7747	254.22
56	-2.73337	0.212121	-0.7995	62.7747	253.542
57	-2.73337	0.215909	-0.789191	62.7747	253.039
58	-2.73337	0.219697	-0.775574	62.7747	252.374
59	-2.73337	0.223485	-0.7621	62.7747	251.716
60	-2.73337	0.227273	-0.748762	62.7747	251.065
61	-2.73337	0.231061	-0.735557	62.7747	250.42
62	-2.73337	0.234848	-0.725736	62.7747	249.94
63	-2.73337	0.238636	-0.712751	62.7747	249.306
64	-2.73337	0.242424	-0.699883	62.7747	248.678
65	-2.73337	0.246212	-0.687131	62.7747	248.055
66	-1.83258	0.25	-0.67449	143.095	247.438
67	-1.46968	0.253788	-0.665079	175.454	246.978
68	-1.42712	0.257576	-0.652622	179.249	246.37
69	-1.38629	0.261364	-0.640266	182.889	245.766
70	-1.10866	0.265152	-0.628006	207.644	245.168
71	-0.994252	0.268939	-0.618872	217.846	244.722
72	-0.867501	0.272727	-0.606775	229.148	244.131
73	-0.693147	0.276515	-0.594766	244.694	243.544
74	-0.510826	0.280303	-0.582841	260.951	242.962
75	-0.0512933	0.284091	-0.570999	301.926	242.384
76	0	0.287879	-0.56217	306.5	241.953
77	0	0.291667	-0.550465	306.5	241.381
78	0	0.295455	-0.538836	306.5	240.813
79	0	0.299242	-0.52728	306.5	240.249
80	0	0.30303	-0.515791	306.5	239.688
81	0	0.306818	-0.507221	306.5	239.269
82	0	0.310606	-0.49585	306.5	238.714
83	0	0.314394	-0.484544	306.5	238.162
84	0	0.318182	-0.473299	306.5	237.613
85	0	0.32197	-0.464904	306.5	237.203
86	0	0.325758	-0.453763	306.5	236.659
87	0	0.329545	-0.442676	306.5	236.117
88	0	0.333333	-0.431644	306.5	235.579
89	0	0.337121	-0.420664	306.5	235.042
90	0	0.340909	-0.412463	306.5	234.642
91	0	0.344697	-0.401571	306.5	234.11
92	0	0.348485	-0.390726	306.5	233.58
93	0	0.352273	-0.379927	306.5	233.053
94	0	0.356061	-0.369171	306.5	232.528
95	0	0.359848	-0.361133	306.5	232.135
96	0	0.363636	-0.350451	306.5	231.614
97	0	0.367424	-0.33981	306.5	231.094
98	0	0.371212	-0.329206	306.5	230.576
99	0	0.375	-0.318639	306.5	230.06
100	0	0.378788	-0.310738	306.5	229.674
101	0	0.382576	-0.300232	306.5	229.161
102	0	0.386364	-0.28976	306.5	228.65
103	0	0.390152	-0.279319	306.5	228.14
104	0	0.393939	-0.271509	306.5	227.759
105	0	0.397727	-0.26112	306.5	227.251
106	0	0.401515	-0.250759	306.5	226.745
107	0	0.405303	-0.240426	306.5	226.241
108	0	0.409091	-0.230118	306.5	225.737
109	0	0.412879	-0.222403	306.5	225.361
110	0	0.416667	-0.212137	306.5	224.859

111	0	0.420455	-0.201894	306.5	224.359
112	0	0.424242	-0.191671	306.5	223.86
113	0	0.42803	-0.181468	306.5	223.362
114	0	0.431818	-0.173829	306.5	222.989
115	0	0.435606	-0.163659	306.5	222.492
116	0	0.439394	-0.153505	306.5	221.996
117	0	0.443182	-0.143367	306.5	221.501
118	0	0.44697	-0.135774	306.5	221.13
119	0	0.450758	-0.125661	306.5	220.636
120	0	0.454545	-0.115562	306.5	220.143
121	0	0.458333	-0.105474	306.5	219.651
122	0	0.462121	-0.0953969	306.5	219.159
123	0	0.465909	-0.0878447	306.5	218.79
124	0	0.469697	-0.0777834	306.5	218.298
125	0	0.473485	-0.0677301	306.5	217.807
126	0	0.477273	-0.0576847	306.5	217.317
127	0	0.481061	-0.0476439	306.5	216.827
128	0	0.484848	-0.0401167	306.5	216.459
129	0	0.488636	-0.0300838	306.5	215.969
130	0	0.492424	-0.0200544	306.5	215.479
131	0	0.496212	-0.0100272	306.5	214.99
132	0	0.5	0	306.5	214.5
133	0	0.503788	0.0100272	306.5	214.01
134	0	0.507576	0.0200544	306.5	213.521
135	0	0.511364	0.0300838	306.5	213.031
136	0	0.515152	0.0401167	306.5	212.541
137	0	0.518939	0.0476439	306.5	212.173
138	0	0.522727	0.0576847	306.5	211.683
139	0	0.526515	0.0677301	306.5	211.193
140	0	0.530303	0.0777834	306.5	210.702
141	0	0.534091	0.0878447	306.5	210.21
142	0	0.537879	0.0953969	306.5	209.841
143	0	0.541667	0.105474	306.5	209.349
144	0	0.545455	0.115562	306.5	208.857
145	0	0.549242	0.125661	306.5	208.364
146	0	0.55303	0.135774	306.5	207.87
147	0	0.556818	0.143367	306.5	207.499
148	0	0.560606	0.153505	306.5	207.004
149	0	0.564394	0.163659	306.5	206.508
150	0	0.568182	0.173829	306.5	206.011
151	0	0.57197	0.181468	306.5	205.638
152	0	0.575758	0.191671	306.5	205.14
153	0	0.579545	0.201894	306.5	204.641
154	0	0.583333	0.212137	306.5	204.141
155	0	0.587121	0.222403	306.5	203.639
156	0	0.590909	0.230118	306.5	203.263
157	0	0.594697	0.240426	306.5	202.759
158	0	0.598485	0.250759	306.5	202.255
159	0	0.602273	0.26112	306.5	201.749
160	0	0.606061	0.271509	306.5	201.241
161	0	0.609848	0.279319	306.5	200.86
162	0	0.613636	0.28976	306.5	200.35
163	0	0.617424	0.300232	306.5	199.839
164	0	0.621212	0.310738	306.5	199.326
165	0	0.625	0.318639	306.5	198.94
166	0	0.628788	0.329206	306.5	198.424
167	0	0.632576	0.33981	306.5	197.906
168	0	0.636364	0.350451	306.5	197.386
169	0	0.640152	0.361133	306.5	196.865
170	0	0.643939	0.369171	306.5	196.472
171	0	0.647727	0.379927	306.5	195.947
172	0	0.651515	0.390726	306.5	195.42

173	0	0.655303	0.401571	306.5	194.89
174	0	0.659091	0.412463	306.5	194.358
175	0	0.662879	0.420664	306.5	193.958
176	0	0.666667	0.431644	306.5	193.421
177	0	0.670455	0.442676	306.5	192.883
178	0	0.674242	0.453763	306.5	192.341
179	0	0.67803	0.464904	306.5	191.797
180	0	0.681818	0.473299	306.5	191.387
181	0	0.685606	0.484544	306.5	190.838
182	0	0.689394	0.49585	306.5	190.286
183	0	0.693182	0.507221	306.5	189.731
184	0	0.69697	0.515791	306.5	189.312
185	0	0.700758	0.52728	306.5	188.751
186	0	0.704545	0.538836	306.5	188.187
187	0	0.708333	0.550465	306.5	187.619
188	0	0.712121	0.56217	306.5	187.047
189	0	0.715909	0.570999	306.5	186.616
190	0	0.719697	0.582841	306.5	186.038
191	0	0.723485	0.594766	306.5	185.456
192	0	0.727273	0.606775	306.5	184.869
193	0	0.731061	0.618872	306.5	184.278
194	0	0.734848	0.628006	306.5	183.832
195	0	0.738636	0.640266	306.5	183.234
196	0	0.742424	0.652622	306.5	182.63
197	0	0.746212	0.665079	306.5	182.022
198	0	0.75	0.67449	306.5	181.562
199	0	0.753788	0.687131	306.5	180.945
200	0	0.757576	0.699883	306.5	180.322
201	0	0.761364	0.712751	306.5	179.694
202	0	0.765152	0.725736	306.5	179.06
203	0	0.768939	0.735557	306.5	178.58
204	0	0.772727	0.748762	306.5	177.935
205	0	0.776515	0.7621	306.5	177.284
206	0	0.780303	0.775574	306.5	176.626
207	0	0.784091	0.789191	306.5	175.961
208	0	0.787879	0.7995	306.5	175.458
209	0	0.791667	0.813379	306.5	174.78
210	0	0.795455	0.827417	306.5	174.094
211	0	0.799242	0.841621	306.5	173.401
212	0	0.80303	0.855996	306.5	172.699
213	0	0.806818	0.866894	306.5	172.167
214	0	0.810606	0.881587	306.5	171.449
215	0	0.814394	0.896473	306.5	170.722
216	0	0.818182	0.911562	306.5	169.985
217	0	0.82197	0.923014	306.5	169.426
218	0	0.825758	0.938476	306.5	168.671
219	0	0.829545	0.954165	306.5	167.905
220	0	0.833333	0.970094	306.5	167.127
221	0	0.837121	0.986272	306.5	166.337
222	0	0.840909	0.998575	306.5	165.736
223	0	0.844697	1.01522	306.5	164.923
224	0	0.848485	1.03215	306.5	164.096
225	0	0.852273	1.04939	306.5	163.255
226	0	0.856061	1.06694	306.5	162.398
227	0	0.859848	1.08032	306.5	161.744
228	0	0.863636	1.09847	306.5	160.858
229	0	0.867424	1.11699	306.5	159.954
230	0	0.871212	1.1359	306.5	159.03
231	0	0.875	1.15035	306.5	158.325
232	0	0.878788	1.17	306.5	157.365
233	0	0.882576	1.19012	306.5	156.383
234	0	0.886364	1.21073	306.5	155.376

235	0	0.890152		1.23187	306.5	154.344
236	0	0.893939		1.24809	306.5	153.552
237	0.182322	0.897727		1.27024	322.757	152.47
238	0.262364	0.901515		1.29303	329.894	151.357
239	0.530628	0.905303		1.31652	353.814	150.21
240	0.751416	0.909091		1.34075	373.501	149.026
241	0.788457	0.912879		1.35946	376.804	148.113
242	1.02962	0.916667		1.38517	398.308	146.857
243	1.075	0.920455		1.41183	402.354	145.556
244	1.09861	0.924242		1.43953	404.46	144.203
245	1.09861	0.92803	1.46838	404.46	142.794	
246	1.09861	0.931818		1.49085	404.46	141.697
247	1.1314	0.935606		1.52203	407.383	140.174
248	1.19392	0.939394		1.55477	412.958	138.575
249	1.19392	0.943182		1.58927	412.958	136.891
250	1.19996	0.94697	1.61644	413.497	135.564	
251	1.25562	0.950758		1.65463	418.459	133.699
252	1.30833	0.954545		1.6954	423.16	131.708
253	1.30833	0.958333		1.7392	423.16	129.569
254	1.32972	0.962121		1.78661	425.067	127.254
255	1.37877	0.965909		1.82501	429.44	125.379
256	1.38629	0.969697		1.88079	430.111	122.655
257	1.45862	0.973485		1.94314	436.56	119.61
258	1.60944	0.977273		2.01409	450.008	116.145
259	1.72277	0.981061		2.09693	460.113	112.1
260	1.72277	0.984848		2.17009	460.113	108.527
261	1.79176	0.988636		2.29036	466.265	102.654
262	2.04122	0.992424		2.45727	488.509	94.5032
263	2.20827	0.996212		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	113.5
	9/23/1999	ND<0	113.5
	3/15/2000	ND<0	113.5
	9/24/2003	ND<0	113.5
	3/11/2004	ND<0	113.5
	10/12/2004	ND<0	113.5
	4/1/2005	ND<0	113.5
	10/25/2005	ND<0	113.5
	4/29/2006	ND<0	113.5
	11/18/2006	ND<0	113.5
	5/23/2007	ND<0	113.5
	11/28/2007	ND<0	113.5
	6/5/2008	ND<0	113.5
	11/20/2008	ND<0	113.5
	6/11/2009	ND<-2.73337	113.5
	11/16/2009	ND<-2.73337	113.5
	6/30/2010	ND<-2.73337	113.5
	11/12/2010	ND<-2.73337 U	113.5
	11/12/2010	ND<-2.73337 U	113.5
	7/5/2011	ND<-2.73337 U	113.5

Rank Sum = 2270
Rank Mean = 113.5

Background Rank Sum = 2270
Background Rank Mean = 113.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-7	7/20/1995	ND<0	113.5
	8/24/1995	ND<0	113.5
	9/28/1995	ND<0	113.5
	10/26/1995	ND<0	113.5
	11/19/1996	ND<0	113.5
	12/19/1996	ND<0	113.5
	3/24/1997	ND<0	113.5
	9/24/1997	ND<0	113.5
	4/7/1998	ND<0	113.5
	9/23/1998	ND<0	113.5
	3/16/1999	ND<0	113.5
	9/23/1999	ND<0	113.5
	3/15/2000	ND<0	113.5
	9/24/2003	ND<0	113.5
	3/11/2004	ND<0	113.5
	10/12/2004	ND<0	113.5
	4/1/2005	ND<0	113.5
	10/25/2005	ND<0	113.5
	4/29/2006	ND<0	113.5
	11/18/2006	ND<0	113.5

	5/23/2007	ND<0	113.5	
	11/28/2007	ND<0	113.5	
	6/5/2008	ND<0	113.5	
	11/20/2008	ND<0	113.5	
	6/11/2009	ND<-2.73337		113.5
	11/16/2009	ND<-2.73337		113.5
	6/30/2010	ND<-2.73337		113.5
	11/12/2010	ND<-2.73337 U		113.5
	11/12/2010	ND<-2.73337 U		113.5
	7/5/2011	ND<-2.73337 U	113.5	
	11/22/2011	ND<-2.73337 U		113.5
	11/22/2011	ND<-2.73337 U		113.5
	6/5/2012	ND<-2.73337 U	113.5	

Rank Sum = 3745.5
Rank Mean = 113.5

MW-11R	7/20/1995	0.182322 J		237
	8/24/1995	1.45862		257
	9/28/1995	1.09861		244
	10/26/1995	1.38629		256
	11/19/1996	ND<0	113.5	
	12/19/1996	ND<0	113.5	
	3/24/1997	ND<0	113.5	
	9/24/1997	ND<0	113.5	
	4/7/1998	ND<0	113.5	
	9/23/1998	ND<0	113.5	
	3/16/1999	ND<0	113.5	
	9/23/1999	ND<0	113.5	
	3/15/2000	ND<0	113.5	
	9/24/2003	ND<0	113.5	
	3/11/2004	ND<0	113.5	
	10/12/2004	ND<0	113.5	
	4/1/2005	0.262364 J	238	
	10/25/2005	ND<0	113.5	
	4/29/2006	-0.693147 J		234
	11/18/2006	-0.510826 J		235
	5/23/2007	ND<0	113.5	
	11/28/2007	-0.0512933 J		236
	6/5/2008	ND<0	113.5	
	11/20/2008	ND<0	113.5	
	6/11/2009	ND<-2.73337		113.5
	11/16/2009	ND<-2.73337		113.5
	6/30/2010	ND<-2.73337		113.5
	11/12/2010	ND<-2.73337 U		113.5
	11/12/2010	ND<-2.73337 U		113.5
	7/5/2011	ND<-2.73337 U	113.5	
	11/22/2011	ND<-2.73337 U		113.5
	11/22/2011	ND<-2.73337 U		113.5
	6/5/2012	ND<-2.73337 U	113.5	

Rank Sum = 4774.5
Rank Mean = 144.682

MW-10	7/20/1995	-0.867501 J		233
	8/24/1995	1.1314	247	
	9/28/1995	1.60944		258
	10/26/1995	1.09861		245
	11/19/1996	ND<0	113.5	
	12/19/1996	ND<0	113.5	
	3/24/1997	1.79176		261
	9/24/1997	2.04122		262
	4/7/1998	ND<0	113.5	
	9/23/1998	1.72277		259

	3/16/1999	2.20827		263
	9/23/1999	1.72277		260
	3/15/2000	ND<0	113.5	
	9/24/2003	ND<0	113.5	
	3/11/2004	ND<0	113.5	
	10/12/2004	ND<0	113.5	
	4/1/2005	0.751416	240	
	10/25/2005	1.19996		250
	4/29/2006	1.37877		255
	11/18/2006	1.075	243	
	5/23/2007	ND<0	113.5	
	11/28/2007	1.32972		254
	6/5/2008	1.25562	251	
	11/20/2008	ND<0	113.5	
	6/11/2009	0.788457		241
	11/16/2009	1.02962		242
	6/30/2010	0.530628		239
	11/12/2010	1.09861		246
	11/12/2010	ND<-2.73337 U		113.5
	7/5/2011	1.30833	252	
	11/22/2011	1.19392		248
	11/22/2011	1.19392		249
	6/5/2012	1.30833	253	

Rank Sum = 6886
Rank Mean = 208.667

MW-8	7/20/1995	ND<0	113.5	
	8/24/1995	ND<0	113.5	
	9/28/1995	ND<0	113.5	
	10/26/1995	ND<0	113.5	
	11/19/1996	ND<0	113.5	
	12/19/1996	ND<0	113.5	
	3/24/1997	ND<0	113.5	
	9/24/1997	ND<0	113.5	
	4/7/1998	ND<0	113.5	
	9/23/1998	ND<0	113.5	
	3/16/1999	ND<0	113.5	
	9/23/1999	ND<0	113.5	
	3/15/2000	ND<0	113.5	
	9/24/2003	ND<0	113.5	
	3/11/2004	ND<0	113.5	
	10/12/2004	ND<0	113.5	
	4/1/2005	ND<0	113.5	
	10/25/2005	ND<0	113.5	
	4/29/2006	ND<0	113.5	
	11/18/2006	ND<0	113.5	
	5/23/2007	ND<0	113.5	
	11/28/2007	ND<0	113.5	
	6/5/2008	ND<0	113.5	
	11/20/2008	ND<0	113.5	
	6/11/2009	ND<-2.73337		113.5
	6/30/2010	ND<-2.73337		113.5
	11/12/2010	ND<-2.73337 U		113.5
	11/12/2010	ND<-2.73337 U		113.5
	7/5/2011	ND<-2.73337 U	113.5	
	11/22/2011	ND<-2.73337 U		113.5
	11/22/2011	ND<-2.73337 U		113.5
	6/5/2012	ND<-2.73337 U	113.5	

Rank Sum = 3632
Rank Mean = 113.5

MW-6	7/20/1995	ND<0	113.5

	8/24/1995	ND<0	113.5	
	9/28/1995	ND<0	113.5	
	10/26/1995	ND<0	113.5	
	11/19/1996	ND<0	113.5	
	12/19/1996	ND<0	113.5	
	3/24/1997	ND<0	113.5	
	9/24/1997	ND<0	113.5	
	4/7/1998	ND<0	113.5	
	9/23/1998	ND<0	113.5	
	3/16/1999	ND<0	113.5	
	9/23/1999	ND<0	113.5	
	3/15/2000	ND<0	113.5	
	9/24/2003	ND<0	113.5	
	3/11/2004	ND<0	113.5	
	10/12/2004	ND<0	113.5	
	4/1/2005	ND<0	113.5	
	10/25/2005	ND<0	113.5	
	4/29/2006	ND<0	113.5	
	11/18/2006	ND<0	113.5	
	5/23/2007	ND<0	113.5	
	11/28/2007	ND<0	113.5	
	6/5/2008	ND<0	113.5	
	11/20/2008	ND<0	113.5	
	6/11/2009	ND<-2.73337		113.5
	11/16/2009	ND<-2.73337		113.5
	6/30/2010	ND<-2.73337		113.5
	11/12/2010	ND<-2.73337 U		113.5
	11/12/2010	ND<-2.73337 U		113.5
	7/5/2011	ND<-2.73337 U	113.5	
	11/22/2011	ND<-2.73337 U		113.5
	11/22/2011	ND<-2.73337 U		113.5
	6/5/2012	ND<-2.73337 U	113.5	

Rank Sum = 3745.5
Rank Mean = 113.5

MW-9	7/20/1995	ND<0	113.5	
	8/24/1995	ND<0	113.5	
	9/28/1995	ND<0	113.5	
	10/26/1995	ND<0	113.5	
	11/19/1996	ND<0	113.5	
	12/19/1996	ND<0	113.5	
	3/24/1997	ND<0	113.5	
	9/24/1997	ND<0	113.5	
	4/7/1998	ND<0	113.5	
	9/23/1998	ND<0	113.5	
	3/16/1999	ND<0	113.5	
	9/23/1999	ND<0	113.5	
	3/15/2000	ND<0	113.5	
	9/24/2003	ND<0	113.5	
	3/11/2004	ND<0	113.5	
	10/12/2004	ND<0	113.5	
	4/1/2005	ND<0	113.5	
	10/25/2005	ND<0	113.5	
	4/29/2006	ND<0	113.5	
	11/18/2006	ND<0	113.5	
	5/23/2007	ND<0	113.5	
	11/28/2007	-1.46968 J		228
	6/5/2008	ND<0	113.5	
	11/20/2008	-1.42712 J		229
	6/11/2009	ND<-2.73337		113.5
	11/16/2009	-1.10866 J		231
	6/30/2010	-0.994252 J		232

	11/12/2010	ND<-2.73337 U	113.5
	11/12/2010	-1.38629 J	230
	7/5/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	6/5/2012	-1.83258 J	227

Rank Sum = 4441.5
Rank Mean = 134.591

MW-12BR	3/16/1999	ND<0	113.5
	9/23/1999	ND<0	113.5
	3/15/2000	ND<0	113.5
	9/24/2003	ND<0	113.5
	3/11/2004	ND<0	113.5
	10/12/2004	ND<0	113.5
	4/1/2005	ND<0	113.5
	10/25/2005	ND<0	113.5
	4/29/2006	ND<0	113.5
	11/18/2006	ND<0	113.5
	5/23/2007	ND<0	113.5
	11/28/2007	ND<0	113.5
	6/5/2008	ND<0	113.5
	11/20/2008	ND<0	113.5
	6/11/2009	ND<-2.73337	113.5
	11/16/2009	ND<-2.73337	113.5
	6/30/2010	ND<-2.73337	113.5
	11/12/2010	ND<-2.73337 U	113.5
	11/12/2010	ND<-2.73337 U	113.5
	7/5/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	6/5/2012	ND<-2.73337 U	113.5

Rank Sum = 2610.5
Rank Mean = 113.5

MW-12AR	3/16/1999	ND<0	113.5
	9/23/1999	ND<0	113.5
	3/15/2000	ND<0	113.5
	9/24/2003	ND<0	113.5
	3/11/2004	ND<0	113.5
	10/12/2004	ND<0	113.5
	4/1/2005	ND<0	113.5
	10/25/2005	ND<0	113.5
	4/29/2006	ND<0	113.5
	11/18/2006	ND<0	113.5
	5/23/2007	ND<0	113.5
	11/28/2007	ND<0	113.5
	6/5/2008	ND<0	113.5
	11/20/2008	ND<0	113.5
	6/11/2009	ND<-2.73337	113.5
	11/16/2009	ND<-2.73337	113.5
	6/30/2010	ND<-2.73337	113.5
	11/12/2010	ND<-2.73337 U	113.5
	11/12/2010	ND<-2.73337 U	113.5
	7/5/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	11/22/2011	ND<-2.73337 U	113.5
	6/5/2012	ND<-2.73337 U	113.5

Rank Sum = 2610.5
Rank Mean = 113.5

Calculation Results:

Kruskal-Wallis H Statistic = 44.1798
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 120.887
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
44.1798 > 15.5073 indicating a significant group difference at 5% significance level
120.887 > 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 113.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	**113.5**	**0**	**50.1451**
MW-11R	**144.682**	**31.1818**	**50.1451**
MW-10	**208.667**	**95.1667**	**50.1451**
MW-8	**113.5**	**0**	**50.4399**
MW-6	**113.5**	**0**	**50.1451**
MW-9	**134.591**	**21.0909**	**50.1451**
MW-12BR	**113.5**	**0**	**54.1026**
MW-12AR	**113.5**	**0**	**54.1026**

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 113.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	**113.5**	**0**	**54.1499**
MW-11R	**144.682**	**31.1818**	**54.1499**
MW-10	**208.667**	**95.1667**	**54.1499**
MW-8	**113.5**	**0**	**54.4683**
MW-6	**113.5**	**0**	**54.1499**
MW-9	**134.591**	**21.0909**	**54.1499**
MW-12BR	**113.5**	**0**	**58.4235**
MW-12AR	**113.5**	**0**	**58.4235**

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
1.30833 (6/5/2012) -0.867501 J (7/20/1995) (1.30833 - -0.867501)/(31 - 1)
0.0725278

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
1.30833	(6/5/2012)	1.1314	(8/24/1995)	(1.30833 - 1.1314)/(31 - 2)	0.00610106
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
1.30833 (6/5/2012) 1.60944 (9/28/1995) (1.30833 - 1.60944)/(31 - 3)
-0.0107538

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						
1.30833	(6/5/2012)	1.09861	(10/26/1995)	(1.30833 - 1.09861)/(31 - 4)		
0.00776743						
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						
1.30833	(6/5/2012)	ND<0	(11/19/1996)	(1.30833 - 0)/(31 - 5)		
0.0503205						
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)
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1.37877 (4/29/2006) ND<0 (12/19/1996) (1.37877 - 0)/(19 - 6)
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1.075 (11/18/2006) ND<0 (12/19/1996) (1.075 - 0)/(20 - 6)
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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)
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1.25562 (6/5/2008) ND<0 (12/19/1996) (1.25562 - 0)/(23 - 6)
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ND<0 (11/20/2008) ND<0 (12/19/1996) (0 - 0)/(24 - 6) 0
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1.02962 (11/16/2009) ND<0 (12/19/1996) (1.02962 - 0)/(26 - 6)
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0.530628 (6/30/2010) ND<0 (12/19/1996) (0.530628 - 0)/(27 - 6)
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1.09861 (11/12/2010) ND<0 (12/19/1996) (1.09861 - 0)/(28 - 6)
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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)
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1.19392 (11/22/2011) ND<0 (12/19/1996) (1.19392 - 0)/(30 - 6)
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1.19392 (11/22/2011) ND<0 (12/19/1996) (1.19392 - 0)/(30 - 6)
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1.30833 (6/5/2012) ND<0 (12/19/1996) (1.30833 - 0)/(31 - 6)
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ND<0 (4/7/1998) 1.79176 (3/24/1997) (0 - 1.79176)/(9 - 7) -0.89588
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2.20827 (3/16/1999) 1.79176 (3/24/1997) (2.20827 - 1.79176)/(11 - 7)
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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)
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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)
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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)
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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
1.30833 (6/5/2012) 1.79176 (3/24/1997) (1.30833 - 1.79176)/(31 - 7)
-0.0201428

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					
1.30833 (6/5/2012)	2.04122 (9/24/1997)	(1.30833 - 2.04122)/(31 - 8)			
-0.0318647					
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					
1.30833 (6/5/2012)	ND<0 (4/7/1998)	(1.30833 - 0)/(31 - 9)			
0.0594697					
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
1.30833 (6/5/2012) 1.72277 (9/23/1998) (1.30833 - 1.72277)/(31 - 10)
-0.0197349

1.72277 (9/23/1999) 2.20827 (3/16/1999) (1.72277 - 2.20827)/(12 - 11)
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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)
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ND<0 (3/11/2004) 2.20827 (3/16/1999) (0 - 2.20827)/(15 - 11)
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ND<0 (10/12/2004) 2.20827 (3/16/1999) (0 - 2.20827)/(16 - 11)
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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)
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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)
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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)
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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
1.30833 (6/5/2012) 2.20827 (3/16/1999) (1.30833 - 2.20827)/(31 - 11)
-0.0449971

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)
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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)
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1.075 (11/18/2006) 1.72277 (9/23/1999) (1.075 - 1.72277)/(20 - 12)
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ND<0 (5/23/2007) 1.72277 (9/23/1999) (0 - 1.72277)/(21 - 12)
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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)
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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
1.30833 (6/5/2012) 1.72277 (9/23/1999) (1.30833 - 1.72277)/(31 - 12)
-0.0218123

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)
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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)
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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)
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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
1.30833 (6/5/2012) ND<0 (3/15/2000) (1.30833 - 0)/(31 - 13)
0.0726852

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
1.30833 (6/5/2012) ND<0 (9/24/2003) (1.30833 - 0)/(31 - 14)
0.0769608

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
1.30833 (6/5/2012) ND<0 (3/11/2004) (1.30833 - 0)/(31 - 15)
0.0817708

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
1.30833 (6/5/2012) ND<0 (10/12/2004) (1.30833 - 0)/(31 - 16)
0.0872222

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
1.30833 (6/5/2012) 0.751416 (4/1/2005) (1.30833 - 0.751416)/(31 - 17)
0.0397798

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
1.30833 (6/5/2012) 1.19996 (10/25/2005) (1.30833 - 1.19996)/(31 - 18)
0.008336

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
1.30833 (6/5/2012) 1.37877 (4/29/2006) (1.30833 - 1.37877)/(31 - 19)
-0.00586944

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
1.30833 (6/5/2012) 1.075 (11/18/2006) (1.30833 - 1.075)/(31 - 20)
0.0212119

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
1.30833 (6/5/2012) ND<0 (5/23/2007) (1.30833 - 0)/(31 - 21)
0.130833

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

1.30833 (6/5/2012) 1.32972 (11/28/2007) (1.30833 - 1.32972)/(31 - 22)
-0.0023768

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
1.30833 (6/5/2012) 1.25562 (6/5/2008) (1.30833 - 1.25562)/(31 - 23)
0.0065896

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
1.30833 (6/5/2012) ND<0 (11/20/2008) (1.30833 - 0)/(31 - 24)
0.186905

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
1.30833 (6/5/2012) 0.788457 (6/11/2009) (1.30833 - 0.788457)/(31 - 25)
0.0866459

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
1.30833 (6/5/2012) 1.02962 (11/16/2009) (1.30833 - 1.02962)/(31 - 26)
0.0557427

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
1.30833 (6/5/2012) 0.530628 (6/30/2010) (1.30833 - 0.530628)/(31 - 27)
0.194426

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 (6/5/2012) 1.09861 (11/12/2010) (1.30833 - 1.09861)/(31 - 28)
0.0699068

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
1.30833 (6/5/2012) ND<-2.73337 U (11/12/2010) (1.30833 - -2.73337)/(31 - 28)
1.34723

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
1.30833 (6/5/2012) 1.30833 (7/5/2011) (1.30833 - 1.30833)/(31 - 29)
0

1.19392 (11/22/2011) 1.19392 (11/22/2011) (1.19392 - 1.19392)/(30 - 30)
Same Date
1.30833 (6/5/2012) 1.19392 (11/22/2011) (1.30833 - 1.19392)/(31 - 30)
0.11441

1.30833 (6/5/2012) 1.19392 (11/22/2011) (1.30833 - 1.19392)/(31 - 30)
0.11441

Number of Q values = 526

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	-0.0449971
163	-0.0449504
164	-0.0433217
165	-0.0424682
166	-0.0401126
167	-0.0393043
168	-0.0390096
169	-0.0385186
170	-0.0385135
171	-0.0385135
172	-0.0382223
173	-0.0373173
174	-0.0359347
175	-0.0348994
176	-0.0346752
177	-0.0344161
178	-0.033509
179	-0.033007
180	-0.0327535
181	-0.0318647
182	-0.0314374
183	-0.0314007

184	-0.0311282
185	-0.0308024
186	-0.0307875
187	-0.0293802
188	-0.0293802
189	-0.0272982
190	-0.0267074
191	-0.0264422
192	-0.0264422
193	-0.0259929
194	-0.0259929
195	-0.0253324
196	-0.0252095
197	-0.024695
198	-0.0243785
199	-0.024031
200	-0.0229976
201	-0.0220788
202	-0.0219739
203	-0.0218123
204	-0.0218123
205	-0.0212932
206	-0.020433
207	-0.0201428
208	-0.0197349
209	-0.0176911
210	-0.0169752
211	-0.0169752
212	-0.016804
213	-0.016804
214	-0.0163949
215	-0.0163474
216	-0.0153895
217	-0.0153895
218	-0.0149106
219	-0.0147693
220	-0.0147218
221	-0.014417
222	-0.0137986
223	-0.011581
224	-0.0107538
225	-0.0101352
226	-0.00881337
227	-0.00881337
228	-0.00756383
229	-0.00704333
230	-0.00586944
231	-0.00424095
232	-0.00313604
233	-0.00313332
234	-0.00305588
235	-0.0023768
236	-0.00147562
237	-0.00126115
238	-0.000503526
239	-0.000503526
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
271	0
272	0
273	0
274	0
275	0
276	0
277	0
278	0
279	0.00223287
280	0.00223287
281	0.00295123
282	0.00366578
283	0.00366578
284	0.00428517
285	0.00463016
286	0.00591495
287	0.00610106
288	0.00655299
289	0.0065896
290	0.00723946
291	0.00776743
292	0.00826336
293	0.008336
294	0.00838882
295	0.00878613
296	0.00985164
297	0.00991609
298	0.0111303
299	0.011892
300	0.011892
301	0.0125921
302	0.0128395
303	0.0145508
304	0.0161898
305	0.0186769
306	0.0212119
307	0.0241195

308	0.025268
309	0.0259256
310	0.0294793
311	0.0309115
312	0.0315633
313	0.0324398
314	0.034039
315	0.034039
316	0.0344964
317	0.0377174
318	0.037902
319	0.0394229
320	0.0397798
321	0.0408176
322	0.0410758
323	0.0410758
324	0.0414978
325	0.043375
326	0.044219
327	0.0455804
328	0.0464097
329	0.0476551
330	0.0476551
331	0.0477569
332	0.0477569
333	0.0477658
334	0.0482389
335	0.0490295
336	0.0492786
337	0.0497468
338	0.0497468
339	0.0499369
340	0.0503205
341	0.051481
342	0.0523333
343	0.0537742
344	0.0545139
345	0.0556847
346	0.0557427
347	0.0568535
348	0.0568535
349	0.056884
350	0.0578217
351	0.0578334
352	0.0591364
353	0.0594697
354	0.0602045
355	0.0605658
356	0.0619643
357	0.062618
358	0.0654166
359	0.0657048
360	0.0667308
361	0.0683106
362	0.0689982
363	0.0697564
364	0.0699068
365	0.0702307
366	0.0702307
367	0.0710836
368	0.0710836
369	0.0716668

370	0.0716779
371	0.0722917
372	0.0725278
373	0.0726852
374	0.072819
375	0.0732408
376	0.0738598
377	0.0739206
378	0.0746202
379	0.0746202
380	0.0748546
381	0.0758848
382	0.0767859
383	0.0769608
384	0.0777083
385	0.0780193
386	0.0782191
387	0.0784723
388	0.0788457
389	0.0792015
390	0.0795948
391	0.0795948
392	0.081093
393	0.081093
394	0.0817708
395	0.0817708
396	0.0831078
397	0.0840333
398	0.0845086
399	0.0852802
400	0.0852802
401	0.0858016
402	0.0863565
403	0.0866459
404	0.0872222
405	0.0872222
406	0.0876064
407	0.088438
408	0.0896869
409	0.091551
410	0.092305
411	0.0929045
412	0.0934523
413	0.0936018
414	0.093927
415	0.0965053
416	0.0977275
417	0.0984833
418	0.0999971
419	0.100641
420	0.101182
421	0.102237
422	0.102286
423	0.102962
424	0.103385
425	0.104026
426	0.104129
427	0.10463
428	0.106059
429	0.107862
430	0.108438
431	0.11441

432	0.11441
433	0.115662
434	0.119652
435	0.121616
436	0.124793
437	0.125562
438	0.127361
439	0.129969
440	0.130833
441	0.132071
442	0.132658
443	0.132658
444	0.133329
445	0.137877
446	0.139513
447	0.147747
448	0.151636
449	0.153572
450	0.156945
451	0.156952
452	0.158523
453	0.163542
454	0.166216
455	0.1735
456	0.176876
457	0.178801
458	0.179167
459	0.179374
460	0.186905
461	0.187854
462	0.189961
463	0.194426
464	0.197114
465	0.198987
466	0.198987
467	0.205924
468	0.209721
469	0.215
470	0.216875
471	0.221098
472	0.221098
473	0.221621
474	0.229794
475	0.231049
476	0.235479
477	0.235652
478	0.239993
479	0.241162
480	0.24611
481	0.249461
482	0.250472
483	0.261667
484	0.268751
485	0.274653
486	0.275753
487	0.287128
488	0.287807
489	0.299991
490	0.307577
491	0.313675
492	0.344553
493	0.344692

494	0.368046
495	0.375708
496	0.388852
497	0.399988
498	0.415532
499	0.430692
500	0.441655
501	0.44321
502	0.448549
503	0.459589
504	0.478036
505	0.485508
506	0.51481
507	0.567984
508	0.574256
509	0.599982
510	0.627808
511	0.655371
512	0.680407
513	0.751416
514	0.788457
515	0.89588
516	1.02061
517	1.10414
518	1.23847
519	1.32972
520	1.34723
521	1.72277
522	1.79176
523	1.96365
524	1.96365
525	1.9989
526	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	1.30833	2
5	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
6/5/2012	1	

There are 2 time periods with multiple data

A = 1728
B = 36
C = 504
D = 0
E = 80
F = 4
a = 74976
b = 294624
c = 2112
Group Variance = 4067.48
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 104.904
M1 = (526 - 104.904)/2.0 = 210.548
M2 = (526 + 104.904)/2.0 + 1 = 316.452
Lower limit is -0.0169752 = Q(211)
Upper limit is 0.0344964 = Q(316)
-0.0169752 < 0 < 0.0344964 indicating no trend in data.

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
6/5/2012	1.30833	0	0.870857	
6/5/2012	1.30833	0	0.870857	

Concentrations (ppb)

Parameter: 1,4-Dichlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 279
Total Non-Detect: 220
Percent Non-Detects: 78.853%
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	35	22 (62.8571%)	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	0.97 J	0.97 J	
			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	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
			6/5/2012	ND<0.52 U		ND<0.52 U
			6/5/2012	0.37 J	0.37 J	
MW-10	35	15 (42.8571%)	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	5.2	5.2	
			6/30/2010	ND<0.74		ND<0.74
			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	
			6/5/2012	9.4	9.4	
			6/5/2012	6.6 J	6.6 J	
MW-11R	35	29 (82.8571%)	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	ND<0.74		ND<0.74
			6/30/2010	0.37 J	0.37 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	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
			6/5/2012	ND<0.28 U	ND<0.28 U	
			6/5/2012	ND<0.52 U	ND<0.52 U	
MW-8	32	21 (65.625%)	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	
			6/5/2012	0.54 J	0.54 J	
			6/5/2012	ND<0.51 U	ND<0.51 U	
MW-6	35	35 (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
			6/5/2012	ND<0.28 U	ND<0.28 U	
			6/5/2012	ND<0.53 U	ND<0.53 U	
MW-7	35	35 (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<0.28 U		ND<0.28 U
			11/12/2010	ND<0.74 U		ND<0.74 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	
		6/5/2012	ND<0.51 U		ND<0.51 U	
		6/5/2012	ND<0.28 U		ND<0.28 U	
MW-12AR	25	18 (72%)	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	
		6/5/2012	ND<0.28 U		ND<0.28 U	
		6/5/2012	ND<0.51 U		ND<0.51 U	
MW-12BR	26	24 (92.3077%)	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<0.78 U		ND<0.78 U	
		11/12/2010	ND<0.28 U		ND<0.28 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	
		6/5/2012	ND<0.28 U		ND<0.28 U	
		6/5/2012	ND<0.49 U		ND<0.49 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 = 279

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.14	-2.74777	7.55021	-0.384687
2	0.14	-2.45727	13.5884	-0.728705
3	0.14	-2.32634	19.0003	-1.05439
4	0.14	-2.19728	23.8283	-1.36201
5	0.14	-2.12007	28.323	-1.65882
6	0.14	-2.03352	32.4582	-1.94352
7	0.14	-1.95996	36.2997	-2.21791
8	0.14	-1.91103	39.9517	-2.48545
9	0.14	-1.85218	43.3823	-2.74476
10	0.14	-1.81191	46.6653	-2.99843
11	0.14	-1.76241	49.7714	-3.24516
12	0.14	-1.72793	52.7571	-3.48707
13	0.14	-1.68494	55.5962	-3.72297
14	0.14	-1.64485	58.3017	-3.95325
15	0.14	-1.61644	60.9146	-4.17955
16	0.14	-1.58047	63.4124	-4.40081
17	0.14	-1.55477	65.8297	-4.61848
18	0.14	-1.52203	68.1463	-4.83156
19	0.14	-1.49852	70.3919	-5.04136
20	0.14	-1.46838	72.548	-5.24693
21	0.14	-1.43953	74.6203	-5.44846
22	0.14	-1.41865	76.6329	-5.64708
23	0.14	-1.39175	78.5698	-5.84192
24	0.14	-1.3722	80.4528	-6.03403
25	0.14	-1.34694	82.267	-6.2226
26	0.14	-1.32854	84.032	-6.4086
27	0.14	-1.30469	85.7342	-6.59125
28	0.14	-1.28155	87.3766	-6.77067
29	0.14	-1.26464	88.9759	-6.94772
30	0.14	-1.24264	90.5201	-7.12169
31	0.14	-1.22653	92.0245	-7.2934
32	0.14	-1.20553	93.4777	-7.46218
33	0.14	-1.19012	94.8941	-7.62879
34	0.14	-1.17	96.263	-7.79259
35	0.14	-1.15035	97.5863	-7.95364
36	0.14	-1.1359	98.8766	-8.11267
37	0.14	-1.11699	100.124	-8.26905
38	0.14	-1.10306	101.341	-8.42347
39	0.14	-1.08482	102.518	-8.57535
40	0.14	-1.07138	103.666	-8.72534
41	0.235	-1.05375	104.776	-8.97297
42	0.235	-1.03643	105.85	-9.21653
43	0.235	-1.02365	106.898	-9.45709
44	0.235	-1.00687	107.912	-9.69371
45	0.245	-0.994457	108.901	-9.93735
46	0.255	-0.97815	109.858	-10.1868
47	0.255	-0.966088	110.791	-10.4331
48	0.255	-0.950222	111.694	-10.6754
49	0.255	-0.93459	112.567	-10.9138
50	0.255	-0.923014	113.419	-11.1491
51	0.255	-0.907769	114.243	-11.3806

52	0.26	-0.896473	115.047	-11.6137
53	0.26	-0.881587	115.824	-11.8429
54	0.265	-0.87055	116.582	-12.0736
55	0.28	-0.855996	117.315	-12.3133
56	0.28	-0.841621	118.023	-12.5489
57	0.3	-0.830953	118.714	-12.7982
58	0.31	-0.816874	119.381	-13.0514
59	0.32	-0.806422	120.031	-13.3095
60	0.36	-0.792618	120.659	-13.5948
61	0.37	-0.782366	121.272	-13.8843
62	0.37	-0.768821	121.863	-14.1688
63	0.37	-0.755415	122.433	-14.4483
64	0.37	-0.745449	122.989	-14.7241
65	0.37	-0.732275	123.525	-14.995
66	0.37	-0.722479	124.047	-15.2624
67	0.37	-0.709522	124.551	-15.5249
68	0.37	-0.699883	125.04	-15.7838
69	0.37	-0.687131	125.513	-16.0381
70	0.37	-0.67449	125.968	-16.2876
71	0.37	-0.665079	126.41	-16.5337
72	0.37	-0.652622	126.836	-16.7752
73	0.37	-0.643345	127.25	-17.0132
74	0.37	-0.631062	127.648	-17.2467
75	0.37	-0.621911	128.035	-17.4768
76	0.38	-0.609791	128.406	-17.7085
77	0.38	-0.597761	128.764	-17.9357
78	0.39	-0.588793	129.11	-18.1653
79	0.39	-0.576911	129.443	-18.3903
80	0.4	-0.568052	129.766	-18.6175
81	0.43	-0.556308	130.075	-18.8568
82	0.43	-0.547551	130.375	-19.0922
83	0.44	-0.53594	130.663	-19.328
84	0.47	-0.524401	130.938	-19.5745
85	0.48	-0.515791	131.204	-19.8221
86	0.49	-0.504372	131.458	-20.0692
87	0.49	-0.49585	131.704	-20.3122
88	0.49	-0.484544	131.939	-20.5496
89	0.51	-0.476105	132.165	-20.7924
90	0.52	-0.464904	132.381	-21.0342
91	0.54	-0.453763	132.587	-21.2792
92	0.54	-0.445443	132.786	-21.5197
93	0.54	-0.434397	132.974	-21.7543
94	0.6	-0.426148	133.156	-22.01
95	0.61	-0.415193	133.328	-22.2633
96	0.62	-0.40701	133.494	-22.5156
97	0.66	-0.396142	133.651	-22.7771
98	0.76	-0.385321	133.799	-23.0699
99	0.78	-0.377233	133.942	-23.3642
100	0.84	-0.36649	134.076	-23.672
101	0.91	-0.358459	134.205	-23.9982
102	0.97	-0.347787	134.326	-24.3356
103	0.97	-0.33981	134.441	-24.6652
104	1	-0.329206	134.549	-24.9944
105	1	-0.318639	134.651	-25.313
106	1	-0.310738	134.747	-25.6238
107	1	-0.300232	134.838	-25.924
108	1	-0.292375	134.923	-26.2164
109	1	-0.281926	135.003	-26.4983
110	1	-0.27411	135.078	-26.7724
111	1	-0.263715	135.147	-27.0361
112	1	-0.253347	135.211	-27.2895
113	1	-0.24559	135.272	-27.5351

114	1	-0.235269	135.327	-27.7703
115	1	-0.227545	135.379	-27.9979
116	1	-0.217267	135.426	-28.2151
117	1	-0.209575	135.47	-28.4247
118	1	-0.199336	135.51	-28.624
119	1	-0.189118	135.546	-28.8132
120	1	-0.181468	135.578	-28.9946
121	1	-0.171285	135.608	-29.1659
122	1	-0.163659	135.635	-29.3296
123	1	-0.153505	135.658	-29.4831
124	1	-0.1459	135.679	-29.629
125	1	-0.135774	135.698	-29.7648
126	1	-0.125661	135.714	-29.8904
127	1	-0.118085	135.728	-30.0085
128	1	-0.107995	135.739	-30.1165
129	1	-0.100433	135.749	-30.2169
130	1	-0.0903606	135.758	-30.3073
131	1	-0.0828129	135.764	-30.3901
132	1	-0.0727562	135.77	-30.4629
133	1	-0.0627062	135.774	-30.5256
134	1	-0.0551734	135.777	-30.5807
135	1	-0.0451348	135.779	-30.6259
136	1	-0.0376076	135.78	-30.6635
137	1	-0.0275759	135.781	-30.6911
138	1	-0.0200544	135.781	-30.7111
139	1	-0.0100272	135.781	-30.7211
140	1	0	135.781	-30.7211
141	1	0.0100272	135.781	-30.7111
142	1	0.0200544	135.782	-30.6911
143	1	0.0275759	135.783	-30.6635
144	1	0.0376076	135.784	-30.6259
145	1	0.0451348	135.786	-30.5807
146	1	0.0551734	135.789	-30.5256
147	1	0.0627062	135.793	-30.4629
148	1	0.0727562	135.798	-30.3901
149	1	0.0828129	135.805	-30.3073
150	1	0.0903606	135.813	-30.2169
151	1	0.100433	135.823	-30.1165
152	1	0.107995	135.835	-30.0085
153	1	0.118085	135.849	-29.8904
154	1	0.125661	135.865	-29.7648
155	1	0.135774	135.883	-29.629
156	1	0.1459	135.905	-29.4831
157	1	0.153505	135.928	-29.3296
158	1	0.163659	135.955	-29.1659
159	1	0.171285	135.984	-28.9946
160	1	0.181468	136.017	-28.8132
161	1	0.189118	136.053	-28.624
162	1	0.199336	136.093	-28.4247
163	1	0.209575	136.137	-28.2151
164	1	0.217267	136.184	-27.9979
165	1	0.227545	136.236	-27.7703
166	1	0.235269	136.291	-27.5351
167	1	0.24559	136.351	-27.2895
168	1	0.253347	136.415	-27.0361
169	1	0.263715	136.485	-26.7724
170	1	0.27411	136.56	-26.4983
171	1	0.281926	136.64	-26.2164
172	1	0.292375	136.725	-25.924
173	1	0.300232	136.815	-25.6238
174	1	0.310738	136.912	-25.313
175	1	0.318639	137.013	-24.9944

176	1	0.329206	137.122	-24.6652
177	1	0.33981	137.237	-24.3254
178	1	0.347787	137.358	-23.9776
179	1	0.358459	137.487	-23.6191
180	1	0.36649	137.621	-23.2526
181	1	0.377233	137.763	-22.8754
182	1	0.385321	137.912	-22.4901
183	1	0.396142	138.069	-22.0939
184	1	0.40701	138.234	-21.6869
185	1	0.415193	138.407	-21.2717
186	1	0.426148	138.588	-20.8456
187	1	0.434397	138.777	-20.4112
188	1	0.445443	138.975	-19.9657
189	1	0.453763	139.181	-19.512
190	1	0.464904	139.397	-19.0471
191	1	0.476105	139.624	-18.571
192	1	0.484544	139.859	-18.0864
193	1	0.49585	140.105	-17.5906
194	1	0.504372	140.359	-17.0862
195	1	0.515791	140.625	-16.5704
196	1	0.524401	140.9	-16.046
197	1	0.53594	141.187	-15.5101
198	1	0.547551	141.487	-14.9625
199	1	0.556308	141.797	-14.4062
200	1	0.568052	142.119	-13.8382
201	1	0.576911	142.452	-13.2612
202	1	0.588793	142.799	-12.6725
203	1	0.597761	143.156	-12.0747
204	1	0.609791	143.528	-11.4649
205	1	0.621911	143.915	-10.843
206	1	0.631062	144.313	-10.2119
207	1	0.643345	144.727	-9.56858
208	1	0.652622	145.153	-8.91596
209	1	0.665079	145.595	-8.25088
210	1	0.67449	146.05	-7.57639
211	1	0.687131	146.522	-6.88926
212	1	0.699883	147.012	-6.18938
213	1	0.709522	147.516	-5.47985
214	1	0.722479	148.038	-4.75737
215	1	0.732275	148.574	-4.0251
216	1	0.745449	149.129	-3.27965
217	1	0.755415	149.7	-2.52424
218	1	0.768821	150.291	-1.75541
219	1	0.782366	150.903	-0.973049
220	1	0.792618	151.532	-0.180432
221	1	0.806422	152.182	0.62599
222	1	0.816874	152.849	1.44286
223	1	0.830953	153.54	2.27382
224	1	0.841621	154.248	3.11544
225	1	0.855996	154.981	3.97143
226	1	0.87055	155.739	4.84198
227	1	0.881587	156.516	5.72357
228	1	0.896473	157.319	6.62004
229	1	0.907769	158.143	7.52781
230	1	0.923014	158.995	8.45083
231	1	0.93459	159.869	9.38542
232	1	0.950222	160.772	10.3356
233	1	0.966088	161.705	11.3017
234	1	0.97815	162.662	12.2799
235	1	0.994457	163.651	13.2743
236	1	1.00687	164.665	14.2812
237	1	1.02365	165.712	15.3049

238	1	1.03643	166.787	16.3413
239	1	1.05375	167.897	17.395
240	1	1.07138	169.045	18.4664
241	1	1.08482	170.222	19.5512
242	1	1.10306	171.438	20.6543
243	1	1.11699	172.686	21.7713
244	1	1.1359	173.976	22.9072
245	1	1.15035	175.3	24.0575
246	1	1.17	176.669	25.2275
247	1	1.19012	178.085	26.4176
248	1	1.20553	179.538	27.6232
249	1	1.22653	181.043	28.8497
250	1	1.24264	182.587	30.0923
251	1	1.26464	184.186	31.357
252	1	1.28155	185.828	32.6385
253	1.05	1.30469	187.531	34.0085
254	1.11	1.32854	189.296	35.4831
255	1.14	1.34694	191.11	37.0186
256	1.5	1.3722	192.993	39.077
257	1.98	1.39175	194.93	41.8326
258	2	1.41865	196.942	44.6699
259	2	1.43953	199.015	47.549
260	2.2	1.46838	201.171	50.7794
261	2.75	1.49852	203.416	54.9003
262	3.4	1.52203	205.733	60.0753
263	3.9	1.55477	208.15	66.1389
264	3.99	1.58047	210.648	72.4449
265	4	1.61644	213.261	78.9107
266	4.1	1.64485	215.967	85.6546
267	5.2	1.68494	218.806	94.4162
268	5.4	1.72793	221.791	103.747
269	5.6	1.76241	224.897	113.617
270	5.99	1.81191	228.18	124.47
271	6.45	1.85218	231.611	136.416
272	6.6	1.91103	235.263	149.029
273	6.9	1.95996	239.104	162.553
274	7.9	2.03352	243.24	178.618
275	7.9	2.12007	247.734	195.366
276	8.6	2.19728	252.562	214.263
277	8.8	2.32634	257.974	234.735
278	9.4	2.45727	264.013	257.833
279	10	2.74777	271.563	285.311

Data Set Standard Deviation = 1.52
Numerator = 81402.3
Denominator = 174423
W Statistic = 0.466693 = 81402.3 / 174423

5% Critical value of 0.976 exceeds 0.466693
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.466693
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 = 0.685781
0.685781 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.14	0.00357143	-2.74777	46.49	348.683	
2	0.14	0.00714286	-2.45727	46.49	334.497	
3	0.14	0.0107143	-2.32634	46.49	328.103	
4	0.14	0.0142857	-2.19728	46.49	321.801	
5	0.14	0.0178571	-2.12007	46.49	318.03	
6	0.14	0.0214286	-2.03352	46.49	313.804	
7	0.14	0.025	-1.95996	46.49	310.211	
8	0.14	0.0285714	-1.91103	46.49	307.822	
9	0.14	0.0321429	-1.85218	46.49	304.948	
10	0.14	0.0357143	-1.81191	46.49	302.982	
11	0.14	0.0392857	-1.76241	46.49	300.564	
12	0.14	0.0428571	-1.72793	46.49	298.881	
13	0.14	0.0464286	-1.68494	46.49	296.781	
14	0.14	0.05	-1.64485	46.49	294.824	
15	0.14	0.0535714	-1.61644	46.49	293.436	
16	0.14	0.0571429	-1.58047	46.49	291.679	
17	0.14	0.0607143	-1.55477	46.49	290.425	
18	0.14	0.0642857	-1.52203	46.49	288.826	
19	0.14	0.0678571	-1.49852	46.49	287.677	
20	0.14	0.0714286	-1.46838	46.49	286.206	
21	0.14	0.075	-1.43953	46.49	284.797	
22	0.14	0.0785714	-1.41865	46.49	283.778	
23	0.14	0.0821429	-1.39175	46.49	282.464	
24	0.14	0.0857143	-1.3722	46.49	281.509	
25	0.14	0.0892857	-1.34694	46.49	280.276	
26	0.14	0.0928571	-1.32854	46.49	279.377	
27	0.14	0.0964286	-1.30469	46.49	278.212	
28	0.14	0.1	-1.28155	46.49	277.082	
29	0.14	0.103571	-1.26464	46.49	276.257	
30	0.14	0.107143	-1.24264	46.49	275.182	
31	0.14	0.110714	-1.22653	46.49	274.395	
32	0.14	0.114286	-1.20553	46.49	273.37	
33	0.14	0.117857	-1.19012	46.49	272.617	
34	0.14	0.121429	-1.17	46.49	271.635	
35	0.14	0.125	-1.15035	46.49	270.675	
36	0.14	0.128571	-1.1359	46.49	269.97	
37	0.14	0.132143	-1.11699	46.49	269.046	
38	0.14	0.135714	-1.10306	46.49	268.366	
39	0.14	0.139286	-1.08482	46.49	267.476	
40	0.14	0.142857	-1.07138	46.49	266.819	
41	0.235	0.146429	-1.05375	51.5725	265.958	
42	0.235	0.15	-1.03643	51.5725	265.112	
43	0.235	0.153571	-1.02365	51.5725	264.488	
44	0.235	0.157143	-1.00687	51.5725	263.669	
45	0.245	0.160714	-0.994457	52.1075	263.063	
46	0.255	0.164286	-0.97815	52.6425	262.266	
47	0.255	0.167857	-0.966088	52.6425	261.677	
48	0.255	0.171429	-0.950222	52.6425	260.903	

49	0.255	0.175	-0.934595	2.6425	260.139
50	0.255	0.178571	-0.923014	52.6425	259.574
51	0.255	0.182143	-0.907769	52.6425	258.829
52	0.26	0.185714	-0.896473	52.91	258.278
53	0.26	0.189286	-0.881587	52.91	257.551
54	0.265	0.192857	-0.870553	.1775	257.012
55	0.28	0.196429	-0.855996	53.98	256.301
56	0.28	0.2	-0.841621	53.98	255.599
57	0.3	0.203571	-0.830953	55.05	255.078
58	0.31	0.207143	-0.816874	55.585	254.391
59	0.32	0.210714	-0.806422	56.12	253.88
60	0.36	0.214286	-0.792618	58.26	253.206
61	0.37	0.217857	-0.782366	58.795	252.706
62	0.37	0.221429	-0.768821	58.795	252.044
63	0.37	0.225	-0.755415	58.795	251.389
64	0.37	0.228571	-0.745449	58.795	250.903
65	0.37	0.232143	-0.732275	58.795	250.259
66	0.37	0.235714	-0.722479	58.795	249.781
67	0.37	0.239286	-0.709522	58.795	249.148
68	0.37	0.242857	-0.699883	58.795	248.678
69	0.37	0.246429	-0.687131	58.795	248.055
70	0.37	0.25	-0.674495	8.795	247.438
71	0.37	0.253571	-0.665079	58.795	246.978
72	0.37	0.257143	-0.652622	58.795	246.37
73	0.37	0.260714	-0.643345	58.795	245.917
74	0.37	0.264286	-0.631062	58.795	245.317
75	0.37	0.267857	-0.621911	58.795	244.87
76	0.38	0.271429	-0.609791	59.33	244.278
77	0.38	0.275	-0.597761	59.33	243.691
78	0.39	0.278571	-0.588793	59.865	243.253
79	0.39	0.282143	-0.576911	59.865	242.672
80	0.4	0.285714	-0.568052	60.4	242.24
81	0.43	0.289286	-0.556308	62.005	241.666
82	0.43	0.292857	-0.547551	62.005	241.239
83	0.44	0.296429	-0.535	94 2.54	240.672
84	0.47	0.3	-0.524401	64.145	240.108
85	0.48	0.303571	-0.515791	64.68	239.688
86	0.49	0.307143	-0.504372	65.215	239.13
87	0.49	0.310714	-0.495	8 5.215	238.714
88	0.49	0.314286	-0.484544	65.215	238.162
89	0.51	0.317857	-0.476105	66.285	237.75
90	0.52	0.321429	-0.464904	66.82	237.203
91	0.54	0.325	-0.453763	67.89	236.659
92	0.54	0.328571	-0.445443	67.89	236.252
93	0.54	0.332143	-0.434397	67.89	235.713
94	0.6	0.335714	-0.426148	71.1	235.31
95	0.61	0.339286	-0.415193	71.635	234.775
96	0.62	0.342857	-0.407	017 2.17	234.376
97	0.66	0.346429	-0.396142	74.31	233.845
98	0.76	0.35	-0.385321	79.66	233.317
99	0.78	0.353571	-0.377233	80.73	232.922
100	0.84	0.357143	-0.366	49 3.94	232.397
101	0.91	0.360714	-0.358459	87.685	232.005
102	0.97	0.364286	-0.347787	90.895	231.484
103	0.97	0.367857	-0.339	8 19 0.895	231.094
104	1	0.371429	-0.329206	92.5	230.576
105	1	0.375	-0.318639	92.5	230.06
106	1	0.378571	-0.310738	92.5	229.674
107	1	0.382143	-0.300232	92.5	229.161
108	1	0.385714	-0.292375	92.5	228.778
109	1	0.389286	-0.281926	92.5	228.267
110	1	0.392857	-0.274	1 92.5	227.886

111	1	0.396429	-0.263715	92.5	227.378
112	1	0.4	-0.253347	92.5	226.872
113	1	0.403571	-0.2455	92.5	226.493
114	1	0.407143	-0.235269	92.5	225.989
115	1	0.410714	-0.227545	92.5	225.612
116	1	0.414286	-0.217267	92.5	225.11
117	1	0.417857	-0.209575	92.5	224.734
118	1	0.421429	-0.199336	92.5	224.234
119	1	0.425	-0.189118	92.5	223.735
120	1	0.428571	-0.181468	92.5	223.362
121	1	0.432143	-0.171285	92.5	222.864
122	1	0.435714	-0.163659	92.5	222.492
123	1	0.439286	-0.153505	92.5	221.996
124	1	0.442857	-0.1459	92.5	221.625
125	1	0.446429	-0.135774	92.5	221.13
126	1	0.45	-0.125661	92.5	220.636
127	1	0.453571	-0.118085	92.5	220.267
128	1	0.457143	-0.107995	92.5	219.774
129	1	0.460714	-0.100433	92.5	219.404
130	1	0.464286	-0.0903606	92.5	218.913
131	1	0.467857	-0.0828129	92.5	218.544
132	1	0.471429	-0.0727562	92.5	218.053
133	1	0.475	-0.0627062	92.5	217.562
134	1	0.478571	-0.0551734	92.5	217.194
135	1	0.482143	-0.0451348	92.5	216.704
136	1	0.485714	-0.0376076	92.5	216.337
137	1	0.489286	-0.0275759	92.5	215.847
138	1	0.492857	-0.0200544	92.5	215.479
139	1	0.496429	-0.0100272	92.5	214.99
140	1	0.5	0	92.5	214.5
141	1	0.503571	0.0100272	92.5	214.01
142	1	0.507143	0.0200544	92.5	213.521
143	1	0.510714	0.0275759	92.5	213.153
144	1	0.514286	0.0376076	92.5	212.663
145	1	0.517857	0.0451348	92.5	212.296
146	1	0.521429	0.0551734	92.5	211.806
147	1	0.525	0.0627062	92.5	211.438
148	1	0.528571	0.0727562	92.5	210.947
149	1	0.532143	0.0828129	92.5	210.456
150	1	0.535714	0.0903606	92.5	210.087
151	1	0.539286	0.100433	92.5	209.596
152	1	0.542857	0.107995	92.5	209.226
153	1	0.546429	0.118085	92.5	208.733
154	1	0.55	0.125661	92.5	208.364
155	1	0.553571	0.135774	92.5	207.87
156	1	0.557143	0.1459	92.5	207.375
157	1	0.560714	0.153505	92.5	207.004
158	1	0.564286	0.163659	92.5	206.508
159	1	0.567857	0.171285	92.5	206.136
160	1	0.571429	0.181468	92.5	205.638
161	1	0.575	0.189118	92.5	205.265
162	1	0.578571	0.199336	92.5	204.766
163	1	0.582143	0.209575	92.5	204.266
164	1	0.585714	0.217267	92.5	203.89
165	1	0.589286	0.227545	92.5	203.388
166	1	0.592857	0.235269	92.5	203.011
167	1	0.596429	0.24559	92.5	202.507
168	1	0.6	0.253347	92.5	202.128
169	1	0.603571	0.263715	92.5	201.622
170	1	0.607143	0.27411	92.5	201.114
171	1	0.610714	0.281926	92.5	200.733
172	1	0.614286	0.292375	92.5	200.222

173	1	0.617857	0.300232	92.5	199.839
174	1	0.621429	0.310738	92.5	199.326
175	1	0.625	0.318639	92.5	198.94
176	1	0.628571	0.329206	92.5	198.424
177	1	0.632143	0.33981	92.5	197.906
178	1	0.635714	0.347787	92.5	197.516
179	1	0.639286	0.358459	92.5	196.995
180	1	0.642857	0.36649	92.5	196.603
181	1	0.646429	0.377233	92.5	196.078
182	1	0.65	0.385321	92.5	195.683
183	1	0.653571	0.396142	92.5	195.155
184	1	0.657143	0.40701	92.5	194.624
185	1	0.660714	0.415193	92.5	194.225
186	1	0.664286	0.426148	92.5	193.69
187	1	0.667857	0.434397	92.5	193.287
188	1	0.671429	0.445443	92.5	192.748
189	1	0.675	0.453763	92.5	192.341
190	1	0.678571	0.464904	92.5	191.797
191	1	0.682143	0.476105	92.5	191.25
192	1	0.685714	0.484544	92.5	190.838
193	1	0.689286	0.49585	92.5	190.286
194	1	0.692857	0.504372	92.5	189.87
195	1	0.696429	0.515791	92.5	189.312
196	1	0.7	0.524401	92.5	188.892
197	1	0.703571	0.53594	92.5	188.328
198	1	0.707143	0.547551	92.5	187.761
199	1	0.710714	0.556308	92.5	187.334
200	1	0.714286	0.568052	92.5	186.76
201	1	0.717857	0.576911	92.5	186.328
202	1	0.721429	0.588793	92.5	185.747
203	1	0.725	0.597761	92.5	185.309
204	1	0.728571	0.609791	92.5	184.722
205	1	0.732143	0.621911	92.5	184.13
206	1	0.735714	0.631062	92.5	183.683
207	1	0.739286	0.643345	92.5	183.083
208	1	0.742857	0.652622	92.5	182.63
209	1	0.746429	0.665079	92.5	182.022
210	1	0.75	0.67449	92.5	181.562
211	1	0.753571	0.687131	92.5	180.945
212	1	0.757143	0.699883	92.5	180.322
213	1	0.760714	0.709522	92.5	179.852
214	1	0.764286	0.722479	92.5	179.219
215	1	0.767857	0.732275	92.5	178.741
216	1	0.771429	0.745449	92.5	178.097
217	1	0.775	0.755415	92.5	177.611
218	1	0.778571	0.768821	92.5	176.956
219	1	0.782143	0.782366	92.5	176.294
220	1	0.785714	0.792618	92.5	175.794
221	1	0.789286	0.806422	92.5	175.12
222	1	0.792857	0.816874	92.5	174.609
223	1	0.796429	0.830953	92.5	173.922
224	1	0.8	0.841621	92.5	173.401
225	1	0.803571	0.855996	92.5	172.699
226	1	0.807143	0.87055	92.5	171.988
227	1	0.810714	0.881587	92.5	171.449
228	1	0.814286	0.896473	92.5	170.722
229	1	0.817857	0.907769	92.5	170.171
230	1	0.821429	0.923014	92.5	169.426
231	1	0.825	0.93459	92.5	168.861
232	1	0.828571	0.950222	92.5	168.097
233	1	0.832143	0.966088	92.5	167.323
234	1	0.835714	0.97815	92.5	166.734

235	1	0.839286		0.994457	92.5	165.937
236	1	0.842857		1.00687	92.5	165.331
237	1	0.846429		1.02365	92.5	164.512
238	1	0.85	1.03643	92.5	163.888	
239	1	0.853571		1.05375	92.5	163.042
240	1	0.857143		1.07138	92.5	162.181
241	1	0.860714		1.08482	92.5	161.524
242	1	0.864286		1.10306	92.5	160.634
243	1	0.867857		1.11699	92.5	159.954
244	1	0.871429		1.1359	92.5	159.03
245	1	0.875	1.15035	92.5	158.325	
246	1	0.878571		1.17	92.5	157.365
247	1	0.882143		1.19012	92.5	156.383
248	1	0.885714		1.20553	92.5	155.63
249	1	0.889286		1.22653	92.5	154.605
250	1	0.892857		1.24264	92.5	153.818
251	1	0.896429		1.26464	92.5	152.743
252	1	0.9	1.28155	92.5	151.918	
253	1.05	0.903571		1.30469	95.175	150.788
254	1.11	0.907143		1.32854	98.385	149.623
255	1.14	0.910714		1.34694	99.99	148.724
256	1.5	0.914286		1.3722	119.25	147.491
257	1.98	0.917857		1.39175	144.93	146.536
258	2	0.921429		1.41865	146	145.222
259	2	0.925	1.43953	146	144.203	
260	2.2	0.928571		1.46838	156.7	142.794
261	2.75	0.932143		1.49852	186.125	141.323
262	3.4	0.935714		1.52203	220.9	140.174
263	3.9	0.939286		1.55477	247.65	138.575
264	3.99	0.942857		1.58047	252.465	137.321
265	4	0.946429		1.61644	253	135.564
266	4.1	0.95	1.64485	258.35	134.176	
267	5.2	0.953571		1.68494	317.2	132.219
268	5.4	0.957143		1.72793	327.9	130.119
269	5.6	0.960714		1.76241	338.6	128.436
270	5.99	0.964286		1.81191	359.465	126.018
271	6.45	0.967857		1.85218	384.075	124.052
272	6.6	0.971429		1.91103	392.1	121.178
273	6.9	0.975	1.95996	408.15	118.789	
274	7.9	0.978571		2.03352	461.65	115.196
275	7.9	0.982143		2.12007	461.65	110.97
276	8.6	0.985714		2.19728	499.1	107.199
277	8.8	0.989286		2.32634	509.8	100.897
278	9.4	0.992857		2.45727	541.9	94.5032
279	10	0.996429		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 = 279

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	-2.32634	19.0003	14.8075
4	-1.96611	-2.19728	23.8283	19.1277
5	-1.96611	-2.12007	28.323	23.2959
6	-1.96611	-2.03352	32.4582	27.2941
7	-1.96611	-1.95996	36.2997	31.1476
8	-1.96611	-1.91103	39.9517	34.9049
9	-1.96611	-1.85218	43.3823	38.5465
10	-1.96611	-1.81191	46.6653	42.1089
11	-1.96611	-1.76241	49.7714	45.574
12	-1.96611	-1.72793	52.7571	48.9713
13	-1.96611	-1.68494	55.5962	52.2841
14	-1.96611	-1.64485	58.3017	55.518
15	-1.96611	-1.61644	60.9146	58.6961
16	-1.96611	-1.58047	63.4124	61.8035
17	-1.96611	-1.55477	65.8297	64.8604
18	-1.96611	-1.52203	68.1463	67.8529
19	-1.96611	-1.49852	70.3919	70.7991
20	-1.96611	-1.46838	72.548	73.6861
21	-1.96611	-1.43953	74.6203	76.5164
22	-1.96611	-1.41865	76.6329	79.3056
23	-1.96611	-1.39175	78.5698	82.042
24	-1.96611	-1.3722	80.4528	84.7399
25	-1.96611	-1.34694	82.267	87.3881
26	-1.96611	-1.32854	84.032	90.0002
27	-1.96611	-1.30469	85.7342	92.5653
28	-1.96611	-1.28155	87.3766	95.085
29	-1.96611	-1.26464	88.9759	97.5714
30	-1.96611	-1.24264	90.5201	100.015
31	-1.96611	-1.22653	92.0245	102.426
32	-1.96611	-1.20553	93.4777	104.796
33	-1.96611	-1.19012	94.8941	107.136
34	-1.96611	-1.17	96.263	109.437
35	-1.96611	-1.15035	97.5863	111.698
36	-1.96611	-1.1359	98.8766	113.932
37	-1.96611	-1.11699	100.124	116.128
38	-1.96611	-1.10306	101.341	118.296
39	-1.96611	-1.08482	102.518	120.429
40	-1.96611	-1.07138	103.666	122.536
41	-1.44817	-1.05375	104.776	124.062
42	-1.44817	-1.03643	105.85	125.563
43	-1.44817	-1.02365	106.898	127.045
44	-1.44817	-1.00687	107.912	128.503
45	-1.4065	-0.994457	108.901	129.902
46	-1.36649	-0.97815	109.858	131.239
47	-1.36649	-0.966088	110.791	132.559
48	-1.36649	-0.950222	111.694	133.857
49	-1.36649	-0.93459	112.567	135.134
50	-1.36649	-0.923014	113.419	136.396
51	-1.36649	-0.907769	114.243	137.636

52	-1.34707	-0.896473	115.047	138.844	
53	-1.34707	-0.881587	115.824	140.031	
54	-1.32803	-0.87055	116.582	141.187	
55	-1.27297	-0.855996	117.315	142.277	
56	-1.27297	-0.841621	118.023	143.348	
57	-1.20397	-0.830953	118.714	144.349	
58	-1.17118	-0.816874	119.381	145.306	
59	-1.13943	-0.806422	120.031	146.224	
60	-1.02165	-0.792618	120.659	147.034	
61	-0.994252	-0.782366	121.272	147.812	
62	-0.994252	-0.768821	121.863	148.576	
63	-0.994252	-0.755415	122.433	149.327	
64	-0.994252	-0.745449	122.989	150.069	
65	-0.994252	-0.732275	123.525	150.797	
66	-0.994252	-0.722479	124.047	151.515	
67	-0.994252	-0.709522	124.551	152.22	
68	-0.994252	-0.699883	125.04	152.916	
69	-0.994252	-0.687131	125.513	153.6	
70	-0.994252	-0.67449	125.968	154.27	
71	-0.994252	-0.665079	126.41	154.931	
72	-0.994252	-0.652622	126.836	155.58	
73	-0.994252	-0.643345	127.25	156.22	
74	-0.994252	-0.631062	127.648	156.847	
75	-0.994252	-0.621911	128.035	157.466	
76	-0.967584	-0.609791	128.406	158.056	
77	-0.967584	-0.597761	128.764	158.634	
78	-0.941609	-0.588793	129.11	159.189	
79	-0.941609	-0.576911	129.443	159.732	
80	-0.916291	-0.568052	129.766	160.252	
81	-0.84397	-0.556308	130.075	160.722	
82	-0.84397	-0.547551	130.375	161.184	
83	-0.820981	-0.53594	130.663	161.624	
84	-0.755023	-0.524401	130.938	162.02	
85	-0.733969	-0.515791	131.204	162.398	
86	-0.71335	-0.504372	131.458	162.758	
87	-0.71335	-0.49585	131.704	163.112	
88	-0.71335	-0.484544	131.939	163.458	
89	-0.673345	-0.476105	132.165	163.778	
90	-0.653926	-0.464904	132.381	164.082	
91	-0.616186	-0.453763	132.587	164.362	
92	-0.616186	-0.445443	132.786	164.636	
93	-0.616186	-0.434397	132.974	164.904	
94	-0.510826	-0.426148	133.156	165.122	
95	-0.494296	-0.415193	133.328	165.327	
96	-0.478036	-0.40701	133.494	165.521	
97	-0.415515	-0.396142	133.651	165.686	
98	-0.274437	-0.385321	133.799	165.792	
99	-0.248461	-0.377233	133.942	165.885	
100	-0.174353	-0.36649	134.076	165.949	
101	-0.0943107	-0.358459	134.205	165.983	
102	-0.0304592	-0.347787	134.326	165.994	
103	-0.0304592	-0.33981	134.441	166.004	
104	0	-0.329206	134.549	166.004	
105	0	-0.318639	134.651	166.004	
106	0	-0.310738	134.747	166.004	
107	0	-0.300232	134.838	166.004	
108	0	-0.292375	134.923	166.004	
109	0	-0.281926	135.003	166.004	
110	0	-0.27411	135.078	166.004	
111	0	-0.263715	135.147	166.004	
112	0	-0.253347	135.211	166.004	
113	0	-0.24559	135.272	166.004	

114	0	-0.235269	135.327	166.004
115	0	-0.227545	135.379	166.004
116	0	-0.217267	135.426	166.004
117	0	-0.209575	135.47	166.004
118	0	-0.199336	135.51	166.004
119	0	-0.189118	135.546	166.004
120	0	-0.181468	135.578	166.004
121	0	-0.171285	135.608	166.004
122	0	-0.163659	135.635	166.004
123	0	-0.153505	135.658	166.004
124	0	-0.1459	135.679	166.004
125	0	-0.135774	135.698	166.004
126	0	-0.125661	135.714	166.004
127	0	-0.118085	135.728	166.004
128	0	-0.107995	135.739	166.004
129	0	-0.100433	135.749	166.004
130	0	-0.0903606	135.758	166.004
131	0	-0.0828129	135.764	166.004
132	0	-0.0727562	135.77	166.004
133	0	-0.0627062	135.774	166.004
134	0	-0.0551734	135.777	166.004
135	0	-0.0451348	135.779	166.004
136	0	-0.0376076	135.78	166.004
137	0	-0.0275759	135.781	166.004
138	0	-0.0200544	135.781	166.004
139	0	-0.0100272	135.781	166.004
140	0	0	135.781	166.004
141	0	0.0100272	135.781	166.004
142	0	0.0200544	135.782	166.004
143	0	0.0275759	135.783	166.004
144	0	0.0376076	135.784	166.004
145	0	0.0451348	135.786	166.004
146	0	0.0551734	135.789	166.004
147	0	0.0627062	135.793	166.004
148	0	0.0727562	135.798	166.004
149	0	0.0828129	135.805	166.004
150	0	0.0903606	135.813	166.004
151	0	0.100433	135.823	166.004
152	0	0.107995	135.835	166.004
153	0	0.118085	135.849	166.004
154	0	0.125661	135.865	166.004
155	0	0.135774	135.883	166.004
156	0	0.1459	135.905	166.004
157	0	0.153505	135.928	166.004
158	0	0.163659	135.955	166.004
159	0	0.171285	135.984	166.004
160	0	0.181468	136.017	166.004
161	0	0.189118	136.053	166.004
162	0	0.199336	136.093	166.004
163	0	0.209575	136.137	166.004
164	0	0.217267	136.184	166.004
165	0	0.227545	136.236	166.004
166	0	0.235269	136.291	166.004
167	0	0.24559	136.351	166.004
168	0	0.253347	136.415	166.004
169	0	0.263715	136.485	166.004
170	0	0.27411	136.56	166.004
171	0	0.281926	136.64	166.004
172	0	0.292375	136.725	166.004
173	0	0.300232	136.815	166.004
174	0	0.310738	136.912	166.004
175	0	0.318639	137.013	166.004

176	0	0.329206	137.122	166.004
177	0	0.33981	137.237	166.004
178	0	0.347787	137.358	166.004
179	0	0.358459	137.487	166.004
180	0	0.36649	137.621	166.004
181	0	0.377233	137.763	166.004
182	0	0.385321	137.912	166.004
183	0	0.396142	138.069	166.004
184	0	0.40701	138.234	166.004
185	0	0.415193	138.407	166.004
186	0	0.426148	138.588	166.004
187	0	0.434397	138.777	166.004
188	0	0.445443	138.975	166.004
189	0	0.453763	139.181	166.004
190	0	0.464904	139.397	166.004
191	0	0.476105	139.624	166.004
192	0	0.484544	139.859	166.004
193	0	0.49585	140.105	166.004
194	0	0.504372	140.359	166.004
195	0	0.515791	140.625	166.004
196	0	0.524401	140.9	166.004
197	0	0.53594	141.187	166.004
198	0	0.547551	141.487	166.004
199	0	0.556308	141.797	166.004
200	0	0.568052	142.119	166.004
201	0	0.576911	142.452	166.004
202	0	0.588793	142.799	166.004
203	0	0.597761	143.156	166.004
204	0	0.609791	143.528	166.004
205	0	0.621911	143.915	166.004
206	0	0.631062	144.313	166.004
207	0	0.643345	144.727	166.004
208	0	0.652622	145.153	166.004
209	0	0.665079	145.595	166.004
210	0	0.67449	146.05	166.004
211	0	0.687131	146.522	166.004
212	0	0.699883	147.012	166.004
213	0	0.709522	147.516	166.004
214	0	0.722479	148.038	166.004
215	0	0.732275	148.574	166.004
216	0	0.745449	149.129	166.004
217	0	0.755415	149.7	166.004
218	0	0.768821	150.291	166.004
219	0	0.782366	150.903	166.004
220	0	0.792618	151.532	166.004
221	0	0.806422	152.182	166.004
222	0	0.816874	152.849	166.004
223	0	0.830953	153.54	166.004
224	0	0.841621	154.248	166.004
225	0	0.855996	154.981	166.004
226	0	0.87055	155.739	166.004
227	0	0.881587	156.516	166.004
228	0	0.896473	157.319	166.004
229	0	0.907769	158.143	166.004
230	0	0.923014	158.995	166.004
231	0	0.93459	159.869	166.004
232	0	0.950222	160.772	166.004
233	0	0.966088	161.705	166.004
234	0	0.97815	162.662	166.004
235	0	0.994457	163.651	166.004
236	0	1.00687	164.665	166.004
237	0	1.02365	165.712	166.004

238	0	1.03643	166.787	166.004	
239	0	1.05375	167.897	166.004	
240	0	1.07138	169.045	166.004	
241	0	1.08482	170.222	166.004	
242	0	1.10306	171.438	166.004	
243	0	1.11699	172.686	166.004	
244	0	1.1359	173.976	166.004	
245	0	1.15035	175.3	166.004	
246	0	1.17	176.669	166.004	
247	0	1.19012	178.085	166.004	
248	0	1.20553	179.538	166.004	
249	0	1.22653	181.043	166.004	
250	0	1.24264	182.587	166.004	
251	0	1.26464	184.186	166.004	
252	0	1.28155	185.828	166.004	
253	0.0487902		1.30469	187.531	166.068
254	0.10436	1.32854	189.296	166.206	
255	0.131028		1.34694	191.11	166.383
256	0.405465		1.3722	192.993	166.939
257	0.683097		1.39175	194.93	167.89
258	0.693147		1.41865	196.942	168.873
259	0.693147		1.43953	199.015	169.871
260	0.788457		1.46838	201.171	171.029
261	1.0116	1.49852	203.416	172.545	
262	1.22378	1.52203	205.733	174.407	
263	1.36098	1.55477	208.15	176.523	
264	1.38379	1.58047	210.648	178.71	
265	1.38629	1.61644	213.261	180.951	
266	1.41099	1.64485	215.967	183.272	
267	1.64866	1.68494	218.806	186.05	
268	1.6864	1.72793	221.791	188.964	
269	1.72277	1.76241	224.897	192	
270	1.79009	1.81191	228.18	195.244	
271	1.86408	1.85218	231.611	198.696	
272	1.88707	1.91103	235.263	202.303	
273	1.93152	1.95996	239.104	206.088	
274	2.06686	2.03352	243.24	210.291	
275	2.06686	2.12007	247.734	214.673	
276	2.15176	2.19728	252.562	219.401	
277	2.17475	2.32634	257.974	224.46	
278	2.24071	2.45727	264.013	229.966	
279	2.30259	2.74777	271.563	236.293	

Data Set Standard Deviation = 0.937762
Numerator = 55834.6
Denominator = 66389.6
W Statistic = 0.841014 = 55834.6 / 66389.6

5% Critical value of 0.976 exceeds 0.841014
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.841014
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 = 0.917059
0.917059 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.96611	0.00357143	-2.74777	42.6259	348.683
2	-1.96611	0.00714286	-2.45727	42.6259	334.497
3	-1.96611	0.0107143	-2.32634	42.6259	328.103
4	-1.96611	0.0142857	-2.19728	42.6259	321.801
5	-1.96611	0.0178571	-2.12007	42.6259	318.03
6	-1.96611	0.0214286	-2.03352	42.6259	313.804
7	-1.96611	0.025	-1.95996	42.6259	310.211
8	-1.96611	0.0285714	-1.91103	42.6259	307.822
9	-1.96611	0.0321429	-1.85218	42.6259	304.948
10	-1.96611	0.0357143	-1.81191	42.6259	302.982
11	-1.96611	0.0392857	-1.76241	42.6259	300.564
12	-1.96611	0.0428571	-1.72793	42.6259	298.881
13	-1.96611	0.0464286	-1.68494	42.6259	296.781
14	-1.96611	0.05	-1.64485	42.6259	294.824
15	-1.96611	0.0535714	-1.61644	42.6259	293.436
16	-1.96611	0.0571429	-1.58047	42.6259	291.679
17	-1.96611	0.0607143	-1.55477	42.6259	290.425
18	-1.96611	0.0642857	-1.52203	42.6259	288.826
19	-1.96611	0.0678571	-1.49852	42.6259	287.677
20	-1.96611	0.0714286	-1.46838	42.6259	286.206
21	-1.96611	0.075	-1.43953	42.6259	284.797
22	-1.96611	0.0785714	-1.41865	42.6259	283.778
23	-1.96611	0.0821429	-1.39175	42.6259	282.464
24	-1.96611	0.0857143	-1.3722	42.6259	281.509
25	-1.96611	0.0892857	-1.34694	42.6259	280.276
26	-1.96611	0.0928571	-1.32854	42.6259	279.377
27	-1.96611	0.0964286	-1.30469	42.6259	278.212
28	-1.96611	0.1	-1.28155	42.6259	277.082
29	-1.96611	0.103571	-1.26464	42.6259	276.257
30	-1.96611	0.107143	-1.24264	42.6259	275.182
31	-1.96611	0.110714	-1.22653	42.6259	274.395
32	-1.96611	0.114286	-1.20553	42.6259	273.37
33	-1.96611	0.117857	-1.19012	42.6259	272.617
34	-1.96611	0.121429	-1.17	42.6259	271.635
35	-1.96611	0.125	-1.15035	42.6259	270.675
36	-1.96611	0.128571	-1.1359	42.6259	269.97
37	-1.96611	0.132143	-1.11699	42.6259	269.046
38	-1.96611	0.135714	-1.10306	42.6259	268.366
39	-1.96611	0.139286	-1.08482	42.6259	267.476
40	-1.96611	0.142857	-1.07138	42.6259	266.819
41	-1.44817	0.146429	-1.05375	98.0458	265.958
42	-1.44817	0.15	-1.03643	98.0458	265.112
43	-1.44817	0.153571	-1.02365	98.0458	264.488
44	-1.44817	0.157143	-1.00687	98.0458	263.669
45	-1.4065	0.160714	-0.994457	102.505	263.063
46	-1.36649	0.164286	-0.97815	106.785	262.266
47	-1.36649	0.167857	-0.966088	106.785	261.677
48	-1.36649	0.171429	-0.950222	106.785	260.903

49	-1.36649	0.175	-0.93459	106.785	260.139
50	-1.36649	0.178571	-0.923014	106.785	259.574
51	-1.36649	0.182143	-0.907769	106.785	258.829
52	-1.34707	0.185714	-0.896473	108.863	258.278
53	-1.34707	0.189286	-0.881587	108.863	257.551
54	-1.32803	0.192857	-0.87055	110.901	257.012
55	-1.27297	0.196429	-0.855996	116.793	256.301
56	-1.27297	0.2	-0.841621	116.793	255.599
57	-1.20397	0.203571	-0.830953	124.175	255.078
58	-1.17118	0.207143	-0.816874	127.683	254.391
59	-1.13943	0.210714	-0.806422	131.081	253.88
60	-1.02165	0.214286	-0.792618	143.683	253.206
61	-0.994252	0.217857	-0.782366	146.615	252.706
62	-0.994252	0.221429	-0.768821	146.615	252.044
63	-0.994252	0.225	-0.755415	146.615	251.389
64	-0.994252	0.228571	-0.745449	146.615	250.903
65	-0.994252	0.232143	-0.732275	146.615	250.259
66	-0.994252	0.235714	-0.722479	146.615	249.781
67	-0.994252	0.239286	-0.709522	146.615	249.148
68	-0.994252	0.242857	-0.699883	146.615	248.678
69	-0.994252	0.246429	-0.687131	146.615	248.055
70	-0.994252	0.25	-0.67449	146.615	247.438
71	-0.994252	0.253571	-0.665079	146.615	246.978
72	-0.994252	0.257143	-0.652622	146.615	246.37
73	-0.994252	0.260714	-0.643345	146.615	245.917
74	-0.994252	0.264286	-0.631062	146.615	245.317
75	-0.994252	0.267857	-0.621911	146.615	244.87
76	-0.967584	0.271429	-0.609791	149.469	244.278
77	-0.967584	0.275	-0.597761	149.469	243.691
78	-0.941609	0.278571	-0.588793	152.248	243.253
79	-0.941609	0.282143	-0.576911	152.248	242.672
80	-0.916291	0.285714	-0.568052	154.957	242.24
81	-0.84397	0.289286	-0.556308	162.695	241.666
82	-0.84397	0.292857	-0.547551	162.695	241.239
83	-0.820981	0.296429	-0.53594	165.155	240.672
84	-0.755023	0.3	-0.524401	172.213	240.108
85	-0.733969	0.303571	-0.515791	174.465	239.688
86	-0.71335	0.307143	-0.504372	176.672	239.13
87	-0.71335	0.310714	-0.49585	176.672	238.714
88	-0.71335	0.314286	-0.484544	176.672	238.162
89	-0.673345	0.317857	-0.476105	180.952	237.75
90	-0.653926	0.321429	-0.464904	183.03	237.203
91	-0.616186	0.325	-0.453763	187.068	236.659
92	-0.616186	0.328571	-0.445443	187.068	236.252
93	-0.616186	0.332143	-0.434397	187.068	235.713
94	-0.510826	0.335714	-0.426148	198.342	235.31
95	-0.494296	0.339286	-0.415193	200.11	234.775
96	-0.478036	0.342857	-0.40701	201.85	234.376
97	-0.415515	0.346429	-0.396142	208.54	233.845
98	-0.274437	0.35	-0.385321	223.635	233.317
99	-0.248461	0.353571	-0.377233	226.415	232.922
100	-0.174353	0.357143	-0.36649	234.344	232.397
101	-0.0943107	0.360714	-0.358459	242.909	232.005
102	-0.0304592	0.364286	-0.347787	249.741	231.484
103	-0.0304592	0.367857	-0.33981	249.741	231.094
104	0	0.371429	-0.329206	253	230.576
105	0	0.375	-0.318639	253	230.06
106	0	0.378571	-0.310738	253	229.674
107	0	0.382143	-0.300232	253	229.161
108	0	0.385714	-0.292375	253	228.778
109	0	0.389286	-0.281926	253	228.267
110	0	0.392857	-0.27411	253	227.886

111	0	0.396429	-0.263715	253	227.378
112	0	0.4	-0.253347	253	226.872
113	0	0.403571	-0.24559	253	226.493
114	0	0.407143	-0.235269	253	225.989
115	0	0.410714	-0.227545	253	225.612
116	0	0.414286	-0.217267	253	225.11
117	0	0.417857	-0.209575	253	224.734
118	0	0.421429	-0.199336	253	224.234
119	0	0.425	-0.189118	253	223.735
120	0	0.428571	-0.181468	253	223.362
121	0	0.432143	-0.171285	253	222.864
122	0	0.435714	-0.163659	253	222.492
123	0	0.439286	-0.153505	253	221.996
124	0	0.442857	-0.1459	253	221.625
125	0	0.446429	-0.135774	253	221.13
126	0	0.45	-0.125661	253	220.636
127	0	0.453571	-0.118085	253	220.267
128	0	0.457143	-0.107995	253	219.774
129	0	0.460714	-0.100433	253	219.404
130	0	0.464286	-0.0903606	253	218.913
131	0	0.467857	-0.0828129	253	218.544
132	0	0.471429	-0.0727562	253	218.053
133	0	0.475	-0.0627062	253	217.562
134	0	0.478571	-0.0551734	253	217.194
135	0	0.482143	-0.0451348	253	216.704
136	0	0.485714	-0.0376076	253	216.337
137	0	0.489286	-0.0275759	253	215.847
138	0	0.492857	-0.0200544	253	215.479
139	0	0.496429	-0.0100272	253	214.99
140	0	0.5	0	253	214.5
141	0	0.503571	0.0100272	253	214.01
142	0	0.507143	0.0200544	253	213.521
143	0	0.510714	0.0275759	253	213.153
144	0	0.514286	0.0376076	253	212.663
145	0	0.517857	0.0451348	253	212.296
146	0	0.521429	0.0551734	253	211.806
147	0	0.525	0.0627062	253	211.438
148	0	0.528571	0.0727562	253	210.947
149	0	0.532143	0.0828129	253	210.456
150	0	0.535714	0.0903606	253	210.087
151	0	0.539286	0.100433	253	209.596
152	0	0.542857	0.107995	253	209.226
153	0	0.546429	0.118085	253	208.733
154	0	0.55	0.125661	253	208.364
155	0	0.553571	0.135774	253	207.87
156	0	0.557143	0.1459	253	207.375
157	0	0.560714	0.153505	253	207.004
158	0	0.564286	0.163659	253	206.508
159	0	0.567857	0.171285	253	206.136
160	0	0.571429	0.181468	253	205.638
161	0	0.575	0.189118	253	205.265
162	0	0.578571	0.199336	253	204.766
163	0	0.582143	0.209575	253	204.266
164	0	0.585714	0.217267	253	203.89
165	0	0.589286	0.227545	253	203.388
166	0	0.592857	0.235269	253	203.011
167	0	0.596429	0.24559	253	202.507
168	0	0.6	0.253347	253	202.128
169	0	0.603571	0.263715	253	201.622
170	0	0.607143	0.27411	253	201.114
171	0	0.610714	0.281926	253	200.733
172	0	0.614286	0.292375	253	200.222

173	0	0.617857	0.300232	253	199.839
174	0	0.621429	0.310738	253	199.326
175	0	0.625	0.318639	253	198.94
176	0	0.628571	0.329206	253	198.424
177	0	0.632143	0.33981	253	197.906
178	0	0.635714	0.347787	253	197.516
179	0	0.639286	0.358459	253	196.995
180	0	0.642857	0.36649	253	196.603
181	0	0.646429	0.377233	253	196.078
182	0	0.65	0.385321	253	195.683
183	0	0.653571	0.396142	253	195.155
184	0	0.657143	0.40701	253	194.624
185	0	0.660714	0.415193	253	194.225
186	0	0.664286	0.426148	253	193.69
187	0	0.667857	0.434397	253	193.287
188	0	0.671429	0.445443	253	192.748
189	0	0.675	0.453763	253	192.341
190	0	0.678571	0.464904	253	191.797
191	0	0.682143	0.476105	253	191.25
192	0	0.685714	0.484544	253	190.838
193	0	0.689286	0.49585	253	190.286
194	0	0.692857	0.504372	253	189.87
195	0	0.696429	0.515791	253	189.312
196	0	0.7	0.524401	253	188.892
197	0	0.703571	0.53594	253	188.328
198	0	0.707143	0.547551	253	187.761
199	0	0.710714	0.556308	253	187.334
200	0	0.714286	0.568052	253	186.76
201	0	0.717857	0.576911	253	186.328
202	0	0.721429	0.588793	253	185.747
203	0	0.725	0.597761	253	185.309
204	0	0.728571	0.609791	253	184.722
205	0	0.732143	0.621911	253	184.13
206	0	0.735714	0.631062	253	183.683
207	0	0.739286	0.643345	253	183.083
208	0	0.742857	0.652622	253	182.63
209	0	0.746429	0.665079	253	182.022
210	0	0.75	0.67449	253	181.562
211	0	0.753571	0.687131	253	180.945
212	0	0.757143	0.699883	253	180.322
213	0	0.760714	0.709522	253	179.852
214	0	0.764286	0.722479	253	179.219
215	0	0.767857	0.732275	253	178.741
216	0	0.771429	0.745449	253	178.097
217	0	0.775	0.755415	253	177.611
218	0	0.778571	0.768821	253	176.956
219	0	0.782143	0.782366	253	176.294
220	0	0.785714	0.792618	253	175.794
221	0	0.789286	0.806422	253	175.12
222	0	0.792857	0.816874	253	174.609
223	0	0.796429	0.830953	253	173.922
224	0	0.8	0.841621	253	173.401
225	0	0.803571	0.855996	253	172.699
226	0	0.807143	0.87055	253	171.988
227	0	0.810714	0.881587	253	171.449
228	0	0.814286	0.896473	253	170.722
229	0	0.817857	0.907769	253	170.171
230	0	0.821429	0.923014	253	169.426
231	0	0.825	0.93459	253	168.861
232	0	0.828571	0.950222	253	168.097
233	0	0.832143	0.966088	253	167.323
234	0	0.835714	0.97815	253	166.734

235	0	0.839286		0.994457		253	165.937
236	0	0.842857		1.00687	253	165.331	
237	0	0.846429		1.02365	253	164.512	
238	0	0.85	1.03643	253	163.888		
239	0	0.853571		1.05375	253	163.042	
240	0	0.857143		1.07138	253	162.181	
241	0	0.860714		1.08482	253	161.524	
242	0	0.864286		1.10306	253	160.634	
243	0	0.867857		1.11699	253	159.954	
244	0	0.871429		1.1359	253	159.03	
245	0	0.875	1.15035	253	158.325		
246	0	0.878571		1.17	253	157.365	
247	0	0.882143		1.19012	253	156.383	
248	0	0.885714		1.20553	253	155.63	
249	0	0.889286		1.22653	253	154.605	
250	0	0.892857		1.24264	253	153.818	
251	0	0.896429		1.26464	253	152.743	
252	0	0.9	1.28155	253	151.918		
253	0.0487902		0.903571		1.30469	258.221	150.788
254	0.10436	0.907143		1.32854	264.167	149.623	
255	0.131028		0.910714		1.34694	267.02	148.724
256	0.405465		0.914286		1.3722	296.385	147.491
257	0.683097		0.917857		1.39175	326.091	146.536
258	0.693147		0.921429		1.41865	327.167	145.222
259	0.693147		0.925	1.43953	327.167	144.203	
260	0.788457		0.928571		1.46838	337.365	142.794
261	1.0116	0.932143		1.49852	361.241	141.323	
262	1.22378	0.935714		1.52203	383.944	140.174	
263	1.36098	0.939286		1.55477	398.624	138.575	
264	1.38379	0.942857		1.58047	401.066	137.321	
265	1.38629	0.946429		1.61644	401.333	135.564	
266	1.41099	0.95	1.64485	403.976	134.176		
267	1.64866	0.953571		1.68494	429.406	132.219	
268	1.6864	0.957143		1.72793	433.445	130.119	
269	1.72277	0.960714		1.76241	437.336	128.436	
270	1.79009	0.964286		1.81191	444.54	126.018	
271	1.86408	0.967857		1.85218	452.457	124.052	
272	1.88707	0.971429		1.91103	454.916	121.178	
273	1.93152	0.975	1.95996	459.673	118.789		
274	2.06686	0.978571		2.03352	474.154	115.196	
275	2.06686	0.982143		2.12007	474.154	110.97	
276	2.15176	0.985714		2.19728	483.239	107.199	
277	2.17475	0.989286		2.32634	485.698	100.897	
278	2.24071	0.992857		2.45727	492.756	94.5032	
279	2.30259	0.996429		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	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<-1.96611	110.5
	11/16/2009	ND<-1.36649	110.5
	6/30/2010	ND<-1.96611	110.5
	6/30/2010	ND<-0.994252	110.5
	11/12/2010	ND<-0.994252 U	110.5
	11/12/2010	ND<-1.96611 U	110.5
	7/5/2011	ND<-1.96611 U	110.5

Rank Sum = 2320.5
Rank Mean = 110.5

Background Rank Sum = 2320.5
Background Rank Mean = 110.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<0	110.5
	8/24/1995	-0.673345 J	238
	9/28/1995	-0.510826 J	243
	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	-0.0943107 J	250
	10/25/2005	-0.616186 J	240
	4/29/2006	-0.84397 J	230

	11/18/2006	-0.916291	J	229
	5/23/2007	ND<0	110.5	
	11/28/2007	-0.415515	J	246
	6/5/2008	-0.755023	J	233
	11/20/2008	-0.616186	J	241
	6/11/2009	-0.820981	J	232
	11/16/2009	ND<-1.36649	110.5	
	6/30/2010	-0.0304592	J	251
	6/30/2010	ND<-0.967584	110.5	
	11/12/2010	ND<-0.994252	U	110.5
	11/12/2010	ND<-1.96611	U	110.5
	7/5/2011	-1.17118	J	224
	11/22/2011	ND<-1.96611	U	110.5
	11/22/2011	ND<-1.96611	U	110.5
	6/5/2012	ND<-1.34707	U	110.5
	6/5/2012	-0.994252	J	227

Rank Sum = 5515
Rank Mean = 157.571

MW-10	7/20/1995	ND<0	110.5	
	8/24/1995	0.405465	J	256
	9/28/1995	1.38629		265
	10/26/1995	0.693147		258
	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	2.17475		277
	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	1.0116	261	
	10/25/2005	1.38379		264
	4/29/2006	1.72277		269
	11/18/2006	1.36098		263
	5/23/2007	1.41099		266
	11/28/2007	1.79009		270
	6/5/2008	1.86408	271	
	11/20/2008	ND<0	110.5	
	6/11/2009	1.22378		262
	11/16/2009	1.93152	J	273
	6/30/2010	1.64866		267
	6/30/2010	ND<-0.994252		110.5
	11/12/2010	2.15176		276
	11/12/2010	ND<-0.994252	U	110.5
	7/5/2011	2.30259	279	
	11/22/2011	2.06686		274
	11/22/2011	2.06686		275
	6/5/2012	2.24071	278	
	6/5/2012	1.88707	J	272

Rank Sum = 7033.5
Rank Mean = 200.957

MW-11R	7/20/1995	ND<0	110.5	
	8/24/1995	0.788457		260
	9/28/1995	0.693147		259
	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	1.6864	268	
	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	-1.20397 J	223	
	6/5/2008	ND<0	110.5	
	11/20/2008	ND<0	110.5	
	6/11/2009	-0.733969 J	234	
	11/16/2009	ND<-1.44817	110.5	
	6/30/2010	ND<-0.994252	110.5	
	6/30/2010	-0.994252 J	228	
	11/12/2010	ND<-0.994252 U	110.5	
	11/12/2010	ND<-1.96611 U	110.5	
	7/5/2011	ND<-1.96611 U	110.5	
	11/22/2011	ND<-1.96611 U	110.5	
	11/22/2011	ND<-1.96611 U	110.5	
	6/5/2012	ND<-1.96611 U	110.5	
	6/5/2012	ND<-1.34707 U	110.5	

Rank Sum = 4676.5
Rank Mean = 133.614

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	-1.27297 J	221	
	4/29/2006	-1.02165 J	226	
	11/18/2006	-0.84397 J	231	
	5/23/2007	ND<0	110.5	
	11/28/2007	-1.27297 J	222	
	6/5/2008	-1.13943 J	225	
	11/20/2008	ND<0	110.5	
	6/11/2009	-0.478036 J	245	
	6/30/2010	ND<-1.96611	110.5	
	11/12/2010	-0.274437 J	247	
	7/5/2011	-0.653926 J	239	
	11/22/2011	-0.71335 J	235	

	11/22/2011	-0.71335 J	236
	6/5/2012	-0.616186 J	242
	6/5/2012	ND<-1.36649 U	110.5

Rank Sum = 4889.5
Rank Mean = 152.797

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<-1.96611	110.5
	11/16/2009	ND<-1.36649	110.5
	6/30/2010	ND<-1.96611	110.5
	6/30/2010	ND<-0.994252	110.5
	11/12/2010	ND<-0.994252 U	110.5
	11/12/2010	ND<-1.96611 U	110.5
	7/5/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	6/5/2012	ND<-1.96611 U	110.5
	6/5/2012	ND<-1.32803 U	110.5

Rank Sum = 3867.5
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<-1.96611	110.5
	11/16/2009	ND<-1.44817	110.5
	6/30/2010	ND<-1.96611	110.5
	6/30/2010	ND<-0.967584	110.5
	11/12/2010	ND<-1.96611 U	110.5
	11/12/2010	ND<-0.994252 U	110.5
	7/5/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	6/5/2012	ND<-1.36649 U	110.5
	6/5/2012	ND<-1.96611 U	110.5

Rank Sum = 3867.5
Rank Mean = 110.5

MW-12AR	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	0.0487902 J	253
	4/29/2006	0.131028 J	255
	11/18/2006	-0.174353 J	249
	5/23/2007	ND<0	110.5
	11/28/2007	-0.248461 J	248
	6/5/2008	-0.0304592 J	252
	11/20/2008	-0.71335 J	237
	6/11/2009	ND<-1.96611	110.5
	11/16/2009	ND<-1.44817	110.5
	6/30/2010	ND<-0.994252	110.5
	6/30/2010	ND<-1.96611	110.5
	11/12/2010	ND<-0.994252 U	110.5
	11/12/2010	-0.494296 J	244
	7/5/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	11/22/2011	ND<-1.96611 U	110.5
	6/5/2012	ND<-1.96611 U	110.5
	6/5/2012	ND<-1.36649 U	110.5

Rank Sum = 3727
Rank Mean = 149.08

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	0.10436 J	254
	10/25/2005	ND<0	110.5
	4/29/2006	0.683097 J	257
	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<-1.96611	110.5
11/16/2009	ND<-1.44817	110.5
6/30/2010	ND<-1.96611	110.5
6/30/2010	ND<-0.994252	110.5
11/12/2010	ND<-0.941609 U	110.5
11/12/2010	ND<-1.96611 U	110.5
11/12/2010	ND<-0.941609 U	110.5
7/5/2011	ND<-1.96611 U	110.5
11/22/2011	ND<-1.96611 U	110.5
11/22/2011	ND<-1.96611 U	110.5
6/5/2012	ND<-1.96611 U	110.5
6/5/2012	ND<-1.4065 U	110.5

Rank Sum = 3163
Rank Mean = 121.654

Calculation Results:

Kruskal-Wallis H Statistic = 36.4871
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 71.5839
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
36.4871 > 15.5073 indicating a significant group difference at 5% significance level
71.5839 > 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-9	**157.571**	**47.0714**	**51.8101**
MW-10	**200.957**	**90.4571**	**51.8101**
MW-11R	**133.614**	**23.1143**	**51.8101**
MW-8	**152.797**	**42.2969**	**52.713**
MW-6	**110.5**	**0**	**51.8101**
MW-7	**110.5**	**0**	**51.8101**
MW-12AR	**149.08**	**38.58**	**55.5601**
MW-12BR	**121.654**	**11.1538**	**55.0702**

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-9	**157.571**	**47.0714**	**55.9479**
MW-10	**200.957**	**90.4571**	**55.9479**
MW-11R	**133.614**	**23.1143**	**55.9479**
MW-8	**152.797**	**42.2969**	**56.9228**
MW-6	**110.5**	**0**	**55.9479**
MW-7	**110.5**	**0**	**55.9479**
MW-12AR	**149.08**	**38.58**	**59.9974**
MW-12BR	**121.654**	**11.1538**	**59.4683**

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			
1.64866 (6/30/2010)	ND<0 (7/20/1995)	(1.64866 - 0)/(27 - 1)	
0.0634099			
ND<-0.994252 (6/30/2010)	ND<0 (7/20/1995)	(-0.994252 - 0)/(27 - 1)	
-0.0382405			
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
2.24071 (6/5/2012) ND<0 (7/20/1995) (2.24071 - 0)/(31 - 1)
0.0746903
1.88707 J (6/5/2012) ND<0 (7/20/1995) (1.88707 - 0)/(31 - 1)
0.0629023

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
1.64866 (6/30/2010) 0.405465 J (8/24/1995) (1.64866 - 0.405465)/(27 - 2)
0.0497277
ND<-0.994252 (6/30/2010) 0.405465 J (8/24/1995) (-0.994252 - 0.405465)/(27 - 2)
-0.0559887
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		
2.24071 (6/5/2012)	0.405465 J (8/24/1995)	(2.24071 - 0.405465)/(31 - 2)
0.0632843		
1.88707 J (6/5/2012)	0.405465 J (8/24/1995)	(1.88707 - 0.405465)/(31 - 2)
0.0510898		
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		
1.64866 (6/30/2010)	1.38629 (9/28/1995)	(1.64866 - 1.38629)/(27 - 3)
0.0109318		

ND<-0.994252 (6/30/2010) 1.38629 (9/28/1995) (-0.994252 - 1.38629)/(27 - 3)
-0.0991894
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
2.24071 (6/5/2012) 1.38629 (9/28/1995) (2.24071 - 1.38629)/(31 - 3)
0.0305148
1.88707 J (6/5/2012) 1.38629 (9/28/1995) (1.88707 - 1.38629)/(31 - 3)
0.0178848

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

1.64866 (6/30/2010) 0.693147 (10/26/1995) (1.64866 - 0.693147)/(27 - 4)
0.041544
ND<-0.994252 (6/30/2010) 0.693147 (10/26/1995) (-0.994252 - 0.693147)/(27 - 4)
-0.0733652
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
2.24071 (6/5/2012) 0.693147 (10/26/1995) (2.24071 - 0.693147)/(31 - 4)
0.0573171
1.88707 J (6/5/2012) 0.693147 (10/26/1995) (1.88707 - 0.693147)/(31 - 4)
0.0442194

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)
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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)
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1.79009 (11/28/2007) ND<0 (11/19/1996) (1.79009 - 0)/(22 - 5)
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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
1.64866 (6/30/2010) ND<0 (11/19/1996) (1.64866 - 0)/(27 - 5)
0.074939
ND<-0.994252 (6/30/2010) ND<0 (11/19/1996) (-0.994252 - 0)/(27 - 5)
-0.0451933
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)
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2.30259 (7/5/2011) ND<0 (11/19/1996) (2.30259 - 0)/(29 - 5)
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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					
2.24071 (6/5/2012)	ND<0 (11/19/1996)	(2.24071 - 0)/(31 - 5)			
0.0861811					
1.88707 J (6/5/2012)	ND<0 (11/19/1996)	(1.88707 - 0)/(31 - 5)			
0.0725796					
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					
1.64866 (6/30/2010)	ND<0 (12/19/1996)	(1.64866 - 0)/(27 - 6)			
0.0785076					
ND<-0.994252 (6/30/2010)	ND<0 (12/19/1996)	(-0.994252 - 0)/(27 - 6)			
-0.0473453					
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)			
-0.0451933					
2.30259 (7/5/2011)	ND<0 (12/19/1996)	(2.30259 - 0)/(29 - 6)			
0.100112					
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					
2.24071 (6/5/2012)	ND<0 (12/19/1996)	(2.24071 - 0)/(31 - 6)			
0.0896284					
1.88707 J (6/5/2012)	ND<0 (12/19/1996)	(1.88707 - 0)/(31 - 6)			
0.0754828					
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)
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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)
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1.79009 (11/28/2007) ND<0 (3/24/1997) (1.79009 - 0)/(22 - 7)
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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)
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1.93152 J (11/16/2009) ND<0 (3/24/1997) (1.93152 - 0)/(26 - 7)
0.101659
1.64866 (6/30/2010) ND<0 (3/24/1997) (1.64866 - 0)/(27 - 7)
0.0824329
ND<-0.994252 (6/30/2010) ND<0 (3/24/1997) (-0.994252 - 0)/(27 - 7)
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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)
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2.30259 (7/5/2011) ND<0 (3/24/1997) (2.30259 - 0)/(29 - 7)
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2.06686 (11/22/2011) ND<0 (3/24/1997) (2.06686 - 0)/(30 - 7)
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2.06686 (11/22/2011) ND<0 (3/24/1997) (2.06686 - 0)/(30 - 7)
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2.24071 (6/5/2012) ND<0 (3/24/1997) (2.24071 - 0)/(31 - 7)
0.0933629
1.88707 J (6/5/2012) ND<0 (3/24/1997) (1.88707 - 0)/(31 - 7)
0.0786279

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)
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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)
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1.93152 J (11/16/2009) ND<0 (9/24/1997) (1.93152 - 0)/(26 - 8)
0.107307
1.64866 (6/30/2010) ND<0 (9/24/1997) (1.64866 - 0)/(27 - 8)
0.0867715
ND<-0.994252 (6/30/2010) ND<0 (9/24/1997) (-0.994252 - 0)/(27 - 8)
-0.0523291
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
2.24071 (6/5/2012) ND<0 (9/24/1997) (2.24071 - 0)/(31 - 8)
0.0974222
1.88707 J (6/5/2012) ND<0 (9/24/1997) (1.88707 - 0)/(31 - 8)
0.0820465

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)
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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)
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1.93152 J (11/16/2009) ND<0 (4/7/1998) (1.93152 - 0)/(26 - 9)
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1.64866 (6/30/2010) ND<0 (4/7/1998) (1.64866 - 0)/(27 - 9)
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ND<-0.994252 (6/30/2010) ND<0 (4/7/1998) (-0.994252 - 0)/(27 - 9)
-0.0552362
2.15176 (11/12/2010) ND<0 (4/7/1998) (2.15176 - 0)/(28 - 9)
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ND<-0.994252 U (11/12/2010) ND<0 (4/7/1998) (-0.994252 - 0)/(28 - 9)
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2.30259 (7/5/2011) ND<0 (4/7/1998) (2.30259 - 0)/(29 - 9)
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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
2.24071 (6/5/2012)	ND<0 (4/7/1998)	(2.24071 - 0)/(31 - 9)		0.10185
1.88707 J (6/5/2012)	ND<0 (4/7/1998)	(1.88707 - 0)/(31 - 9)		0.0857759
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
1.64866 (6/30/2010)	ND<0 (9/23/1998)	(1.64866 - 0)/(27 - 10)		0.0969799
ND<-0.994252 (6/30/2010)	ND<0 (9/23/1998)	(-0.994252 - 0)/(27 - 10)		-0.0584854
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
2.24071 (6/5/2012)	ND<0 (9/23/1998)	(2.24071 - 0)/(31 - 10)		0.1067
1.88707 J (6/5/2012)	ND<0 (9/23/1998)	(1.88707 - 0)/(31 - 10)		0.0898605
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
1.64866 (6/30/2010) 2.17475 (3/16/1999) (1.64866 - 2.17475)/(27 - 11)
-0.0328808
ND<-0.994252 (6/30/2010) 2.17475 (3/16/1999) (-0.994252 - 2.17475)/(27 - 11)
-0.198063
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)
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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
2.24071 (6/5/2012) 2.17475 (3/16/1999) (2.24071 - 2.17475)/(31 - 11)
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1.88707 J (6/5/2012) 2.17475 (3/16/1999) (1.88707 - 2.17475)/(31 - 11)
-0.0143841

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
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1.79009 (11/28/2007) ND<0 (9/23/1999) (1.79009 - 0)/(22 - 12)
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1.86408 (6/5/2008) ND<0 (9/23/1999) (1.86408 - 0)/(23 - 12)
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ND<0 (11/20/2008) ND<0 (9/23/1999) (0 - 0)/(24 - 12) 0
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1.93152 J (11/16/2009) ND<0 (9/23/1999) (1.93152 - 0)/(26 - 12)
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1.64866 (6/30/2010) ND<0 (9/23/1999) (1.64866 - 0)/(27 - 12)
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ND<-0.994252 (6/30/2010) ND<0 (9/23/1999) (-0.994252 - 0)/(27 - 12)
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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)
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2.30259 (7/5/2011) ND<0 (9/23/1999) (2.30259 - 0)/(29 - 12)
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2.06686 (11/22/2011) ND<0 (9/23/1999) (2.06686 - 0)/(30 - 12)
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2.06686 (11/22/2011) ND<0 (9/23/1999) (2.06686 - 0)/(30 - 12)
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2.24071 (6/5/2012) ND<0 (9/23/1999) (2.24071 - 0)/(31 - 12)
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1.88707 J (6/5/2012) ND<0 (9/23/1999) (1.88707 - 0)/(31 - 12)
0.0993195

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
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1.72277 (4/29/2006) ND<0 (3/15/2000) (1.72277 - 0)/(19 - 13)
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1.36098 (11/18/2006) ND<0 (3/15/2000) (1.36098 - 0)/(20 - 13)
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1.41099 (5/23/2007) ND<0 (3/15/2000) (1.41099 - 0)/(21 - 13)
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1.79009 (11/28/2007) ND<0 (3/15/2000) (1.79009 - 0)/(22 - 13)
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1.86408 (6/5/2008) ND<0 (3/15/2000) (1.86408 - 0)/(23 - 13)
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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)
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1.93152 J (11/16/2009) ND<0 (3/15/2000) (1.93152 - 0)/(26 - 13)
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ND<-0.994252 (6/30/2010) ND<0 (3/15/2000) (-0.994252 - 0)/(27 - 13)
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2.15176 (11/12/2010) ND<0 (3/15/2000) (2.15176 - 0)/(28 - 13)
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ND<-0.994252 U (11/12/2010) ND<0 (3/15/2000) (-0.994252 - 0)/(28 - 13)
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2.24071 (6/5/2012) ND<0 (3/15/2000) (2.24071 - 0)/(31 - 13)
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1.88707 J (6/5/2012) ND<0 (3/15/2000) (1.88707 - 0)/(31 - 13)
0.104837

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
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1.36098 (11/18/2006) ND<0 (9/24/2003) (1.36098 - 0)/(20 - 14)
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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)
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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
1.64866 (6/30/2010) ND<0 (9/24/2003) (1.64866 - 0)/(27 - 14) 0.12682
ND<-0.994252 (6/30/2010) ND<0 (9/24/2003) (-0.994252 - 0)/(27 - 14)
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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)
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2.06686 (11/22/2011) ND<0 (9/24/2003) (2.06686 - 0)/(30 - 14)
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2.06686 (11/22/2011) ND<0 (9/24/2003) (2.06686 - 0)/(30 - 14)
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2.24071 (6/5/2012) ND<0 (9/24/2003) (2.24071 - 0)/(31 - 14)
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1.88707 J (6/5/2012) ND<0 (9/24/2003) (1.88707 - 0)/(31 - 14)
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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
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1.41099 (5/23/2007) ND<0 (3/11/2004) (1.41099 - 0)/(21 - 15)
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1.79009 (11/28/2007) ND<0 (3/11/2004) (1.79009 - 0)/(22 - 15)
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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)
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1.93152 J (11/16/2009) ND<0 (3/11/2004) (1.93152 - 0)/(26 - 15)
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1.64866 (6/30/2010) ND<0 (3/11/2004) (1.64866 - 0)/(27 - 15)
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ND<-0.994252 (6/30/2010) ND<0 (3/11/2004) (-0.994252 - 0)/(27 - 15)
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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)
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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)
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2.06686 (11/22/2011) ND<0 (3/11/2004) (2.06686 - 0)/(30 - 15)
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2.24071 (6/5/2012) ND<0 (3/11/2004) (2.24071 - 0)/(31 - 15)
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1.88707 J (6/5/2012) ND<0 (3/11/2004) (1.88707 - 0)/(31 - 15)
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1.38379 (10/25/2005) ND<0 (10/12/2004) (1.38379 - 0)/(18 - 16)
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1.41099 (5/23/2007) ND<0 (10/12/2004) (1.41099 - 0)/(21 - 16)
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1.79009 (11/28/2007) ND<0 (10/12/2004) (1.79009 - 0)/(22 - 16)
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1.86408 (6/5/2008) ND<0 (10/12/2004) (1.86408 - 0)/(23 - 16)
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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)
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1.93152 J (11/16/2009) ND<0 (10/12/2004) (1.93152 - 0)/(26 - 16)
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1.64866 (6/30/2010) ND<0 (10/12/2004) (1.64866 - 0)/(27 - 16)
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ND<-0.994252 (6/30/2010) ND<0 (10/12/2004) (-0.994252 - 0)/(27 - 16)
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2.15176 (11/12/2010) ND<0 (10/12/2004) (2.15176 - 0)/(28 - 16)
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ND<-0.994252 U (11/12/2010) ND<0 (10/12/2004) (-0.994252 - 0)/(28 - 16)
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2.30259 (7/5/2011) ND<0 (10/12/2004) (2.30259 - 0)/(29 - 16)
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2.06686 (11/22/2011) ND<0 (10/12/2004) (2.06686 - 0)/(30 - 16)
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2.06686 (11/22/2011) ND<0 (10/12/2004) (2.06686 - 0)/(30 - 16)
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2.24071 (6/5/2012) ND<0 (10/12/2004) (2.24071 - 0)/(31 - 16)
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1.88707 J (6/5/2012) ND<0 (10/12/2004) (1.88707 - 0)/(31 - 16)
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1.86408 (6/5/2008) 1.0116 (4/1/2005) (1.86408 - 1.0116)/(23 - 17)
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ND<0 (11/20/2008) 1.0116 (4/1/2005) (0 - 1.0116)/(24 - 17)
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1.22378 (6/11/2009) 1.0116 (4/1/2005) (1.22378 - 1.0116)/(25 - 17)
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1.93152 J (11/16/2009) 1.0116 (4/1/2005) (1.93152 - 1.0116)/(26 - 17)
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1.64866 (6/30/2010) 1.0116 (4/1/2005) (1.64866 - 1.0116)/(27 - 17)
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2.15176 (11/12/2010) 1.0116 (4/1/2005) (2.15176 - 1.0116)/(28 - 17)
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ND<-0.994252 U (11/12/2010) 1.0116 (4/1/2005) (-0.994252 - 1.0116)/(28 - 17)
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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)
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2.24071 (6/5/2012) 1.0116 (4/1/2005) (2.24071 - 1.0116)/(31 - 17)
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1.88707 J (6/5/2012) 1.0116 (4/1/2005) (1.88707 - 1.0116)/(31 - 17)
0.0625335

1.72277 (4/29/2006) 1.38379 (10/25/2005) (1.72277 - 1.38379)/(19 - 18)
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1.41099 (5/23/2007) 1.38379 (10/25/2005) (1.41099 - 1.38379)/(21 - 18)
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1.86408 (6/5/2008) 1.38379 (10/25/2005) (1.86408 - 1.38379)/(23 - 18)
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ND<0 (11/20/2008) 1.38379 (10/25/2005) (0 - 1.38379)/(24 - 18)
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1.64866 (6/30/2010) 1.38379 (10/25/2005) (1.64866 - 1.38379)/(27 - 18)
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2.06686 (11/22/2011) 1.38379 (10/25/2005) (2.06686 - 1.38379)/(30 - 18)
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2.24071 (6/5/2012) 1.38379 (10/25/2005) (2.24071 - 1.38379)/(31 - 18)
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1.88707 J (6/5/2012) 1.38379 (10/25/2005) (1.88707 - 1.38379)/(31 - 18)
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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
1.64866 (6/30/2010) 1.72277 (4/29/2006) (1.64866 - 1.72277)/(27 - 19)
-0.0092635
ND<-0.994252 (6/30/2010) 1.72277 (4/29/2006) (-0.994252 - 1.72277)/(27 - 19)
-0.339627
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
2.24071 (6/5/2012) 1.72277 (4/29/2006) (2.24071 - 1.72277)/(31 - 19)
0.0431619
1.88707 J (6/5/2012) 1.72277 (4/29/2006) (1.88707 - 1.72277)/(31 - 19)
0.0136919

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
1.64866 (6/30/2010) 1.36098 (11/18/2006) (1.64866 - 1.36098)/(27 - 20)
0.0410974
ND<-0.994252 (6/30/2010) 1.36098 (11/18/2006) (-0.994252 - 1.36098)/(27 - 20)
-0.336461
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
2.24071 (6/5/2012) 1.36098 (11/18/2006) (2.24071 - 1.36098)/(31 - 20)
0.0799757
1.88707 J (6/5/2012) 1.36098 (11/18/2006) (1.88707 - 1.36098)/(31 - 20)
0.0478266

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
1.64866 (6/30/2010) 1.41099 (5/23/2007) (1.64866 - 1.41099)/(27 - 21)
0.0396119
ND<-0.994252 (6/30/2010) 1.41099 (5/23/2007) (-0.994252 - 1.41099)/(27 - 21)
-0.400873
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
2.24071 (6/5/2012) 1.41099 (5/23/2007) (2.24071 - 1.41099)/(31 - 21)
0.0829723
1.88707 J (6/5/2012) 1.41099 (5/23/2007) (1.88707 - 1.41099)/(31 - 21)
0.0476083

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
1.64866 (6/30/2010) 1.79009 (11/28/2007) (1.64866 - 1.79009)/(27 - 22)
-0.0282866
ND<-0.994252 (6/30/2010) 1.79009 (11/28/2007) (-0.994252 - 1.79009)/(27 - 22)
-0.556869
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
2.24071 (6/5/2012) 1.79009 (11/28/2007) (2.24071 - 1.79009)/(31 - 22)
0.0500687
1.88707 J (6/5/2012) 1.79009 (11/28/2007) (1.88707 - 1.79009)/(31 - 22)
0.0107754

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
1.64866 (6/30/2010) 1.86408 (6/5/2008) (1.64866 - 1.86408)/(27 - 23)
-0.0538554
ND<-0.994252 (6/30/2010) 1.86408 (6/5/2008) (-0.994252 - 1.86408)/(27 - 23)
-0.714583
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
2.24071 (6/5/2012) 1.86408 (6/5/2008) (2.24071 - 1.86408)/(31 - 23)
0.0470787
1.88707 J (6/5/2012) 1.86408 (6/5/2008) (1.88707 - 1.86408)/(31 - 23)
0.00287369

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
1.64866 (6/30/2010) ND<0 (11/20/2008) (1.64866 - 0)/(27 - 24)
0.549553
ND<-0.994252 (6/30/2010) ND<0 (11/20/2008) (-0.994252 - 0)/(27 - 24)
-0.331417
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
2.24071 (6/5/2012) ND<0 (11/20/2008) (2.24071 - 0)/(31 - 24)
0.320101
1.88707 J (6/5/2012) ND<0 (11/20/2008) (1.88707 - 0)/(31 - 24)
0.269581

1.93152 J (11/16/2009) 1.22378 (6/11/2009) (1.93152 - 1.22378)/(26 - 25)
0.707746
1.64866 (6/30/2010) 1.22378 (6/11/2009) (1.64866 - 1.22378)/(27 - 25)
0.212442
ND<-0.994252 (6/30/2010) 1.22378 (6/11/2009) (-0.994252 - 1.22378)/(27 - 25)
-1.10901
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
2.24071 (6/5/2012) 1.22378 (6/11/2009) (2.24071 - 1.22378)/(31 - 25)
0.169489
1.88707 J (6/5/2012) 1.22378 (6/11/2009) (1.88707 - 1.22378)/(31 - 25)
0.110549

1.64866 (6/30/2010) 1.93152 J (11/16/2009) (1.64866 - 1.93152)/(27 - 26)
-0.282863
ND<-0.994252 (6/30/2010) 1.93152 J (11/16/2009) (-0.994252 - 1.93152)/(27 - 26)
-2.92577
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
2.24071 (6/5/2012) 1.93152 J (11/16/2009) (2.24071 - 1.93152)/(31 - 26)
0.0618377
1.88707 J (6/5/2012) 1.93152 J (11/16/2009) (1.88707 - 1.93152)/(31 - 26)
-0.00889035

ND<-0.994252 (6/30/2010) 1.64866 (6/30/2010) (-0.994252 - 1.64866)/(27 - 27)
Same Date
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
2.24071 (6/5/2012) 1.64866 (6/30/2010) (2.24071 - 1.64866)/(31 - 27)
0.148013
1.88707 J (6/5/2012) 1.64866 (6/30/2010) (1.88707 - 1.64866)/(31 - 27)
0.0596028

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
2.24071 (6/5/2012) ND<-0.994252 (6/30/2010) (2.24071 - -0.994252)/(31 - 27)
0.80874
1.88707 J (6/5/2012) ND<-0.994252 (6/30/2010) (1.88707 - -0.994252)/(31 - 27)
0.72033

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
2.24071 (6/5/2012) 2.15176 (11/12/2010) (2.24071 - 2.15176)/(31 - 28)
0.0296492
1.88707 J (6/5/2012) 2.15176 (11/12/2010) (1.88707 - 2.15176)/(31 - 28)
-0.0882309

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
2.24071 (6/5/2012) ND<-0.994252 U (11/12/2010) (2.24071 - -0.994252)/(31 - 28)
1.07832
1.88707 J (6/5/2012) ND<-0.994252 U (11/12/2010) (1.88707 - -0.994252)/(31 - 28)
0.960441

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
2.24071 (6/5/2012) 2.30259 (7/5/2011) (2.24071 - 2.30259)/(31 - 29)
-0.0309377

1.88707 J (6/5/2012)	2.30259	(7/5/2011)	(1.88707 - 2.30259)/(31 - 29)
-0.207758			
2.06686 (11/22/2011)	2.06686	(11/22/2011)	(2.06686 - 2.06686)/(30 - 30)
Same Date			
2.24071 (6/5/2012)	2.06686	(11/22/2011)	(2.24071 - 2.06686)/(31 - 30)
0.173847			
1.88707 J (6/5/2012)	2.06686	(11/22/2011)	(1.88707 - 2.06686)/(31 - 30)
-0.179793			
2.24071 (6/5/2012)	2.06686	(11/22/2011)	(2.24071 - 2.06686)/(31 - 30)
0.173847			
1.88707 J (6/5/2012)	2.06686	(11/22/2011)	(1.88707 - 2.06686)/(31 - 30)
-0.179793			
1.88707 J (6/5/2012)	2.24071	(6/5/2012)	(1.88707 - 2.24071)/(31 - 31)
Same Date			

Number of Q values = 591

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	-0.207758
46	-0.200585
47	-0.198063
48	-0.198042
49	-0.193858
50	-0.188772
51	-0.186412
52	-0.18235
53	-0.179793
54	-0.179793
55	-0.173287
56	-0.167289
57	-0.15589
58	-0.154033
59	-0.144514
60	-0.138629
61	-0.138629
62	-0.135155
63	-0.126027
64	-0.115525
65	-0.115525
66	-0.112994
67	-0.106638
68	-0.101366
69	-0.0991894
70	-0.0952219
71	-0.0904195
72	-0.0903866
73	-0.0882309
74	-0.0866434
75	-0.0831652
76	-0.0828544
77	-0.0828544
78	-0.081093
79	-0.0770164
80	-0.0764809
81	-0.0764809
82	-0.0763765
83	-0.0733652
84	-0.071018
85	-0.071018
86	-0.0703083
87	-0.0693147
88	-0.0679269
89	-0.0675775
90	-0.0662835
91	-0.0662835
92	-0.066014
93	-0.0630134
94	-0.0621408
95	-0.0584854
96	-0.0579236
97	-0.0577623
98	-0.0564981
99	-0.0559887
100	-0.0552362

101	-0.0552362
102	-0.0538554
103	-0.0538353
104	-0.0523291
105	-0.0523291
106	-0.0506831
107	-0.0497126
108	-0.0497126
109	-0.0473453
110	-0.0473453
111	-0.0468029
112	-0.0451933
113	-0.0451933
114	-0.0432284
115	-0.0424497
116	-0.0424497
117	-0.0405465
118	-0.0382405
119	-0.0368605
120	-0.0368242
121	-0.0349691
122	-0.0346574
123	-0.0337888
124	-0.0328808
125	-0.0311896
126	-0.0309377
127	-0.0289618
128	-0.0282866
129	-0.0274402
130	-0.0267638
131	-0.0258893
132	-0.0228594
133	-0.0184302
134	-0.0162154
135	-0.0143841
136	-0.0114073
137	-0.0092635
138	-0.00889035
139	-0.00738722
140	-0.00567837
141	-0.00567837
142	-0.00148928
143	-0.00135232
144	-0.000166875
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
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216	0
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218	0
219	0
220	0
221	0
222	0
223	0
224	0.00137181

225	0.00287369
226	0.0032979
227	0.00710185
228	0.00906525
229	0.0107754
230	0.0109318
231	0.0136919
232	0.0178848
233	0.0210295
234	0.0212525
235	0.0224416
236	0.0224804
237	0.0237055
238	0.0238893
239	0.0244964
240	0.0252062
241	0.0252062
242	0.025268
243	0.0265218
244	0.0289689
245	0.0289689
246	0.0294297
247	0.0296492
248	0.0298221
249	0.0305148
250	0.0306187
251	0.0312815
252	0.0312815
253	0.0338353
254	0.0338353
255	0.0345964
256	0.0345964
257	0.035242
258	0.0353284
259	0.0353575
260	0.0355787
261	0.0387137
262	0.0396119
263	0.0404091
264	0.0410974
265	0.041544
266	0.0417393
267	0.0422259
268	0.0431619
269	0.0442194
270	0.0470787
271	0.0476083
272	0.0476662
273	0.0478266
274	0.0493317
275	0.0497277
276	0.0500104
277	0.0500687
278	0.0509906
279	0.0510898
280	0.0528352
281	0.0528352
282	0.0529222
283	0.053084
284	0.0562897
285	0.0569226
286	0.0569226

287	0.0573171
288	0.0575364
289	0.0579818
290	0.0593356
291	0.0593356
292	0.0596028
293	0.0602785
294	0.0607756
295	0.0609413
296	0.0611454
297	0.0611888
298	0.0616281
299	0.0618377
300	0.0625335
301	0.0629023
302	0.0632251
303	0.0632843
304	0.0634099
305	0.0635857
306	0.0637058
307	0.0643775
308	0.0644092
309	0.0659168
310	0.0671653
311	0.0679875
312	0.0684663
313	0.0686413
314	0.0692313
315	0.0694579
316	0.0702637
317	0.0705493
318	0.0705886
319	0.0705886
320	0.0712711
321	0.0712711
322	0.0716303
323	0.0719868
324	0.0725796
325	0.0728751
326	0.0728751
327	0.0730842
328	0.0732134
329	0.0739887
330	0.0746903
331	0.074939
332	0.0754828
333	0.076486
334	0.0767971
335	0.0772609
336	0.0774883
337	0.0785076
338	0.0786279
339	0.0796949
340	0.0799757
341	0.081174
342	0.081174
343	0.0813995
344	0.081585
345	0.0820465
346	0.0822352
347	0.0824329
348	0.0826745

349	0.0826745
350	0.0829723
351	0.0835267
352	0.0843001
353	0.0847309
354	0.0852424
355	0.0857759
356	0.0861193
357	0.0861193
358	0.0861811
359	0.0867715
360	0.0877935
361	0.0881867
362	0.0896284
363	0.0898605
364	0.0898636
365	0.0898636
366	0.0907318
367	0.0915921
368	0.0919637
369	0.0919772
370	0.0933629
371	0.0935549
372	0.0939483
373	0.0939483
374	0.0940658
375	0.0941366
376	0.0950908
377	0.0957093
378	0.095941
379	0.0960578
380	0.0965761
381	0.0969799
382	0.0972126
383	0.0974222
384	0.0978074
385	0.098422
386	0.098422
387	0.0985572
388	0.0988482
389	0.0993195
390	0.0998465
391	0.100112
392	0.100785
393	0.10116
394	0.101575
395	0.101659
396	0.10185
397	0.101981
398	0.102213
399	0.102465
400	0.103343
401	0.103343
402	0.10356
403	0.103651
404	0.104107
405	0.104623
406	0.104663
407	0.104691
408	0.104837
409	0.105299
410	0.105825

411	0.106445
412	0.1067
413	0.107307
414	0.107582
415	0.107588
416	0.108537
417	0.109647
418	0.109652
419	0.109911
420	0.11012
421	0.110549
422	0.111004
423	0.111252
424	0.11145
425	0.111881
426	0.1124
427	0.113251
428	0.113415
429	0.113619
430	0.114826
431	0.114826
432	0.115129
433	0.115316
434	0.116459
435	0.116505
436	0.117582
437	0.117761
438	0.117932
439	0.117942
440	0.119339
441	0.119542
442	0.12072
443	0.121189
444	0.12158
445	0.12158
446	0.122378
447	0.123055
448	0.123688
449	0.123725
450	0.124272
451	0.124484
452	0.125799
453	0.125805
454	0.12645
455	0.12682
456	0.127864
457	0.128272
458	0.129179
459	0.129179
460	0.131806
461	0.132521
462	0.133149
463	0.134485
464	0.135446
465	0.135975
466	0.136098
467	0.137388
468	0.137699
469	0.137791
470	0.137791
471	0.137966
472	0.138379

473	0.139401
474	0.139401
475	0.140044
476	0.14208
477	0.143391
478	0.143451
479	0.143564
480	0.143841
481	0.143912
482	0.144514
483	0.147633
484	0.147633
485	0.148013
486	0.148579
487	0.149174
488	0.149381
489	0.149878
490	0.150823
491	0.153506
492	0.153697
493	0.153755
494	0.155698
495	0.156615
496	0.156776
497	0.16096
498	0.16447
499	0.16552
500	0.167701
501	0.168617
502	0.168617
503	0.169462
504	0.169489
505	0.170122
506	0.172277
507	0.172974
508	0.173847
509	0.173847
510	0.175593
511	0.176373
512	0.177122
513	0.179009
514	0.179314
515	0.186408
516	0.191419
517	0.193152
518	0.194425
519	0.196587
520	0.198899
521	0.20157
522	0.20232
523	0.20712
524	0.211658
525	0.212442
526	0.214557
527	0.217475
528	0.223761
529	0.226547
530	0.226829
531	0.230632
532	0.231049
533	0.23301
534	0.235164

535	0.24611
536	0.2529
537	0.255727
538	0.266297
539	0.269581
540	0.269702
541	0.272195
542	0.276758
543	0.282197
544	0.287128
545	0.298349
546	0.309329
547	0.320101
548	0.326963
549	0.3372
550	0.338975
551	0.340244
552	0.344477
553	0.344477
554	0.344553
555	0.345948
556	0.355583
557	0.362459
558	0.37219
559	0.379104
560	0.405465
561	0.430692
562	0.43495
563	0.460517
564	0.461264
565	0.503104
566	0.5058
567	0.537941
568	0.543688
569	0.549553
570	0.574256
571	0.691896
572	0.693147
573	0.707746
574	0.72033
575	0.724917
576	0.80874
577	0.960441
578	0.965761
579	0.980829
580	1.0116
581	1.02037
582	1.02037
583	1.07832
584	1.08738
585	1.22378
586	1.53056
587	1.53056
588	1.64842
589	2.17475
590	3.14601
591	3.29684

Sen's Estimator (Median Q) is 0.0611454

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
6/5/2012	2	

There are 4 time periods with multiple data

A = 4872
B = 72
C = 1716
D = 0
E = 160
F = 8
a = 89250
b = 353430
c = 2380
Group Variance = 4684.2
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 112.576
M1 = (591 - 112.576)/2.0 = 239.212
M2 = (591 + 112.576)/2.0 + 1 = 352.788
Lower limit is 0.0244964 = Q(239)
Upper limit is 0.0847309 = Q(353)
0.0244964 > 0 indicating an upward trend in data.

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
6/5/2012	2.06389	14.2619	4.20728	
6/5/2012	2.06389	14.2619	4.20728	

Concentrations (ppb)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 145
Percent Non-Detects: 58.4677%
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-9	32	10 (31.25%)	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	
			6/5/2012	6.2	6.2	
MW-10	31	16 (51.6129%)	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	
			6/5/2012	5.8	5.8	
MW-6	31	27 (87.0968%)	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
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-8	30	13 (43.3333%)	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	
			6/5/2012	2.7	2.7	
MW-11R	32	23 (71.875%)	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
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-7	31	13 (41.9355%)	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	
			6/5/2012	5.5	5.5	
MW-12AR	21	9 (42.8571%)	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	
		6/5/2012	0.57 J	0.57 J		
MW-12BR	21	18 (85.7143%)	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	
		6/5/2012	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: Arsenic
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 248

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	-1.91103	34.3095	-3.08094
8	0.2	-1.85218	37.7401	-3.45137
9	0.2	-1.79912	40.9769	-3.8112
10	0.2	-1.75069	44.0418	-4.16133
11	0.2	-1.70604	46.9524	-4.50254
12	0.2	-1.66456	49.7231	-4.83546
13	0.2	-1.62576	52.3662	-5.16061
14	0.2	-1.58927	54.892	-5.47846
15	0.2	-1.55477	57.3093	-5.78942
16	0.2	-1.52203	59.6259	-6.09382
17	0.2	-1.49085	61.8486	-6.39199
18	0.2	-1.46106	63.9833	-6.68421
19	0.2	-1.4325	66.0353	-6.97071
20	0.2	-1.40507	68.0096	-7.25172
21	0.2	-1.37866	69.9102	-7.52745
22	0.2	-1.35317	71.7413	-7.79809
23	0.2	-1.32854	73.5063	-8.0638
24	0.2	-1.30469	75.2086	-8.32473
25	0.2	-1.28155	76.8509	-8.58104
26	0.2	-1.25908	78.4362	-8.83286
27	0.42	-1.23724	79.967	-9.3525
28	0.45	-1.21596	81.4455	-9.89968
29	0.5	-1.19522	82.8741	-10.4973
30	0.54	-1.17499	84.2547	-11.1318
31	0.57	-1.15522	85.5892	-11.7903
32	0.6	-1.1359	86.8795	-12.4718
33	0.61	-1.11699	88.1271	-13.1532
34	0.75	-1.09847	89.3338	-13.977
35	1	-1.08032	90.5009	-15.0573
36	1	-1.06252	91.6298	-16.1199
37	1	-1.04505	92.7219	-17.1649
38	1	-1.02789	93.7785	-18.1928
39	1	-1.01104	94.8007	-19.2038
40	1	-0.994457	95.7896	-20.1983
41	1	-0.97815	96.7464	-21.1764
42	1	-0.9621	97.6721	-22.1385
43	1	-0.946291	98.5675	-23.0848
44	1	-0.930718	99.4338	-24.0155
45	1	-0.915365	100.272	-24.9309
46	1	-0.900227	101.082	-25.8311
47	1	-0.885291	101.866	-26.7164
48	1	-0.87055	102.624	-27.587
49	1	-0.855996	103.356	-28.443
50	1	-0.841621	104.065	-29.2846
51	1	-0.827417	104.749	-30.112

52	1	-0.813379	105.411	-30.9254
53	1	-0.7995	106.05	-31.7249
54	1	-0.785774	106.668	-32.5107
55	1	-0.772193	107.264	-33.2829
56	1	-0.758753	107.84	-34.0416
57	1	-0.745449	108.395	-34.7871
58	1	-0.732275	108.931	-35.5193
59	1	-0.719228	109.449	-36.2386
60	1	-0.706302	109.948	-36.9449
61	1	-0.693493	110.429	-37.6384
62	1	-0.680797	110.892	-38.3192
63	1	-0.665079	111.334	-38.9842
64	1	-0.652622	111.76	-39.6369
65	1	-0.640266	112.17	-40.2771
66	1	-0.628006	112.565	-40.9051
67	1	-0.615839	112.944	-41.521
68	1	-0.603765	113.308	-42.1247
69	1	-0.591776	113.659	-42.7165
70	1	-0.579873	113.995	-43.2964
71	1	-0.568052	114.318	-43.8644
72	1	-0.556308	114.627	-44.4207
73	1	-0.544642	114.924	-44.9654
74	1	-0.533048	115.208	-45.4984
75	1	-0.521527	115.48	-46.02
76	1	-0.510074	115.74	-46.53
77	1	-0.498687	115.989	-47.0287
78	1	-0.487364	116.226	-47.5161
79	1	-0.476105	116.453	-47.9922
80	1	-0.464904	116.669	-48.4571
81	1	-0.453763	116.875	-48.9109
82	1	-0.442676	117.071	-49.3535
83	1	-0.431644	117.257	-49.7852
84	1	-0.420664	117.434	-50.2058
85	1	-0.409735	117.602	-50.6156
86	1	-0.398855	117.761	-51.0144
87	1	-0.388022	117.912	-51.4025
88	1	-0.377233	118.054	-51.7797
89	1	-0.36649	118.188	-52.1462
90	1	-0.355788	118.315	-52.502
91	1	-0.345126	118.434	-52.8471
92	1	-0.334503	118.546	-53.1816
93	1	-0.323919	118.651	-53.5055
94	1	-0.31337	118.749	-53.8189
95	1	-0.302855	118.841	-54.1217
96	1	-0.292375	118.926	-54.4141
97	1	-0.281926	119.006	-54.696
98	1	-0.271509	119.079	-54.9676
99	1	-0.26112	119.148	-55.2287
100	1	-0.250759	119.21	-55.4794
101	1	-0.240426	119.268	-55.7199
102	1	-0.230118	119.321	-55.95
103	1	-0.219834	119.37	-56.1698
104	1	-0.209575	119.413	-56.3794
105	1	-0.199336	119.453	-56.5787
106	1	-0.189118	119.489	-56.7678
107	1	-0.17892	119.521	-56.9468
108	1	-0.168741	119.549	-57.1155
109	1	-0.158579	119.575	-57.2741
110	1	-0.148434	119.597	-57.4225
111	1	-0.138305	119.616	-57.5608
112	1	-0.128189	119.632	-57.689
113	1	-0.118085	119.646	-57.8071

114	1	-0.107995	119.658	-57.9151
115	1	-0.0979139	119.667	-58.013
116	1	-0.0878447	119.675	-58.1008
117	1	-0.0777834	119.681	-58.1786
118	1	-0.0677301	119.686	-58.2464
119	1	-0.0576847	119.689	-58.304
120	1	-0.0476439	119.691	-58.3517
121	1	-0.0376076	119.693	-58.3893
122	1	-0.0275759	119.694	-58.4169
123	1	-0.0175476	119.694	-58.4344
124	1	-0.00751925	119.694	-58.4419
125	1	0.00751925	119.694	-58.4344
126	1	0.0175476	119.694	-58.4169
127	1	0.0275759	119.695	-58.3893
128	1	0.0376076	119.696	-58.3517
129	1	0.0476439	119.699	-58.304
130	1	0.0576847	119.702	-58.2464
131	1	0.0677301	119.707	-58.1786
132	1	0.0777834	119.713	-58.1008
133	1	0.0878447	119.72	-58.013
134	1	0.0979139	119.73	-57.9151
135	1	0.107995	119.742	-57.8071
136	1	0.118085	119.756	-57.689
137	1	0.128189	119.772	-57.5608
138	1	0.138305	119.791	-57.4225
139	1	0.148434	119.813	-57.2741
140	1	0.158579	119.838	-57.1155
141	1	0.168741	119.867	-56.9468
142	1	0.17892	119.899	-56.7678
143	1	0.189118	119.935	-56.5787
144	1	0.199336	119.974	-56.3794
145	1	0.209575	120.018	-56.1698
146	1	0.219834	120.067	-55.95
147	1	0.230118	120.119	-55.7199
148	1	0.240426	120.177	-55.4794
149	1	0.250759	120.24	-55.2287
150	1	0.26112	120.308	-54.9676
151	1	0.271509	120.382	-54.696
152	1	0.281926	120.462	-54.4141
153	1	0.292375	120.547	-54.1217
154	1.05	0.302855	120.639	-53.8037
155	1.05	0.31337	120.737	-53.4747
156	1.05	0.323919	120.842	-53.1346
157	1.09	0.334503	120.954	-52.77
158	1.11	0.345126	121.073	-52.3869
159	1.13	0.355788	121.199	-51.9849
160	1.31	0.36649	121.334	-51.5047
161	1.45	0.377233	121.476	-50.9578
162	1.48	0.388022	121.627	-50.3835
163	1.7	0.398855	121.786	-49.7054
164	1.7	0.409735	121.954	-49.0089
165	1.88	0.420664	122.131	-48.218
166	1.92	0.431644	122.317	-47.3893
167	1.95	0.442676	122.513	-46.5261
168	2	0.453763	122.719	-45.6185
169	2	0.464904	122.935	-44.6887
170	2.02	0.476105	123.162	-43.727
171	2.11	0.487364	123.399	-42.6987
172	2.23	0.498687	123.648	-41.5866
173	2.23	0.510074	123.908	-40.4491
174	2.6	0.521527	124.18	-39.0931
175	2.6	0.533048	124.464	-37.7072

176	2.65	0.544642		124.761	-36.2639
177	2.7	0.556308		125.07	-34.7619
178	2.7	0.568052		125.393	-33.2282
179	3.1	0.579873		125.729	-31.4305
180	3.32	0.591776		126.079	-29.4658
181	3.6	0.603765		126.444	-27.2923
182	3.6	0.615839		126.823	-25.0753
183	3.62	0.628006		127.218	-22.8019
184	3.91	0.640266		127.627	-20.2984
185	4	0.652622		128.053	-17.688
186	4	0.665079		128.496	-15.0276
187	4.2	0.680797		128.959	-12.1683
188	4.3	0.693493		129.44	-9.18628
189	4.6	0.706302		129.939	-5.93729
190	4.63	0.719228		130.456	-2.60726
191	4.82	0.732275		130.993	0.922305
192	4.84	0.745449		131.548	4.53028
193	4.87	0.758753		132.124	8.2254
194	5	0.772193		132.72	12.0864
195	5	0.785774		133.338	16.0152
196	5	0.7995	133.977	20.0127	
197	5	0.813379		134.638	24.0796
198	5	0.827417		135.323	28.2167
199	5	0.841621		136.031	32.4248
200	5.1	0.855996		136.764	36.7904
201	5.17	0.87055	137.522	41.2912	
202	5.2	0.885291		138.306	45.8947
203	5.5	0.900227		139.116	50.8459
204	5.73	0.915365		139.954	56.091
205	5.75	0.930718		140.82	61.4426
206	5.76	0.946291		141.716	66.8932
207	5.8	0.9621	142.641	72.4734	
208	5.85	0.97815	143.598	78.1956	
209	5.92	0.994457		144.587	84.0828
210	6.2	1.01104	145.609	90.3512	
211	6.28	1.02789	146.666	96.8064	
212	6.67	1.04505	147.758	103.777	
213	6.7	1.06252	148.887	110.896	
214	7	1.08032	150.054	118.458	
215	7	1.09847	151.261	126.147	
216	7.5	1.11699	152.508	134.525	
217	7.7	1.1359	153.799	143.271	
218	7.92	1.15522	155.133	152.42	
219	8.3	1.17499	156.514	162.173	
220	8.44	1.19522	157.942	172.26	
221	8.48	1.21596	159.421	182.572	
222	8.6	1.23724	160.952	193.212	
223	8.7	1.25908	162.537	204.166	
224	8.8	1.28155	164.179	215.444	
225	8.98	1.30469	165.881	227.16	
226	9.1	1.32854	167.646	239.25	
227	9.41	1.35317	169.477	251.983	
228	9.45	1.37866	171.378	265.011	
229	10	1.40507	173.352	279.062	
230	10.4	1.4325	175.404	293.96	
231	10.8	1.46106	177.539	309.739	
232	11	1.49085	179.762	326.139	
233	11.4	1.52203	182.078	343.49	
234	11.7	1.55477	184.496	361.681	
235	12.2	1.58927	187.022	381.07	
236	12.3	1.62576	189.665	401.067	
237	12.7	1.66456	192.435	422.207	

238	13	1.70604	195.346	444.385
239	13.8	1.75069	198.411	468.545
240	15	1.79912	201.648	495.531
241	16	1.85218	205.078	525.166
242	17	1.91103	208.73	557.654
243	17	1.97737	212.64	591.269
244	17	2.05375	216.858	626.183
245	17	2.14441	221.457	662.638
246	25.5	2.25713	226.551	720.195
247	37	2.40892	232.354	809.325
248	40	2.65209	239.388	915.408

Data Set Standard Deviation = 5.06717
Numerator = 837972
Denominator = 1.51821e+006
W Statistic = 0.551949 = 837972 / 1.51821e+006

5% Critical value of 0.976 exceeds 0.551949
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.551949
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 = 0.748138
0.748138 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00401606	-2.65209	41.675	344.01	
2	0.2	0.00803213	-2.40892	41.675	332.136	
3	0.2	0.0120482	-2.25713	41.675	324.723	
4	0.2	0.0160643	-2.14441	41.675	319.219	
5	0.2	0.0200803	-2.05375	41.675	314.791	
6	0.2	0.0240964	-1.97737	41.675	311.062	
7	0.2	0.0281124	-1.91103	41.675	307.822	
8	0.2	0.0321285	-1.85218	41.675	304.948	
9	0.2	0.0361446	-1.79912	41.675	302.357	
10	0.2	0.0401606	-1.75069	41.675	299.992	
11	0.2	0.0441767	-1.70604	41.675	297.812	
12	0.2	0.0481928	-1.66456	41.675	295.786	
13	0.2	0.0522088	-1.62576	41.675	293.891	
14	0.2	0.0562249	-1.58927	41.675	292.109	
15	0.2	0.060241	-1.55477	41.675	290.425	
16	0.2	0.064257	-1.52203	41.675	288.826	
17	0.2	0.0682731	-1.49085	41.675	287.303	
18	0.2	0.0722892	-1.46106	41.675	285.848	
19	0.2	0.0763052	-1.4325	41.675	284.454	
20	0.2	0.0803213	-1.40507	41.675	283.114	
21	0.2	0.0843373	-1.37866	41.675	281.824	
22	0.2	0.0883534	-1.35317	41.675	280.58	
23	0.2	0.0923695	-1.32854	41.675	279.377	
24	0.2	0.0963855	-1.30469	41.675	278.212	
25	0.2	0.100402	-1.28155	41.675	277.082	
26	0.2	0.104418	-1.25908	41.675	275.985	
27	0.42	0.108434	-1.23724	44.6175	274.918	
28	0.45	0.11245	-1.21596	45.0187	273.879	
29	0.5	0.116466	-1.19522	45.6875	272.867	
30	0.54	0.120482	-1.17499	46.2225	271.879	
31	0.57	0.124498	-1.15522	46.6238	270.913	
32	0.6	0.128514	-1.1359	47.025	269.97	
33	0.61	0.13253	-1.11699	47.1587	269.046	
34	0.75	0.136546	-1.09847	49.0313	268.142	
35	1	0.140562	-1.08032	52.375	267.256	
36	1	0.144578	-1.06252	52.375	266.386	
37	1	0.148594	-1.04505	52.375	265.533	
38	1	0.15261	-1.02789	52.375	264.695	
39	1	0.156627	-1.01104	52.375	263.872	
40	1	0.160643	-0.994457	52.375	263.063	
41	1	0.164659	-0.97815	52.375	262.266	
42	1	0.168675	-0.9621	52.375	261.483	
43	1	0.172691	-0.946291	52.375	260.711	
44	1	0.176707	-0.930718	52.375	259.95	
45	1	0.180723	-0.915365	52.375	259.2	
46	1	0.184739	-0.900227	52.375	258.461	
47	1	0.188755	-0.885291	52.375	257.732	
48	1	0.192771	-0.87055	52.375	257.012	

49	1	0.196787	-0.855996	52.375	256.301
50	1	0.200803	-0.841621	52.375	255.599
51	1	0.204819	-0.827417	52.375	254.906
52	1	0.208835	-0.813379	52.375	254.22
53	1	0.212851	-0.7995	52.375	253.542
54	1	0.216867	-0.785774	52.375	252.872
55	1	0.220884	-0.772193	52.375	252.209
56	1	0.2249	-0.758753	52.375	251.552
57	1	0.228916	-0.745449	52.375	250.903
58	1	0.232932	-0.732275	52.375	250.259
59	1	0.236948	-0.719228	52.375	249.622
60	1	0.240964	-0.706302	52.375	248.991
61	1	0.24498	-0.693493	52.375	248.366
62	1	0.248996	-0.680797	52.375	247.746
63	1	0.253012	-0.665079	52.375	246.978
64	1	0.257028	-0.652622	52.375	246.37
65	1	0.261044	-0.640266	52.375	245.766
66	1	0.26506	-0.628006	52.375	245.168
67	1	0.269076	-0.615839	52.375	244.573
68	1	0.273092	-0.603765	52.375	243.984
69	1	0.277108	-0.591776	52.375	243.398
70	1	0.281124	-0.579873	52.375	242.817
71	1	0.285141	-0.568052	52.375	242.24
72	1	0.289157	-0.556308	52.375	241.666
73	1	0.293173	-0.544642	52.375	241.097
74	1	0.297189	-0.533048	52.375	240.531
75	1	0.301205	-0.521527	52.375	239.968
76	1	0.305221	-0.510074	52.375	239.409
77	1	0.309237	-0.498687	52.375	238.853
78	1	0.313253	-0.487364	52.375	238.3
79	1	0.317269	-0.476105	52.375	237.75
80	1	0.321285	-0.464904	52.375	237.203
81	1	0.325301	-0.453763	52.375	236.659
82	1	0.329317	-0.442676	52.375	236.117
83	1	0.333333	-0.431644	52.375	235.579
84	1	0.337349	-0.420664	52.375	235.042
85	1	0.341365	-0.409735	52.375	234.509
86	1	0.345382	-0.398855	52.375	233.977
87	1	0.349398	-0.388022	52.375	233.448
88	1	0.353414	-0.377233	52.375	232.922
89	1	0.35743	-0.36649	52.375	232.397
90	1	0.361446	-0.355788	52.375	231.874
91	1	0.365462	-0.345126	52.375	231.354
92	1	0.369478	-0.334503	52.375	230.835
93	1	0.373494	-0.323919	52.375	230.318
94	1	0.37751	-0.31337	52.375	229.803
95	1	0.381526	-0.302855	52.375	229.289
96	1	0.385542	-0.292375	52.375	228.778
97	1	0.389558	-0.281926	52.375	228.267
98	1	0.393574	-0.271509	52.375	227.759
99	1	0.39759	-0.26112	52.375	227.251
100	1	0.401606	-0.250759	52.375	226.745
101	1	0.405622	-0.240426	52.375	226.241
102	1	0.409639	-0.230118	52.375	225.737
103	1	0.413655	-0.219834	52.375	225.235
104	1	0.417671	-0.209575	52.375	224.734
105	1	0.421687	-0.199336	52.375	224.234
106	1	0.425703	-0.189118	52.375	223.735
107	1	0.429719	-0.178925	52.375	223.237
108	1	0.433735	-0.168741	52.375	222.74
109	1	0.437751	-0.158579	52.375	222.244
110	1	0.441767	-0.148434	52.375	221.749

111	1	0.445783	-0.138305	52.375	221.254
112	1	0.449799	-0.128189	52.375	220.76
113	1	0.453815	-0.118085	52.375	220.267
114	1	0.457831	-0.107995	52.375	219.774
115	1	0.461847	-0.0979139	52.375	219.281
116	1	0.465863	-0.0878447	52.375	218.79
117	1	0.46988	-0.0777834	52.375	218.298
118	1	0.473896	-0.0677301	52.375	217.807
119	1	0.477912	-0.0576847	52.375	217.317
120	1	0.481928	-0.0476439	52.375	216.827
121	1	0.485944	-0.0376076	52.375	216.337
122	1	0.48996	-0.0275759	52.375	215.847
123	1	0.493976	-0.0175476	52.375	215.357
124	1	0.497992	-0.00751925	52.375	214.867
125	1	0.502008	0.00751925	52.375	214.133
126	1	0.506024	0.0175476	52.375	213.643
127	1	0.51004	0.0275759	52.375	213.153
128	1	0.514056	0.0376076	52.375	212.663
129	1	0.518072	0.0476439	52.375	212.173
130	1	0.522088	0.0576847	52.375	211.683
131	1	0.526104	0.0677301	52.375	211.193
132	1	0.53012	0.0777834	52.375	210.702
133	1	0.534137	0.0878447	52.375	210.21
134	1	0.538153	0.0979139	52.375	209.719
135	1	0.542169	0.107995	52.375	209.226
136	1	0.546185	0.118085	52.375	208.733
137	1	0.550201	0.128189	52.375	208.24
138	1	0.554217	0.138305	52.375	207.746
139	1	0.558233	0.148434	52.375	207.251
140	1	0.562249	0.158579	52.375	206.756
141	1	0.566265	0.168741	52.375	206.26
142	1	0.570281	0.17892	52.375	205.763
143	1	0.574297	0.189118	52.375	205.265
144	1	0.578313	0.199336	52.375	204.766
145	1	0.582329	0.209575	52.375	204.266
146	1	0.586345	0.219834	52.375	203.765
147	1	0.590361	0.230118	52.375	203.263
148	1	0.594378	0.240426	52.375	202.759
149	1	0.598394	0.250759	52.375	202.255
150	1	0.60241	0.26112	52.375	201.749
151	1	0.606426	0.271509	52.375	201.241
152	1	0.610442	0.281926	52.375	200.733
153	1	0.614458	0.292375	52.375	200.222
154	1.05	0.618474	0.302855	53.0438	199.711
155	1.05	0.62249	0.31337	53.0438	199.197
156	1.05	0.626506	0.323919	53.0438	198.682
157	1.09	0.630522	0.334503	53.5787	198.165
158	1.11	0.634538	0.345126	53.8462	197.646
159	1.13	0.638554	0.355788	54.1137	197.126
160	1.31	0.64257	0.36649	56.5213	196.603
161	1.45	0.646586	0.377233	58.3937	196.078
162	1.48	0.650602	0.388022	58.795	195.552
163	1.7	0.654618	0.398855	61.7375	195.023
164	1.7	0.658635	0.409735	61.7375	194.491
165	1.88	0.662651	0.420664	64.145	193.958
166	1.92	0.666667	0.431644	64.68	193.421
167	1.95	0.670683	0.442676	65.0812	192.883
168	2	0.674699	0.453763	65.75	192.341
169	2	0.678715	0.464904	65.75	191.797
170	2.02	0.682731	0.476105	66.0175	191.25
171	2.11	0.686747	0.487364	67.2212	190.7
172	2.23	0.690763	0.498687	68.8263	190.147

173	2.23	0.694779	0.510074	68.8263	189.591
174	2.6	0.698795	0.521527	73.775	189.032
175	2.6	0.702811	0.533048	73.775	188.469
176	2.65	0.706827	0.544642	74.4437	187.903
177	2.7	0.710843	0.556308	75.1125	187.334
178	2.7	0.714859	0.568052	75.1125	186.76
179	3.1	0.718876	0.579873	80.4625	186.183
180	3.32	0.722892	0.591776	83.405	185.602
181	3.6	0.726908	0.603765	87.15	185.016
182	3.6	0.730924	0.615839	87.15	184.427
183	3.62	0.73494	0.628006	87.4175	183.832
184	3.91	0.738956	0.640266	91.2963	183.234
185	4	0.742972	0.652622	92.5	182.63
186	4	0.746988	0.665079	92.5	182.022
187	4.2	0.751004	0.680797	95.175	181.254
188	4.3	0.75502	0.693493	96.5125	180.634
189	4.6	0.759036	0.706302	100.525	180.009
190	4.63	0.763052	0.719228	100.926	179.378
191	4.82	0.767068	0.732275	103.468	178.741
192	4.84	0.771084	0.745449	103.735	178.097
193	4.87	0.7751	0.758753	104.136	177.448
194	5	0.779116	0.772193	105.875	176.791
195	5	0.783133	0.785774	105.875	176.128
196	5	0.787149	0.7995	105.875	175.458
197	5	0.791165	0.813379	105.875	174.78
198	5	0.795181	0.827417	105.875	174.094
199	5	0.799197	0.841621	105.875	173.401
200	5.1	0.803213	0.855996	107.213	172.699
201	5.17	0.807229	0.87055	108.149	171.988
202	5.2	0.811245	0.885291	108.55	171.268
203	5.5	0.815261	0.900227	112.563	170.539
204	5.73	0.819277	0.915365	115.639	169.8
205	5.75	0.823293	0.930718	115.906	169.05
206	5.76	0.827309	0.946291	116.04	168.289
207	5.8	0.831325	0.9621	116.575	167.517
208	5.85	0.835341	0.97815	117.244	166.734
209	5.92	0.839357	0.994457	118.18	165.937
210	6.2	0.843373	1.01104	121.925	165.128
211	6.28	0.84739	1.02789	122.995	164.305
212	6.67	0.851406	1.04505	128.211	163.467
213	6.7	0.855422	1.06252	128.613	162.614
214	7	0.859438	1.08032	132.625	161.744
215	7	0.863454	1.09847	132.625	160.858
216	7.5	0.86747	1.11699	139.313	159.954
217	7.7	0.871486	1.1359	141.988	159.03
218	7.92	0.875502	1.15522	144.93	158.087
219	8.3	0.879518	1.17499	150.012	157.121
220	8.44	0.883534	1.19522	151.885	156.133
221	8.48	0.88755	1.21596	152.42	155.121
222	8.6	0.891566	1.23724	154.025	154.082
223	8.7	0.895582	1.25908	155.362	153.015
224	8.8	0.899598	1.28155	156.7	151.918
225	8.98	0.903614	1.30469	159.108	150.788
226	9.1	0.907631	1.32854	160.712	149.623
227	9.41	0.911647	1.35317	164.859	148.42
228	9.45	0.915663	1.37866	165.394	147.176
229	10	0.919679	1.40507	172.75	145.886
230	10.4	0.923695	1.4325	178.1	144.546
231	10.8	0.927711	1.46106	183.45	143.152
232	11	0.931727	1.49085	186.125	141.697
233	11.4	0.935743	1.52203	191.475	140.174
234	11.7	0.939759	1.55477	195.487	138.575

235	12.2	0.943775	1.58927	202.175	136.891
236	12.3	0.947791	1.62576	203.512	135.109
237	12.7	0.951807	1.66456	208.863	133.214
238	13	0.955823	1.70604	212.875	131.188
239	13.8	0.959839	1.75069	223.575	129.008
240	15	0.963855	1.79912	239.625	126.643
241	16	0.967871	1.85218	253	124.052
242	17	0.971888	1.91103	266.375	121.178
243	17	0.975904	1.97737	266.375	117.938
244	17	0.97992	2.05375	266.375	114.209
245	17	0.983936	2.14441	266.375	109.781
246	25.5	0.987952	2.25713	380.063	104.277
247	37	0.991968	2.40892	533.875	96.8642
248	40	0.995984	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 = 248

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	-1.91103	34.3095	24.7929
8	-1.60944	-1.85218	37.7401	27.7739
9	-1.60944	-1.79912	40.9769	30.6694
10	-1.60944	-1.75069	44.0418	33.487
11	-1.60944	-1.70604	46.9524	36.2328
12	-1.60944	-1.66456	49.7231	38.9118
13	-1.60944	-1.62576	52.3662	41.5284
14	-1.60944	-1.58927	54.892	44.0862
15	-1.60944	-1.55477	57.3093	46.5885
16	-1.60944	-1.52203	59.6259	49.0382
17	-1.60944	-1.49085	61.8486	51.4376
18	-1.60944	-1.46106	63.9833	53.7891
19	-1.60944	-1.4325	66.0353	56.0946
20	-1.60944	-1.40507	68.0096	58.356
21	-1.60944	-1.37866	69.9102	60.5748
22	-1.60944	-1.35317	71.7413	62.7527
23	-1.60944	-1.32854	73.5063	64.8909
24	-1.60944	-1.30469	75.2086	66.9907
25	-1.60944	-1.28155	76.8509	69.0533
26	-1.60944	-1.25908	78.4362	71.0797
27	-0.867501	-1.23724	79.967	72.153
28	-0.798508	-1.21596	81.4455	73.124
29	-0.693147	-1.19522	82.8741	73.9524
30	-0.616186	-1.17499	84.2547	74.6764
31	-0.562119	-1.15522	85.5892	75.3258
32	-0.510826	-1.1359	86.8795	75.906
33	-0.494296	-1.11699	88.1271	76.4582
34	-0.287682	-1.09847	89.3338	76.7742
35	0	-1.08032	90.5009	76.7742
36	0	-1.06252	91.6298	76.7742
37	0	-1.04505	92.7219	76.7742
38	0	-1.02789	93.7785	76.7742
39	0	-1.01104	94.8007	76.7742
40	0	-0.994457	95.7896	76.7742
41	0	-0.97815	96.7464	76.7742
42	0	-0.9621	97.6721	76.7742
43	0	-0.946291	98.5675	76.7742
44	0	-0.930718	99.4338	76.7742
45	0	-0.915365	100.272	76.7742
46	0	-0.900227	101.082	76.7742
47	0	-0.885291	101.866	76.7742
48	0	-0.87055	102.624	76.7742
49	0	-0.855996	103.356	76.7742
50	0	-0.841621	104.065	76.7742
51	0	-0.827417	104.749	76.7742

52	0	-0.813379	105.411	76.7742
53	0	-0.7995	106.05	76.7742
54	0	-0.785774	106.668	76.7742
55	0	-0.772193	107.264	76.7742
56	0	-0.758753	107.84	76.7742
57	0	-0.745449	108.395	76.7742
58	0	-0.732275	108.931	76.7742
59	0	-0.719228	109.449	76.7742
60	0	-0.706302	109.948	76.7742
61	0	-0.693493	110.429	76.7742
62	0	-0.680797	110.892	76.7742
63	0	-0.665079	111.334	76.7742
64	0	-0.652622	111.76	76.7742
65	0	-0.640266	112.17	76.7742
66	0	-0.628006	112.565	76.7742
67	0	-0.615839	112.944	76.7742
68	0	-0.603765	113.308	76.7742
69	0	-0.591776	113.659	76.7742
70	0	-0.579873	113.995	76.7742
71	0	-0.568052	114.318	76.7742
72	0	-0.556308	114.627	76.7742
73	0	-0.544642	114.924	76.7742
74	0	-0.533048	115.208	76.7742
75	0	-0.521527	115.48	76.7742
76	0	-0.510074	115.74	76.7742
77	0	-0.498687	115.989	76.7742
78	0	-0.487364	116.226	76.7742
79	0	-0.476105	116.453	76.7742
80	0	-0.464904	116.669	76.7742
81	0	-0.453763	116.875	76.7742
82	0	-0.442676	117.071	76.7742
83	0	-0.431644	117.257	76.7742
84	0	-0.420664	117.434	76.7742
85	0	-0.409735	117.602	76.7742
86	0	-0.398855	117.761	76.7742
87	0	-0.388022	117.912	76.7742
88	0	-0.377233	118.054	76.7742
89	0	-0.36649	118.188	76.7742
90	0	-0.355788	118.315	76.7742
91	0	-0.345126	118.434	76.7742
92	0	-0.334503	118.546	76.7742
93	0	-0.323919	118.651	76.7742
94	0	-0.31337	118.749	76.7742
95	0	-0.302855	118.841	76.7742
96	0	-0.292375	118.926	76.7742
97	0	-0.281926	119.006	76.7742
98	0	-0.271509	119.079	76.7742
99	0	-0.26112	119.148	76.7742
100	0	-0.250759	119.21	76.7742
101	0	-0.240426	119.268	76.7742
102	0	-0.230118	119.321	76.7742
103	0	-0.219834	119.37	76.7742
104	0	-0.209575	119.413	76.7742
105	0	-0.199336	119.453	76.7742
106	0	-0.189118	119.489	76.7742
107	0	-0.17892	119.521	76.7742
108	0	-0.168741	119.549	76.7742
109	0	-0.158579	119.575	76.7742
110	0	-0.148434	119.597	76.7742
111	0	-0.138305	119.616	76.7742
112	0	-0.128189	119.632	76.7742
113	0	-0.118085	119.646	76.7742

114	0	-0.107995	119.658	76.7742
115	0	-0.0979139	119.667	76.7742
116	0	-0.0878447	119.675	76.7742
117	0	-0.0777834	119.681	76.7742
118	0	-0.0677301	119.686	76.7742
119	0	-0.0576847	119.689	76.7742
120	0	-0.0476439	119.691	76.7742
121	0	-0.0376076	119.693	76.7742
122	0	-0.0275759	119.694	76.7742
123	0	-0.0175476	119.694	76.7742
124	0	-0.00751925	119.694	76.7742
125	0	0.00751925	119.694	76.7742
126	0	0.0175476	119.694	76.7742
127	0	0.0275759	119.695	76.7742
128	0	0.0376076	119.696	76.7742
129	0	0.0476439	119.699	76.7742
130	0	0.0576847	119.702	76.7742
131	0	0.0677301	119.707	76.7742
132	0	0.0777834	119.713	76.7742
133	0	0.0878447	119.72	76.7742
134	0	0.0979139	119.73	76.7742
135	0	0.107995	119.742	76.7742
136	0	0.118085	119.756	76.7742
137	0	0.128189	119.772	76.7742
138	0	0.138305	119.791	76.7742
139	0	0.148434	119.813	76.7742
140	0	0.158579	119.838	76.7742
141	0	0.168741	119.867	76.7742
142	0	0.17892	119.899	76.7742
143	0	0.189118	119.935	76.7742
144	0	0.199336	119.974	76.7742
145	0	0.209575	120.018	76.7742
146	0	0.219834	120.067	76.7742
147	0	0.230118	120.119	76.7742
148	0	0.240426	120.177	76.7742
149	0	0.250759	120.24	76.7742
150	0	0.26112	120.308	76.7742
151	0	0.271509	120.382	76.7742
152	0	0.281926	120.462	76.7742
153	0	0.292375	120.547	76.7742
154	0.0487902	0.302855	120.639	76.789
155	0.0487902	0.31337	120.737	76.8042
156	0.0487902	0.323919	120.842	76.82
157	0.0861777	0.334503	120.954	76.8489
158	0.10436	0.345126	121.073	76.8849
159	0.122218	0.355788	121.199	76.9284
160	0.270027	0.36649	121.334	77.0273
161	0.371564	0.377233	121.476	77.1675
162	0.392042	0.388022	121.627	77.3196
163	0.530628	0.398855	121.786	77.5313
164	0.530628	0.409735	121.954	77.7487
165	0.631272	0.420664	122.131	78.0142
166	0.652325	0.431644	122.317	78.2958
167	0.667829	0.442676	122.513	78.5914
168	0.693147	0.453763	122.719	78.906
169	0.693147	0.464904	122.935	79.2282
170	0.703098	0.476105	123.162	79.563
171	0.746688	0.487364	123.399	79.9269
172	0.802002	0.498687	123.648	80.3268
173	0.802002	0.510074	123.908	80.7359
174	0.955511	0.521527	124.18	81.2342
175	0.955511	0.533048	124.464	81.7436

176	0.97456	0.544642		124.761	82.2743	
177	0.993252		0.556308		125.07	82.8269
178	0.993252		0.568052		125.393	83.3911
179	1.1314	0.579873		125.729	84.0472	
180	1.19996	0.591776		126.079	84.7573	
181	1.28093	0.603765		126.444	85.5307	
182	1.28093	0.615839		126.823	86.3195	
183	1.28647	0.628006		127.218	87.1274	
184	1.36354	0.640266		127.627	88.0005	
185	1.38629	0.652622		128.053	88.9052	
186	1.38629	0.665079		128.496	89.8272	
187	1.43508	0.680797		128.959	90.8042	
188	1.45862	0.693493		129.44	91.8157	
189	1.52606	0.706302		129.939	92.8936	
190	1.53256	0.719228		130.456	93.9958	
191	1.57277	0.732275		130.993	95.1476	
192	1.57691	0.745449		131.548	96.3231	
193	1.58309	0.758753		132.124	97.5242	
194	1.60944	0.772193		132.72	98.767	
195	1.60944	0.785774		133.338	100.032	
196	1.60944	0.7995	133.977	101.318		
197	1.60944	0.813379		134.638	102.628	
198	1.60944	0.827417		135.323	103.959	
199	1.60944	0.841621		136.031	105.314	
200	1.62924	0.855996		136.764	106.708	
201	1.64287	0.87055	137.522	108.139		
202	1.64866	0.885291		138.306	109.598	
203	1.70475	0.900227		139.116	111.133	
204	1.74572	0.915365		139.954	112.731	
205	1.7492	0.930718		140.82	114.359	
206	1.75094	0.946291		141.716	116.016	
207	1.75786	0.9621	142.641	117.707		
208	1.76644	0.97815	143.598	119.435		
209	1.77834	0.994457		144.587	121.203	
210	1.82455	1.01104	145.609	123.048		
211	1.83737	1.02789	146.666	124.936		
212	1.89762	1.04505	147.758	126.92		
213	1.90211	1.06252	148.887	128.941		
214	1.94591	1.08032	150.054	131.043		
215	1.94591	1.09847	151.261	133.18		
216	2.0149	1.11699	152.508	135.431		
217	2.04122	1.1359	153.799	137.75		
218	2.06939	1.15522	155.133	140.14		
219	2.11626	1.17499	156.514	142.627		
220	2.13298	1.19522	157.942	145.176		
221	2.13771	1.21596	159.421	147.776		
222	2.15176	1.23724	160.952	150.438		
223	2.16332	1.25908	162.537	153.162		
224	2.17475	1.28155	164.179	155.949		
225	2.195	1.30469	165.881	158.812		
226	2.20827	1.32854	167.646	161.746		
227	2.24177	1.35317	169.477	164.78		
228	2.24601	1.37866	171.378	167.876		
229	2.30259	1.40507	173.352	171.111		
230	2.34181	1.4325	175.404	174.466		
231	2.37955	1.46106	177.539	177.943		
232	2.3979	1.49085	179.762	181.518		
233	2.43361	1.52203	182.078	185.222		
234	2.45959	1.55477	184.496	189.046		
235	2.50144	1.58927	187.022	193.021		
236	2.5096	1.62576	189.665	197.101		
237	2.5416	1.66456	192.435	201.332		

238	2.56495	1.70604	195.346	205.708
239	2.62467	1.75069	198.411	210.303
240	2.70805	1.79912	201.648	215.175
241	2.77259	1.85218	205.078	220.31
242	2.83321	1.91103	208.73	225.725
243	2.83321	1.97737	212.64	231.327
244	2.83321	2.05375	216.858	237.146
245	2.83321	2.14441	221.457	243.221
246	3.23868	2.25713	226.551	250.531
247	3.61092	2.40892	232.354	259.23
248	3.68888	2.65209	239.388	269.013

Data Set Standard Deviation = 1.17375
Numerator = 72368
Denominator = 81460.7
W Statistic = 0.88838 = 72368 / 81460.7

5% Critical value of 0.976 exceeds 0.88838
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.88838
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 = 0.941841
0.941841 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00401606	-2.65209	73.8251	344.01
2	-1.60944	0.00803213	-2.40892	73.8251	332.136
3	-1.60944	0.0120482	-2.25713	73.8251	324.723
4	-1.60944	0.0160643	-2.14441	73.8251	319.219
5	-1.60944	0.0200803	-2.05375	73.8251	314.791
6	-1.60944	0.0240964	-1.97737	73.8251	311.062
7	-1.60944	0.0281124	-1.91103	73.8251	307.822
8	-1.60944	0.0321285	-1.85218	73.8251	304.948
9	-1.60944	0.0361446	-1.79912	73.8251	302.357
10	-1.60944	0.0401606	-1.75069	73.8251	299.992
11	-1.60944	0.0441767	-1.70604	73.8251	297.812
12	-1.60944	0.0481928	-1.66456	73.8251	295.786
13	-1.60944	0.0522088	-1.62576	73.8251	293.891
14	-1.60944	0.0562249	-1.58927	73.8251	292.109
15	-1.60944	0.060241	-1.55477	73.8251	290.425
16	-1.60944	0.064257	-1.52203	73.8251	288.826
17	-1.60944	0.0682731	-1.49085	73.8251	287.303
18	-1.60944	0.0722892	-1.46106	73.8251	285.848
19	-1.60944	0.0763052	-1.4325	73.8251	284.454
20	-1.60944	0.0803213	-1.40507	73.8251	283.114
21	-1.60944	0.0843373	-1.37866	73.8251	281.824
22	-1.60944	0.0883534	-1.35317	73.8251	280.58
23	-1.60944	0.0923695	-1.32854	73.8251	279.377
24	-1.60944	0.0963855	-1.30469	73.8251	278.212
25	-1.60944	0.100402	-1.28155	73.8251	277.082
26	-1.60944	0.104418	-1.25908	73.8251	275.985
27	-0.867501	0.108434	-1.23724	139.981	274.918
28	-0.798508	0.11245	-1.21596	146.133	273.879
29	-0.693147	0.116466	-1.19522	155.528	272.867
30	-0.616186	0.120482	-1.17499	162.39	271.879
31	-0.562119	0.124498	-1.15522	167.211	270.913
32	-0.510826	0.128514	-1.1359	171.785	269.97
33	-0.494296	0.13253	-1.11699	173.259	269.046
34	-0.287682	0.136546	-1.09847	191.682	268.142
35	0	0.140562	-1.08032	217.333	267.256
36	0	0.144578	-1.06252	217.333	266.386
37	0	0.148594	-1.04505	217.333	265.533
38	0	0.15261	-1.02789	217.333	264.695
39	0	0.156627	-1.01104	217.333	263.872
40	0	0.160643	-0.994457	217.333	263.063
41	0	0.164659	-0.97815	217.333	262.266
42	0	0.168675	-0.9621	217.333	261.483
43	0	0.172691	-0.946291	217.333	260.711
44	0	0.176707	-0.930718	217.333	259.95
45	0	0.180723	-0.915365	217.333	259.2
46	0	0.184739	-0.900227	217.333	258.461
47	0	0.188755	-0.885291	217.333	257.732
48	0	0.192771	-0.87055	217.333	257.012

49	0	0.196787	-0.855996	217.333	256.301
50	0	0.200803	-0.841621	217.333	255.599
51	0	0.204819	-0.827417	217.333	254.906
52	0	0.208835	-0.813379	217.333	254.22
53	0	0.212851	-0.7995	217.333	253.542
54	0	0.216867	-0.785774	217.333	252.872
55	0	0.220884	-0.772193	217.333	252.209
56	0	0.2249	-0.758753	217.333	251.552
57	0	0.228916	-0.745449	217.333	250.903
58	0	0.232932	-0.732275	217.333	250.259
59	0	0.236948	-0.719228	217.333	249.622
60	0	0.240964	-0.706302	217.333	248.991
61	0	0.24498	-0.693493	217.333	248.366
62	0	0.248996	-0.680797	217.333	247.746
63	0	0.253012	-0.665079	217.333	246.978
64	0	0.257028	-0.652622	217.333	246.37
65	0	0.261044	-0.640266	217.333	245.766
66	0	0.26506	-0.628006	217.333	245.168
67	0	0.269076	-0.615839	217.333	244.573
68	0	0.273092	-0.603765	217.333	243.984
69	0	0.277108	-0.591776	217.333	243.398
70	0	0.281124	-0.579873	217.333	242.817
71	0	0.285141	-0.568052	217.333	242.24
72	0	0.289157	-0.556308	217.333	241.666
73	0	0.293173	-0.544642	217.333	241.097
74	0	0.297189	-0.533048	217.333	240.531
75	0	0.301205	-0.521527	217.333	239.968
76	0	0.305221	-0.510074	217.333	239.409
77	0	0.309237	-0.498687	217.333	238.853
78	0	0.313253	-0.487364	217.333	238.3
79	0	0.317269	-0.476105	217.333	237.75
80	0	0.321285	-0.464904	217.333	237.203
81	0	0.325301	-0.453763	217.333	236.659
82	0	0.329317	-0.442676	217.333	236.117
83	0	0.333333	-0.431644	217.333	235.579
84	0	0.337349	-0.420664	217.333	235.042
85	0	0.341365	-0.409735	217.333	234.509
86	0	0.345382	-0.398855	217.333	233.977
87	0	0.349398	-0.388022	217.333	233.448
88	0	0.353414	-0.377233	217.333	232.922
89	0	0.35743	-0.36649	217.333	232.397
90	0	0.361446	-0.355788	217.333	231.874
91	0	0.365462	-0.345126	217.333	231.354
92	0	0.369478	-0.334503	217.333	230.835
93	0	0.373494	-0.323919	217.333	230.318
94	0	0.37751	-0.31337	217.333	229.803
95	0	0.381526	-0.302855	217.333	229.289
96	0	0.385542	-0.292375	217.333	228.778
97	0	0.389558	-0.281926	217.333	228.267
98	0	0.393574	-0.271509	217.333	227.759
99	0	0.39759	-0.26112	217.333	227.251
100	0	0.401606	-0.250759	217.333	226.745
101	0	0.405622	-0.240426	217.333	226.241
102	0	0.409639	-0.230118	217.333	225.737
103	0	0.413655	-0.219834	217.333	225.235
104	0	0.417671	-0.209575	217.333	224.734
105	0	0.421687	-0.199336	217.333	224.234
106	0	0.425703	-0.189118	217.333	223.735
107	0	0.429719	-0.17892	217.333	223.237
108	0	0.433735	-0.168741	217.333	222.74
109	0	0.437751	-0.158579	217.333	222.244
110	0	0.441767	-0.148434	217.333	221.749

111	0	0.445783	-0.138305	217.333	221.254
112	0	0.449799	-0.128189	217.333	220.76
113	0	0.453815	-0.118085	217.333	220.267
114	0	0.457831	-0.107995	217.333	219.774
115	0	0.461847	-0.0979139	217.333	219.281
116	0	0.465863	-0.0878447	217.333	218.79
117	0	0.46988	-0.0777834	217.333	218.298
118	0	0.473896	-0.0677301	217.333	217.807
119	0	0.477912	-0.0576847	217.333	217.317
120	0	0.481928	-0.0476439	217.333	216.827
121	0	0.485944	-0.0376076	217.333	216.337
122	0	0.48996	-0.0275759	217.333	215.847
123	0	0.493976	-0.0175476	217.333	215.357
124	0	0.497992	-0.00751925	217.333	214.867
125	0	0.502008	0.00751925	217.333	214.133
126	0	0.506024	0.0175476	217.333	213.643
127	0	0.51004	0.0275759	217.333	213.153
128	0	0.514056	0.0376076	217.333	212.663
129	0	0.518072	0.0476439	217.333	212.173
130	0	0.522088	0.0576847	217.333	211.683
131	0	0.526104	0.0677301	217.333	211.193
132	0	0.53012	0.0777834	217.333	210.702
133	0	0.534137	0.0878447	217.333	210.21
134	0	0.538153	0.0979139	217.333	209.719
135	0	0.542169	0.107995	217.333	209.226
136	0	0.546185	0.118085	217.333	208.733
137	0	0.550201	0.128189	217.333	208.24
138	0	0.554217	0.138305	217.333	207.746
139	0	0.558233	0.148434	217.333	207.251
140	0	0.562249	0.158579	217.333	206.756
141	0	0.566265	0.168741	217.333	206.26
142	0	0.570281	0.17892	217.333	205.763
143	0	0.574297	0.189118	217.333	205.265
144	0	0.578313	0.199336	217.333	204.766
145	0	0.582329	0.209575	217.333	204.266
146	0	0.586345	0.219834	217.333	203.765
147	0	0.590361	0.230118	217.333	203.263
148	0	0.594378	0.240426	217.333	202.759
149	0	0.598394	0.250759	217.333	202.255
150	0	0.60241	0.26112	217.333	201.749
151	0	0.606426	0.271509	217.333	201.241
152	0	0.610442	0.281926	217.333	200.733
153	0	0.614458	0.292375	217.333	200.222
154	0.0487902	0.618474	0.302855	221.684	199.711
155	0.0487902	0.62249	0.31337	221.684	199.197
156	0.0487902	0.626506	0.323919	221.684	198.682
157	0.0861777	0.630522	0.334503	225.018	198.165
158	0.10436	0.634538	0.345126	226.639	197.646
159	0.122218	0.638554	0.355788	228.231	197.126
160	0.270027	0.64257	0.36649	241.411	196.603
161	0.371564	0.646586	0.377233	250.464	196.078
162	0.392042	0.650602	0.388022	252.29	195.552
163	0.530628	0.654618	0.398855	264.648	195.023
164	0.530628	0.658635	0.409735	264.648	194.491
165	0.631272	0.662651	0.420664	273.622	193.958
166	0.652325	0.666667	0.431644	275.499	193.421
167	0.667829	0.670683	0.442676	276.881	192.883
168	0.693147	0.674699	0.453763	279.139	192.341
169	0.693147	0.678715	0.464904	279.139	191.797
170	0.703098	0.682731	0.476105	280.026	191.25
171	0.746688	0.686747	0.487364	283.913	190.7
172	0.802002	0.690763	0.498687	288.845	190.147

173	0.802002	0.694779	0.510074	288.845	189.591
174	0.955511	0.698795	0.521527	302.533	189.032
175	0.955511	0.702811	0.533048	302.533	188.469
176	0.97456	0.706827	0.544642	304.232	187.903
177	0.993252	0.710843	0.556308	305.898	187.334
178	0.993252	0.714859	0.568052	305.898	186.76
179	1.1314	0.718876	0.579873	318.217	186.183
180	1.19996	0.722892	0.591776	324.33	185.602
181	1.28093	0.726908	0.603765	331.55	185.016
182	1.28093	0.730924	0.615839	331.55	184.427
183	1.28647	0.73494	0.628006	332.044	183.832
184	1.36354	0.738956	0.640266	338.915	183.234
185	1.38629	0.742972	0.652622	340.945	182.63
186	1.38629	0.746988	0.665079	340.945	182.022
187	1.43508	0.751004	0.680797	345.295	181.254
188	1.45862	0.75502	0.693493	347.393	180.634
189	1.52606	0.759036	0.706302	353.407	180.009
190	1.53256	0.763052	0.719228	353.986	179.378
191	1.57277	0.767068	0.732275	357.572	178.741
192	1.57691	0.771084	0.745449	357.942	178.097
193	1.58309	0.7751	0.758753	358.493	177.448
194	1.60944	0.779116	0.772193	360.842	176.791
195	1.60944	0.783133	0.785774	360.842	176.128
196	1.60944	0.787149	0.7995	360.842	175.458
197	1.60944	0.791165	0.813379	360.842	174.78
198	1.60944	0.795181	0.827417	360.842	174.094
199	1.60944	0.799197	0.841621	360.842	173.401
200	1.62924	0.803213	0.855996	362.607	172.699
201	1.64287	0.807229	0.87055	363.823	171.988
202	1.64866	0.811245	0.885291	364.339	171.268
203	1.70475	0.815261	0.900227	369.34	170.539
204	1.74572	0.819277	0.915365	372.993	169.8
205	1.7492	0.823293	0.930718	373.304	169.05
206	1.75094	0.827309	0.946291	373.459	168.289
207	1.75786	0.831325	0.9621	374.076	167.517
208	1.76644	0.835341	0.97815	374.841	166.734
209	1.77834	0.839357	0.994457	375.902	165.937
210	1.82455	0.843373	1.01104	380.022	165.128
211	1.83737	0.84739	1.02789	381.165	164.305
212	1.89762	0.851406	1.04505	386.538	163.467
213	1.90211	0.855422	1.06252	386.938	162.614
214	1.94591	0.859438	1.08032	390.844	161.744
215	1.94591	0.863454	1.09847	390.844	160.858
216	2.0149	0.86747	1.11699	396.996	159.954
217	2.04122	0.871486	1.1359	399.342	159.03
218	2.06939	0.875502	1.15522	401.854	158.087
219	2.11626	0.879518	1.17499	406.033	157.121
220	2.13298	0.883534	1.19522	407.524	156.133
221	2.13771	0.88755	1.21596	407.946	155.121
222	2.15176	0.891566	1.23724	409.199	154.082
223	2.16332	0.895582	1.25908	410.23	153.015
224	2.17475	0.899598	1.28155	411.249	151.918
225	2.195	0.903614	1.30469	413.054	150.788
226	2.20827	0.907631	1.32854	414.238	149.623
227	2.24177	0.911647	1.35317	417.225	148.42
228	2.24601	0.915663	1.37866	417.603	147.176
229	2.30259	0.919679	1.40507	422.647	145.886
230	2.34181	0.923695	1.4325	426.144	144.546
231	2.37955	0.927711	1.46106	429.51	143.152
232	2.3979	0.931727	1.49085	431.146	141.697
233	2.43361	0.935743	1.52203	434.331	140.174
234	2.45959	0.939759	1.55477	436.647	138.575

235	2.50144	0.943775		1.58927	440.378	136.891
236	2.5096	0.947791		1.62576	441.106	135.109
237	2.5416	0.951807		1.66456	443.96	133.214
238	2.56495	0.955823		1.70604	446.041	131.188
239	2.62467	0.959839		1.75069	451.366	129.008
240	2.70805	0.963855		1.79912	458.801	126.643
241	2.77259	0.967871		1.85218	464.556	124.052
242	2.83321	0.971888		1.91103	469.962	121.178
243	2.83321	0.975904		1.97737	469.962	117.938
244	2.83321	0.97992	2.05375	469.962	114.209	
245	2.83321	0.983936		2.14441	469.962	109.781
246	3.23868	0.987952		2.25713	506.115	104.277
247	3.61092	0.991968		2.40892	539.307	96.8642
248	3.68888	0.995984		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	73
	9/23/1999	ND<0	73
	3/15/2000	3.61092	247
	9/24/2003	ND<0	73
	3/11/2004	ND<0	73
	10/12/2004	ND<0	73
	4/1/2005	ND<0	73
	10/25/2005	ND<0	73
	4/29/2006	ND<0	73
	11/18/2006	ND<0	73
	5/23/2007	0.10436 J	158
	11/28/2007	ND<0	73
	6/5/2008	0.371564 J	161
	11/20/2008	ND<0	73
	6/11/2009	ND<-1.60944	73
	11/16/2009	ND<-1.60944	73
	6/30/2010	ND<-1.60944	73
	11/12/2010	ND<-1.60944 U	73
	7/5/2011	ND<-1.60944 U	73

Rank Sum = 1734
Rank Mean = 91.2632

Background Rank Sum = 1734
Background Rank Mean = 91.2632

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<0	73
	8/24/1995	ND<0	73
	9/28/1995	ND<0	73
	10/26/1995	ND<0	73
	11/19/1996	ND<0	73
	12/19/1996	ND<0	73
	3/24/1997	2.83321	242
	9/24/1997	ND<0	73
	4/7/1998	ND<0	73
	9/23/1998	2.83321	243
	3/16/1999	1.60944	194
	9/23/1999	1.60944	195
	3/15/2000	2.83321	244
	9/24/2003	2.56495	238
	3/11/2004	ND<0	73
	10/12/2004	ND<0	73
	4/1/2005	1.36354	184
	10/25/2005	1.83737	211
	4/29/2006	2.3979	232
	11/18/2006	2.43361	233
	5/23/2007	2.37955	231

	11/28/2007	2.195	225	
	6/5/2008	2.13771	221	
	11/20/2008	2.62467		239
	6/11/2009	2.15176		222
	11/16/2009	2.16332		223
	6/30/2010	2.30259 H		229
	11/12/2010	2.20827		226
	7/5/2011	2.11626	219	
	11/22/2011	1.94591		214
	11/22/2011	1.94591		215
	6/5/2012	1.82455	210	

Rank Sum = 5620
Rank Mean = 175.625

MW-10	7/20/1995	ND<0	73	
	8/24/1995	ND<0	73	
	9/28/1995	ND<0	73	
	10/26/1995	ND<0	73	
	11/19/1996	ND<0	73	
	12/19/1996	ND<0	73	
	3/24/1997	ND<0	73	
	9/24/1997	ND<0	73	
	4/7/1998	ND<0	73	
	9/23/1998	ND<0	73	
	3/16/1999	1.38629		185
	9/23/1999	ND<0	73	
	3/15/2000	ND<0	73	
	9/24/2003	ND<0	73	
	3/11/2004	ND<0	73	
	10/12/2004	ND<0	73	
	4/1/2005	0.122218 J	159	
	10/25/2005	ND<0	73	
	4/29/2006	0.270027 J		160
	11/18/2006	0.631272 J		165
	5/23/2007	1.28647		183
	11/28/2007	1.57277		191
	6/5/2008	0.802002	172	
	11/20/2008	0.746688		171
	6/11/2009	1.1314	179	
	11/16/2009	1.28093		181
	6/30/2010	1.43508 H		187
	11/12/2010	1.45862		188
	7/5/2011	0.993252 J	177	
	11/22/2011	1.52606		189
	6/5/2012	1.75786	207	

Rank Sum = 3862
Rank Mean = 124.581

MW-6	7/20/1995	ND<0	73	
	8/24/1995	ND<0	73	
	9/28/1995	ND<0	73	
	10/26/1995	ND<0	73	
	11/19/1996	ND<0	73	
	12/19/1996	ND<0	73	
	3/24/1997	ND<0	73	
	9/24/1997	ND<0	73	
	4/7/1998	ND<0	73	
	9/23/1998	ND<0	73	
	3/16/1999	1.60944		196
	9/23/1999	0.693147		168
	3/15/2000	ND<0	73	
	9/24/2003	ND<0	73	

	3/11/2004	ND<0	73	
	10/12/2004	ND<0	73	
	4/1/2005	ND<0	73	
	10/25/2005	ND<0	73	
	4/29/2006	ND<0	73	
	11/18/2006	ND<0	73	
	5/23/2007	ND<0	73	
	11/28/2007	ND<0	73	
	6/5/2008	0.0861777 J	157	
	11/20/2008	1.7492	205	
	6/11/2009	ND<-1.60944		73
	11/16/2009	ND<-1.60944		73
	6/30/2010	ND<-1.60944		73
	11/12/2010	ND<-1.60944 U		73
	7/5/2011	ND<-1.60944 U	73	
	11/22/2011	ND<-1.60944 U		73
	6/5/2012	ND<-1.60944 U	73	

Rank Sum = 2697
Rank Mean = 87

MW-8	7/20/1995	ND<0	73	
	8/24/1995	ND<0	73	
	9/28/1995	2.50144		235
	10/26/1995	ND<0	73	
	11/19/1996	ND<0	73	
	12/19/1996	ND<0	73	
	3/24/1997	ND<0	73	
	9/24/1997	ND<0	73	
	4/7/1998	ND<0	73	
	9/23/1998	ND<0	73	
	3/16/1999	0.693147		169
	9/23/1999	3.68888		248
	3/15/2000	ND<0	73	
	9/24/2003	ND<0	73	
	3/11/2004	ND<0	73	
	10/12/2004	ND<0	73	
	4/1/2005	1.64287	201	
	10/25/2005	1.89762		212
	4/29/2006	1.53256		190
	11/18/2006	1.19996		180
	5/23/2007	1.77834		209
	11/28/2007	1.76644		208
	6/5/2008	0.802002	173	
	11/20/2008	0.0487902 J		154
	6/11/2009	1.28093		182
	6/30/2010	0.530628 H		163
	11/12/2010	1.62924		200
	7/5/2011	-0.510826 J	151	
	11/22/2011	0.955511		174
	6/5/2012	0.993252	178	

Rank Sum = 4176
Rank Mean = 139.2

MW-11R	7/20/1995	ND<0	73	
	8/24/1995	ND<0	73	
	9/28/1995	ND<0	73	
	10/26/1995	ND<0	73	
	11/19/1996	ND<0	73	
	12/19/1996	ND<0	73	
	3/24/1997	ND<0	73	
	9/24/1997	ND<0	73	
	4/7/1998	ND<0	73	

	9/23/1998	ND<0	73	
	3/16/1999	ND<0	73	
	9/23/1999	ND<0	73	
	3/15/2000	ND<0	73	
	9/24/2003	2.83321		245
	3/11/2004	ND<0	73	
	10/12/2004	2.70805		240
	4/1/2005	2.34181	230	
	10/25/2005	2.0149	216	
	4/29/2006	2.06939		218
	11/18/2006	0.97456		176
	5/23/2007	3.23868		246
	11/28/2007	1.58309		193
	6/5/2008	ND<0	73	
	11/20/2008	ND<0	73	
	6/11/2009	ND<-1.60944		73
	11/16/2009	ND<-1.60944		73
	6/30/2010	0.530628	H	164
	11/12/2010	ND<-1.60944	U	73
	7/5/2011	ND<-1.60944	U	73
	11/22/2011	ND<-1.60944	U	73
	11/22/2011	ND<-1.60944	U	73
	6/5/2012	ND<-1.60944	U	73

Rank Sum = 3607
Rank Mean = 112.719

MW-7	7/20/1995	ND<0	73	
	8/24/1995	ND<0	73	
	9/28/1995	2.5416	237	
	10/26/1995	ND<0	73	
	11/19/1996	ND<0	73	
	12/19/1996	2.45959		234
	3/24/1997	ND<0	73	
	9/24/1997	ND<0	73	
	4/7/1998	ND<0	73	
	9/23/1998	ND<0	73	
	3/16/1999	1.60944		197
	9/23/1999	ND<0	73	
	3/15/2000	ND<0	73	
	9/24/2003	ND<0	73	
	3/11/2004	ND<0	73	
	10/12/2004	ND<0	73	
	4/1/2005	1.75094	206	
	10/25/2005	2.13298		220
	4/29/2006	2.24177		227
	11/18/2006	1.57691		192
	5/23/2007	2.24601		228
	11/28/2007	2.5096	236	
	6/5/2008	2.17475	224	
	11/20/2008	1.74572		204
	6/11/2009	1.64866		202
	11/16/2009	0.955511		175
	6/30/2010	1.90211	H	213
	11/12/2010	2.04122		217
	7/5/2011	1.38629	186	
	11/22/2011	1.60944		198
	6/5/2012	1.70475	203	

Rank Sum = 4748
Rank Mean = 153.161

MW-12AR	3/16/1999	ND<0	73	
	9/23/1999	1.60944		199

	3/15/2000	2.77259	241
	9/24/2003	ND<0	73
	3/11/2004	ND<0	73
	10/12/2004	ND<0	73
	4/1/2005	ND<0	73
	10/25/2005	0.703098	170
	4/29/2006	0.392042 J	162
	11/18/2006	0.0487902 J	155
	5/23/2007	0.0487902 J	156
	11/28/2007	ND<0	73
	6/5/2008	ND<0	73
	11/20/2008	ND<0	73
	6/11/2009	-0.867501 J	146
	11/16/2009	-0.693147 J	148
	6/30/2010	-0.616186 J	149
	11/12/2010	-0.287682 J	153
	7/5/2011	-0.494296 J	152
	11/22/2011	ND<-1.60944 U	73
	6/5/2012	-0.562119 J	150

Rank Sum = 2638
Rank Mean = 125.619

MW-12BR	3/16/1999	ND<0	73
	9/23/1999	ND<0	73
	3/15/2000	ND<0	73
	9/24/2003	ND<0	73
	3/11/2004	ND<0	73
	10/12/2004	ND<0	73
	4/1/2005	0.667829 J	167
	10/25/2005	ND<0	73
	4/29/2006	ND<0	73
	11/18/2006	ND<0	73
	5/23/2007	ND<0	73
	11/28/2007	ND<0	73
	6/5/2008	0.652325 J	166
	11/20/2008	ND<0	73
	6/11/2009	ND<-1.60944	73
	11/16/2009	ND<-1.60944	73
	6/30/2010	ND<-1.60944	73
	11/12/2010	-0.798508 J	147
	7/5/2011	ND<-1.60944 U	73
	11/22/2011	ND<-1.60944 U	73
	6/5/2012	ND<-1.60944 U	73

Rank Sum = 1794
Rank Mean = 85.4286

Calculation Results:

Kruskal-Wallis H Statistic = 42.1099
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 52.6285
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
42.1099 > 15.5073 indicating a significant group difference at 5% significance level
52.6285 > 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 91.2632

Well	Mean Rank	Dif from Bkg	Critical Value
MW-9	**175.625**	**84.3618**	**48.3328**
MW-10	**124.581**	**33.3175**	**48.6223**

MW-6	87	-4.2631	48.6223	
MW-8	139.2	47.9368	48.9293	
MW-11R	112.719	21.4556	48.3328	
MW-7	153.161	61.8981	48.6223	
MW-12AR	125.619	34.3559	52.8387	
MW-12BR	85.4286	-5.8345	52.8387	

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 91.2632

Well	Mean Rank	Dif from Bkg	Critical Value
MW-9	175.625	84.3618	52.1928
MW-10	124.581	33.3175	52.5055
MW-6	87	-4.2631	52.5055
MW-8	139.2	47.9368	52.837
MW-11R	112.719	21.4556	52.1928
MW-7	153.161	61.8981	52.5055
MW-12AR	125.619	34.3559	57.0586
MW-12BR	85.4286	-5.8345	57.0586

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			
1.70475 (6/5/2012)	ND<0 (7/20/1995)	(1.70475 - 0)/(31 - 1)	
0.0568249			
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						
1.70475	(6/5/2012)	ND<0	(8/24/1995)	(1.70475 - 0)/(31 - 2)		
0.0587844						

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						
1.70475	(6/5/2012)	2.5416	(9/28/1995)	(1.70475 - 2.5416)/(31 - 3)		
-0.0298876						
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				
1.70475 (6/5/2012)	ND<0 (10/26/1995)	(1.70475 - 0)/(31 - 4)		
0.0631388				
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				
1.70475 (6/5/2012)	ND<0 (11/19/1996)	(1.70475 - 0)/(31 - 5)		
0.0655672				
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					
1.70475	(6/5/2012)	2.45959	(12/19/1996)	(1.70475 - 2.45959)/(31 - 6)	
-0.0301936					

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					
1.70475 (6/5/2012)	ND<0 (3/24/1997)	(1.70475 - 0)/(31 - 7)			
0.0710312					
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					
1.70475 (6/5/2012)	ND<0 (9/24/1997)	(1.70475 - 0)/(31 - 8)			
0.0741195					
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						
1.70475	(6/5/2012)	ND<0	(4/7/1998)	(1.70475 - 0)/(31 - 9)		
0.0774885						
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						
1.70475	(6/5/2012)	ND<0	(9/23/1998)	(1.70475 - 0)/(31 - 10)		
0.0811785						
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						
1.70475	(6/5/2012)	1.60944	(3/16/1999)	(1.70475 - 1.60944)/(31 - 11)		
0.00476551						
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					
1.70475	(6/5/2012)	ND<0	(9/23/1999)	(1.70475 - 0)/(31 - 12)	
0.0897236					

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					
1.70475	(6/5/2012)	ND<0	(3/15/2000)	(1.70475 - 0)/(31 - 13)	
0.0947082					

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
1.70475	(6/5/2012)	ND<0	(9/24/2003)	(1.70475 - 0)/(31 - 14)		
0.100279						
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						
1.70475	(6/5/2012)	ND<0	(3/11/2004)	(1.70475 - 0)/(31 - 15)		
0.106547						
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
1.70475	(6/5/2012)	ND<0	(10/12/2004)	(1.70475 - 0)/(31 - 16)		0.11365
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						
1.70475	(6/5/2012)	1.75094	(4/1/2005)	(1.70475 - 1.75094)/(31 - 17)		
-0.00329924						
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
1.70475	(6/5/2012)	2.13298	(10/25/2005)	(1.70475 - 2.13298)/(31 - 18)	-0.0329411
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
1.70475	(6/5/2012)	2.24177	(4/29/2006)	(1.70475 - 2.24177)/(31 - 19)	-0.0447521
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
1.70475	(6/5/2012)	1.57691	(11/18/2006)	(1.70475 - 1.57691)/(31 - 20)	0.0116212

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				
1.70475	(6/5/2012)	2.24601	(5/23/2007)	(1.70475 - 2.24601)/(31 - 21)
-0.0541267				
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				
1.70475	(6/5/2012)	2.5096	(11/28/2007)	(1.70475 - 2.5096)/(31 - 22)
-0.0894279				
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				
1.70475	(6/5/2012)	2.17475	(6/5/2008)	(1.70475 - 2.17475)/(31 - 23)
-0.0587505				
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
1.70475 (6/5/2012)	1.74572 (11/20/2008)	(1.70475 - 1.74572)/(31 - 24)	-0.00585249
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
1.70475 (6/5/2012)	1.64866 (6/11/2009)	(1.70475 - 1.64866)/(31 - 25)	0.00934824
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
1.70475 (6/5/2012)	0.955511 (11/16/2009)	(1.70475 - 0.955511)/(31 - 26)	0.149847
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
1.70475 (6/5/2012)	1.90211 H (6/30/2010)	(1.70475 - 1.90211)/(31 - 27)	-0.0493399
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
1.70475 (6/5/2012)	2.04122 (11/12/2010)	(1.70475 - 2.04122)/(31 - 28)	-0.112157
1.60944 (11/22/2011)	1.38629 (7/5/2011)	(1.60944 - 1.38629)/(30 - 29)	0.223144
1.70475 (6/5/2012)	1.38629 (7/5/2011)	(1.70475 - 1.38629)/(31 - 29)	0.159227
1.70475 (6/5/2012)	1.60944 (11/22/2011)	(1.70475 - 1.60944)/(31 - 30)	0.0953102

Number of Q values = 465

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	-0.112157
52	-0.107465
53	-0.103567
54	-0.0992115
55	-0.0988524
56	-0.0975565
57	-0.0970569
58	-0.0894279
59	-0.0883807

60	-0.0855479
61	-0.0807591
62	-0.0780632
63	-0.0752039
64	-0.0718842
65	-0.0707308
66	-0.0691891
67	-0.0689605
68	-0.068161
69	-0.0678807
70	-0.0655911
71	-0.0645445
72	-0.0644229
73	-0.0630482
74	-0.0587505
75	-0.0580076
76	-0.057485
77	-0.0573179
78	-0.0567463
79	-0.056476
80	-0.0541267
81	-0.0493399
82	-0.046665
83	-0.0447521
84	-0.0444349
85	-0.0436287
86	-0.0435951
87	-0.0426805
88	-0.0424582
89	-0.0405883
90	-0.0396596
91	-0.0378994
92	-0.0356315
93	-0.035423
94	-0.0345246
95	-0.0329411
96	-0.0303869
97	-0.0301936
98	-0.0298876
99	-0.0292563
100	-0.0273377
101	-0.0272413
102	-0.0272172
103	-0.0267063
104	-0.0266456
105	-0.0265467
106	-0.0256528
107	-0.0227129
108	-0.0222836
109	-0.02118
110	-0.0200153
111	-0.0190168
112	-0.0187393
113	-0.0183425
114	-0.0167553
115	-0.0167551
116	-0.0167551
117	-0.0164215
118	-0.0142383
119	-0.0127849
120	-0.0123969
121	-0.0108846

122	-0.0091762
123	-0.00784414
124	-0.00585249
125	-0.00361369
126	-0.00329924
127	-0.00168435
128	-0.000745992
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
198	0
199	0
200	0
201	0
202	0
203	0
204	0
205	0
206	0
207	0
208	0.00212089
209	0.00280148
210	0.00312565
211	0.00325232
212	0.00476551
213	0.00835388
214	0.00934824
215	0.0104829
216	0.0116212
217	0.0143488
218	0.015117
219	0.0182919
220	0.0235833
221	0.025399
222	0.0263894
223	0.0376775
224	0.0382205
225	0.039813
226	0.0422002
227	0.0434323
228	0.0455005
229	0.0464561
230	0.0471095
231	0.0495105
232	0.0502901
233	0.0513442
234	0.0521307
235	0.053084
236	0.0554518
237	0.0554979
238	0.0562066
239	0.0568249
240	0.0574799
241	0.0577623
242	0.0580382
243	0.0587844
244	0.0597195
245	0.0619015

246	0.0630134
247	0.0631388
248	0.0636577
249	0.0643775
250	0.0655672
251	0.066014
252	0.0682508
253	0.0686941
254	0.0693147
255	0.0699756
256	0.0706357
257	0.0710312
258	0.0716808
259	0.0729629
260	0.0731563
261	0.073158
262	0.0735009
263	0.0738762
264	0.0741195
265	0.0747921
266	0.0756008
267	0.0759007
268	0.0760843
269	0.0766399
270	0.0774885
271	0.0785076
272	0.0785085
273	0.0790419
274	0.0793507
275	0.079626
276	0.0804719
277	0.0811785
278	0.0815467
279	0.0818328
280	0.0824329
281	0.0827003
282	0.0829955
283	0.0850508
284	0.0864594
285	0.0866434
286	0.0868647
287	0.0872858
288	0.0876064
289	0.0887487
290	0.0892754
291	0.0894132
292	0.0897236
293	0.0915921
294	0.0918798
295	0.0924196
296	0.0941542
297	0.0946728
298	0.0947082
299	0.0951054
300	0.0953102
301	0.0955511
302	0.0969799
303	0.097201
304	0.0985572
305	0.0988524
306	0.099021
307	0.100111

308	0.100279
309	0.10059
310	0.102061
311	0.102689
312	0.103041
313	0.10356
314	0.105128
315	0.105673
316	0.106547
317	0.106638
318	0.107296
319	0.107433
320	0.108791
321	0.109107
322	0.109434
323	0.109911
324	0.111889
325	0.112301
326	0.113401
327	0.11365
328	0.114461
329	0.11496
330	0.116381
331	0.116729
332	0.118211
333	0.119505
334	0.12082
335	0.121301
336	0.123769
337	0.124543
338	0.124694
339	0.12547
340	0.12548
341	0.126724
342	0.126807
343	0.12682
344	0.127576
345	0.130854
346	0.13141
347	0.131869
348	0.132119
349	0.133311
350	0.134687
351	0.135865
352	0.135922
353	0.136081
354	0.137388
355	0.139113
356	0.139422
357	0.140376
358	0.143356
359	0.143594
360	0.144983
361	0.145476
362	0.145801
363	0.145911
364	0.146316
365	0.147623
366	0.149452
367	0.149847
368	0.149878
369	0.151732

370	0.152356
371	0.155339
372	0.157017
373	0.157691
374	0.158509
375	0.158701
376	0.159227
377	0.160127
378	0.16043
379	0.160944
380	0.163482
381	0.164076
382	0.164866
383	0.167289
384	0.167307
385	0.170102
386	0.17277
387	0.172919
388	0.174572
389	0.175094
390	0.178826
391	0.179257
392	0.183184
393	0.186814
394	0.187168
395	0.193046
396	0.193907
397	0.193968
398	0.194549
399	0.197114
400	0.197705
401	0.199279
402	0.203798
403	0.204183
404	0.209133
405	0.213298
406	0.217475
407	0.218214
408	0.218867
409	0.223144
410	0.224177
411	0.225274
412	0.22992
413	0.236998
414	0.241639
415	0.245418
416	0.249086
417	0.249557
418	0.250134
419	0.25096
420	0.262819
421	0.263585
422	0.266623
423	0.26824
424	0.271844
425	0.278844
426	0.280752
427	0.310679
428	0.3137
429	0.315383
430	0.320253
431	0.320859

432	0.350187
433	0.355497
434	0.358514
435	0.373629
436	0.374336
437	0.382045
438	0.394229
439	0.402359
440	0.418267
441	0.426596
442	0.437734
443	0.448355
444	0.449203
445	0.466342
446	0.491918
447	0.533246
448	0.536479
449	0.542854
450	0.560443
451	0.583646
452	0.614897
453	0.6691
454	0.710994
455	0.747258
456	0.804719
457	0.875469
458	0.946596
459	1.06649
460	1.22979
461	1.2708
462	1.60944
463	1.75094
464	2.45959
465	2.5416

Sen's Estimator (Median Q) is 0.0513442

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
6/5/2012	1	

There are 0 time periods with multiple data

A = 4854
B = 0
C = 1716
D = 0
E = 158
F = 0
a = 62310
b = 242730
c = 1860
Group Variance = 3192
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 92.9306
M1 = (465 - 92.9306)/2.0 = 186.035
M2 = (465 + 92.9306)/2.0 + 1 = 279.965
Lower limit is 0 = Q(186)
Upper limit is 0.0824329 = Q(280)
0 < 0 < 0.0824329 indicating no trend in data.

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

1.82455	(6/5/2012)	ND<0	(7/20/1995)	(1.82455 - 0)/(31 - 1)		
	0.0608183					
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					
1.82455	(6/5/2012)	ND<0	(8/24/1995)	(1.82455 - 0)/(31 - 2)		
	0.0629155					
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						
1.82455	(6/5/2012)	ND<0	(9/28/1995)	(1.82455 - 0)/(31 - 3)		
0.0651625						
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					
1.82455	(6/5/2012)	ND<0	(10/26/1995)	(1.82455 - 0)/(31 - 4)		
	0.0675759					
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					
1.82455 (6/5/2012)	ND<0 (11/19/1996)	(1.82455 - 0)/(31 - 5)			
0.070175					
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					
1.82455 (6/5/2012)	ND<0 (12/19/1996)	(1.82455 - 0)/(31 - 6)			
0.072982					
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					
1.82455	(6/5/2012)	2.83321	(3/24/1997)	(1.82455 - 2.83321)/(31 - 7)	
-0.0420277					

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						
1.82455	(6/5/2012)	ND<0	(9/24/1997)	(1.82455 - 0)/(31 - 8)		
0.0793282						
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
1.82455	(6/5/2012)	ND<0	(4/7/1998)	(1.82455 - 0)/(31 - 9)	0.0829341
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
1.82455	(6/5/2012)	2.83321	(9/23/1998)	(1.82455 - 2.83321)/(31 - 10)	-0.0480316
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
1.82455	(6/5/2012)	1.60944	(3/16/1999)	(1.82455 - 1.60944)/(31 - 11)	0.0107556
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					
1.82455	(6/5/2012)	1.60944	(9/23/1999)	(1.82455 - 1.60944)/(31 - 12)	
0.0113217					
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					
1.82455	(6/5/2012)	2.83321	(3/15/2000)	(1.82455 - 2.83321)/(31 - 13)	
-0.0560369					
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						
1.82455	(6/5/2012)	2.56495	(9/24/2003)	(1.82455 - 2.56495)/(31 - 14)		
-0.0435529						
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						
1.82455	(6/5/2012)	ND<0	(3/11/2004)	(1.82455 - 0)/(31 - 15)		
0.114034						

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					
1.82455	(6/5/2012)	ND<0	(10/12/2004)	(1.82455 - 0)/(31 - 16)	
0.121637					

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				
1.82455	(6/5/2012)	1.36354	(4/1/2005)	(1.82455 - 1.36354)/(31 - 17)
0.0329294				

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
1.82455	(6/5/2012)	1.83737	(10/25/2005)	(1.82455 - 1.83737)/(31 - 18)	-0.000986207
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
1.82455	(6/5/2012)	2.3979	(4/29/2006)	(1.82455 - 2.3979)/(31 - 19)	-0.0477788
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		
1.82455 (6/5/2012)	2.43361 (11/18/2006)	(1.82455 - 2.43361)/(31 - 20)
-0.0553695		
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		
1.82455 (6/5/2012)	2.37955 (5/23/2007)	(1.82455 - 2.37955)/(31 - 21)
-0.0554997		
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		

1.82455 (6/5/2012)	2.195 (11/28/2007)	(1.82455 - 2.195)/(31 - 22)
-0.0411612		
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		
1.82455 (6/5/2012)	2.13771 (6/5/2008)	(1.82455 - 2.13771)/(31 - 23)
-0.0391451		
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		
1.82455 (6/5/2012)	2.62467 (11/20/2008)	(1.82455 - 2.62467)/(31 - 24)
-0.114303		
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		
1.82455 (6/5/2012)	2.15176 (6/11/2009)	(1.82455 - 2.15176)/(31 - 25)
-0.0545355		
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
1.82455	(6/5/2012)	2.16332	(11/16/2009)	(1.82455 - 2.16332)/(31 - 26)	-0.0677547
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
1.82455	(6/5/2012)	2.30259 H	(6/30/2010)	(1.82455 - 2.30259)/(31 - 27)	-0.119509
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
1.82455	(6/5/2012)	2.20827	(11/12/2010)	(1.82455 - 2.20827)/(31 - 28)	-0.127908
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
1.82455	(6/5/2012)	2.11626	(7/5/2011)	(1.82455 - 2.11626)/(31 - 29)	-0.145853
1.94591	(11/22/2011)	1.94591	(11/22/2011)	(1.94591 - 1.94591)/(30 - 30)	Same Date
1.82455	(6/5/2012)	1.94591	(11/22/2011)	(1.82455 - 1.94591)/(31 - 30)	-0.121361
1.82455	(6/5/2012)	1.94591	(11/22/2011)	(1.82455 - 1.94591)/(31 - 30)	-0.121361

Number of Q values = 495

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	-0.145853
32	-0.131182
33	-0.131182
34	-0.127908
35	-0.12448
36	-0.121361
37	-0.121361
38	-0.120918
39	-0.119509
40	-0.119307
41	-0.118892
42	-0.118892
43	-0.114303
44	-0.113126
45	-0.113126
46	-0.107361
47	-0.104099
48	-0.101683
49	-0.0986343
50	-0.0943107
51	-0.0931648
52	-0.0920189
53	-0.0905312
54	-0.072553
55	-0.0709126
56	-0.0695503
57	-0.0677547
58	-0.0676318
59	-0.067066
60	-0.0650462
61	-0.0572894
62	-0.0570857
63	-0.056946
64	-0.0567876
65	-0.0567084
66	-0.0563702
67	-0.0560369
68	-0.0554997
69	-0.0553695
70	-0.0545355
71	-0.0543532
72	-0.0543532
73	-0.0540672
74	-0.0535002
75	-0.0531845
76	-0.0521943
77	-0.0521943
78	-0.05153

79	-0.0491801
80	-0.0487703
81	-0.0487703
82	-0.0483687
83	-0.0481818
84	-0.0481818
85	-0.0480316
86	-0.0477788
87	-0.047471
88	-0.0462437
89	-0.0454301
90	-0.0450484
91	-0.0448099
92	-0.0443652
93	-0.0443652
94	-0.0435529
95	-0.0434689
96	-0.0432446
97	-0.0425476
98	-0.0420277
99	-0.0418681
100	-0.0416626
101	-0.0412425
102	-0.0411704
103	-0.0411704
104	-0.0411612
105	-0.0410896
106	-0.0410896
107	-0.0410222
108	-0.0409834
109	-0.03996
110	-0.0391451
111	-0.03869
112	-0.03869
113	-0.0385784
114	-0.0385784
115	-0.0383234
116	-0.037902
117	-0.0378584
118	-0.0377346
119	-0.0375625
120	-0.0362765
121	-0.035262
122	-0.0352574
123	-0.0347188
124	-0.0335103
125	-0.0334689
126	-0.0334108
127	-0.0329113
128	-0.032589
129	-0.0324048
130	-0.0312134
131	-0.0311362
132	-0.0311362
133	-0.0307385
134	-0.0299129
135	-0.029759
136	-0.0281674
137	-0.028164
138	-0.0274
139	-0.0274
140	-0.0265314

141	-0.0264862
142	-0.0254768
143	-0.0244674
144	-0.0218893
145	-0.021069
146	-0.0201819
147	-0.0189586
148	-0.0187183
149	-0.0156892
150	-0.0148961
151	-0.0144126
152	-0.0128268
153	-0.0122673
154	-0.0119138
155	-0.0112492
156	-0.00917457
157	-0.00887667
158	-0.00791921
159	-0.00357582
160	-0.000986207
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
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	0.00221242
211	0.00597192
212	0.00702588
213	0.00853753
214	0.00904501
215	0.00904501
216	0.0107556
217	0.0113217
218	0.0115608
219	0.0141128
220	0.0177091
221	0.0177091
222	0.0186929
223	0.0186929
224	0.0188374
225	0.021517
226	0.0224757
227	0.0253532
228	0.0281565
229	0.0298128
230	0.0325617
231	0.0329294
232	0.0352257
233	0.0357181
234	0.0369257
235	0.0370904
236	0.0374273
237	0.0379887
238	0.0387374
239	0.0395632
240	0.0407441
241	0.0412187
242	0.0417173
243	0.0433217
244	0.0440227
245	0.0447979
246	0.0447979
247	0.0449132
248	0.0453547
249	0.0462098
250	0.0477638
251	0.0480248
252	0.0516906
253	0.0532329
254	0.0585562
255	0.0600681
256	0.0608183
257	0.0627265
258	0.0629155
259	0.0651625
260	0.0671003
261	0.0671003
262	0.0675759
263	0.0694968
264	0.0694968

265	0.070175
266	0.0720707
267	0.0720707
268	0.072982
269	0.0748427
270	0.0748427
271	0.0754114
272	0.0755806
273	0.0767943
274	0.0770108
275	0.0778364
276	0.0778364
277	0.0780947
278	0.0783798
279	0.0793282
280	0.0810796
281	0.0810796
282	0.0813944
283	0.0817075
284	0.0817879
285	0.0829341
286	0.0846026
287	0.0846502
288	0.0849336
289	0.0852211
290	0.0855676
291	0.0865329
292	0.0881773
293	0.088331
294	0.0884505
295	0.0884505
296	0.088561
297	0.0888651
298	0.0894075
299	0.0896568
300	0.0901385
301	0.0909025
302	0.091575
303	0.0920111
304	0.0920114
305	0.0921034
306	0.0926624
307	0.0926624
308	0.0935549
309	0.0939048
310	0.0940575
311	0.095941
312	0.0960119
313	0.0971687
314	0.0973955
315	0.0978074
316	0.0983329
317	0.0985281
318	0.0985572
319	0.100112
320	0.100376
321	0.100774
322	0.101796
323	0.102465
324	0.103015
325	0.103022
326	0.104524

327	0.104663
328	0.104887
329	0.105813
330	0.106886
331	0.107588
332	0.108081
333	0.108166
334	0.109647
335	0.10975
336	0.110414
337	0.112511
338	0.112637
339	0.113251
340	0.113628
341	0.114034
342	0.114116
343	0.114836
344	0.115526
345	0.116225
346	0.118762
347	0.118977
348	0.119303
349	0.120185
350	0.121189
351	0.121637
352	0.121944
353	0.122491
354	0.123958
355	0.124984
356	0.125239
357	0.125748
358	0.126574
359	0.127254
360	0.127921
361	0.128085
362	0.129029
363	0.129118
364	0.129727
365	0.129727
366	0.131216
367	0.131233
368	0.131241
369	0.132197
370	0.133216
371	0.134485
372	0.135201
373	0.137187
374	0.13814
375	0.138994
376	0.138994
377	0.139262
378	0.139973
379	0.141053
380	0.141336
381	0.142514
382	0.143154
383	0.145815
384	0.146313
385	0.148722
386	0.149868
387	0.151161
388	0.151504

389	0.152101
390	0.152694
391	0.153114
392	0.156786
393	0.158636
394	0.15986
395	0.160944
396	0.160944
397	0.162241
398	0.162789
399	0.164042
400	0.166293
401	0.168846
402	0.169867
403	0.170442
404	0.171278
405	0.17383
406	0.174978
407	0.178826
408	0.178826
409	0.180162
410	0.180725
411	0.183042
412	0.183737
413	0.184023
414	0.184453
415	0.191882
416	0.196666
417	0.197304
418	0.198296
419	0.20118
420	0.20118
421	0.202801
422	0.204152
423	0.209326
424	0.213746
425	0.214834
426	0.215176
427	0.216332
428	0.21799
429	0.221238
430	0.22992
431	0.22992
432	0.233177
433	0.236101
434	0.239085
435	0.23979
436	0.254002
437	0.256495
438	0.257565
439	0.267214
440	0.26824
441	0.26824
442	0.283321
443	0.284994
444	0.29163
445	0.298122
446	0.305387
447	0.313571
448	0.314801
449	0.314801
450	0.318504

451	0.320619
452	0.321888
453	0.328084
454	0.354152
455	0.354152
456	0.356692
457	0.365833
458	0.396591
459	0.402359
460	0.404745
461	0.404745
462	0.427492
463	0.472202
464	0.472202
465	0.473833
466	0.475909
467	0.477756
468	0.486723
469	0.486958
470	0.51299
471	0.517179
472	0.536479
473	0.536479
474	0.560525
475	0.566643
476	0.566643
477	0.566643
478	0.599474
479	0.608403
480	0.611888
481	0.612457
482	0.681769
483	0.708303
484	0.708303
485	0.708303
486	0.799298
487	0.804719
488	0.918685
489	0.944404
490	1.22378
491	1.36354
492	1.41661
493	1.41661
494	2.83321
495	2.83321

Sen's Estimator (Median Q) is 0.0453547

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 2352
B = 18
C = 726
D = 0
E = 100
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3671.1
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 99.661
M1 = (495 - 99.661)/2.0 = 197.669
M2 = (495 + 99.661)/2.0 + 1 = 298.331
Lower limit is 0 = Q(198)
Upper limit is 0.0894075 = Q(298)
0 < 0 < 0.0894075 indicating no trend in data.

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	
6/5/2012	1.82455	0	0	
6/5/2012	1.82455	0	0	

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	
6/5/2012	1.70475	0	0.674545	
6/5/2012	1.70475	0	0.674545	

Concentrations (ppb)

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 99
Percent Non-Detects: 39.9194%
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-10	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	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	
			6/5/2012	160	160	
MW-6	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	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	
			6/5/2012	13	13	
MW-7	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	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
			6/5/2012	69	69	
MW-11R	32	15 (46.875%)	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
			6/5/2012	9	9	
MW-8	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		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	
			6/5/2012	51	51	
MW-9	32	14 (43.75%)	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	
			6/5/2012	40	40	
MW-12BR	21	4 (19.0476%)	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		
		6/5/2012 41	41			
MW-12AR	21	4 (19.0476%)	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		
		6/5/2012 33	33			

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 = 248

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	-1.91103	34.3095	-77.0235
8	5	-1.85218	37.7401	-86.2844
9	5	-1.79912	40.9769	-95.2799
10	5	-1.75069	44.0418	-104.033
11	5	-1.70604	46.9524	-112.564
12	5	-1.66456	49.7231	-120.886
13	5	-1.62576	52.3662	-129.015
14	5	-1.58927	54.892	-136.962
15	5	-1.55477	57.3093	-144.735
16	5	-1.52203	59.6259	-152.346
17	5	-1.49085	61.8486	-159.8
18	5	-1.46106	63.9833	-167.105
19	5	-1.4325	66.0353	-174.268
20	5	-1.40507	68.0096	-181.293
21	5	-1.37866	69.9102	-188.186
22	5	-1.35317	71.7413	-194.952
23	5	-1.32854	73.5063	-201.595
24	5	-1.30469	75.2086	-208.118
25	5	-1.28155	76.8509	-214.526
26	5	-1.25908	78.4362	-220.821
27	5	-1.23724	79.967	-227.008
28	5	-1.21596	81.4455	-233.087
29	5	-1.19522	82.8741	-239.064
30	5	-1.17499	84.2547	-244.939
31	5	-1.15522	85.5892	-250.715
32	5	-1.1359	86.8795	-256.394
33	5	-1.11699	88.1271	-261.979
34	5	-1.09847	89.3338	-267.471
35	5	-1.08032	90.5009	-272.873
36	5	-1.06252	91.6298	-278.186
37	5	-1.04505	92.7219	-283.411
38	5	-1.02789	93.7785	-288.55
39	5	-1.01104	94.8007	-293.605
40	5	-0.994457	95.7896	-298.578
41	5	-0.97815	96.7464	-303.469
42	5	-0.9621	97.6721	-308.279
43	5	-0.946291	98.5675	-313.01
44	5	-0.930718	99.4338	-317.664
45	5	-0.915365	100.272	-322.241
46	5	-0.900227	101.082	-326.742
47	5	-0.885291	101.866	-331.168
48	5	-0.87055	102.624	-335.521
49	5	-0.855996	103.356	-339.801
50	5	-0.841621	104.065	-344.009
51	5	-0.827417	104.749	-348.146

52	5	-0.813379	105.411	-352.213
53	5	-0.7995	106.05	-356.211
54	5	-0.785774	106.668	-360.14
55	5	-0.772193	107.264	-364.001
56	5	-0.758753	107.84	-367.794
57	5	-0.745449	108.395	-371.522
58	5	-0.732275	108.931	-375.183
59	5	-0.719228	109.449	-378.779
60	5	-0.706302	109.948	-382.311
61	5	-0.693493	110.429	-385.778
62	5	-0.680797	110.892	-389.182
63	5	-0.665079	111.334	-392.508
64	5	-0.652622	111.76	-395.771
65	5	-0.640266	112.17	-398.972
66	5	-0.628006	112.565	-402.112
67	5	-0.615839	112.944	-405.191
68	5	-0.603765	113.308	-408.21
69	5	-0.591776	113.659	-411.169
70	5	-0.579873	113.995	-414.068
71	5	-0.568052	114.318	-416.909
72	5	-0.556308	114.627	-419.69
73	5	-0.544642	114.924	-422.413
74	5	-0.533048	115.208	-425.079
75	5	-0.521527	115.48	-427.686
76	5	-0.510074	115.74	-430.237
77	5	-0.498687	115.989	-432.73
78	5	-0.487364	116.226	-435.167
79	5	-0.476105	116.453	-437.547
80	5	-0.464904	116.669	-439.872
81	5	-0.453763	116.875	-442.141
82	5	-0.442676	117.071	-444.354
83	5	-0.431644	117.257	-446.512
84	5	-0.420664	117.434	-448.616
85	5	-0.409735	117.602	-450.664
86	5	-0.398855	117.761	-452.658
87	5	-0.388022	117.912	-454.599
88	5	-0.377233	118.054	-456.485
89	5	-0.36649	118.188	-458.317
90	5	-0.355788	118.315	-460.096
91	5	-0.345126	118.434	-461.822
92	5	-0.334503	118.546	-463.494
93	5	-0.323919	118.651	-465.114
94	5	-0.31337	118.749	-466.681
95	5	-0.302855	118.841	-468.195
96	5	-0.292375	118.926	-469.657
97	5	-0.281926	119.006	-471.067
98	5	-0.271509	119.079	-472.424
99	5	-0.26112	119.148	-473.73
100	5	-0.250759	119.21	-474.983
101	5.43	-0.240426	119.268	-476.289
102	5.5	-0.230118	119.321	-477.555
103	5.7	-0.219834	119.37	-478.808
104	5.97	-0.209575	119.413	-480.059
105	6.07	-0.199336	119.453	-481.269
106	6.22	-0.189118	119.489	-482.445
107	6.44	-0.17892	119.521	-483.597
108	6.6	-0.168741	119.549	-484.711
109	6.9	-0.158579	119.575	-485.805
110	6.9	-0.148434	119.597	-486.829
111	7	-0.138305	119.616	-487.798
112	7	-0.128189	119.632	-488.695
113	7	-0.118085	119.646	-489.522

114	7.2	-0.107995	119.658	-490.299
115	7.22	-0.0979139	119.667	-491.006
116	7.9	-0.0878447	119.675	-491.7
117	8	-0.0777834	119.681	-492.322
118	8	-0.0677301	119.686	-492.864
119	8	-0.0576847	119.689	-493.326
120	8.3	-0.0476439	119.691	-493.721
121	8.7	-0.0376076	119.693	-494.048
122	8.7	-0.0275759	119.694	-494.288
123	9	-0.0175476	119.694	-494.446
124	9	-0.00751925	119.694	-494.514
125	9	0.00751925	119.694	-494.446
126	9.2	0.0175476	119.694	-494.285
127	9.8	0.0275759	119.695	-494.014
128	9.8	0.0376076	119.696	-493.646
129	9.8	0.0476439	119.699	-493.179
130	9.9	0.0576847	119.702	-492.608
131	10	0.0677301	119.707	-491.931
132	10.9	0.0777834	119.713	-491.083
133	11	0.0878447	119.72	-490.116
134	11	0.0979139	119.73	-489.039
135	12	0.107995	119.742	-487.743
136	13	0.118085	119.756	-486.208
137	18	0.128189	119.772	-483.901
138	19.1	0.138305	119.791	-481.259
139	20	0.148434	119.813	-478.291
140	20	0.158579	119.838	-475.119
141	21	0.168741	119.867	-471.575
142	27.7	0.17892	119.899	-466.619
143	28	0.189118	119.935	-461.324
144	28.8	0.199336	119.974	-455.583
145	30	0.209575	120.018	-449.296
146	30	0.219834	120.067	-442.701
147	30	0.230118	120.119	-435.797
148	30	0.240426	120.177	-428.585
149	31	0.250759	120.24	-420.811
150	32	0.26112	120.308	-412.455
151	32	0.271509	120.382	-403.767
152	32	0.281926	120.462	-394.745
153	33	0.292375	120.547	-385.097
154	33	0.302855	120.639	-375.103
155	33.2	0.31337	120.737	-364.699
156	34	0.323919	120.842	-353.686
157	34	0.334503	120.954	-342.312
158	34.1	0.345126	121.073	-330.544
159	34.5	0.355788	121.199	-318.269
160	34.8	0.36649	121.334	-305.515
161	35	0.377233	121.476	-292.312
162	35	0.388022	121.627	-278.731
163	36	0.398855	121.786	-264.372
164	36	0.409735	121.954	-249.622
165	36.8	0.420664	122.131	-234.141
166	37	0.431644	122.317	-218.171
167	37.7	0.442676	122.513	-201.482
168	38	0.453763	122.719	-184.239
169	39	0.464904	122.935	-166.108
170	40	0.476105	123.162	-147.063
171	40	0.487364	123.399	-127.569
172	40	0.498687	123.648	-107.621
173	40	0.510074	123.908	-87.2183
174	40	0.521527	124.18	-66.3572
175	40	0.533048	124.464	-45.0353

176	40	0.544642		124.761	-23.2496
177	40.1	0.556308		125.07	-0.941666
178	40.7	0.568052		125.393	22.1781
179	41	0.579873		125.729	45.9529
180	41	0.591776		126.079	70.2157
181	41	0.603765		126.444	94.97
182	41	0.615839		126.823	120.219
183	41	0.628006		127.218	145.968
184	41	0.640266		127.627	172.219
185	41	0.652622		128.053	198.976
186	41.5	0.665079		128.496	226.577
187	42	0.680797		128.959	255.17
188	42	0.693493		129.44	284.297
189	42	0.706302		129.939	313.962
190	42	0.719228		130.456	344.169
191	43	0.732275		130.993	375.657
192	43	0.745449		131.548	407.711
193	43.8	0.758753		132.124	440.945
194	44.8	0.772193		132.72	475.539
195	45	0.785774		133.338	510.899
196	45	0.7995	133.977	546.876	
197	45	0.813379		134.638	583.479
198	46	0.827417		135.323	621.54
199	46.8	0.841621		136.031	660.928
200	47	0.855996		136.764	701.159
201	47	0.87055	137.522	742.075	
202	47.5	0.885291		138.306	784.127
203	48	0.900227		139.116	827.337
204	49	0.915365		139.954	872.19
205	49.3	0.930718		140.82	918.075
206	50	0.946291		141.716	965.389
207	50	0.9621	142.641	1013.49	
208	50	0.97815	143.598	1062.4	
209	51	0.994457		144.587	1113.12
210	51	1.01104	145.609	1164.68	
211	52	1.02789	146.666	1218.13	
212	55	1.04505	147.758	1275.61	
213	60	1.06252	148.887	1339.36	
214	60	1.08032	150.054	1404.18	
215	60	1.09847	151.261	1470.09	
216	63.2	1.11699	152.508	1540.68	
217	64	1.1359	153.799	1613.38	
218	64	1.15522	155.133	1687.31	
219	65.2	1.17499	156.514	1763.92	
220	66	1.19522	157.942	1842.81	
221	67	1.21596	159.421	1924.28	
222	69	1.23724	160.952	2009.65	
223	70	1.25908	162.537	2097.78	
224	70	1.28155	164.179	2187.49	
225	70.4	1.30469	165.881	2279.34	
226	72	1.32854	167.646	2375	
227	74	1.35317	169.477	2475.13	
228	76.3	1.37866	171.378	2580.32	
229	76.8	1.40507	173.352	2688.23	
230	77.9	1.4325	175.404	2799.82	
231	85.5	1.46106	177.539	2924.74	
232	88.4	1.49085	179.762	3056.54	
233	90	1.52203	182.078	3193.52	
234	95.7	1.55477	184.496	3342.31	
235	100	1.58927	187.022	3501.24	
236	116	1.62576	189.665	3689.83	
237	118	1.66456	192.435	3886.24	

238	123	1.70604	195.346	4096.09
239	130	1.75069	198.411	4323.68
240	130	1.79912	201.648	4557.56
241	139	1.85218	205.078	4815.01
242	150	1.91103	208.73	5101.67
243	150	1.97737	212.64	5398.27
244	150	2.05375	216.858	5706.34
245	160	2.14441	221.457	6049.44
246	160	2.25713	226.551	6410.58
247	160	2.40892	232.354	6796.01
248	170	2.65209	239.388	7246.86

Data Set Standard Deviation = 35.1603
Numerator = 5.2517e+007
Denominator = 7.30976e+007
W Statistic = 0.718451 = 5.2517e+007 / 7.30976e+007

5% Critical value of 0.976 exceeds 0.718451
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.718451
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 = 0.848293
0.848293 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	5	0.00401606	-2.65209	52.375	344.01	
2	5	0.00803213	-2.40892	52.375	332.136	
3	5	0.0120482	-2.25713	52.375	324.723	
4	5	0.0160643	-2.14441	52.375	319.219	
5	5	0.0200803	-2.05375	52.375	314.791	
6	5	0.0240964	-1.97737	52.375	311.062	
7	5	0.0281124	-1.91103	52.375	307.822	
8	5	0.0321285	-1.85218	52.375	304.948	
9	5	0.0361446	-1.79912	52.375	302.357	
10	5	0.0401606	-1.75069	52.375	299.992	
11	5	0.0441767	-1.70604	52.375	297.812	
12	5	0.0481928	-1.66456	52.375	295.786	
13	5	0.0522088	-1.62576	52.375	293.891	
14	5	0.0562249	-1.58927	52.375	292.109	
15	5	0.060241	-1.55477	52.375	290.425	
16	5	0.064257	-1.52203	52.375	288.826	
17	5	0.0682731	-1.49085	52.375	287.303	
18	5	0.0722892	-1.46106	52.375	285.848	
19	5	0.0763052	-1.4325	52.375	284.454	
20	5	0.0803213	-1.40507	52.375	283.114	
21	5	0.0843373	-1.37866	52.375	281.824	
22	5	0.0883534	-1.35317	52.375	280.58	
23	5	0.0923695	-1.32854	52.375	279.377	
24	5	0.0963855	-1.30469	52.375	278.212	
25	5	0.100402	-1.28155	52.375	277.082	
26	5	0.104418	-1.25908	52.375	275.985	
27	5	0.108434	-1.23724	52.375	274.918	
28	5	0.11245	-1.21596	52.375	273.879	
29	5	0.116466	-1.19522	52.375	272.867	
30	5	0.120482	-1.17499	52.375	271.879	
31	5	0.124498	-1.15522	52.375	270.913	
32	5	0.128514	-1.1359	52.375	269.97	
33	5	0.13253	-1.11699	52.375	269.046	
34	5	0.136546	-1.09847	52.375	268.142	
35	5	0.140562	-1.08032	52.375	267.256	
36	5	0.144578	-1.06252	52.375	266.386	
37	5	0.148594	-1.04505	52.375	265.533	
38	5	0.15261	-1.02789	52.375	264.695	
39	5	0.156627	-1.01104	52.375	263.872	
40	5	0.160643	-0.994457	52.375	263.063	
41	5	0.164659	-0.97815	52.375	262.266	
42	5	0.168675	-0.9621	52.375	261.483	
43	5	0.172691	-0.946291	52.375	260.711	
44	5	0.176707	-0.930718	52.375	259.95	
45	5	0.180723	-0.915365	52.375	259.2	
46	5	0.184739	-0.900227	52.375	258.461	
47	5	0.188755	-0.885291	52.375	257.732	
48	5	0.192771	-0.87055	52.375	257.012	

49	5	0.196787	-0.855996	52.375	256.301
50	5	0.200803	-0.841621	52.375	255.599
51	5	0.204819	-0.827417	52.375	254.906
52	5	0.208835	-0.813379	52.375	254.22
53	5	0.212851	-0.7995	52.375	253.542
54	5	0.216867	-0.785774	52.375	252.872
55	5	0.220884	-0.772193	52.375	252.209
56	5	0.2249	-0.758753	52.375	251.552
57	5	0.228916	-0.745449	52.375	250.903
58	5	0.232932	-0.732275	52.375	250.259
59	5	0.236948	-0.719228	52.375	249.622
60	5	0.240964	-0.706302	52.375	248.991
61	5	0.24498	-0.693493	52.375	248.366
62	5	0.248996	-0.680797	52.375	247.746
63	5	0.253012	-0.665079	52.375	246.978
64	5	0.257028	-0.652622	52.375	246.37
65	5	0.261044	-0.640266	52.375	245.766
66	5	0.26506	-0.628006	52.375	245.168
67	5	0.269076	-0.615839	52.375	244.573
68	5	0.273092	-0.603765	52.375	243.984
69	5	0.277108	-0.591776	52.375	243.398
70	5	0.281124	-0.579873	52.375	242.817
71	5	0.285141	-0.568052	52.375	242.24
72	5	0.289157	-0.556308	52.375	241.666
73	5	0.293173	-0.544642	52.375	241.097
74	5	0.297189	-0.533048	52.375	240.531
75	5	0.301205	-0.521527	52.375	239.968
76	5	0.305221	-0.510074	52.375	239.409
77	5	0.309237	-0.498687	52.375	238.853
78	5	0.313253	-0.487364	52.375	238.3
79	5	0.317269	-0.476105	52.375	237.75
80	5	0.321285	-0.464904	52.375	237.203
81	5	0.325301	-0.453763	52.375	236.659
82	5	0.329317	-0.442676	52.375	236.117
83	5	0.333333	-0.431644	52.375	235.579
84	5	0.337349	-0.420664	52.375	235.042
85	5	0.341365	-0.409735	52.375	234.509
86	5	0.345382	-0.398855	52.375	233.977
87	5	0.349398	-0.388022	52.375	233.448
88	5	0.353414	-0.377233	52.375	232.922
89	5	0.35743	-0.36649	52.375	232.397
90	5	0.361446	-0.355788	52.375	231.874
91	5	0.365462	-0.345126	52.375	231.354
92	5	0.369478	-0.334503	52.375	230.835
93	5	0.373494	-0.323919	52.375	230.318
94	5	0.37751	-0.31337	52.375	229.803
95	5	0.381526	-0.302855	52.375	229.289
96	5	0.385542	-0.292375	52.375	228.778
97	5	0.389558	-0.281926	52.375	228.267
98	5	0.393574	-0.271509	52.375	227.759
99	5	0.39759	-0.26112	52.375	227.251
100	5	0.401606	-0.250759	52.375	226.745
101	5.43	0.405622	-0.240426	53.5253	226.241
102	5.5	0.409639	-0.230118	53.7125	225.737
103	5.7	0.413655	-0.219834	54.2475	225.235
104	5.97	0.417671	-0.209575	54.9697	224.734
105	6.07	0.421687	-0.199336	55.2373	224.234
106	6.22	0.425703	-0.189118	55.6385	223.735
107	6.44	0.429719	-0.178925	56.227	223.237
108	6.6	0.433735	-0.168741	56.655	222.74
109	6.9	0.437751	-0.158579	57.4575	222.244
110	6.9	0.441767	-0.148434	57.4575	221.749

111	7	0.445783	-0.138305	57.725	221.254
112	7	0.449799	-0.128189	57.725	220.76
113	7	0.453815	-0.118085	57.725	220.267
114	7.2	0.457831	-0.107995	58.26	219.774
115	7.22	0.461847	-0.0979139	58.3135	219.281
116	7.9	0.465863	-0.0878447	60.1325	218.79
117	8	0.46988	-0.0777834	60.4	218.298
118	8	0.473896	-0.0677301	60.4	217.807
119	8	0.477912	-0.0576847	60.4	217.317
120	8.3	0.481928	-0.0476439	61.2025	216.827
121	8.7	0.485944	-0.0376076	62.2725	216.337
122	8.7	0.48996	-0.0275759	62.2725	215.847
123	9	0.493976	-0.0175476	63.075	215.357
124	9	0.497992	-0.00751925	63.075	214.867
125	9	0.502008	0.00751925	63.075	214.133
126	9.2	0.506024	0.0175476	63.61	213.643
127	9.8	0.51004	0.0275759	65.215	213.153
128	9.8	0.514056	0.0376076	65.215	212.663
129	9.8	0.518072	0.0476439	65.215	212.173
130	9.9	0.522088	0.0576847	65.4825	211.683
131	10	0.526104	0.0677301	65.75	211.193
132	10.9	0.53012	0.0777834	68.1575	210.702
133	11	0.534137	0.0878447	68.425	210.21
134	11	0.538153	0.0979139	68.425	209.719
135	12	0.542169	0.107995	71.1	209.226
136	13	0.546185	0.118085	73.775	208.733
137	18	0.550201	0.128189	87.15	208.24
138	19.1	0.554217	0.138305	90.0925	207.746
139	20	0.558233	0.148434	92.5	207.251
140	20	0.562249	0.158579	92.5	206.756
141	21	0.566265	0.168741	95.175	206.26
142	27.7	0.570281	0.17892	113.098	205.763
143	28	0.574297	0.189118	113.9	205.265
144	28.8	0.578313	0.199336	116.04	204.766
145	30	0.582329	0.209575	119.25	204.266
146	30	0.586345	0.219834	119.25	203.765
147	30	0.590361	0.230118	119.25	203.263
148	30	0.594378	0.240426	119.25	202.759
149	31	0.598394	0.250759	121.925	202.255
150	32	0.60241	0.26112	124.6	201.749
151	32	0.606426	0.271509	124.6	201.241
152	32	0.610442	0.281926	124.6	200.733
153	33	0.614458	0.292375	127.275	200.222
154	33	0.618474	0.302855	127.275	199.711
155	33.2	0.62249	0.31337	127.81	199.197
156	34	0.626506	0.323919	129.95	198.682
157	34	0.630522	0.334503	129.95	198.165
158	34.1	0.634538	0.345126	130.218	197.646
159	34.5	0.638554	0.355788	131.287	197.126
160	34.8	0.64257	0.36649	132.09	196.603
161	35	0.646586	0.377233	132.625	196.078
162	35	0.650602	0.388022	132.625	195.552
163	36	0.654618	0.398855	135.3	195.023
164	36	0.658635	0.409735	135.3	194.491
165	36.8	0.662651	0.420664	137.44	193.958
166	37	0.666667	0.431644	137.975	193.421
167	37.7	0.670683	0.442676	139.848	192.883
168	38	0.674699	0.453763	140.65	192.341
169	39	0.678715	0.464904	143.325	191.797
170	40	0.682731	0.476105	146	191.25
171	40	0.686747	0.487364	146	190.7
172	40	0.690763	0.498687	146	190.147

173	40	0.694779	0.510074	146	189.591
174	40	0.698795	0.521527	146	189.032
175	40	0.702811	0.533048	146	188.469
176	40	0.706827	0.544642	146	187.903
177	40.1	0.710843	0.556308	146.268	187.334
178	40.7	0.714859	0.568052	147.873	186.76
179	41	0.718876	0.579873	148.675	186.183
180	41	0.722892	0.591776	148.675	185.602
181	41	0.726908	0.603765	148.675	185.016
182	41	0.730924	0.615839	148.675	184.427
183	41	0.73494	0.628006	148.675	183.832
184	41	0.738956	0.640266	148.675	183.234
185	41	0.742972	0.652622	148.675	182.63
186	41.5	0.746988	0.665079	150.012	182.022
187	42	0.751004	0.680797	151.35	181.254
188	42	0.75502	0.693493	151.35	180.634
189	42	0.759036	0.706302	151.35	180.009
190	42	0.763052	0.719228	151.35	179.378
191	43	0.767068	0.732275	154.025	178.741
192	43	0.771084	0.745449	154.025	178.097
193	43.8	0.7751	0.758753	156.165	177.448
194	44.8	0.779116	0.772193	158.84	176.791
195	45	0.783133	0.785774	159.375	176.128
196	45	0.787149	0.7995	159.375	175.458
197	45	0.791165	0.813379	159.375	174.78
198	46	0.795181	0.827417	162.05	174.094
199	46.8	0.799197	0.841621	164.19	173.401
200	47	0.803213	0.855996	164.725	172.699
201	47	0.807229	0.87055	164.725	171.988
202	47.5	0.811245	0.885291	166.063	171.268
203	48	0.815261	0.900227	167.4	170.539
204	49	0.819277	0.915365	170.075	169.8
205	49.3	0.823293	0.930718	170.878	169.05
206	50	0.827309	0.946291	172.75	168.289
207	50	0.831325	0.9621	172.75	167.517
208	50	0.835341	0.97815	172.75	166.734
209	51	0.839357	0.994457	175.425	165.937
210	51	0.843373	1.01104	175.425	165.128
211	52	0.84739	1.02789	178.1	164.305
212	55	0.851406	1.04505	186.125	163.467
213	60	0.855422	1.06252	199.5	162.614
214	60	0.859438	1.08032	199.5	161.744
215	60	0.863454	1.09847	199.5	160.858
216	63.2	0.86747	1.11699	208.06	159.954
217	64	0.871486	1.1359	210.2	159.03
218	64	0.875502	1.15522	210.2	158.087
219	65.2	0.879518	1.17499	213.41	157.121
220	66	0.883534	1.19522	215.55	156.133
221	67	0.88755	1.21596	218.225	155.121
222	69	0.891566	1.23724	223.575	154.082
223	70	0.895582	1.25908	226.25	153.015
224	70	0.899598	1.28155	226.25	151.918
225	70.4	0.903614	1.30469	227.32	150.788
226	72	0.907631	1.32854	231.6	149.623
227	74	0.911647	1.35317	236.95	148.42
228	76.3	0.915663	1.37866	243.102	147.176
229	76.8	0.919679	1.40507	244.44	145.886
230	77.9	0.923695	1.4325	247.382	144.546
231	85.5	0.927711	1.46106	267.712	143.152
232	88.4	0.931727	1.49085	275.47	141.697
233	90	0.935743	1.52203	279.75	140.174
234	95.7	0.939759	1.55477	294.998	138.575

235	100	0.943775	1.58927	306.5	136.891
236	116	0.947791	1.62576	349.3	135.109
237	118	0.951807	1.66456	354.65	133.214
238	123	0.955823	1.70604	368.025	131.188
239	130	0.959839	1.75069	386.75	129.008
240	130	0.963855	1.79912	386.75	126.643
241	139	0.967871	1.85218	410.825	124.052
242	150	0.971888	1.91103	440.25	121.178
243	150	0.975904	1.97737	440.25	117.938
244	150	0.97992	2.05375	440.25	114.209
245	160	0.983936	2.14441	467	109.781
246	160	0.987952	2.25713	467	104.277
247	160	0.991968	2.40892	467	96.8642
248	170	0.995984	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 = 248

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	-1.91103	34.3095	-24.7929
8	1.60944	-1.85218	37.7401	-27.7739
9	1.60944	-1.79912	40.9769	-30.6694
10	1.60944	-1.75069	44.0418	-33.487
11	1.60944	-1.70604	46.9524	-36.2328
12	1.60944	-1.66456	49.7231	-38.9118
13	1.60944	-1.62576	52.3662	-41.5284
14	1.60944	-1.58927	54.892	-44.0862
15	1.60944	-1.55477	57.3093	-46.5885
16	1.60944	-1.52203	59.6259	-49.0382
17	1.60944	-1.49085	61.8486	-51.4376
18	1.60944	-1.46106	63.9833	-53.7891
19	1.60944	-1.4325	66.0353	-56.0946
20	1.60944	-1.40507	68.0096	-58.356
21	1.60944	-1.37866	69.9102	-60.5748
22	1.60944	-1.35317	71.7413	-62.7527
23	1.60944	-1.32854	73.5063	-64.8909
24	1.60944	-1.30469	75.2086	-66.9907
25	1.60944	-1.28155	76.8509	-69.0533
26	1.60944	-1.25908	78.4362	-71.0797
27	1.60944	-1.23724	79.967	-73.071
28	1.60944	-1.21596	81.4455	-75.028
29	1.60944	-1.19522	82.8741	-76.9516
30	1.60944	-1.17499	84.2547	-78.8427
31	1.60944	-1.15522	85.5892	-80.7019
32	1.60944	-1.1359	86.8795	-82.5301
33	1.60944	-1.11699	88.1271	-84.3278
34	1.60944	-1.09847	89.3338	-86.0957
35	1.60944	-1.08032	90.5009	-87.8344
36	1.60944	-1.06252	91.6298	-89.5445
37	1.60944	-1.04505	92.7219	-91.2264
38	1.60944	-1.02789	93.7785	-92.8808
39	1.60944	-1.01104	94.8007	-94.508
40	1.60944	-0.994457	95.7896	-96.1085
41	1.60944	-0.97815	96.7464	-97.6827
42	1.60944	-0.9621	97.6721	-99.2312
43	1.60944	-0.946291	98.5675	-100.754
44	1.60944	-0.930718	99.4338	-102.252
45	1.60944	-0.915365	100.272	-103.725
46	1.60944	-0.900227	101.082	-105.174
47	1.60944	-0.885291	101.866	-106.599
48	1.60944	-0.87055	102.624	-108
49	1.60944	-0.855996	103.356	-109.378
50	1.60944	-0.841621	104.065	-110.732
51	1.60944	-0.827417	104.749	-112.064

52	1.60944	-0.813379	105.411	-113.373
53	1.60944	-0.7995	106.05	-114.66
54	1.60944	-0.785774	106.668	-115.924
55	1.60944	-0.772193	107.264	-117.167
56	1.60944	-0.758753	107.84	-118.388
57	1.60944	-0.745449	108.395	-119.588
58	1.60944	-0.732275	108.931	-120.767
59	1.60944	-0.719228	109.449	-121.924
60	1.60944	-0.706302	109.948	-123.061
61	1.60944	-0.693493	110.429	-124.177
62	1.60944	-0.680797	110.892	-125.273
63	1.60944	-0.665079	111.334	-126.343
64	1.60944	-0.652622	111.76	-127.394
65	1.60944	-0.640266	112.17	-128.424
66	1.60944	-0.628006	112.565	-129.435
67	1.60944	-0.615839	112.944	-130.426
68	1.60944	-0.603765	113.308	-131.398
69	1.60944	-0.591776	113.659	-132.35
70	1.60944	-0.579873	113.995	-133.283
71	1.60944	-0.568052	114.318	-134.198
72	1.60944	-0.556308	114.627	-135.093
73	1.60944	-0.544642	114.924	-135.97
74	1.60944	-0.533048	115.208	-136.827
75	1.60944	-0.521527	115.48	-137.667
76	1.60944	-0.510074	115.74	-138.488
77	1.60944	-0.498687	115.989	-139.29
78	1.60944	-0.487364	116.226	-140.075
79	1.60944	-0.476105	116.453	-140.841
80	1.60944	-0.464904	116.669	-141.589
81	1.60944	-0.453763	116.875	-142.32
82	1.60944	-0.442676	117.071	-143.032
83	1.60944	-0.431644	117.257	-143.727
84	1.60944	-0.420664	117.434	-144.404
85	1.60944	-0.409735	117.602	-145.063
86	1.60944	-0.398855	117.761	-145.705
87	1.60944	-0.388022	117.912	-146.33
88	1.60944	-0.377233	118.054	-146.937
89	1.60944	-0.36649	118.188	-147.527
90	1.60944	-0.355788	118.315	-148.099
91	1.60944	-0.345126	118.434	-148.655
92	1.60944	-0.334503	118.546	-149.193
93	1.60944	-0.323919	118.651	-149.714
94	1.60944	-0.31337	118.749	-150.219
95	1.60944	-0.302855	118.841	-150.706
96	1.60944	-0.292375	118.926	-151.177
97	1.60944	-0.281926	119.006	-151.63
98	1.60944	-0.271509	119.079	-152.067
99	1.60944	-0.26112	119.148	-152.488
100	1.60944	-0.250759	119.21	-152.891
101	1.69194	-0.240426	119.268	-153.298
102	1.70475	-0.230118	119.321	-153.69
103	1.74047	-0.219834	119.37	-154.073
104	1.78675	-0.209575	119.413	-154.447
105	1.80336	-0.199336	119.453	-154.807
106	1.82777	-0.189118	119.489	-155.153
107	1.86253	-0.17892	119.521	-155.486
108	1.88707	-0.168741	119.549	-155.804
109	1.93152	-0.158579	119.575	-156.111
110	1.93152	-0.148434	119.597	-156.397
111	1.94591	-0.138305	119.616	-156.666
112	1.94591	-0.128189	119.632	-156.916
113	1.94591	-0.118085	119.646	-157.146

114	1.97408	-0.107995	119.658	-157.359
115	1.97685	-0.0979139	119.667	-157.552
116	2.06686	-0.0878447	119.675	-157.734
117	2.07944	-0.0777834	119.681	-157.896
118	2.07944	-0.0677301	119.686	-158.037
119	2.07944	-0.0576847	119.689	-158.156
120	2.11626	-0.0476439	119.691	-158.257
121	2.16332	-0.0376076	119.693	-158.339
122	2.16332	-0.0275759	119.694	-158.398
123	2.19722	-0.0175476	119.694	-158.437
124	2.19722	-0.00751925	119.694	-158.453
125	2.19722	0.00751925	119.694	-158.437
126	2.2192	0.0175476	119.694	-158.398
127	2.28238	0.0275759	119.695	-158.335
128	2.28238	0.0376076	119.696	-158.249
129	2.28238	0.0476439	119.699	-158.14
130	2.29253	0.0576847	119.702	-158.008
131	2.30259	0.0677301	119.707	-157.852
132	2.38876	0.0777834	119.713	-157.666
133	2.3979	0.0878447	119.72	-157.456
134	2.3979	0.0979139	119.73	-157.221
135	2.48491	0.107995	119.742	-156.953
136	2.56495	0.118085	119.756	-156.65
137	2.89037	0.128189	119.772	-156.279
138	2.94969	0.138305	119.791	-155.871
139	2.99573	0.148434	119.813	-155.427
140	2.99573	0.158579	119.838	-154.952
141	3.04452	0.168741	119.867	-154.438
142	3.32143	0.17892	119.899	-153.844
143	3.3322	0.189118	119.935	-153.213
144	3.36038	0.199336	119.974	-152.543
145	3.4012	0.209575	120.018	-151.831
146	3.4012	0.219834	120.067	-151.083
147	3.4012	0.230118	120.119	-150.3
148	3.4012	0.240426	120.177	-149.483
149	3.43399	0.250759	120.24	-148.621
150	3.46574	0.26112	120.308	-147.716
151	3.46574	0.271509	120.382	-146.776
152	3.46574	0.281926	120.462	-145.798
153	3.49651	0.292375	120.547	-144.776
154	3.49651	0.302855	120.639	-143.717
155	3.50255	0.31337	120.737	-142.62
156	3.52636	0.323919	120.842	-141.477
157	3.52636	0.334503	120.954	-140.298
158	3.5293	0.345126	121.073	-139.08
159	3.54096	0.355788	121.199	-137.82
160	3.54962	0.36649	121.334	-136.519
161	3.55535	0.377233	121.476	-135.178
162	3.55535	0.388022	121.627	-133.798
163	3.58352	0.398855	121.786	-132.369
164	3.58352	0.409735	121.954	-130.901
165	3.6055	0.420664	122.131	-129.384
166	3.61092	0.431644	122.317	-127.825
167	3.62966	0.442676	122.513	-126.219
168	3.63759	0.453763	122.719	-124.568
169	3.66356	0.464904	122.935	-122.865
170	3.68888	0.476105	123.162	-121.108
171	3.68888	0.487364	123.399	-119.311
172	3.68888	0.498687	123.648	-117.471
173	3.68888	0.510074	123.908	-115.589
174	3.68888	0.521527	124.18	-113.666
175	3.68888	0.533048	124.464	-111.699

176	3.68888	0.544642		124.761	-109.69
177	3.69138	0.556308		125.07	-107.637
178	3.70623	0.568052		125.393	-105.531
179	3.71357	0.579873		125.729	-103.378
180	3.71357	0.591776		126.079	-101.18
181	3.71357	0.603765		126.444	-98.9381
182	3.71357	0.615839		126.823	-96.6511
183	3.71357	0.628006		127.218	-94.319
184	3.71357	0.640266		127.627	-91.9413
185	3.71357	0.652622		128.053	-89.5178
186	3.72569	0.665079		128.496	-87.0399
187	3.73767	0.680797		128.959	-84.4953
188	3.73767	0.693493		129.44	-81.9032
189	3.73767	0.706302		129.939	-79.2633
190	3.73767	0.719228		130.456	-76.5751
191	3.7612	0.732275		130.993	-73.8208
192	3.7612	0.745449		131.548	-71.0171
193	3.77963	0.758753		132.124	-68.1493
194	3.80221	0.772193		132.72	-65.2132
195	3.80666	0.785774		133.338	-62.222
196	3.80666	0.7995	133.977	-59.1786	
197	3.80666	0.813379		134.638	-56.0823
198	3.82864	0.827417		135.323	-52.9145
199	3.84588	0.841621		136.031	-49.6777
200	3.85015	0.855996		136.764	-46.382
201	3.85015	0.87055	137.522	-43.0302	
202	3.86073	0.885291		138.306	-39.6124
203	3.8712	0.900227		139.116	-36.1274
204	3.89182	0.915365		139.954	-32.565
205	3.89792	0.930718		140.82	-28.9371
206	3.91202	0.946291		141.716	-25.2352
207	3.91202	0.9621	142.641	-21.4714	
208	3.91202	0.97815	143.598	-17.6449	
209	3.93183	0.994457		144.587	-13.7349
210	3.93183	1.01104	145.609	-9.75964	
211	3.95124	1.02789	146.666	-5.69818	
212	4.00733	1.04505	147.758	-1.51032	
213	4.09434	1.06252	148.887	2.84	
214	4.09434	1.08032	150.054	7.26321	
215	4.09434	1.09847	151.261	11.7607	
216	4.1463	1.11699	152.508	16.3921	
217	4.15888	1.1359	153.799	21.1161	
218	4.15888	1.15522	155.133	25.9206	
219	4.17746	1.17499	156.514	30.829	
220	4.18965	1.19522	157.942	35.8366	
221	4.20469	1.21596	159.421	40.9493	
222	4.23411	1.23724	160.952	46.1879	
223	4.2485	1.25908	162.537	51.5371	
224	4.2485	1.28155	164.179	56.9818	
225	4.25419	1.30469	165.881	62.5322	
226	4.27667	1.32854	167.646	68.2139	
227	4.30407	1.35317	169.477	74.0381	
228	4.33467	1.37866	171.378	80.0141	
229	4.3412	1.40507	173.352	86.1138	
230	4.35543	1.4325	175.404	92.353	
231	4.44852	1.46106	177.539	98.8525	
232	4.48187	1.49085	179.762	105.534	
233	4.49981	1.52203	182.078	112.383	
234	4.56122	1.55477	184.496	119.475	
235	4.60517	1.58927	187.022	126.794	
236	4.75359	1.62576	189.665	134.522	
237	4.77068	1.66456	192.435	142.463	

238	4.81218	1.70604	195.346	150.673
239	4.86753	1.75069	198.411	159.194
240	4.86753	1.79912	201.648	167.952
241	4.93447	1.85218	205.078	177.091
242	5.01064	1.91103	208.73	186.667
243	5.01064	1.97737	212.64	196.574
244	5.01064	2.05375	216.858	206.865
245	5.07517	2.14441	221.457	217.748
246	5.07517	2.25713	226.551	229.204
247	5.07517	2.40892	232.354	241.429
248	5.1358	2.65209	239.388	255.05

Data Set Standard Deviation = 1.15291
Numerator = 65050.4
Denominator = 78594.5
W Statistic = 0.827672 = 65050.4 / 78594.5

5% Critical value of 0.976 exceeds 0.827672
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.827672
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 = 0.906441
0.906441 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	1.60944	0.00401606	-2.65209	182.508	344.01
2	1.60944	0.00803213	-2.40892	182.508	332.136
3	1.60944	0.0120482	-2.25713	182.508	324.723
4	1.60944	0.0160643	-2.14441	182.508	319.219
5	1.60944	0.0200803	-2.05375	182.508	314.791
6	1.60944	0.0240964	-1.97737	182.508	311.062
7	1.60944	0.0281124	-1.91103	182.508	307.822
8	1.60944	0.0321285	-1.85218	182.508	304.948
9	1.60944	0.0361446	-1.79912	182.508	302.357
10	1.60944	0.0401606	-1.75069	182.508	299.992
11	1.60944	0.0441767	-1.70604	182.508	297.812
12	1.60944	0.0481928	-1.66456	182.508	295.786
13	1.60944	0.0522088	-1.62576	182.508	293.891
14	1.60944	0.0562249	-1.58927	182.508	292.109
15	1.60944	0.060241	-1.55477	182.508	290.425
16	1.60944	0.064257	-1.52203	182.508	288.826
17	1.60944	0.0682731	-1.49085	182.508	287.303
18	1.60944	0.0722892	-1.46106	182.508	285.848
19	1.60944	0.0763052	-1.4325	182.508	284.454
20	1.60944	0.0803213	-1.40507	182.508	283.114
21	1.60944	0.0843373	-1.37866	182.508	281.824
22	1.60944	0.0883534	-1.35317	182.508	280.58
23	1.60944	0.0923695	-1.32854	182.508	279.377
24	1.60944	0.0963855	-1.30469	182.508	278.212
25	1.60944	0.100402	-1.28155	182.508	277.082
26	1.60944	0.104418	-1.25908	182.508	275.985
27	1.60944	0.108434	-1.23724	182.508	274.918
28	1.60944	0.11245	-1.21596	182.508	273.879
29	1.60944	0.116466	-1.19522	182.508	272.867
30	1.60944	0.120482	-1.17499	182.508	271.879
31	1.60944	0.124498	-1.15522	182.508	270.913
32	1.60944	0.128514	-1.1359	182.508	269.97
33	1.60944	0.13253	-1.11699	182.508	269.046
34	1.60944	0.136546	-1.09847	182.508	268.142
35	1.60944	0.140562	-1.08032	182.508	267.256
36	1.60944	0.144578	-1.06252	182.508	266.386
37	1.60944	0.148594	-1.04505	182.508	265.533
38	1.60944	0.15261	-1.02789	182.508	264.695
39	1.60944	0.156627	-1.01104	182.508	263.872
40	1.60944	0.160643	-0.994457	182.508	263.063
41	1.60944	0.164659	-0.97815	182.508	262.266
42	1.60944	0.168675	-0.9621	182.508	261.483
43	1.60944	0.172691	-0.946291	182.508	260.711
44	1.60944	0.176707	-0.930718	182.508	259.95
45	1.60944	0.180723	-0.915365	182.508	259.2
46	1.60944	0.184739	-0.900227	182.508	258.461
47	1.60944	0.188755	-0.885291	182.508	257.732
48	1.60944	0.192771	-0.87055	182.508	257.012

49	1.60944	0.196787	-0.855996	182.508	256.301
50	1.60944	0.200803	-0.841621	182.508	255.599
51	1.60944	0.204819	-0.827417	182.508	254.906
52	1.60944	0.208835	-0.813379	182.508	254.22
53	1.60944	0.212851	-0.7995	182.508	253.542
54	1.60944	0.216867	-0.785774	182.508	252.872
55	1.60944	0.220884	-0.772193	182.508	252.209
56	1.60944	0.2249	-0.758753	182.508	251.552
57	1.60944	0.228916	-0.745449	182.508	250.903
58	1.60944	0.232932	-0.732275	182.508	250.259
59	1.60944	0.236948	-0.719228	182.508	249.622
60	1.60944	0.240964	-0.706302	182.508	248.991
61	1.60944	0.24498	-0.693493	182.508	248.366
62	1.60944	0.248996	-0.680797	182.508	247.746
63	1.60944	0.253012	-0.665079	182.508	246.978
64	1.60944	0.257028	-0.652622	182.508	246.37
65	1.60944	0.261044	-0.640266	182.508	245.766
66	1.60944	0.26506	-0.628006	182.508	245.168
67	1.60944	0.269076	-0.615839	182.508	244.573
68	1.60944	0.273092	-0.603765	182.508	243.984
69	1.60944	0.277108	-0.591776	182.508	243.398
70	1.60944	0.281124	-0.579873	182.508	242.817
71	1.60944	0.285141	-0.568052	182.508	242.24
72	1.60944	0.289157	-0.556308	182.508	241.666
73	1.60944	0.293173	-0.544642	182.508	241.097
74	1.60944	0.297189	-0.533048	182.508	240.531
75	1.60944	0.301205	-0.521527	182.508	239.968
76	1.60944	0.305221	-0.510074	182.508	239.409
77	1.60944	0.309237	-0.498687	182.508	238.853
78	1.60944	0.313253	-0.487364	182.508	238.3
79	1.60944	0.317269	-0.476105	182.508	237.75
80	1.60944	0.321285	-0.464904	182.508	237.203
81	1.60944	0.325301	-0.453763	182.508	236.659
82	1.60944	0.329317	-0.442676	182.508	236.117
83	1.60944	0.333333	-0.431644	182.508	235.579
84	1.60944	0.337349	-0.420664	182.508	235.042
85	1.60944	0.341365	-0.409735	182.508	234.509
86	1.60944	0.345382	-0.398855	182.508	233.977
87	1.60944	0.349398	-0.388022	182.508	233.448
88	1.60944	0.353414	-0.377233	182.508	232.922
89	1.60944	0.35743	-0.36649	182.508	232.397
90	1.60944	0.361446	-0.355788	182.508	231.874
91	1.60944	0.365462	-0.345126	182.508	231.354
92	1.60944	0.369478	-0.334503	182.508	230.835
93	1.60944	0.373494	-0.323919	182.508	230.318
94	1.60944	0.37751	-0.31337	182.508	229.803
95	1.60944	0.381526	-0.302855	182.508	229.289
96	1.60944	0.385542	-0.292375	182.508	228.778
97	1.60944	0.389558	-0.281926	182.508	228.267
98	1.60944	0.393574	-0.271509	182.508	227.759
99	1.60944	0.39759	-0.26112	182.508	227.251
100	1.60944	0.401606	-0.250759	182.508	226.745
101	1.69194	0.405622	-0.240426	189.865	226.241
102	1.70475	0.409639	-0.230118	191.007	225.737
103	1.74047	0.413655	-0.219834	194.192	225.235
104	1.78675	0.417671	-0.209575	198.318	224.734
105	1.80336	0.421687	-0.199336	199.799	224.234
106	1.82777	0.425703	-0.189118	201.976	223.735
107	1.86253	0.429719	-0.17892	205.075	223.237
108	1.88707	0.433735	-0.168741	207.264	222.74
109	1.93152	0.437751	-0.158579	211.227	222.244
110	1.93152	0.441767	-0.148434	211.227	221.749

111	1.94591	0.445783	-0.138305	212.51	221.254
112	1.94591	0.449799	-0.128189	212.51	220.76
113	1.94591	0.453815	-0.118085	212.51	220.267
114	1.97408	0.457831	-0.107995	215.022	219.774
115	1.97685	0.461847	-0.0979139	215.27	219.281
116	2.06686	0.465863	-0.0878447	223.295	218.79
117	2.07944	0.46988	-0.0777834	224.417	218.298
118	2.07944	0.473896	-0.0677301	224.417	217.807
119	2.07944	0.477912	-0.0576847	224.417	217.317
120	2.11626	0.481928	-0.0476439	227.699	216.827
121	2.16332	0.485944	-0.0376076	231.896	216.337
122	2.16332	0.48996	-0.0275759	231.896	215.847
123	2.19722	0.493976	-0.0175476	234.919	215.357
124	2.19722	0.497992	-0.00751925	234.919	214.867
125	2.19722	0.502008	0.00751925	234.919	214.133
126	2.2192	0.506024	0.0175476	236.879	213.643
127	2.28238	0.51004	0.0275759	242.512	213.153
128	2.28238	0.514056	0.0376076	242.512	212.663
129	2.28238	0.518072	0.0476439	242.512	212.173
130	2.29253	0.522088	0.0576847	243.418	211.683
131	2.30259	0.526104	0.0677301	244.314	211.193
132	2.38876	0.53012	0.0777834	251.998	210.702
133	2.3979	0.534137	0.0878447	252.812	210.21
134	2.3979	0.538153	0.0979139	252.812	209.719
135	2.48491	0.542169	0.107995	260.571	209.226
136	2.56495	0.546185	0.118085	267.708	208.733
137	2.89037	0.550201	0.128189	296.725	208.24
138	2.94969	0.554217	0.138305	302.014	207.746
139	2.99573	0.558233	0.148434	306.119	207.251
140	2.99573	0.562249	0.158579	306.119	206.756
141	3.04452	0.566265	0.168741	310.47	206.26
142	3.32143	0.570281	0.17892	335.161	205.763
143	3.3322	0.574297	0.189118	336.122	205.265
144	3.36038	0.578313	0.199336	338.633	204.766
145	3.4012	0.582329	0.209575	342.273	204.266
146	3.4012	0.586345	0.219834	342.273	203.765
147	3.4012	0.590361	0.230118	342.273	203.263
148	3.4012	0.594378	0.240426	342.273	202.759
149	3.43399	0.598394	0.250759	345.197	202.255
150	3.46574	0.60241	0.26112	348.028	201.749
151	3.46574	0.606426	0.271509	348.028	201.241
152	3.46574	0.610442	0.281926	348.028	200.733
153	3.49651	0.614458	0.292375	350.772	200.222
154	3.49651	0.618474	0.302855	350.772	199.711
155	3.50255	0.62249	0.31337	351.311	199.197
156	3.52636	0.626506	0.323919	353.434	198.682
157	3.52636	0.630522	0.334503	353.434	198.165
158	3.5293	0.634538	0.345126	353.696	197.646
159	3.54096	0.638554	0.355788	354.736	197.126
160	3.54962	0.64257	0.36649	355.508	196.603
161	3.55535	0.646586	0.377233	356.019	196.078
162	3.55535	0.650602	0.388022	356.019	195.552
163	3.58352	0.654618	0.398855	358.53	195.023
164	3.58352	0.658635	0.409735	358.53	194.491
165	3.6055	0.662651	0.420664	360.49	193.958
166	3.61092	0.666667	0.431644	360.974	193.421
167	3.62966	0.670683	0.442676	362.645	192.883
168	3.63759	0.674699	0.453763	363.351	192.341
169	3.66356	0.678715	0.464904	365.668	191.797
170	3.68888	0.682731	0.476105	367.925	191.25
171	3.68888	0.686747	0.487364	367.925	190.7
172	3.68888	0.690763	0.498687	367.925	190.147

173	3.68888	0.694779	0.510074	367.925	189.591
174	3.68888	0.698795	0.521527	367.925	189.032
175	3.68888	0.702811	0.533048	367.925	188.469
176	3.68888	0.706827	0.544642	367.925	187.903
177	3.69138	0.710843	0.556308	368.148	187.334
178	3.70623	0.714859	0.568052	369.472	186.76
179	3.71357	0.718876	0.579873	370.127	186.183
180	3.71357	0.722892	0.591776	370.127	185.602
181	3.71357	0.726908	0.603765	370.127	185.016
182	3.71357	0.730924	0.615839	370.127	184.427
183	3.71357	0.73494	0.628006	370.127	183.832
184	3.71357	0.738956	0.640266	370.127	183.234
185	3.71357	0.742972	0.652622	370.127	182.63
186	3.72569	0.746988	0.665079	371.208	182.022
187	3.73767	0.751004	0.680797	372.276	181.254
188	3.73767	0.75502	0.693493	372.276	180.634
189	3.73767	0.759036	0.706302	372.276	180.009
190	3.73767	0.763052	0.719228	372.276	179.378
191	3.7612	0.767068	0.732275	374.374	178.741
192	3.7612	0.771084	0.745449	374.374	178.097
193	3.77963	0.7751	0.758753	376.017	177.448
194	3.80221	0.779116	0.772193	378.03	176.791
195	3.80666	0.783133	0.785774	378.427	176.128
196	3.80666	0.787149	0.7995	378.427	175.458
197	3.80666	0.791165	0.813379	378.427	174.78
198	3.82864	0.795181	0.827417	380.387	174.094
199	3.84588	0.799197	0.841621	381.925	173.401
200	3.85015	0.803213	0.855996	382.305	172.699
201	3.85015	0.807229	0.87055	382.305	171.988
202	3.86073	0.811245	0.885291	383.248	171.268
203	3.8712	0.815261	0.900227	384.182	170.539
204	3.89182	0.819277	0.915365	386.021	169.8
205	3.89792	0.823293	0.930718	386.565	169.05
206	3.91202	0.827309	0.946291	387.822	168.289
207	3.91202	0.831325	0.9621	387.822	167.517
208	3.91202	0.835341	0.97815	387.822	166.734
209	3.93183	0.839357	0.994457	389.588	165.937
210	3.93183	0.843373	1.01104	389.588	165.128
211	3.95124	0.84739	1.02789	391.319	164.305
212	4.00733	0.851406	1.04505	396.321	163.467
213	4.09434	0.855422	1.06252	404.079	162.614
214	4.09434	0.859438	1.08032	404.079	161.744
215	4.09434	0.863454	1.09847	404.079	160.858
216	4.1463	0.86747	1.11699	408.712	159.954
217	4.15888	0.871486	1.1359	409.834	159.03
218	4.15888	0.875502	1.15522	409.834	158.087
219	4.17746	0.879518	1.17499	411.49	157.121
220	4.18965	0.883534	1.19522	412.578	156.133
221	4.20469	0.88755	1.21596	413.918	155.121
222	4.23411	0.891566	1.23724	416.541	154.082
223	4.2485	0.895582	1.25908	417.824	153.015
224	4.2485	0.899598	1.28155	417.824	151.918
225	4.25419	0.903614	1.30469	418.332	150.788
226	4.27667	0.907631	1.32854	420.336	149.623
227	4.30407	0.911647	1.35317	422.779	148.42
228	4.33467	0.915663	1.37866	425.508	147.176
229	4.3412	0.919679	1.40507	426.091	145.886
230	4.35543	0.923695	1.4325	427.359	144.546
231	4.44852	0.927711	1.46106	435.659	143.152
232	4.48187	0.931727	1.49085	438.634	141.697
233	4.49981	0.935743	1.52203	440.233	140.174
234	4.56122	0.939759	1.55477	445.709	138.575

235	4.60517	0.943775	1.58927	449.628	136.891
236	4.75359	0.947791	1.62576	462.862	135.109
237	4.77068	0.951807	1.66456	464.386	133.214
238	4.81218	0.955823	1.70604	468.086	131.188
239	4.86753	0.959839	1.75069	473.022	129.008
240	4.86753	0.963855	1.79912	473.022	126.643
241	4.93447	0.967871	1.85218	478.991	124.052
242	5.01064	0.971888	1.91103	485.782	121.178
243	5.01064	0.975904	1.97737	485.782	117.938
244	5.01064	0.97992	2.05375	485.782	114.209
245	5.07517	0.983936	2.14441	491.536	109.781
246	5.07517	0.987952	2.25713	491.536	104.277
247	5.07517	0.991968	2.40892	491.536	96.8642
248	5.1358	0.995984	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		206
	9/23/1999	3.3322		143
	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		132
	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	130
	11/12/2010	2.19722		124
	7/5/2011	1.88707		108

Rank Sum = 1979
Rank Mean = 104.158

Background Rank Sum = 1979
Background Rank Mean = 104.158

Compliance Locations

Loc. ID	Date	Value		Rank
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		233
	9/23/1999	4.27667		226
	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		230
	10/25/2005	4.3412		229
	4/29/2006	2.3979		133
	11/18/2006	4.81218		238
	5/23/2007	4.93447		241

	11/28/2007	4.77068		237
	6/5/2008	5.01064		242
	11/20/2008	5.01064		243
	6/11/2009	5.1358		248
	11/16/2009	4.86753		239
	6/30/2010	5.07517	H	245
	11/12/2010	5.01064		244
	7/5/2011	4.86753	J	240
	11/22/2011	5.07517		246
	6/5/2012	5.07517		247

Rank Sum = 4661
Rank Mean = 150.355

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		139
	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		127
	7/5/2011	2.2192		126
	11/22/2011	2.48491		135
	6/5/2012	2.56495		136

Rank Sum = 2620
Rank Mean = 84.5161

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		213
	9/23/1999	4.30407		227
	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		199
	10/25/2005	3.86073		202
	4/29/2006	3.91202		207
	11/18/2006	3.62966		167
	5/23/2007	4.1463		216
	11/28/2007	2.11626	J	120
	6/5/2008	3.77963		193
	11/20/2008	4.09434		214
	6/11/2009	3.85015		200
	11/16/2009	3.73767		187
	6/30/2010	3.80666	H	195
	11/12/2010	3.52636		156
	7/5/2011	4.15888		217
	11/22/2011	4.18965		220
	6/5/2012	4.23411		222

Rank Sum = 4055
Rank Mean = 130.806

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		170
	9/23/1999	3.04452		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	3.36038		144
	10/25/2005	2.94969		138
	4/29/2006	3.4012		145
	11/18/2006	4.75359		236
	5/23/2007	3.91202		208
	11/28/2007	3.52636		157
	6/5/2008	ND<1.60944		50
	11/20/2008	2.30259		131
	6/11/2009	2.3979		134
	11/16/2009	1.97408		114
	6/30/2010	2.89037	H	137
	11/12/2010	2.16332		122
	7/5/2011	2.07944		119
	11/22/2011	2.28238		128
	11/22/2011	2.28238		129
	6/5/2012	2.19722		125

Rank Sum = 3228
Rank Mean = 100.875

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		215
	9/23/1999	3.71357		179
	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		234
	10/25/2005	4.17746		219
	4/29/2006	4.2485		223
	11/18/2006	4.44852		231
	5/23/2007	4.33467		228
	11/28/2007	4.60517		235
	6/5/2008	4.48187		232
	11/20/2008	4.15888		218
	6/11/2009	4.00733		212
	6/30/2010	4.20469	H	221
	11/12/2010	4.2485		224
	7/5/2011	3.93183		209
	11/22/2011	3.8712		203
	6/5/2012	3.93183		210

Rank Sum = 4193
Rank Mean = 139.767

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		140
	9/23/1999	3.95124		211
	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		178
	10/25/2005	3.66356		169
	4/29/2006	3.68888		171
	11/18/2006	3.89792		205
	5/23/2007	4.25419		225
	11/28/2007	3.85015		201
	6/5/2008	3.80221		194
	11/20/2008	3.89182		204
	6/11/2009	3.82864		198
	11/16/2009	3.71357		180
	6/30/2010	3.80666	H	196
	11/12/2010	3.71357		181
	7/5/2011	3.55535		161
	11/22/2011	3.46574		150
	11/22/2011	3.46574		151
	6/5/2012	3.68888		172

Rank Sum = 3987
Rank Mean = 124.594

MW-12BR	3/16/1999	3.4012		146
	9/23/1999	3.49651		153

	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	177
	10/25/2005	3.55535	162
	4/29/2006	3.4012	147
	11/18/2006	3.54096	159
	5/23/2007	3.72569	186
	11/28/2007	3.68888	173
	6/5/2008	3.6055	165
	11/20/2008	3.7612	191
	6/11/2009	3.73767	188
	11/16/2009	3.61092	166
	6/30/2010	3.68888	174
	11/12/2010	3.7612	192
	7/5/2011	3.71357	182
	11/22/2011	3.73767	189
	6/5/2012	3.71357	183

Rank Sum = 3133
Rank Mean = 149.19

MW-12AR	3/16/1999	3.68888	175
	9/23/1999	3.68888	176
	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	163
	10/25/2005	3.32143	142
	4/29/2006	3.4012	148
	11/18/2006	3.50255	155
	5/23/2007	3.5293	158
	11/28/2007	3.73767	190
	6/5/2008	3.54962	160
	11/20/2008	3.80666	197
	6/11/2009	3.63759	168
	11/16/2009	3.71357	184
	6/30/2010	3.58352	164
	11/12/2010	3.71357	185
	7/5/2011	3.46574	152
	11/22/2011	3.43399	149
	6/5/2012	3.49651	154

Rank Sum = 3020
Rank Mean = 143.81

Calculation Results:

Kruskal-Wallis H Statistic = 24.264
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 25.9123
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
24.264 > 15.5073 indicating a significant group difference at 5% significance level
25.9123 > 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 104.158

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**150.355**	**46.1969**	**48.6223**
MW-6	**84.5161**	**-19.6418**	**48.6223**

MW-7	**130.806**	**26.6486**	**48.6223**
MW-11R	**100.875**	**-3.28289**	**48.3328**
MW-8	**139.767**	**35.6088**	**48.9293**
MW-9	**124.594**	**20.4359**	**48.3328**
MW-12BR	**149.19**	**45.0326**	**52.8387**
MW-12AR	**143.81**	**39.6516**	**52.8387**

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 104.158

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**150.355**	**46.1969**	**52.5055**
MW-6	**84.5161**	**-19.6418**	**52.5055**
MW-7	**130.806**	**26.6486**	**52.5055**
MW-11R	**100.875**	**-3.28289**	**52.1928**
MW-8	**139.767**	**35.6088**	**52.837**
MW-9	**124.594**	**20.4359**	**52.1928**
MW-12BR	**149.19**	**45.0326**	**57.0586**
MW-12AR	**143.81**	**39.6516**	**57.0586**

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Barium
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 39.9194%
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-10	6/5/2012	1	5.07517	TRUE
MW-6	6/5/2012	1	2.56495	FALSE
MW-7	6/5/2012	1	4.23411	TRUE
MW-11R	6/5/2012	1	2.19722	FALSE
MW-8	6/5/2012	1	3.93183	TRUE
MW-9	6/5/2012	1	3.68888	FALSE
MW-12BR	6/5/2012	1	3.71357	FALSE
MW-12AR	6/5/2012	1	3.49651	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	
6/5/2012	4.23411	0	0	
6/5/2012	4.23411	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	
6/5/2012	5.07517	0	0	
6/5/2012	5.07517	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	4.09434	0	0
3/16/1999	4.09434	0	0
9/23/1999	3.71357	0	0
9/23/1999	3.71357	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	4.56122	0	0
4/1/2005	4.56122	0	0
10/25/2005	4.17746	0	0
10/25/2005	4.17746	0	0
4/29/2006	4.2485	0	0
4/29/2006	4.2485	0	0
11/18/2006	4.44852	0	0
11/18/2006	4.44852	0	0
5/23/2007	4.33467	0	0
5/23/2007	4.33467	0	0
11/28/2007	4.60517	0	0
11/28/2007	4.60517	0	0
6/5/2008	4.48187	0	0
6/5/2008	4.48187	0	0
11/20/2008	4.15888	0	0
11/20/2008	4.15888	0	0
6/11/2009	4.00733	0	0
6/11/2009	4.00733	0	0
6/30/2010	4.20469	0	0
6/30/2010	4.20469	0	0
11/12/2010	4.2485	0	0
11/12/2010	4.2485	0	0
7/5/2011	3.93183	0	0
7/5/2011	3.93183	0	0
11/22/2011	3.8712	0	0

11/22/2011	3.8712	0	0
6/5/2012	3.93183	0	0
6/5/2012	3.93183	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
4.23411 (6/5/2012) ND<1.60944 (7/20/1995) (4.23411 - 1.60944)/(31 - 1)
0.087489

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
4.23411 (6/5/2012) ND<1.60944 (8/24/1995) (4.23411 - 1.60944)/(31 - 2)
0.0905058

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
4.23411 (6/5/2012) ND<1.60944 (9/28/1995) (4.23411 - 1.60944)/(31 - 3)
0.0937382

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
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2.11626 J (11/28/2007) 4.30407 (9/23/1999) (2.11626 - 4.30407)/(22 - 12)
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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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4.15888 (7/5/2011) ND<1.60944 (9/24/2003) (4.15888 - 1.60944)/(29 - 14)
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4.18965 (11/22/2011) ND<1.60944 (9/24/2003) (4.18965 - 1.60944)/(30 - 14)
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4.23411 (6/5/2012) ND<1.60944 (9/24/2003) (4.23411 - 1.60944)/(31 - 14)
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ND<1.60944 (10/12/2004) ND<1.60944 (3/11/2004) (1.60944 - 1.60944)/(16 - 15)
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0.750431
3.91202 (4/29/2006) ND<1.60944 (3/11/2004) (3.91202 - 1.60944)/(19 - 15)
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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)
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4.09434	(11/20/2008)	ND<1.60944	(3/11/2004)	(4.09434 - 1.60944)/(24 - 15)
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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				
4.23411	(6/5/2012)	ND<1.60944	(3/11/2004)	(4.23411 - 1.60944)/(31 - 15)
0.164042				

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)
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3.62966	(11/18/2006)	ND<1.60944	(10/12/2004)	(3.62966 - 1.60944)/(20 - 16)
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4.1463	(5/23/2007)	ND<1.60944	(10/12/2004)	(4.1463 - 1.60944)/(21 - 16)
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4.09434	(11/20/2008)	ND<1.60944	(10/12/2004)	(4.09434 - 1.60944)/(24 - 16)
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3.85015	(6/11/2009)	ND<1.60944	(10/12/2004)	(3.85015 - 1.60944)/(25 - 16)
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3.73767	(11/16/2009)	ND<1.60944	(10/12/2004)	(3.73767 - 1.60944)/(26 - 16)
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3.80666 H	(6/30/2010)	ND<1.60944	(10/12/2004)	(3.80666 - 1.60944)/(27 - 16)
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3.52636	(11/12/2010)	ND<1.60944	(10/12/2004)	(3.52636 - 1.60944)/(28 - 16)
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4.15888	(7/5/2011)	ND<1.60944	(10/12/2004)	(4.15888 - 1.60944)/(29 - 16)
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4.18965	(11/22/2011)	ND<1.60944	(10/12/2004)	(4.18965 - 1.60944)/(30 - 16)
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4.23411	(6/5/2012)	ND<1.60944	(10/12/2004)	(4.23411 - 1.60944)/(31 - 16)
0.174978				

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)
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2.11626 J	(11/28/2007)	3.84588	(4/1/2005)	(2.11626 - 3.84588)/(22 - 17)
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3.77963	(6/5/2008)	3.84588	(4/1/2005)	(3.77963 - 3.84588)/(23 - 17)
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4.09434	(11/20/2008)	3.84588	(4/1/2005)	(4.09434 - 3.84588)/(24 - 17)
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3.85015	(6/11/2009)	3.84588	(4/1/2005)	(3.85015 - 3.84588)/(25 - 17)
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3.73767	(11/16/2009)	3.84588	(4/1/2005)	(3.73767 - 3.84588)/(26 - 17)
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3.80666 H	(6/30/2010)	3.84588	(4/1/2005)	(3.80666 - 3.84588)/(27 - 17)
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3.52636	(11/12/2010)	3.84588	(4/1/2005)	(3.52636 - 3.84588)/(28 - 17)
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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				
4.23411	(6/5/2012)	3.84588	(4/1/2005)	(4.23411 - 3.84588)/(31 - 17)
0.0277302				
3.91202	(4/29/2006)	3.86073	(10/25/2005)	(3.91202 - 3.86073)/(19 - 18)
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3.62966	(11/18/2006)	3.86073	(10/25/2005)	(3.62966 - 3.86073)/(20 - 18)
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4.1463	(5/23/2007)	3.86073	(10/25/2005)	(4.1463 - 3.86073)/(21 - 18)
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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)
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3.73767	(11/16/2009)	3.86073	(10/25/2005)	(3.73767 - 3.86073)/(26 - 18)
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3.80666 H	(6/30/2010)	3.86073	(10/25/2005)	(3.80666 - 3.86073)/(27 - 18)
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3.52636	(11/12/2010)	3.86073	(10/25/2005)	(3.52636 - 3.86073)/(28 - 18)
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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)
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4.23411	(6/5/2012)	3.86073	(10/25/2005)	(4.23411 - 3.86073)/(31 - 18)
0.0287213				
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)
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2.11626 J	(11/28/2007)	3.91202	(4/29/2006)	(2.11626 - 3.91202)/(22 - 19)
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3.77963	(6/5/2008)	3.91202	(4/29/2006)	(3.77963 - 3.91202)/(23 - 19)
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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)
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3.52636 (11/12/2010)	3.91202 (4/29/2006)	(3.52636 - 3.91202)/(28 - 19)
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4.15888 (7/5/2011)	3.91202 (4/29/2006)	(4.15888 - 3.91202)/(29 - 19)
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4.18965 (11/22/2011)	3.91202 (4/29/2006)	(4.18965 - 3.91202)/(30 - 19)
0.0252392		
4.23411 (6/5/2012)	3.91202 (4/29/2006)	(4.23411 - 3.91202)/(31 - 19)
0.0268403		
4.1463 (5/23/2007)	3.62966 (11/18/2006)	(4.1463 - 3.62966)/(21 - 20)
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2.11626 J (11/28/2007)	3.62966 (11/18/2006)	(2.11626 - 3.62966)/(22 - 20)
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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)
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3.52636 (11/12/2010)	3.62966 (11/18/2006)	(3.52636 - 3.62966)/(28 - 20)
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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		
4.23411 (6/5/2012)	3.62966 (11/18/2006)	(4.23411 - 3.62966)/(31 - 20)
0.0549497		
2.11626 J (11/28/2007)	4.1463 (5/23/2007)	(2.11626 - 4.1463)/(22 - 21)
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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)
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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		
4.23411 (6/5/2012)	4.1463 (5/23/2007)	(4.23411 - 4.1463)/(31 - 21)
0.00878022		
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		
4.23411 (6/5/2012)	2.11626 J (11/28/2007)	(4.23411 - 2.11626)/(31 - 22)
0.235317		
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)
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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		
4.23411 (6/5/2012)	3.77963 (6/5/2008)	(4.23411 - 3.77963)/(31 - 23)
0.0568091		
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		
4.23411 (6/5/2012)	4.09434 (11/20/2008)	(4.23411 - 4.09434)/(31 - 24)
0.019966		
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		
4.23411 (6/5/2012)	3.85015 (6/11/2009)	(4.23411 - 3.85015)/(31 - 25)
0.0639932		
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
4.23411	(6/5/2012)	3.73767	(11/16/2009)	(4.23411 - 3.73767)/(31 - 26)	0.0992874
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
4.23411	(6/5/2012)	3.80666 H	(6/30/2010)	(4.23411 - 3.80666)/(31 - 27)	0.106861
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
4.23411	(6/5/2012)	3.52636	(11/12/2010)	(4.23411 - 3.52636)/(31 - 28)	0.235915
4.18965	(11/22/2011)	4.15888	(7/5/2011)	(4.18965 - 4.15888)/(30 - 29)	0.0307717
4.23411	(6/5/2012)	4.15888	(7/5/2011)	(4.23411 - 4.15888)/(31 - 29)	0.0376117
4.23411	(6/5/2012)	4.18965	(11/22/2011)	(4.23411 - 4.18965)/(31 - 30)	0.0444518

Number of Q values = 465

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	-0.00368203
73	-0.00151173
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	0.00053305
167	0.00157235
168	0.00358547
169	0.00481672
170	0.00501633
171	0.00519597
172	0.00675717
173	0.0069881
174	0.00878022
175	0.0129077
176	0.0148465
177	0.015885
178	0.0180016
179	0.019966
180	0.0241342
181	0.024686
182	0.0252392
183	0.0252861
184	0.0253409
185	0.0260833
186	0.026444
187	0.0266746
188	0.0268403
189	0.0271049
190	0.0274104
191	0.0277302
192	0.0281565
193	0.0287213
194	0.0298128
195	0.0307717
196	0.0316761
197	0.0330699
198	0.0337878
199	0.0352569
200	0.0354945
201	0.0362013
202	0.0364643
203	0.0376117
204	0.0389358
205	0.038986
206	0.0422348
207	0.0440975
208	0.0444518
209	0.0499912

210	0.0512933
211	0.0549497
212	0.0559995
213	0.0563131
214	0.0568091
215	0.0585744
216	0.0588026
217	0.0632082
218	0.0633522
219	0.0639932
220	0.0679014
221	0.0689929
222	0.0709971
223	0.0724025
224	0.0737278
225	0.0751053
226	0.0766769
227	0.0771839
228	0.0798718
229	0.0833445
230	0.0844696
231	0.0845086
232	0.0851293
233	0.0871328
234	0.087489
235	0.087889
236	0.0886763
237	0.088973
238	0.0905058
239	0.0910516
240	0.091282
241	0.091551
242	0.0921506
243	0.0925318
244	0.0933629
245	0.0937382
246	0.0944239
247	0.0951915
248	0.0955315
249	0.0955636
250	0.0958461
251	0.0967378
252	0.0972099
253	0.0974222
254	0.0980556
255	0.0986453
256	0.0992391
257	0.0992874
258	0.0998738
259	0.100891
260	0.100949
261	0.101344
262	0.10185
263	0.101978
264	0.103209
265	0.103343
266	0.10463
267	0.104987
268	0.106227
269	0.106327
270	0.106412
271	0.106496

272	0.1067
273	0.106861
274	0.107509
275	0.108039
276	0.10851
277	0.109361
278	0.109861
279	0.110845
280	0.112012
281	0.112035
282	0.112183
283	0.112235
284	0.11295
285	0.112996
286	0.114116
287	0.114221
288	0.115643
289	0.115884
290	0.116171
291	0.117141
292	0.117283
293	0.117932
294	0.118235
295	0.118329
296	0.118837
297	0.119303
298	0.120566
299	0.121402
300	0.122068
301	0.122867
302	0.124245
303	0.124484
304	0.124984
305	0.12519
306	0.126264
307	0.126843
308	0.127472
309	0.127659
310	0.127664
311	0.127795
312	0.127921
313	0.129011
314	0.129249
315	0.130785
316	0.131806
317	0.132429
318	0.133014
319	0.133519
320	0.134181
321	0.134681
322	0.135446
323	0.135637
324	0.136923
325	0.13805
326	0.139778
327	0.140044
328	0.140404
329	0.140706
330	0.140937
331	0.143912
332	0.144302
333	0.14468

334	0.145815
335	0.146171
336	0.147456
337	0.149096
338	0.149227
339	0.149381
340	0.150086
341	0.151777
342	0.153506
343	0.154392
344	0.155014
345	0.155307
346	0.155402
347	0.156945
348	0.158554
349	0.15934
350	0.159744
351	0.159746
352	0.160807
353	0.161264
354	0.16371
355	0.164042
356	0.16447
357	0.16566
358	0.166938
359	0.168352
360	0.169017
361	0.169124
362	0.169963
363	0.172014
364	0.172034
365	0.173176
366	0.174978
367	0.17611
368	0.177122
369	0.177353
370	0.177493
371	0.181205
372	0.182103
373	0.183102
374	0.183657
375	0.184301
376	0.18637
377	0.186726
378	0.187608
379	0.191882
380	0.193476
381	0.195144
382	0.196111
383	0.199748
384	0.202022
385	0.203313
386	0.203701
387	0.204663
388	0.209326
389	0.209721
390	0.211406
391	0.212823
392	0.21702
393	0.223645
394	0.224071
395	0.225129

396	0.225901
397	0.230259
398	0.230624
399	0.235018
400	0.235317
401	0.235915
402	0.241133
403	0.244966
404	0.248491
405	0.248491
406	0.248494
407	0.248968
408	0.250144
409	0.255843
410	0.259175
411	0.269463
412	0.271274
413	0.276101
414	0.276101
415	0.279556
416	0.281411
417	0.288603
418	0.291804
419	0.299403
420	0.310028
421	0.310613
422	0.310613
423	0.314711
424	0.317108
425	0.319492
426	0.331647
427	0.336704
428	0.336828
429	0.338081
430	0.354987
431	0.362409
432	0.383764
433	0.384947
434	0.404044
435	0.405354
436	0.414151
437	0.422811
438	0.449105
439	0.450258
440	0.460517
441	0.496981
442	0.505056
443	0.507373
444	0.516644
445	0.538925
446	0.559111
447	0.562823
448	0.575646
449	0.577964
450	0.621227
451	0.632523
452	0.673657
453	0.745482
454	0.750431
455	0.767528
456	0.828302
457	0.898209

458	0.989045
459	1.11822
460	1.12565
461	1.24245
462	1.34731
463	1.66338
464	2.23645
465	2.48491

Sen's Estimator (Median Q) is 0.0871328

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
6/5/2012	1	

There are 0 time periods with multiple data

A = 6024
B = 0
C = 2184
D = 0
E = 184
F = 0
a = 62310
b = 242730
c = 1860
Group Variance = 3127
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.9795
M1 = (465 - 91.9795)/2.0 = 186.51

M2 = (465 + 91.9795)/2.0 + 1 = 279.49
Lower limit is 0.0266746 = Q(187)
Upper limit is 0.110845 = Q(279)
0.0266746 > 0 indicating an upward trend in data.

Sen's Slope Analysis
Parameter: Barium
Location: MW-8
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
3.71357	(9/23/1999)	ND<1.60944 (7/20/1995)	(3.71357 - 1.60944)/(12 - 1) 0.191285
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
4.56122	(4/1/2005)	ND<1.60944 (7/20/1995)	(4.56122 - 1.60944)/(17 - 1) 0.184486
4.17746	(10/25/2005)	ND<1.60944 (7/20/1995)	(4.17746 - 1.60944)/(18 - 1) 0.15106
4.2485	(4/29/2006)	ND<1.60944 (7/20/1995)	(4.2485 - 1.60944)/(19 - 1) 0.146614
4.44852	(11/18/2006)	ND<1.60944 (7/20/1995)	(4.44852 - 1.60944)/(20 - 1) 0.149425
4.33467	(5/23/2007)	ND<1.60944 (7/20/1995)	(4.33467 - 1.60944)/(21 - 1) 0.136262
4.60517	(11/28/2007)	ND<1.60944 (7/20/1995)	(4.60517 - 1.60944)/(22 - 1) 0.142654
4.48187	(6/5/2008)	ND<1.60944 (7/20/1995)	(4.48187 - 1.60944)/(23 - 1) 0.130565
4.15888	(11/20/2008)	ND<1.60944 (7/20/1995)	(4.15888 - 1.60944)/(24 - 1) 0.110845
4.00733	(6/11/2009)	ND<1.60944 (7/20/1995)	(4.00733 - 1.60944)/(25 - 1) 0.0999123
4.20469 H	(6/30/2010)	ND<1.60944 (7/20/1995)	(4.20469 - 1.60944)/(26 - 1) 0.10381
4.2485	(11/12/2010)	ND<1.60944 (7/20/1995)	(4.2485 - 1.60944)/(27 - 1) 0.101502
3.93183	(7/5/2011)	ND<1.60944 (7/20/1995)	(3.93183 - 1.60944)/(28 - 1) 0.0860144
3.8712	(11/22/2011)	ND<1.60944 (7/20/1995)	(3.8712 - 1.60944)/(29 - 1) 0.0807773

3.93183 (6/5/2012) ND<1.60944 (7/20/1995) (3.93183 - 1.60944)/(30 - 1)
0.0800823

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
3.71357 (9/23/1999) ND<1.60944 (8/24/1995) (3.71357 - 1.60944)/(12 - 2)
0.210413
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
4.56122 (4/1/2005) ND<1.60944 (8/24/1995) (4.56122 - 1.60944)/(17 - 2)
0.196785
4.17746 (10/25/2005) ND<1.60944 (8/24/1995) (4.17746 - 1.60944)/(18 - 2)
0.160501
4.2485 (4/29/2006) ND<1.60944 (8/24/1995) (4.2485 - 1.60944)/(19 - 2)
0.155239
4.44852 (11/18/2006) ND<1.60944 (8/24/1995) (4.44852 - 1.60944)/(20 - 2)
0.157727
4.33467 (5/23/2007) ND<1.60944 (8/24/1995) (4.33467 - 1.60944)/(21 - 2)
0.143433
4.60517 (11/28/2007) ND<1.60944 (8/24/1995) (4.60517 - 1.60944)/(22 - 2)
0.149787
4.48187 (6/5/2008) ND<1.60944 (8/24/1995) (4.48187 - 1.60944)/(23 - 2)
0.136783
4.15888 (11/20/2008) ND<1.60944 (8/24/1995) (4.15888 - 1.60944)/(24 - 2)
0.115884
4.00733 (6/11/2009) ND<1.60944 (8/24/1995) (4.00733 - 1.60944)/(25 - 2)
0.104256
4.20469 H (6/30/2010) ND<1.60944 (8/24/1995) (4.20469 - 1.60944)/(26 - 2)
0.108136
4.2485 (11/12/2010) ND<1.60944 (8/24/1995) (4.2485 - 1.60944)/(27 - 2)
0.105562
3.93183 (7/5/2011) ND<1.60944 (8/24/1995) (3.93183 - 1.60944)/(28 - 2)
0.0893226
3.8712 (11/22/2011) ND<1.60944 (8/24/1995) (3.8712 - 1.60944)/(29 - 2)
0.083769
3.93183 (6/5/2012) ND<1.60944 (8/24/1995) (3.93183 - 1.60944)/(30 - 2)
0.0829424

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
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4.48187	(6/5/2008)	ND<1.60944	(10/12/2004)	(4.48187 - 1.60944)/(23 - 16)
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4.2485	(11/12/2010)	ND<1.60944	(10/12/2004)	(4.2485 - 1.60944)/(27 - 16)
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3.93183	(7/5/2011)	ND<1.60944	(10/12/2004)	(3.93183 - 1.60944)/(28 - 16)
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3.8712	(11/22/2011)	ND<1.60944	(10/12/2004)	(3.8712 - 1.60944)/(29 - 16)
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3.93183	(6/5/2012)	ND<1.60944	(10/12/2004)	(3.93183 - 1.60944)/(30 - 16)
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4.17746	(10/25/2005)	4.56122	(4/1/2005)	(4.17746 - 4.56122)/(18 - 17)
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4.2485	(4/29/2006)	4.56122	(4/1/2005)	(4.2485 - 4.56122)/(19 - 17)
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4.44852	(11/18/2006)	4.56122	(4/1/2005)	(4.44852 - 4.56122)/(20 - 17)
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4.33467	(5/23/2007)	4.56122	(4/1/2005)	(4.33467 - 4.56122)/(21 - 17)
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4.60517	(11/28/2007)	4.56122	(4/1/2005)	(4.60517 - 4.56122)/(22 - 17)
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4.48187	(6/5/2008)	4.56122	(4/1/2005)	(4.48187 - 4.56122)/(23 - 17)
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4.15888	(11/20/2008)	4.56122	(4/1/2005)	(4.15888 - 4.56122)/(24 - 17)
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4.00733	(6/11/2009)	4.56122	(4/1/2005)	(4.00733 - 4.56122)/(25 - 17)
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4.20469 H	(6/30/2010)	4.56122	(4/1/2005)	(4.20469 - 4.56122)/(26 - 17)
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4.2485	(11/12/2010)	4.56122	(4/1/2005)	(4.2485 - 4.56122)/(27 - 17)
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3.93183	(7/5/2011)	4.56122	(4/1/2005)	(3.93183 - 4.56122)/(28 - 17)
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3.8712	(11/22/2011)	4.56122	(4/1/2005)	(3.8712 - 4.56122)/(29 - 17)
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3.93183	(6/5/2012)	4.56122	(4/1/2005)	(3.93183 - 4.56122)/(30 - 17)
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4.2485	(4/29/2006)	4.17746	(10/25/2005)	(4.2485 - 4.17746)/(19 - 18)
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4.44852	(11/18/2006)	4.17746	(10/25/2005)	(4.44852 - 4.17746)/(20 - 18)
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4.33467	(5/23/2007)	4.17746	(10/25/2005)	(4.33467 - 4.17746)/(21 - 18)
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4.60517	(11/28/2007)	4.17746	(10/25/2005)	(4.60517 - 4.17746)/(22 - 18)
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4.48187	(6/5/2008)	4.17746	(10/25/2005)	(4.48187 - 4.17746)/(23 - 18)
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4.15888	(11/20/2008)	4.17746	(10/25/2005)	(4.15888 - 4.17746)/(24 - 18)
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4.20469 H	(6/30/2010)	4.17746	(10/25/2005)	(4.20469 - 4.17746)/(26 - 18)	
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4.48187	(6/5/2008)	4.2485	(4/29/2006)	(4.48187 - 4.2485)/(23 - 19)	
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4.00733	(6/11/2009)	4.2485	(4/29/2006)	(4.00733 - 4.2485)/(25 - 19)	
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4.2485	(11/12/2010)	4.2485	(4/29/2006)	(4.2485 - 4.2485)/(27 - 19)	0
3.93183	(7/5/2011)	4.2485	(4/29/2006)	(3.93183 - 4.2485)/(28 - 19)	
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3.8712	(11/22/2011)	4.2485	(4/29/2006)	(3.8712 - 4.2485)/(29 - 19)	
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3.93183	(6/5/2012)	4.2485	(4/29/2006)	(3.93183 - 4.2485)/(30 - 19)	
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4.33467	(5/23/2007)	4.44852	(11/18/2006)	(4.33467 - 4.44852)/(21 - 20)	
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4.60517	(11/28/2007)	4.44852	(11/18/2006)	(4.60517 - 4.44852)/(22 - 20)	
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4.00733	(6/11/2009)	4.44852	(11/18/2006)	(4.00733 - 4.44852)/(25 - 20)	
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3.93183	(7/5/2011)	4.44852	(11/18/2006)	(3.93183 - 4.44852)/(28 - 20)	
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3.8712	(11/22/2011)	4.44852	(11/18/2006)	(3.8712 - 4.44852)/(29 - 20)	
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4.00733	(6/11/2009)	4.33467	(5/23/2007)	(4.00733 - 4.33467)/(25 - 21)	-0.0818349
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4.2485	(11/12/2010)	4.33467	(5/23/2007)	(4.2485 - 4.33467)/(27 - 21)	-0.0143629
3.93183	(7/5/2011)	4.33467	(5/23/2007)	(3.93183 - 4.33467)/(28 - 21)	-0.0575496
3.8712	(11/22/2011)	4.33467	(5/23/2007)	(3.8712 - 4.33467)/(29 - 21)	-0.057934
3.93183	(6/5/2012)	4.33467	(5/23/2007)	(3.93183 - 4.33467)/(30 - 21)	-0.0447608
4.48187	(6/5/2008)	4.60517	(11/28/2007)	(4.48187 - 4.60517)/(23 - 22)	-0.123298
4.15888	(11/20/2008)	4.60517	(11/28/2007)	(4.15888 - 4.60517)/(24 - 22)	-0.223144
4.00733	(6/11/2009)	4.60517	(11/28/2007)	(4.00733 - 4.60517)/(25 - 22)	-0.199279
4.20469 H	(6/30/2010)	4.60517	(11/28/2007)	(4.20469 - 4.60517)/(26 - 22)	-0.100119
4.2485	(11/12/2010)	4.60517	(11/28/2007)	(4.2485 - 4.60517)/(27 - 22)	-0.071335
3.93183	(7/5/2011)	4.60517	(11/28/2007)	(3.93183 - 4.60517)/(28 - 22)	-0.112224
3.8712	(11/22/2011)	4.60517	(11/28/2007)	(3.8712 - 4.60517)/(29 - 22)	-0.104853
3.93183	(6/5/2012)	4.60517	(11/28/2007)	(3.93183 - 4.60517)/(30 - 22)	-0.0841681
4.15888	(11/20/2008)	4.48187	(6/5/2008)	(4.15888 - 4.48187)/(24 - 23)	-0.322989
4.00733	(6/11/2009)	4.48187	(6/5/2008)	(4.00733 - 4.48187)/(25 - 23)	-0.237269
4.20469 H	(6/30/2010)	4.48187	(6/5/2008)	(4.20469 - 4.48187)/(26 - 23)	-0.0923931
4.2485	(11/12/2010)	4.48187	(6/5/2008)	(4.2485 - 4.48187)/(27 - 23)	-0.0583442
3.93183	(7/5/2011)	4.48187	(6/5/2008)	(3.93183 - 4.48187)/(28 - 23)	-0.110009
3.8712	(11/22/2011)	4.48187	(6/5/2008)	(3.8712 - 4.48187)/(29 - 23)	-0.101778
3.93183	(6/5/2012)	4.48187	(6/5/2008)	(3.93183 - 4.48187)/(30 - 23)	-0.078578
4.00733	(6/11/2009)	4.15888	(11/20/2008)	(4.00733 - 4.15888)/(25 - 24)	-0.15155
4.20469 H	(6/30/2010)	4.15888	(11/20/2008)	(4.20469 - 4.15888)/(26 - 24)	0.0229048
4.2485	(11/12/2010)	4.15888	(11/20/2008)	(4.2485 - 4.15888)/(27 - 24)	0.0298707
3.93183	(7/5/2011)	4.15888	(11/20/2008)	(3.93183 - 4.15888)/(28 - 24)	-0.0567644
3.8712	(11/22/2011)	4.15888	(11/20/2008)	(3.8712 - 4.15888)/(29 - 24)	-0.0575364
3.93183	(6/5/2012)	4.15888	(11/20/2008)	(3.93183 - 4.15888)/(30 - 24)	-0.0378429
4.20469 H	(6/30/2010)	4.00733	(6/11/2009)	(4.20469 - 4.00733)/(26 - 25)	0.197359
4.2485	(11/12/2010)	4.00733	(6/11/2009)	(4.2485 - 4.00733)/(27 - 25)	0.120581

3.93183	(7/5/2011)	4.00733	(6/11/2009)	(3.93183 - 4.00733)/(28 - 25)	-0.0251692
3.8712	(11/22/2011)	4.00733	(6/11/2009)	(3.8712 - 4.00733)/(29 - 25)	-0.034033
3.93183	(6/5/2012)	4.00733	(6/11/2009)	(3.93183 - 4.00733)/(30 - 25)	-0.0151015
4.2485	(11/12/2010)	4.20469 H	(6/30/2010)	(4.2485 - 4.20469)/(27 - 26)	0.0438026
3.93183	(7/5/2011)	4.20469 H	(6/30/2010)	(3.93183 - 4.20469)/(28 - 26)	-0.136433
3.8712	(11/22/2011)	4.20469 H	(6/30/2010)	(3.8712 - 4.20469)/(29 - 26)	-0.111164
3.93183	(6/5/2012)	4.20469 H	(6/30/2010)	(3.93183 - 4.20469)/(30 - 26)	-0.0682167
3.93183	(7/5/2011)	4.2485	(11/12/2010)	(3.93183 - 4.2485)/(28 - 27)	-0.31667
3.8712	(11/22/2011)	4.2485	(11/12/2010)	(3.8712 - 4.2485)/(29 - 27)	-0.188647
3.93183	(6/5/2012)	4.2485	(11/12/2010)	(3.93183 - 4.2485)/(30 - 27)	-0.105557
3.8712	(11/22/2011)	3.93183	(7/5/2011)	(3.8712 - 3.93183)/(29 - 28)	-0.0606246
3.93183	(6/5/2012)	3.93183	(7/5/2011)	(3.93183 - 3.93183)/(30 - 28)	0
3.93183	(6/5/2012)	3.8712	(11/22/2011)	(3.93183 - 3.8712)/(30 - 29)	0.0606246

Number of Q values = 435

Ordered Q Values

n	Q
1	-2.10413
2	-1.24245
3	-1.05207
4	-0.828302
5	-0.701378
6	-0.621227
7	-0.526034
8	-0.496981
9	-0.383759
10	-0.380772
11	-0.322989
12	-0.31667
13	-0.237269
14	-0.223144
15	-0.199279
16	-0.188647
17	-0.156362
18	-0.15155
19	-0.136433
20	-0.123298
21	-0.113843
22	-0.112224
23	-0.111164
24	-0.110009
25	-0.105557

26	-0.104853
27	-0.101778
28	-0.100119
29	-0.0923931
30	-0.0882366
31	-0.0841681
32	-0.0818349
33	-0.078578
34	-0.0724083
35	-0.071335
36	-0.0692356
37	-0.0682167
38	-0.0645863
39	-0.0641462
40	-0.0606246
41	-0.0585966
42	-0.0583442
43	-0.057934
44	-0.0575496
45	-0.0575364
46	-0.0575014
47	-0.0574765
48	-0.0572175
49	-0.0567644
50	-0.0566363
51	-0.0516691
52	-0.0484148
53	-0.0447608
54	-0.0406373
55	-0.0401937
56	-0.039614
57	-0.0378429
58	-0.0377294
59	-0.0375673
60	-0.0351855
61	-0.034033
62	-0.0312723
63	-0.0287881
64	-0.0285744
65	-0.0278417
66	-0.0259961
67	-0.0251692
68	-0.0245634
69	-0.0243038
70	-0.0204695
71	-0.0179224
72	-0.0151015
73	-0.0143629
74	-0.0132244
75	-0.0123969
76	-0.00955994
77	-0.00855363
78	-0.00625752
79	-0.0062151
80	-0.00309606
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	0.00340414
175	0.0049645
176	0.00735654
177	0.00789286
178	0.00879038
179	0.00927229
180	0.00963442
181	0.0111185
182	0.0118736
183	0.0121252
184	0.0136408
185	0.0192688
186	0.022597
187	0.0229048
188	0.0240328
189	0.0298707
190	0.032294
191	0.03508
192	0.0356615
193	0.0371093
194	0.0393524
195	0.0430888
196	0.0438026
197	0.0464387
198	0.0524045
199	0.0583442
200	0.0606246
201	0.0608825
202	0.0690112
203	0.0698454
204	0.0710358
205	0.0735995
206	0.0764176
207	0.0773146
208	0.0778123
209	0.0783269
210	0.0800823
211	0.0807773

212	0.0829424
213	0.083769
214	0.0860144
215	0.0860144
216	0.0869909
217	0.0891598
218	0.0893226
219	0.0893226
220	0.0904705
221	0.091868
222	0.0928955
223	0.0928955
224	0.0942401
225	0.0967662
226	0.0967662
227	0.0983375
228	0.0999123
229	0.100973
230	0.100973
231	0.101502
232	0.102807
233	0.10381
234	0.104256
235	0.105562
236	0.105563
237	0.105563
238	0.106928
239	0.107703
240	0.108136
241	0.108995
242	0.109961
243	0.11059
244	0.11059
245	0.110845
246	0.112837
247	0.113088
248	0.114185
249	0.114742
250	0.115884
251	0.116119
252	0.116119
253	0.117966
254	0.118892
255	0.11904
256	0.119895
257	0.119957
258	0.120581
259	0.121402
260	0.122231
261	0.123584
262	0.125669
263	0.126205
264	0.127472
265	0.129022
266	0.129763
267	0.130565
268	0.131953
269	0.133216
270	0.134181
271	0.135528
272	0.136262
273	0.136592

274	0.136611
275	0.136783
276	0.138898
277	0.141053
278	0.14136
279	0.141636
280	0.142654
281	0.143433
282	0.143622
283	0.144181
284	0.145149
285	0.146614
286	0.146614
287	0.149425
288	0.149787
289	0.149868
290	0.149967
291	0.150784
292	0.15106
293	0.151181
294	0.151402
295	0.152662
296	0.154826
297	0.154826
298	0.155239
299	0.155239
300	0.15767
301	0.157727
302	0.15934
303	0.15958
304	0.15986
305	0.160308
306	0.160501
307	0.161555
308	0.162203
309	0.164941
310	0.165885
311	0.165885
312	0.16643
313	0.167005
314	0.168967
315	0.169529
316	0.169963
317	0.170327
318	0.171201
319	0.173982
320	0.175937
321	0.17622
322	0.177442
323	0.178645
324	0.179527
325	0.181682
326	0.182103
327	0.18343
328	0.184486
329	0.187233
330	0.188504
331	0.188504
332	0.189272
333	0.191285
334	0.191496
335	0.193532

336	0.19466
337	0.196785
338	0.197359
339	0.19754
340	0.199635
341	0.199715
342	0.199825
343	0.200021
344	0.202791
345	0.203004
346	0.203004
347	0.205174
348	0.209633
349	0.210413
350	0.210841
351	0.213981
352	0.214002
353	0.216271
354	0.21799
355	0.218391
356	0.219921
357	0.219921
358	0.220956
359	0.22706
360	0.227103
361	0.230441
362	0.231768
363	0.233457
364	0.233793
365	0.235932
366	0.23659
367	0.23979
368	0.239914
369	0.239914
370	0.245982
371	0.247749
372	0.248491
373	0.249644
374	0.254945
375	0.256802
376	0.258098
377	0.259525
378	0.263017
379	0.263906
380	0.266433
381	0.268344
382	0.270497
383	0.276101
384	0.283272
385	0.283908
386	0.285336
387	0.287243
388	0.293229
389	0.295178
390	0.300591
391	0.310613
392	0.318681
393	0.319159
394	0.321003
395	0.327976
396	0.332859
397	0.340654

398	0.350689
399	0.354987
400	0.359054
401	0.368973
402	0.374467
403	0.389319
404	0.405583
405	0.410348
406	0.414151
407	0.420827
408	0.421683
409	0.427962
410	0.439843
411	0.454206
412	0.47318
413	0.496981
414	0.499289
415	0.513604
416	0.526034
417	0.527811
418	0.545047
419	0.567816
420	0.621227
421	0.642005
422	0.659764
423	0.701378
424	0.70977
425	0.737945
426	0.828302
427	0.856007
428	0.879686
429	0.983927
430	1.05207
431	1.24245
432	1.28401
433	1.47589
434	2.48491
435	2.95178

Sen's Estimator (Median Q) is 0.0893226

Tied Group	Value	Members
1	1.60944	14
2	4.2485	2
3	3.93183	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		1
6/5/2012	1	

There are 0 time periods with multiple data

A = 6042
B = 0
C = 2184
D = 0
E = 186
F = 0
a = 56550
b = 219240
c = 1740
Group Variance = 2806
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 87.1306
M1 = (435 - 87.1306)/2.0 = 173.935
M2 = (435 + 87.1306)/2.0 + 1 = 262.065
Lower limit is 0.00340414 = Q(174)
Upper limit is 0.125669 = Q(262)
0.00340414 > 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
5.07517 (6/5/2012) ND<1.60944 (7/20/1995) (5.07517 - 1.60944)/(31 - 1)
0.115525

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
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5.07517 (6/5/2012) ND<1.60944 (4/7/1998) (5.07517 - 1.60944)/(31 - 9)
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ND<1.60944 (3/15/2000) ND<1.60944 (9/23/1998) (1.60944 - 1.60944)/(13 - 10)
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ND<1.60944 (9/24/2003) ND<1.60944 (9/23/1998) (1.60944 - 1.60944)/(14 - 10)
0
ND<1.60944 (3/11/2004) ND<1.60944 (9/23/1998) (1.60944 - 1.60944)/(15 - 10)
0
ND<1.60944 (10/12/2004) ND<1.60944 (9/23/1998) (1.60944 - 1.60944)/(16 - 10)
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4.93447 (5/23/2007) ND<1.60944 (9/23/1998) (4.93447 - 1.60944)/(21 - 10)
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4.77068 (11/28/2007) ND<1.60944 (9/23/1998) (4.77068 - 1.60944)/(22 - 10)
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5.01064 (11/20/2008) ND<1.60944 (9/23/1998) (5.01064 - 1.60944)/(24 - 10)
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4.86753 (11/16/2009) ND<1.60944 (9/23/1998) (4.86753 - 1.60944)/(26 - 10)
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5.07517 H (6/30/2010) ND<1.60944 (9/23/1998) (5.07517 - 1.60944)/(27 - 10)
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4.86753 J (7/5/2011) ND<1.60944 (9/23/1998) (4.86753 - 1.60944)/(29 - 10)
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5.07517 (6/5/2012) ND<1.60944 (9/23/1998) (5.07517 - 1.60944)/(31 - 10)
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4.27667 (9/23/1999) 4.49981 (3/16/1999) (4.27667 - 4.49981)/(12 - 11)
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ND<1.60944 (3/15/2000) 4.49981 (3/16/1999) (1.60944 - 4.49981)/(13 - 11)
-1.44519
ND<1.60944 (9/24/2003) 4.49981 (3/16/1999) (1.60944 - 4.49981)/(14 - 11)
-0.963457
ND<1.60944 (3/11/2004) 4.49981 (3/16/1999) (1.60944 - 4.49981)/(15 - 11)
-0.722593
ND<1.60944 (10/12/2004) 4.49981 (3/16/1999) (1.60944 - 4.49981)/(16 - 11)
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4.35543 (4/1/2005) 4.49981 (3/16/1999) (4.35543 - 4.49981)/(17 - 11)
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2.3979 (4/29/2006) 4.49981 (3/16/1999) (2.3979 - 4.49981)/(19 - 11)
-0.262739
4.81218 (11/18/2006) 4.49981 (3/16/1999) (4.81218 - 4.49981)/(20 - 11)
0.0347083
4.93447 (5/23/2007) 4.49981 (3/16/1999) (4.93447 - 4.49981)/(21 - 11)
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4.77068 (11/28/2007) 4.49981 (3/16/1999) (4.77068 - 4.49981)/(22 - 11)
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5.01064 (11/20/2008) 4.49981 (3/16/1999) (5.01064 - 4.49981)/(24 - 11)
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5.1358 (6/11/2009) 4.49981 (3/16/1999) (5.1358 - 4.49981)/(25 - 11)
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4.86753 (11/16/2009) 4.49981 (3/16/1999) (4.86753 - 4.49981)/(26 - 11)
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5.07517 H (6/30/2010) 4.49981 (3/16/1999) (5.07517 - 4.49981)/(27 - 11)
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5.01064 (11/12/2010) 4.49981 (3/16/1999) (5.01064 - 4.49981)/(28 - 11)
0.0300486
4.86753 J (7/5/2011) 4.49981 (3/16/1999) (4.86753 - 4.49981)/(29 - 11)
0.0204292
5.07517 (11/22/2011) 4.49981 (3/16/1999) (5.07517 - 4.49981)/(30 - 11)
0.0302823

5.07517 (6/5/2012) 4.49981 (3/16/1999) (5.07517 - 4.49981)/(31 - 11)
0.0287682

ND<1.60944 (3/15/2000) 4.27667 (9/23/1999) (1.60944 - 4.27667)/(13 - 12)
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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)
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4.35543 (4/1/2005) ND<1.60944 (9/24/2003) (4.35543 - 1.60944)/(17 - 14)
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4.93447 (5/23/2007) ND<1.60944 (9/24/2003) (4.93447 - 1.60944)/(21 - 14)
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4.77068 (11/28/2007) ND<1.60944 (9/24/2003) (4.77068 - 1.60944)/(22 - 14)
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5.01064 (6/5/2008) ND<1.60944 (9/24/2003) (5.01064 - 1.60944)/(23 - 14)
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4.86753 (11/16/2009) ND<1.60944 (9/24/2003) (4.86753 - 1.60944)/(26 - 14)
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5.07517 (11/22/2011) ND<1.60944 (9/24/2003) (5.07517 - 1.60944)/(30 - 14)
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5.07517 (6/5/2012) ND<1.60944 (9/24/2003) (5.07517 - 1.60944)/(31 - 14)
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ND<1.60944 (10/12/2004) ND<1.60944 (3/11/2004) (1.60944 - 1.60944)/(16 - 15)
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4.35543 (4/1/2005) ND<1.60944 (3/11/2004) (4.35543 - 1.60944)/(17 - 15)
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4.3412 (10/25/2005) ND<1.60944 (3/11/2004) (4.3412 - 1.60944)/(18 - 15)
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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)
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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)
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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				
5.07517	(6/5/2012)	ND<1.60944	(3/11/2004)	(5.07517 - 1.60944)/(31 - 15)
0.216608				

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)
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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				
5.07517	(6/5/2012)	ND<1.60944	(10/12/2004)	(5.07517 - 1.60944)/(31 - 16)
0.231049				

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)	
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5.1358	(6/11/2009)	4.35543	(4/1/2005)	(5.1358 - 4.35543)/(25 - 17)	
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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					
5.07517	(6/5/2012)	4.35543	(4/1/2005)	(5.07517 - 4.35543)/(31 - 17)	
0.0514106					
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)	
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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)	
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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					
5.07517	(6/5/2012)	4.3412	(10/25/2005)	(5.07517 - 4.3412)/(31 - 18)	
0.0564592					
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				
5.07517	(6/5/2012)	2.3979	(4/29/2006)	(5.07517 - 2.3979)/(31 - 19)
0.223107				
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				
5.07517	(6/5/2012)	4.81218	(11/18/2006)	(5.07517 - 4.81218)/(31 - 20)
0.0239081				
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				
5.07517	(6/5/2012)	4.93447	(5/23/2007)	(5.07517 - 4.93447)/(31 - 21)
0.01407				
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
5.07517	(6/5/2012)	4.77068	(11/28/2007)	(5.07517 - 4.77068)/(31 - 22)	0.0338321
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
5.07517	(6/5/2012)	5.01064	(6/5/2008)	(5.07517 - 5.01064)/(31 - 23)	0.00806732
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
5.07517	(6/5/2012)	5.01064	(11/20/2008)	(5.07517 - 5.01064)/(31 - 24)	0.00921979
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	(6/5/2012)	5.1358	(6/11/2009)	(5.07517 - 5.1358)/(31 - 25)	-0.0101041
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		
5.07517 (6/5/2012)	4.86753 (11/16/2009)	(5.07517 - 4.86753)/(31 - 26)
0.0415279		
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		
5.07517 (6/5/2012)	5.07517 H (6/30/2010)	(5.07517 - 5.07517)/(31 - 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 (6/5/2012)	5.01064 (11/12/2010)	(5.07517 - 5.01064)/(31 - 28)
0.0215128		
5.07517 (11/22/2011)	4.86753 J (7/5/2011)	(5.07517 - 4.86753)/(30 - 29)
0.207639		
5.07517 (6/5/2012)	4.86753 J (7/5/2011)	(5.07517 - 4.86753)/(31 - 29)
0.10382		
5.07517 (6/5/2012)	5.07517 (11/22/2011)	(5.07517 - 5.07517)/(31 - 30)
0		

Number of Q values = 465

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	-0.0101041
33	-0.00836744
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	0.00615001
133	0.00806732
134	0.00921979
135	0.00921979
136	0.00922502
137	0.0107564
138	0.0107564
139	0.0108802
140	0.0138357
141	0.01407
142	0.0156333
143	0.015752
144	0.0161346
145	0.0204292
146	0.0215128
147	0.0215128
148	0.02345
149	0.0239081

150	0.0242125
151	0.024515
152	0.024625
153	0.0248064
154	0.0253871
155	0.0262989
156	0.0287682
157	0.0300486
158	0.0302823
159	0.0322693
160	0.0338321
161	0.0347083
162	0.034757
163	0.0359603
164	0.0375699
165	0.0380611
166	0.0380807
167	0.0392943
168	0.0399918
169	0.0415279
170	0.0420267
171	0.0422049
172	0.0425688
173	0.0426757
174	0.0434664
175	0.0438032
176	0.0443615
177	0.0454278
178	0.0458731
179	0.0463798
180	0.0478482
181	0.0492786
182	0.0494019
183	0.0496127
184	0.0503311
185	0.0514106
186	0.0519098
187	0.0525638
188	0.0532338
189	0.0553652
190	0.0563184
191	0.0564592
192	0.0569009
193	0.0595645
194	0.0606506
195	0.0608978
196	0.0611641
197	0.0611641
198	0.0625816
199	0.0647228
200	0.0657048
201	0.0657912
202	0.0660871
203	0.0661503
204	0.0667245
205	0.0669398
206	0.0669431
207	0.0715504
208	0.0716779
209	0.0719748
210	0.0730898
211	0.0788457

212	0.0815521
213	0.0830517
214	0.0876064
215	0.0936013
216	0.0975466
217	0.10382
218	0.10737
219	0.109202
220	0.111572
221	0.113513
222	0.115525
223	0.116361
224	0.119508
225	0.119508
226	0.119975
227	0.12067
228	0.121705
229	0.12229
230	0.123776
231	0.123776
232	0.125163
233	0.125311
234	0.12597
235	0.128361
236	0.128361
237	0.130324
238	0.130324
239	0.130815
240	0.13141
241	0.133298
242	0.133298
243	0.133298
244	0.133886
245	0.135754
246	0.135754
247	0.136048
248	0.138629
249	0.138629
250	0.138629
251	0.141656
252	0.141656
253	0.141717
254	0.144406
255	0.144406
256	0.144406
257	0.144762
258	0.146932
259	0.147878
260	0.147878
261	0.148095
262	0.148095
263	0.150536
264	0.150684
265	0.150684
266	0.150684
267	0.152253
268	0.15332
269	0.1546
270	0.1546
271	0.1546
272	0.155147
273	0.155147

274	0.157533
275	0.157533
276	0.157533
277	0.157691
278	0.158062
279	0.160289
280	0.160692
281	0.161962
282	0.161962
283	0.161962
284	0.162905
285	0.162905
286	0.165035
287	0.165035
288	0.165035
289	0.166252
290	0.166381
291	0.167922
292	0.168566
293	0.17006
294	0.17006
295	0.17006
296	0.170735
297	0.171479
298	0.171479
299	0.171624
300	0.173287
301	0.173287
302	0.175002
303	0.175625
304	0.176318
305	0.17793
306	0.17901
307	0.17901
308	0.17901
309	0.181005
310	0.182118
311	0.182407
312	0.183066
313	0.184724
314	0.185598
315	0.185956
316	0.188397
317	0.188955
318	0.188955
319	0.188955
320	0.191653
321	0.192541
322	0.192541
323	0.195126
324	0.19559
325	0.195909
326	0.196142
327	0.197114
328	0.197578
329	0.197756
330	0.20007
331	0.20007
332	0.200172
333	0.203631
334	0.203631
335	0.203867

336	0.203867
337	0.203867
338	0.207433
339	0.207639
340	0.207639
341	0.207815
342	0.210136
343	0.21075
344	0.21123
345	0.212575
346	0.212575
347	0.213516
348	0.216608
349	0.216608
350	0.217206
351	0.220398
352	0.221669
353	0.223107
354	0.225803
355	0.226746
356	0.226746
357	0.226746
358	0.227647
359	0.228768
360	0.228832
361	0.231049
362	0.231049
363	0.232721
364	0.235091
365	0.23549
366	0.237503
367	0.239951
368	0.242475
369	0.242943
370	0.242943
371	0.242943
372	0.243173
373	0.243389
374	0.246365
375	0.246964
376	0.247553
377	0.247553
378	0.248342
379	0.249635
380	0.250623
381	0.250623
382	0.255772
383	0.261631
384	0.261631
385	0.262819
386	0.263437
387	0.266595
388	0.266723
389	0.266896
390	0.271508
391	0.273177
392	0.274599
393	0.277086
394	0.283433
395	0.288811
396	0.289037
397	0.290304

398	0.291159
399	0.293863
400	0.296191
401	0.296359
402	0.302276
403	0.30353
404	0.30511
405	0.3092
406	0.315067
407	0.320275
408	0.320578
409	0.321152
410	0.32581
411	0.333404
412	0.33466
413	0.34012
414	0.34012
415	0.341471
416	0.343249
417	0.35125
418	0.352636
419	0.352806
420	0.361296
421	0.377911
422	0.377911
423	0.381033
424	0.391818
425	0.392284
426	0.395156
427	0.41291
428	0.41563
429	0.42515
430	0.42515
431	0.444538
432	0.451607
433	0.456317
434	0.457535
435	0.475005
436	0.481729
437	0.485885
438	0.522548
439	0.526874
440	0.533446
441	0.533791
442	0.546353
443	0.554173
444	0.578074
445	0.640549
446	0.653185
447	0.665007
448	0.666807
449	0.682942
450	0.686497
451	0.722593
452	0.79093
453	0.800687
454	0.889076
455	0.910589
456	0.915329
457	0.963457
458	1.26829
459	1.33361

460	1.36588
461	1.37299
462	1.44519
463	2.41429
464	2.74599
465	2.89037

Sen's Estimator (Median Q) is 0.125311

Tied Group	Value	Members
1	1.60944	14
2	5.01064	3
3	4.86753	2
4	5.07517	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		1
6/5/2012	1	

There are 0 time periods with multiple data

A = 6156
B = 0
C = 2196
D = 0
E = 196
F = 0
a = 62310
b = 242730
c = 1860
Group Variance = 3119.67
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 91.8716
M1 = (465 - 91.8716)/2.0 = 186.564

M2 = (465 + 91.8716)/2.0 + 1 = 279.436
Lower limit is 0.0525638 = Q(187)
Upper limit is 0.160289 = Q(279)
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: 254
Total Non-Detect: 159
Percent Non-Detects: 62.5984%
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-8	31	12 (38.7097%)	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	
			6/5/2012	2.7	2.7	
MW-11R	32	17 (53.125%)	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
			6/5/2012	ND<0.25 U	ND<0.25 U	
MW-9	32	12 (37.5%)	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	
			6/5/2012	0.96 J	0.96 J	
MW-10	32	14 (43.75%)	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	
			6/5/2012	1.7	1.7	
MW-6	32	31 (96.875%)	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
			6/5/2012	ND<0.25 U	ND<0.25 U	
MW-7	32	19 (59.375%)	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	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	
			6/5/2012	0.76 J	0.76 J	
MW-12AR	22	15 (68.1818%)	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	
		6/5/2012	ND<0.25 U	ND<0.25 U		
MW-12BR	22	20 (90.9091%)	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	
		6/5/2012	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: Benzene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.747777	7.55021	-0.343471
2	0.125	-2.457271	13.5884	-0.65063
3	0.125	-2.290361	18.8342	-0.936925
4	0.125	-2.170092	23.5435	-1.20819
5	0.125	-2.074852	7.8485	-1.46754
6	0.125	-1.995393	1.8301	-1.71697
7	0.125	-1.926843	5.5428	-1.95782
8	0.125	-1.866293	9.0258	-2.19111
9	0.125	-1.811914	2.3088	-2.4176
10	0.125	-1.762414	5.4149	-2.6379
11	0.125	-1.716884	8.3626	-2.85251
12	0.125	-1.674665	1.1671	-3.06184
13	0.125	-1.644855	3.8726	-3.26745
14	0.125	-1.607255	6.4559	-3.46835
15	0.125	-1.571795	8.9264	-3.66483
16	0.125	-1.5382	61.2925	-3.8571
17	0.125	-1.506266	3.5613	-4.04539
18	0.125	-1.475796	5.7393	-4.22986
19	0.125	-1.446636	7.832	-4.41069
20	0.125	-1.418656	9.8446	-4.58802
21	0.125	-1.391757	1.7815	-4.76199
22	0.125	-1.365817	3.647	-4.93271
23	0.125	-1.340757	5.4446	-5.10031
24	0.125	-1.316527	7.1778	-5.26487
25	0.125	-1.293037	8.8498	-5.4265
26	0.125	-1.275888	0.4776	-5.58599
27	0.125	-1.253578	2.049	-5.74268
28	0.125	-1.231878	3.5665	-5.89667
29	0.125	-1.210738	5.0324	-6.04801
30	0.125	-1.190128	6.4488	-6.19677
31	0.125	-1.17	87.8177	-6.34302
32	0.125	-1.150358	9.141	-6.48682
33	0.125	-1.131139	0.4204	-6.62821
34	0.125	-1.112329	1.6577	-6.76725
35	0.26	-1.0939	92.8543	-7.05166
36	0.36	-1.075849	4.0117	-7.43896
37	0.5	-1.058129	5.1314	-7.96802
38	0.51	-1.040739	6.2145	-8.4988
39	0.53	-1.027899	7.271	-9.04358
40	0.59	-1.011049	8.2932	-9.64009
41	0.6	-0.994457	99.2822	-10.2368
42	0.68	-0.978151	00.239	-10.9019
43	0.71	-0.9621	101.165	-11.585
44	0.72	-0.946291	102.06	-12.2663
45	0.73	-0.930718	102.926	-12.9458
46	0.73	-0.915365	103.764	-13.614
47	0.76	-0.900227	104.575	-14.2981
48	0.76	-0.885291	105.358	-14.971
49	0.76	-0.870551	06.116	-15.6326
50	0.8	-0.855996	106.849	-16.3174
51	0.81	-0.841621	107.557	-16.9991

52	0.82	-0.830953	108.248	-17.6805
53	0.82	-0.816874	108.915	-18.3503
54	0.83	-0.802956	109.56	-19.0168
55	0.84	-0.789191	110.183	-19.6797
56	0.93	-0.775574	110.784	-20.401
57	0.94	-0.7621	111.365	-21.1173
58	0.96	-0.748762	111.926	-21.8362
59	0.96	-0.735557	112.467	-22.5423
60	1	-0.722479	112.989	-23.2648
61	1	-0.709522	113.492	-23.9743
62	1	-0.696684	113.977	-24.671
63	1	-0.68396	114.445	-25.3549
64	1	-0.67449	114.9	-26.0294
65	1	-0.661955	115.338	-26.6914
66	1	-0.649522	115.76	-27.3409
67	1	-0.637192	116.166	-27.9781
68	1	-0.624956	116.557	-28.603
69	1	-0.612813	116.932	-29.2159
70	1	-0.60076	117.293	-29.8166
71	1	-0.588793	117.64	-30.4054
72	1	-0.576911	117.973	-30.9823
73	1	-0.565108	118.292	-31.5474
74	1	-0.553384	118.598	-32.1008
75	1	-0.541736	118.892	-32.6426
76	1	-0.530162	119.173	-33.1727
77	1	-0.521527	119.445	-33.6942
78	1	-0.510074	119.705	-34.2043
79	1	-0.498687	119.954	-34.703
80	1	-0.487364	120.191	-35.1904
81	1	-0.476105	120.418	-35.6665
82	1	-0.464904	120.634	-36.1314
83	1	-0.453763	120.84	-36.5851
84	1	-0.442676	121.036	-37.0278
85	1	-0.431644	121.222	-37.4595
86	1	-0.420664	121.399	-37.8801
87	1	-0.409735	121.567	-38.2899
88	1	-0.398855	121.726	-38.6887
89	1	-0.388022	121.877	-39.0767
90	1	-0.379927	122.021	-39.4567
91	1	-0.369171	122.157	-39.8258
92	1	-0.358459	122.286	-40.1843
93	1	-0.347787	122.407	-40.5321
94	1	-0.337155	122.52	-40.8692
95	1	-0.326561	122.627	-41.1958
96	1	-0.316004	122.727	-41.5118
97	1	-0.305481	122.82	-41.8173
98	1	-0.294992	122.907	-42.1123
99	1	-0.284535	122.988	-42.3968
100	1	-0.27411	123.063	-42.6709
101	1	-0.263715	123.133	-42.9346
102	1	-0.253347	123.197	-43.188
103	1	-0.24559	123.257	-43.4336
104	1	-0.235269	123.313	-43.6688
105	1	-0.224974	123.363	-43.8938
106	1	-0.214702	123.409	-44.1085
107	1	-0.204452	123.451	-44.313
108	1	-0.194225	123.489	-44.5072
109	1	-0.184017	123.523	-44.6912
110	1	-0.173829	123.553	-44.865
111	1	-0.163659	123.58	-45.0287
112	1	-0.153505	123.603	-45.1822
113	1	-0.143367	123.624	-45.3256

114	1	-0.133244	123.642	-45.4588
115	1	-0.125661	123.658	-45.5845
116	1	-0.115562	123.671	-45.7
117	1	-0.105474	123.682	-45.8055
118	1	-0.0953969	123.691	-45.9009
119	1	-0.0853288	123.698	-45.9862
120	1	-0.0752698	123.704	-46.0615
121	1	-0.0652187	123.708	-46.1267
122	1	-0.0551734	123.711	-46.1819
123	1	-0.0451348	123.713	-46.227
124	1	-0.0350997	123.715	-46.2621
125	1	-0.0250691	123.715	-46.2872
126	1	-0.0150408	123.715	-46.3022
127	1	-0.00501359	123.715	-46.3073
128	1	0.00501359	123.716	-46.3022
129	1	0.0150408	123.716	-46.2872
130	1	0.0250691	123.716	-46.2621
131	1	0.0350997	123.718	-46.227
132	1	0.0451348	123.72	-46.1819
133	1	0.0551734	123.723	-46.1267
134	1	0.0652187	123.727	-46.0615
135	1	0.0752698	123.733	-45.9862
136	1	0.0853288	123.74	-45.9009
137	1	0.0953969	123.749	-45.8055
138	1	0.105474	123.76	-45.7
139	1	0.115562	123.773	-45.5845
140	1	0.125661	123.789	-45.4588
141	1	0.133244	123.807	-45.3256
142	1	0.143367	123.828	-45.1822
143	1	0.153505	123.851	-45.0287
144	1	0.163659	123.878	-44.865
145	1	0.173829	123.908	-44.6912
146	1	0.184017	123.942	-44.5072
147	1	0.194225	123.98	-44.313
148	1	0.204452	124.022	-44.1085
149	1	0.214702	124.068	-43.8938
150	1	0.224974	124.118	-43.6688
151	1	0.235269	124.174	-43.4336
152	1	0.24559	124.234	-43.188
153	1	0.253347	124.298	-42.9346
154	1	0.263715	124.368	-42.6709
155	1	0.27411	124.443	-42.3968
156	1	0.284535	124.524	-42.1123
157	1	0.294992	124.611	-41.8173
158	1	0.305481	124.704	-41.5118
159	1	0.316004	124.804	-41.1958
160	1	0.326561	124.911	-40.8692
161	1	0.337155	125.024	-40.5321
162	1	0.347787	125.145	-40.1843
163	1	0.358459	125.274	-39.8258
164	1	0.369171	125.41	-39.4567
165	1	0.379927	125.554	-39.0767
166	1	0.388022	125.705	-38.6887
167	1	0.398855	125.864	-38.2899
168	1	0.409735	126.032	-37.8801
169	1	0.420664	126.209	-37.4595
170	1	0.431644	126.395	-37.0278
171	1	0.442676	126.591	-36.5851
172	1	0.453763	126.797	-36.1314
173	1	0.464904	127.013	-35.6665
174	1	0.476105	127.24	-35.1904
175	1	0.487364	127.477	-34.703

176	1	0.498687		127.726	-34.2043
177	1	0.510074		127.986	-33.6942
178	1	0.521527		128.258	-33.1727
179	1	0.530162		128.539	-32.6426
180	1	0.541736		128.833	-32.1008
181	1	0.553384		129.139	-31.5474
182	1	0.565108		129.458	-30.9823
183	1	0.576911		129.791	-30.4054
184	1	0.588793		130.138	-29.8166
185	1	0.60076	130.499	-29.2159	
186	1	0.612813		130.874	-28.603
187	1	0.624956		131.265	-27.9781
188	1.02	0.637192		131.671	-27.3282
189	1.03	0.649522		132.093	-26.6591
190	1.04	0.661955		132.531	-25.9707
191	1.09	0.67449	132.986	-25.2355	
192	1.1	0.68396	133.454	-24.4832	
193	1.1	0.696684		133.939	-23.7168
194	1.2	0.709522		134.442	-22.8654
195	1.2	0.722479		134.964	-21.9984
196	1.2	0.735557		135.505	-21.1157
197	1.2	0.748762		136.066	-20.2172
198	1.3	0.7621	136.647	-19.2265	
199	1.3	0.775574		137.248	-18.2183
200	1.3	0.789191		137.871	-17.1923
201	1.3	0.802956		138.516	-16.1485
202	1.3	0.816874		139.183	-15.0865
203	1.31	0.830953		139.874	-13.998
204	1.32	0.841621		140.582	-12.887
205	1.35	0.855996		141.315	-11.7314
206	1.38	0.87055	142.073	-10.5301	
207	1.4	0.885291		142.856	-9.29067
208	1.5	0.900227		143.667	-7.94033
209	1.54	0.915365		144.505	-6.53067
210	1.54	0.930718		145.371	-5.09736
211	1.7	0.946291		146.266	-3.48867
212	1.8	0.9621	147.192	-1.75689	
213	1.8	0.97815	148.149	0.00377932	
214	1.9	0.994457		149.138	1.89325
215	1.92	1.01104	150.16	3.83444	
216	2	1.02789	151.217	5.89022	
217	2	1.04073	152.3	7.97169	
218	2.1	1.05812	153.419	10.1937	
219	2.1	1.07584	154.577	12.453	
220	2.1	1.0939	155.773	14.7502	
221	2.2	1.11232	157.011	17.1973	
222	2.2	1.13113	158.29	19.6858	
223	2.2	1.15035	159.613	22.2165	
224	2.5	1.17	160.982	25.1416	
225	2.54	1.19012	162.399	28.1645	
226	2.6	1.21073	163.864	31.3123	
227	2.7	1.23187	165.382	34.6384	
228	2.72	1.25357	166.953	38.0481	
229	2.9	1.27588	168.581	41.7481	
230	2.9	1.29303	170.253	45.4979	
231	2.9	1.31652	171.986	49.3158	
232	3	1.34075	173.784	53.3381	
233	3	1.36581	175.649	57.4355	
234	3	1.39175	177.586	61.6107	
235	3.2	1.41865	179.599	66.1504	
236	3.22	1.44663	181.692	70.8086	
237	3.5	1.47579	183.87	75.9739	

238	3.5	1.50626	186.139	81.2458
239	3.6	1.5382	188.505	86.7833
240	3.6	1.57179	190.975	92.4417
241	3.8	1.60725	193.558	98.5493
242	4.03	1.64485	196.264	105.178
243	4.07	1.67466	199.068	111.994
244	4.5	1.71688	202.016	119.72
245	4.58	1.76241	205.122	127.792
246	4.99	1.81191	208.405	136.833
247	5	1.86629	211.888	146.165
248	5	1.92684	215.601	155.799
249	5.4	1.99539	219.583	166.574
250	5.6	2.07485	223.888	178.193
251	6	2.17009	228.597	191.214
252	6.3	2.29036	233.843	205.643
253	8	2.45727	239.881	225.301
254	9	2.74777	247.431	250.031

Data Set Standard Deviation = 1.25347
Numerator = 62515.5
Denominator = 98355.6
W Statistic = 0.635607 = 62515.5 / 98355.6

5% Critical value of 0.976 exceeds 0.635607
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.635607
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 = 0.799492
0.799492 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00392157	-2.747	77	46.4306	348.683
2	0.125	0.00784314	-2.457	27	46.4306	334.497
3	0.125	0.0117647	-2.290	36	46.4306	326.346
4	0.125	0.0156863	-2.170	09	46.4306	320.473
5	0.125	0.0196078	-2.074	85	46.4306	315.822
6	0.125	0.0235294	-1.995	39	46.4306	311.942
7	0.125	0.027451	-1.926	84	46.4306	308.594
8	0.125	0.0313725	-1.866	29	46.4306	305.637
9	0.125	0.0352941	-1.811	91	46.4306	302.982
10	0.125	0.0392157	-1.762	41	46.4306	300.564
11	0.125	0.0431373	-1.716	88	46.4306	298.341
12	0.125	0.0470588	-1.674	66	46.4306	296.279
13	0.125	0.0509804	-1.644	85	46.4306	294.824
14	0.125	0.054902	-1.607	25	46.4306	292.987
15	0.125	0.0588235	-1.571	79	46.4306	291.256
16	0.125	0.0627451	-1.538	2	46.4306	289.615
17	0.125	0.0666667	-1.506	26	46.4306	288.056
18	0.125	0.0705882	-1.475	79	46.4306	286.568
19	0.125	0.0745098	-1.446	63	46.4306	285.144
20	0.125	0.0784314	-1.418	65	46.4306	283.778
21	0.125	0.0823529	-1.391	75	46.4306	282.464
22	0.125	0.0862745	-1.365	81	46.4306	281.197
23	0.125	0.0901961	-1.340	75	46.4306	279.974
24	0.125	0.0941176	-1.316	52	46.4306	278.79
25	0.125	0.0980392	-1.293	03	46.4306	277.643
26	0.125	0.101961	-1.275	88	46.4306	276.805
27	0.125	0.105882	-1.253	57	46.4306	275.716
28	0.125	0.109804	-1.231	87	46.4306	274.656
29	0.125	0.113725	-1.210	73	46.4306	273.624
30	0.125	0.117647	-1.190	12	46.4306	272.617
31	0.125	0.121569	-1.17		46.4306	271.635
32	0.125	0.12549	-1.150	35	46.4306	270.675
33	0.125	0.129412	-1.131	13	46.4306	269.737
34	0.125	0.133333	-1.112	32	46.4306	268.818
35	0.26	0.137255	-1.093	9	54.4556	267.919
36	0.36	0.141176	-1.075	84	60.4	267.037
37	0.5	0.145098	-1.058	12	68.7222	266.172
38	0.51	0.14902	-1.040	73	69.3167	265.322
39	0.53	0.152941	-1.027	89	70.5056	264.695
40	0.59	0.156863	-1.011	04	74.0722	263.872
41	0.6	0.160784	-0.994457		74.6667	263.063
42	0.68	0.164706	-0.978	15	79.4222	262.266
43	0.71	0.168627	-0.962	1	81.2056	261.483
44	0.72	0.172549	-0.946291		81.8	260.711
45	0.73	0.176471	-0.930718		82.3944	259.95
46	0.73	0.180392	-0.915365		82.3944	259.2
47	0.76	0.184314	-0.900227		84.1778	258.461
48	0.76	0.188235	-0.885291		84.1778	257.732

49	0.76	0.192157	-0.870558	4.1778	257.012
50	0.8	0.196078	-0.855996	86.5556	256.301
51	0.81	0.2	-0.841621	87.15	255.599
52	0.82	0.203922	-0.830953	87.7444	255.078
53	0.82	0.207843	-0.816874	87.7444	254.391
54	0.83	0.211765	-0.802956	88.3389	253.711
55	0.84	0.215686	-0.789191	88.9333	253.039
56	0.93	0.219608	-0.775574	94.2833	252.374
57	0.94	0.223529	-0.7621	94.8778	251.716
58	0.96	0.227451	-0.748762	96.0667	251.065
59	0.96	0.231373	-0.735557	96.0667	250.42
60	1	0.235294	-0.722479	98.4444	249.781
61	1	0.239216	-0.709522	98.4444	249.148
62	1	0.243137	-0.696684	98.4444	248.521
63	1	0.247059	-0.683969	8.4444	247.9
64	1	0.25098	-0.674499	8.4444	247.438
65	1	0.254902	-0.661955	98.4444	246.825
66	1	0.258824	-0.649522	98.4444	246.218
67	1	0.262745	-0.637192	98.4444	245.616
68	1	0.266667	-0.624956	98.4444	245.019
69	1	0.270588	-0.612813	98.4444	244.426
70	1	0.27451	-0.600769	8.4444	243.837
71	1	0.278431	-0.588793	98.4444	243.253
72	1	0.282353	-0.576911	98.4444	242.672
73	1	0.286275	-0.565108	98.4444	242.096
74	1	0.290196	-0.553384	98.4444	241.524
75	1	0.294118	-0.541736	98.4444	240.955
76	1	0.298039	-0.530162	98.4444	240.39
77	1	0.301961	-0.521527	98.4444	239.968
78	1	0.305882	-0.510074	98.4444	239.409
79	1	0.309804	-0.498687	98.4444	238.853
80	1	0.313725	-0.487364	98.4444	238.3
81	1	0.317647	-0.476105	98.4444	237.75
82	1	0.321569	-0.464904	98.4444	237.203
83	1	0.32549	-0.453763	98.4444	236.659
84	1	0.329412	-0.442676	98.4444	236.117
85	1	0.333333	-0.431644	98.4444	235.579
86	1	0.337255	-0.420664	98.4444	235.042
87	1	0.341176	-0.409735	98.4444	234.509
88	1	0.345098	-0.398855	98.4444	233.977
89	1	0.34902	-0.388022	98.4444	233.448
90	1	0.352941	-0.379927	98.4444	233.053
91	1	0.356863	-0.369171	98.4444	232.528
92	1	0.360784	-0.358459	98.4444	232.005
93	1	0.364706	-0.347787	98.4444	231.484
94	1	0.368627	-0.337155	98.4444	230.964
95	1	0.372549	-0.326561	98.4444	230.447
96	1	0.376471	-0.316004	98.4444	229.932
97	1	0.380392	-0.305481	98.4444	229.418
98	1	0.384314	-0.294992	98.4444	228.905
99	1	0.388235	-0.284535	98.4444	228.395
100	1	0.392157	-0.274119	8.4444	227.886
101	1	0.396078	-0.263715	98.4444	227.378
102	1	0.4	-0.253347	98.4444	226.872
103	1	0.403922	-0.245599	8.4444	226.493
104	1	0.407843	-0.235269	98.4444	225.989
105	1	0.411765	-0.224974	98.4444	225.486
106	1	0.415686	-0.214702	98.4444	224.985
107	1	0.419608	-0.204452	98.4444	224.484
108	1	0.423529	-0.194225	98.4444	223.985
109	1	0.427451	-0.184017	98.4444	223.486
110	1	0.431373	-0.173829	98.4444	222.989

111	1	0.435294	-0.163659	98.4444	222.492
112	1	0.439216	-0.153505	98.4444	221.996
113	1	0.443137	-0.143367	98.4444	221.501
114	1	0.447059	-0.133244	98.4444	221.007
115	1	0.45098	-0.125661	98.4444	220.636
116	1	0.454902	-0.115562	98.4444	220.143
117	1	0.458824	-0.105474	98.4444	219.651
118	1	0.462745	-0.0953969	98.4444	219.159
119	1	0.466667	-0.0853288	98.4444	218.667
120	1	0.470588	-0.0752698	98.4444	218.176
121	1	0.47451	-0.0652187	98.4444	217.685
122	1	0.478431	-0.0551734	98.4444	217.194
123	1	0.482353	-0.0451348	98.4444	216.704
124	1	0.486275	-0.0350997	98.4444	216.214
125	1	0.490196	-0.0250691	98.4444	215.724
126	1	0.494118	-0.0150408	98.4444	215.234
127	1	0.498039	-0.00501359	98.4444	214.745
128	1	0.501961	0.00501359	98.4444	214.255
129	1	0.505882	0.0150408	98.4444	213.766
130	1	0.509804	0.0250691	98.4444	213.276
131	1	0.513725	0.0350997	98.4444	212.786
132	1	0.517647	0.0451348	98.4444	212.296
133	1	0.521569	0.0551734	98.4444	211.806
134	1	0.52549	0.0652187	98.4444	211.315
135	1	0.529412	0.0752698	98.4444	210.824
136	1	0.533333	0.0853288	98.4444	210.333
137	1	0.537255	0.0953969	98.4444	209.841
138	1	0.541176	0.105474	98.4444	209.349
139	1	0.545098	0.115562	98.4444	208.857
140	1	0.54902	0.125661	98.4444	208.364
141	1	0.552941	0.133244	98.4444	207.993
142	1	0.556863	0.143367	98.4444	207.499
143	1	0.560784	0.153505	98.4444	207.004
144	1	0.564706	0.163659	98.4444	206.508
145	1	0.568627	0.173829	98.4444	206.011
146	1	0.572549	0.184017	98.4444	205.514
147	1	0.576471	0.194225	98.4444	205.015
148	1	0.580392	0.204452	98.4444	204.516
149	1	0.584314	0.214702	98.4444	204.015
150	1	0.588235	0.224974	98.4444	203.514
151	1	0.592157	0.235269	98.4444	203.011
152	1	0.596078	0.24559	98.4444	202.507
153	1	0.6	0.253347	98.4444	202.128
154	1	0.603922	0.263715	98.4444	201.622
155	1	0.607843	0.27411	98.4444	201.114
156	1	0.611765	0.284535	98.4444	200.605
157	1	0.615686	0.294992	98.4444	200.095
158	1	0.619608	0.305481	98.4444	199.582
159	1	0.623529	0.316004	98.4444	199.068
160	1	0.627451	0.326561	98.4444	198.553
161	1	0.631373	0.337155	98.4444	198.036
162	1	0.635294	0.347787	98.4444	197.516
163	1	0.639216	0.358459	98.4444	196.995
164	1	0.643137	0.369171	98.4444	196.472
165	1	0.647059	0.379927	98.4444	195.947
166	1	0.65098	0.388022	98.4444	195.552
167	1	0.654902	0.398855	98.4444	195.023
168	1	0.658824	0.409735	98.4444	194.491
169	1	0.662745	0.420664	98.4444	193.958
170	1	0.666667	0.431644	98.4444	193.421
171	1	0.670588	0.442676	98.4444	192.883
172	1	0.67451	0.453763	98.4444	192.341

173	1	0.678431	0.464904	98.4444	191.797
174	1	0.682353	0.476105	98.4444	191.25
175	1	0.686275	0.487364	98.4444	190.7
176	1	0.690196	0.498687	98.4444	190.147
177	1	0.694118	0.510074	98.4444	189.591
178	1	0.698039	0.521527	98.4444	189.032
179	1	0.701961	0.530162	98.4444	188.61
180	1	0.705882	0.541736	98.4444	188.045
181	1	0.709804	0.553384	98.4444	187.476
182	1	0.713725	0.565108	98.4444	186.904
183	1	0.717647	0.576911	98.4444	186.328
184	1	0.721569	0.588793	98.4444	185.747
185	1	0.72549	0.60076	98.4444	185.163
186	1	0.729412	0.612813	98.4444	184.574
187	1	0.733333	0.624956	98.4444	183.981
188	1.02	0.737255	0.637192	99.6333	183.384
189	1.03	0.741176	0.649522	100.228	182.782
190	1.04	0.745098	0.661955	100.822	182.175
191	1.09	0.74902	0.67449	103.794	181.562
192	1.1	0.752941	0.68396	104.389	181.1
193	1.1	0.756863	0.696684	104.389	180.479
194	1.2	0.760784	0.709522	110.333	179.852
195	1.2	0.764706	0.722479	110.333	179.219
196	1.2	0.768627	0.735557	110.333	178.58
197	1.2	0.772549	0.748762	110.333	177.935
198	1.3	0.776471	0.7621	116.278	177.284
199	1.3	0.780392	0.775574	116.278	176.626
200	1.3	0.784314	0.789191	116.278	175.961
201	1.3	0.788235	0.802956	116.278	175.289
202	1.3	0.792157	0.816874	116.278	174.609
203	1.31	0.796078	0.830953	116.872	173.922
204	1.32	0.8	0.841621	117.467	173.401
205	1.35	0.803922	0.855996	119.25	172.699
206	1.38	0.807843	0.87055	121.033	171.988
207	1.4	0.811765	0.885291	122.222	171.268
208	1.5	0.815686	0.900227	128.167	170.539
209	1.54	0.819608	0.915365	130.544	169.8
210	1.54	0.823529	0.930718	130.544	169.05
211	1.7	0.827451	0.946291	140.056	168.289
212	1.8	0.831373	0.9621	146	167.517
213	1.8	0.835294	0.97815	146	166.734
214	1.9	0.839216	0.994457	151.944	165.937
215	1.92	0.843137	1.01104	153.133	165.128
216	2	0.847059	1.02789	157.889	164.305
217	2	0.85098	1.04073	157.889	163.678
218	2.1	0.854902	1.05812	163.833	162.828
219	2.1	0.858824	1.07584	163.833	161.963
220	2.1	0.862745	1.0939	163.833	161.081
221	2.2	0.866667	1.11232	169.778	160.182
222	2.2	0.870588	1.13113	169.778	159.263
223	2.2	0.87451	1.15035	169.778	158.325
224	2.5	0.878431	1.17	187.611	157.365
225	2.54	0.882353	1.19012	189.989	156.383
226	2.6	0.886275	1.21073	193.556	155.376
227	2.7	0.890196	1.23187	199.5	154.344
228	2.72	0.894118	1.25357	200.689	153.284
229	2.9	0.898039	1.27588	211.389	152.195
230	2.9	0.901961	1.29303	211.389	151.357
231	2.9	0.905882	1.31652	211.389	150.21
232	3	0.909804	1.34075	217.333	149.026
233	3	0.913725	1.36581	217.333	147.803
234	3	0.917647	1.39175	217.333	146.536

235	3.2	0.921569		1.41865	229.222	145.222
236	3.22	0.92549	1.44663	230.411	143.856	
237	3.5	0.929412		1.47579	247.056	142.432
238	3.5	0.933333		1.50626	247.056	140.944
239	3.6	0.937255		1.5382	253	139.385
240	3.6	0.941176		1.57179	253	137.744
241	3.8	0.945098		1.60725	264.889	136.013
242	4.03	0.94902	1.64485	278.561	134.176	
243	4.07	0.952941		1.67466	280.939	132.721
244	4.5	0.956863		1.71688	306.5	130.659
245	4.58	0.960784		1.76241	311.256	128.436
246	4.99	0.964706		1.81191	335.628	126.018
247	5	0.968627		1.86629	336.222	123.363
248	5	0.972549		1.92684	336.222	120.406
249	5.4	0.976471		1.99539	360	117.058
250	5.6	0.980392		2.07485	371.889	113.178
251	6	0.984314		2.17009	395.667	108.527
252	6.3	0.988235		2.29036	413.5	102.654
253	8	0.992157		2.45727	514.556	94.5032
254	9	0.996078		2.74777	574	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-2.07944	-2.74777	7.55021	5.71382	
2	-2.07944	-2.45727	13.5884	10.8236	
3	-2.07944	-2.29036	18.8342	15.5862	
4	-2.07944	-2.17009	23.5435	20.0988	
5	-2.07944	-2.07485	27.8485	24.4134	
6	-2.07944	-1.99539	31.8301	28.5627	
7	-2.07944	-1.92684	35.5428	32.5694	
8	-2.07944	-1.86629	39.0258	36.4502	
9	-2.07944	-1.81191	42.3088	40.218	
10	-2.07944	-1.76241	45.4149	43.8828	
11	-2.07944	-1.71688	48.3626	47.453	
12	-2.07944	-1.67466	51.1671	50.9354	
13	-2.07944	-1.64485	53.8726	54.3557	
14	-2.07944	-1.60725	56.4559	57.6979	
15	-2.07944	-1.57179	58.9264	60.9664	
16	-2.07944	-1.5382	61.2925	64.165	
17	-2.07944	-1.50626	63.5613	67.2971	
18	-2.07944	-1.47579	65.7393	70.366	
19	-2.07944	-1.44663	67.832	73.3742	
20	-2.07944	-1.41865	69.8446	76.3242	
21	-2.07944	-1.39175	71.7815	79.2182	
22	-2.07944	-1.36581	73.647	82.0583	
23	-2.07944	-1.34075	75.4446	84.8464	
24	-2.07944	-1.31652	77.1778	87.584	
25	-2.07944	-1.29303	78.8498	90.2728	
26	-2.07944	-1.27588	80.4776	92.9259	
27	-2.07944	-1.25357	82.049	95.5326	
28	-2.07944	-1.23187	83.5665	98.0942	
29	-2.07944	-1.21073	85.0324	100.612	
30	-2.07944	-1.19012	86.4488	103.087	
31	-2.07944	-1.17	87.8177	105.52	
32	-2.07944	-1.15035	89.141	107.912	
33	-2.07944	-1.13113	90.4204	110.264	
34	-2.07944	-1.11232	91.6577	112.577	
35	-1.34707	-1.0939	92.8543	114.05	
36	-1.02165	-1.07584	94.0117	115.149	
37	-0.693147	-1.05812	95.1314	115.883	
38	-0.673345	-1.04073	96.2145	116.584	
39	-0.634878	-1.02789	97.271	117.236	
40	-0.527633	-1.01104	98.2932	117.77	
41	-0.510826	-0.994457	99.2822	118.278	
42	-0.385662	-0.97815	100.239	118.655	
43	-0.34249	-0.9621	101.165	118.984	
44	-0.328504	-0.946291	102.06	119.295	
45	-0.314711	-0.930718	102.926	119.588	
46	-0.314711	-0.915365	103.764	119.876	
47	-0.274437	-0.900227	104.575	120.123	
48	-0.274437	-0.885291	105.358	120.366	
49	-0.274437	-0.87055	106.116	120.605	
50	-0.223144	-0.855996	106.849	120.796	
51	-0.210721	-0.841621	107.557	120.974	

52	-0.198451	-0.830953	108.248	121.138
53	-0.198451	-0.816874	108.915	121.301
54	-0.18633	-0.802956	109.56	121.45
55	-0.174353	-0.789191	110.183	121.588
56	-0.0725707	-0.775574	110.784	121.644
57	-0.0618754	-0.7621	111.365	121.691
58	-0.040822	-0.748762	111.926	121.722
59	-0.040822	-0.735557	112.467	121.752
60	0	-0.722479	112.989	121.752
61	0	-0.709522	113.492	121.752
62	0	-0.696684	113.977	121.752
63	0	-0.68396	114.445	121.752
64	0	-0.67449	114.9	121.752
65	0	-0.661955	115.338	121.752
66	0	-0.649522	115.76	121.752
67	0	-0.637192	116.166	121.752
68	0	-0.624956	116.557	121.752
69	0	-0.612813	116.932	121.752
70	0	-0.60076	117.293	121.752
71	0	-0.588793	117.64	121.752
72	0	-0.576911	117.973	121.752
73	0	-0.565108	118.292	121.752
74	0	-0.553384	118.598	121.752
75	0	-0.541736	118.892	121.752
76	0	-0.530162	119.173	121.752
77	0	-0.521527	119.445	121.752
78	0	-0.510074	119.705	121.752
79	0	-0.498687	119.954	121.752
80	0	-0.487364	120.191	121.752
81	0	-0.476105	120.418	121.752
82	0	-0.464904	120.634	121.752
83	0	-0.453763	120.84	121.752
84	0	-0.442676	121.036	121.752
85	0	-0.431644	121.222	121.752
86	0	-0.420664	121.399	121.752
87	0	-0.409735	121.567	121.752
88	0	-0.398855	121.726	121.752
89	0	-0.388022	121.877	121.752
90	0	-0.379927	122.021	121.752
91	0	-0.369171	122.157	121.752
92	0	-0.358459	122.286	121.752
93	0	-0.347787	122.407	121.752
94	0	-0.337155	122.52	121.752
95	0	-0.326561	122.627	121.752
96	0	-0.316004	122.727	121.752
97	0	-0.305481	122.82	121.752
98	0	-0.294992	122.907	121.752
99	0	-0.284535	122.988	121.752
100	0	-0.27411	123.063	121.752
101	0	-0.263715	123.133	121.752
102	0	-0.253347	123.197	121.752
103	0	-0.24559	123.257	121.752
104	0	-0.235269	123.313	121.752
105	0	-0.224974	123.363	121.752
106	0	-0.214702	123.409	121.752
107	0	-0.204452	123.451	121.752
108	0	-0.194225	123.489	121.752
109	0	-0.184017	123.523	121.752
110	0	-0.173829	123.553	121.752
111	0	-0.163659	123.58	121.752
112	0	-0.153505	123.603	121.752
113	0	-0.143367	123.624	121.752

114	0	-0.133244	123.642	121.752
115	0	-0.125661	123.658	121.752
116	0	-0.115562	123.671	121.752
117	0	-0.105474	123.682	121.752
118	0	-0.0953969	123.691	121.752
119	0	-0.0853288	123.698	121.752
120	0	-0.0752698	123.704	121.752
121	0	-0.0652187	123.708	121.752
122	0	-0.0551734	123.711	121.752
123	0	-0.0451348	123.713	121.752
124	0	-0.0350997	123.715	121.752
125	0	-0.0250691	123.715	121.752
126	0	-0.0150408	123.715	121.752
127	0	-0.00501359	123.715	121.752
128	0	0.00501359	123.716	121.752
129	0	0.0150408	123.716	121.752
130	0	0.0250691	123.716	121.752
131	0	0.0350997	123.718	121.752
132	0	0.0451348	123.72	121.752
133	0	0.0551734	123.723	121.752
134	0	0.0652187	123.727	121.752
135	0	0.0752698	123.733	121.752
136	0	0.0853288	123.74	121.752
137	0	0.0953969	123.749	121.752
138	0	0.105474	123.76	121.752
139	0	0.115562	123.773	121.752
140	0	0.125661	123.789	121.752
141	0	0.133244	123.807	121.752
142	0	0.143367	123.828	121.752
143	0	0.153505	123.851	121.752
144	0	0.163659	123.878	121.752
145	0	0.173829	123.908	121.752
146	0	0.184017	123.942	121.752
147	0	0.194225	123.98	121.752
148	0	0.204452	124.022	121.752
149	0	0.214702	124.068	121.752
150	0	0.224974	124.118	121.752
151	0	0.235269	124.174	121.752
152	0	0.24559	124.234	121.752
153	0	0.253347	124.298	121.752
154	0	0.263715	124.368	121.752
155	0	0.27411	124.443	121.752
156	0	0.284535	124.524	121.752
157	0	0.294992	124.611	121.752
158	0	0.305481	124.704	121.752
159	0	0.316004	124.804	121.752
160	0	0.326561	124.911	121.752
161	0	0.337155	125.024	121.752
162	0	0.347787	125.145	121.752
163	0	0.358459	125.274	121.752
164	0	0.369171	125.41	121.752
165	0	0.379927	125.554	121.752
166	0	0.388022	125.705	121.752
167	0	0.398855	125.864	121.752
168	0	0.409735	126.032	121.752
169	0	0.420664	126.209	121.752
170	0	0.431644	126.395	121.752
171	0	0.442676	126.591	121.752
172	0	0.453763	126.797	121.752
173	0	0.464904	127.013	121.752
174	0	0.476105	127.24	121.752
175	0	0.487364	127.477	121.752

176	0	0.498687		127.726	121.752
177	0	0.510074		127.986	121.752
178	0	0.521527		128.258	121.752
179	0	0.530162		128.539	121.752
180	0	0.541736		128.833	121.752
181	0	0.553384		129.139	121.752
182	0	0.565108		129.458	121.752
183	0	0.576911		129.791	121.752
184	0	0.588793		130.138	121.752
185	0	0.60076	130.499	121.752	
186	0	0.612813		130.874	121.752
187	0	0.624956		131.265	121.752
188	0.0198026	0.637192		131.671	121.764
189	0.0295588	0.649522		132.093	121.784
190	0.0392207	0.661955		132.531	121.81
191	0.0861777	0.67449	132.986	121.868	
192	0.0953102	0.68396	133.454	121.933	
193	0.0953102	0.696684		133.939	121.999
194	0.182322	0.709522		134.442	122.129
195	0.182322	0.722479		134.964	122.26
196	0.182322	0.735557		135.505	122.395
197	0.182322	0.748762		136.066	122.531
198	0.262364	0.7621	136.647	122.731	
199	0.262364	0.775574		137.248	122.934
200	0.262364	0.789191		137.871	123.142
201	0.262364	0.802956		138.516	123.352
202	0.262364	0.816874		139.183	123.567
203	0.270027	0.830953		139.874	123.791
204	0.277632	0.841621		140.582	124.025
205	0.300105	0.855996		141.315	124.281
206	0.322083	0.87055	142.073	124.562	
207	0.336472	0.885291		142.856	124.86
208	0.405465	0.900227		143.667	125.225
209	0.431782	0.915365		144.505	125.62
210	0.431782	0.930718		145.371	126.022
211	0.530628	0.946291		146.266	126.524
212	0.587787	0.9621	147.192	127.089	
213	0.587787	0.97815	148.149	127.664	
214	0.641854	0.994457		149.138	128.303
215	0.652325	1.01104	150.16	128.962	
216	0.693147	1.02789	151.217	129.675	
217	0.693147	1.04073	152.3	130.396	
218	0.741937	1.05812	153.419	131.181	
219	0.741937	1.07584	154.577	131.979	
220	0.741937	1.0939	155.773	132.791	
221	0.788457	1.11232	157.011	133.668	
222	0.788457	1.13113	158.29	134.56	
223	0.788457	1.15035	159.613	135.467	
224	0.916291	1.17	160.982	136.539	
225	0.932164	1.19012	162.399	137.648	
226	0.955511	1.21073	163.864	138.805	
227	0.993252	1.23187	165.382	140.029	
228	1.00063	1.25357	166.953	141.283	
229	1.06471	1.27588	168.581	142.641	
230	1.06471	1.29303	170.253	144.018	
231	1.06471	1.31652	171.986	145.42	
232	1.09861	1.34075	173.784	146.893	
233	1.09861	1.36581	175.649	148.393	
234	1.09861	1.39175	177.586	149.922	
235	1.16315	1.41865	179.599	151.572	
236	1.16938	1.44663	181.692	153.264	
237	1.25276	1.47579	183.87	155.113	

238	1.25276	1.50626	186.139	157
239	1.28093	1.5382	188.505	158.97
240	1.28093	1.57179	190.975	160.984
241	1.335	1.60725	193.558	163.129
242	1.39377	1.64485	196.264	165.422
243	1.40364	1.67466	199.068	167.772
244	1.50408	1.71688	202.016	170.355
245	1.5217	1.76241	205.122	173.037
246	1.60744	1.81191	208.405	175.949
247	1.60944	1.86629	211.888	178.953
248	1.60944	1.92684	215.601	182.054
249	1.6864	1.99539	219.583	185.419
250	1.72277	2.07485	223.888	188.993
251	1.79176	2.17009	228.597	192.882
252	1.84055	2.29036	233.843	197.097
253	2.07944	2.45727	239.881	202.207
254	2.19722	2.74777	247.431	208.245

Data Set Standard Deviation = 0.929778
Numerator = 43365.8
Denominator = 54117
W Statistic = 0.801334 = 43365.8 / 54117

5% Critical value of 0.976 exceeds 0.801334
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.801334
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 = 0.89538
0.89538 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00392157	-2.74777	121.083	348.683
2	-2.07944	0.00784314	-2.45727	121.083	334.497
3	-2.07944	0.0117647	-2.29036	121.083	326.346
4	-2.07944	0.0156863	-2.17009	121.083	320.473
5	-2.07944	0.0196078	-2.07485	121.083	315.822
6	-2.07944	0.0235294	-1.99539	121.083	311.942
7	-2.07944	0.027451	-1.92684	121.083	308.594
8	-2.07944	0.0313725	-1.86629	121.083	305.637
9	-2.07944	0.0352941	-1.81191	121.083	302.982
10	-2.07944	0.0392157	-1.76241	121.083	300.564
11	-2.07944	0.0431373	-1.71688	121.083	298.341
12	-2.07944	0.0470588	-1.67466	121.083	296.279
13	-2.07944	0.0509804	-1.64485	121.083	294.824
14	-2.07944	0.054902	-1.60725	121.083	292.987
15	-2.07944	0.0588235	-1.57179	121.083	291.256
16	-2.07944	0.0627451	-1.5382	121.083	289.615
17	-2.07944	0.0666667	-1.50626	121.083	288.056
18	-2.07944	0.0705882	-1.47579	121.083	286.568
19	-2.07944	0.0745098	-1.44663	121.083	285.144
20	-2.07944	0.0784314	-1.41865	121.083	283.778
21	-2.07944	0.0823529	-1.39175	121.083	282.464
22	-2.07944	0.0862745	-1.36581	121.083	281.197
23	-2.07944	0.0901961	-1.34075	121.083	279.974
24	-2.07944	0.0941176	-1.31652	121.083	278.79
25	-2.07944	0.0980392	-1.29303	121.083	277.643
26	-2.07944	0.101961	-1.27588	121.083	276.805
27	-2.07944	0.105882	-1.25357	121.083	275.716
28	-2.07944	0.109804	-1.23187	121.083	274.656
29	-2.07944	0.113725	-1.21073	121.083	273.624
30	-2.07944	0.117647	-1.19012	121.083	272.617
31	-2.07944	0.121569	-1.17	121.083	271.635
32	-2.07944	0.12549	-1.15035	121.083	270.675
33	-2.07944	0.129412	-1.13113	121.083	269.737
34	-2.07944	0.133333	-1.11232	121.083	268.818
35	-1.34707	0.137255	-1.0939	186.386	267.919
36	-1.02165	0.141176	-1.07584	215.403	267.037
37	-0.693147	0.145098	-1.05812	244.694	266.172
38	-0.673345	0.14902	-1.04073	246.46	265.322
39	-0.634878	0.152941	-1.02789	249.89	264.695
40	-0.527633	0.156863	-1.01104	259.453	263.872
41	-0.510826	0.160784	-0.994457	260.951	263.063
42	-0.385662	0.164706	-0.97815	272.112	262.266
43	-0.34249	0.168627	-0.9621	275.961	261.483
44	-0.328504	0.172549	-0.946291	277.208	260.711
45	-0.314711	0.176471	-0.930718	278.438	259.95
46	-0.314711	0.180392	-0.915365	278.438	259.2
47	-0.274437	0.184314	-0.900227	282.029	258.461
48	-0.274437	0.188235	-0.885291	282.029	257.732

49	-0.274437	0.192157	-0.87055	282.029	257.012	
50	-0.223144	0.196078	-0.855996		286.603	256.301
51	-0.210721	0.2	-0.841621	287.711	255.599	
52	-0.198451	0.203922	-0.830953		288.805	255.078
53	-0.198451	0.207843	-0.816874		288.805	254.391
54	-0.186330.211765		-0.802956	289.886	253.711	
55	-0.174353	0.215686	-0.789191		290.953	253.039
56	-0.0725707	0.219608	-0.775574		300.029	252.374
57	-0.0618754	0.223529	-0.7621	300.983	251.716	
58	-0.040822	0.227451	-0.748762		302.86	251.065
59	-0.040822	0.231373	-0.735557		302.86	250.42
60	0	0.235294	-0.722479	306.5	249.781	
61	0	0.239216	-0.709522	306.5	249.148	
62	0	0.243137	-0.696684	306.5	248.521	
63	0	0.247059	-0.68396306.5	247.9		
64	0	0.25098 -0.67449306.5	247.438			
65	0	0.254902	-0.661955	306.5	246.825	
66	0	0.258824	-0.649522	306.5	246.218	
67	0	0.262745	-0.637192	306.5	245.616	
68	0	0.266667	-0.624956	306.5	245.019	
69	0	0.270588	-0.612813	306.5	244.426	
70	0	0.27451 -0.60076306.5	243.837			
71	0	0.278431	-0.588793	306.5	243.253	
72	0	0.282353	-0.576911	306.5	242.672	
73	0	0.286275	-0.565108	306.5	242.096	
74	0	0.290196	-0.553384	306.5	241.524	
75	0	0.294118	-0.541736	306.5	240.955	
76	0	0.298039	-0.530162	306.5	240.39	
77	0	0.301961	-0.521527	306.5	239.968	
78	0	0.305882	-0.510074	306.5	239.409	
79	0	0.309804	-0.498687	306.5	238.853	
80	0	0.313725	-0.487364	306.5	238.3	
81	0	0.317647	-0.476105	306.5	237.75	
82	0	0.321569	-0.464904	306.5	237.203	
83	0	0.32549 -0.453763	306.5	236.659		
84	0	0.329412	-0.442676	306.5	236.117	
85	0	0.333333	-0.431644	306.5	235.579	
86	0	0.337255	-0.420664	306.5	235.042	
87	0	0.341176	-0.409735	306.5	234.509	
88	0	0.345098	-0.398855	306.5	233.977	
89	0	0.34902 -0.388022	306.5	233.448		
90	0	0.352941	-0.379927	306.5	233.053	
91	0	0.356863	-0.369171	306.5	232.528	
92	0	0.360784	-0.358459	306.5	232.005	
93	0	0.364706	-0.347787	306.5	231.484	
94	0	0.368627	-0.337155	306.5	230.964	
95	0	0.372549	-0.326561	306.5	230.447	
96	0	0.376471	-0.316004	306.5	229.932	
97	0	0.380392	-0.305481	306.5	229.418	
98	0	0.384314	-0.294992	306.5	228.905	
99	0	0.388235	-0.284535	306.5	228.395	
100	0	0.392157	-0.27411306.5	227.886		
101	0	0.396078	-0.263715	306.5	227.378	
102	0	0.4 -0.253347	306.5	226.872		
103	0	0.403922	-0.24559306.5	226.493		
104	0	0.407843	-0.235269	306.5	225.989	
105	0	0.411765	-0.224974	306.5	225.486	
106	0	0.415686	-0.214702	306.5	224.985	
107	0	0.419608	-0.204452	306.5	224.484	
108	0	0.423529	-0.194225	306.5	223.985	
109	0	0.427451	-0.184017	306.5	223.486	
110	0	0.431373	-0.173829	306.5	222.989	

111	0	0.435294	-0.163659	306.5	222.492
112	0	0.439216	-0.153505	306.5	221.996
113	0	0.443137	-0.143367	306.5	221.501
114	0	0.447059	-0.133244	306.5	221.007
115	0	0.45098	-0.125661	306.5	220.636
116	0	0.454902	-0.115562	306.5	220.143
117	0	0.458824	-0.105474	306.5	219.651
118	0	0.462745	-0.0953969	306.5	219.159
119	0	0.466667	-0.0853288	306.5	218.667
120	0	0.470588	-0.0752698	306.5	218.176
121	0	0.47451	-0.0652187	306.5	217.685
122	0	0.478431	-0.0551734	306.5	217.194
123	0	0.482353	-0.0451348	306.5	216.704
124	0	0.486275	-0.0350997	306.5	216.214
125	0	0.490196	-0.0250691	306.5	215.724
126	0	0.494118	-0.0150408	306.5	215.234
127	0	0.498039	-0.00501359	306.5	214.745
128	0	0.501961	0.00501359	306.5	214.255
129	0	0.505882	0.0150408	306.5	213.766
130	0	0.509804	0.0250691	306.5	213.276
131	0	0.513725	0.0350997	306.5	212.786
132	0	0.517647	0.0451348	306.5	212.296
133	0	0.521569	0.0551734	306.5	211.806
134	0	0.52549	0.0652187	306.5	211.315
135	0	0.529412	0.0752698	306.5	210.824
136	0	0.533333	0.0853288	306.5	210.333
137	0	0.537255	0.0953969	306.5	209.841
138	0	0.541176	0.105474	306.5	209.349
139	0	0.545098	0.115562	306.5	208.857
140	0	0.54902	0.125661	306.5	208.364
141	0	0.552941	0.133244	306.5	207.993
142	0	0.556863	0.143367	306.5	207.499
143	0	0.560784	0.153505	306.5	207.004
144	0	0.564706	0.163659	306.5	206.508
145	0	0.568627	0.173829	306.5	206.011
146	0	0.572549	0.184017	306.5	205.514
147	0	0.576471	0.194225	306.5	205.015
148	0	0.580392	0.204452	306.5	204.516
149	0	0.584314	0.214702	306.5	204.015
150	0	0.588235	0.224974	306.5	203.514
151	0	0.592157	0.235269	306.5	203.011
152	0	0.596078	0.24559	306.5	202.507
153	0	0.6	0.253347	306.5	202.128
154	0	0.603922	0.263715	306.5	201.622
155	0	0.607843	0.27411	306.5	201.114
156	0	0.611765	0.284535	306.5	200.605
157	0	0.615686	0.294992	306.5	200.095
158	0	0.619608	0.305481	306.5	199.582
159	0	0.623529	0.316004	306.5	199.068
160	0	0.627451	0.326561	306.5	198.553
161	0	0.631373	0.337155	306.5	198.036
162	0	0.635294	0.347787	306.5	197.516
163	0	0.639216	0.358459	306.5	196.995
164	0	0.643137	0.369171	306.5	196.472
165	0	0.647059	0.379927	306.5	195.947
166	0	0.65098	0.388022	306.5	195.552
167	0	0.654902	0.398855	306.5	195.023
168	0	0.658824	0.409735	306.5	194.491
169	0	0.662745	0.420664	306.5	193.958
170	0	0.666667	0.431644	306.5	193.421
171	0	0.670588	0.442676	306.5	192.883
172	0	0.67451	0.453763	306.5	192.341

173	0	0.678431	0.464904	306.5	191.797	
174	0	0.682353	0.476105	306.5	191.25	
175	0	0.686275	0.487364	306.5	190.7	
176	0	0.690196	0.498687	306.5	190.147	
177	0	0.694118	0.510074	306.5	189.591	
178	0	0.698039	0.521527	306.5	189.032	
179	0	0.701961	0.530162	306.5	188.61	
180	0	0.705882	0.541736	306.5	188.045	
181	0	0.709804	0.553384	306.5	187.476	
182	0	0.713725	0.565108	306.5	186.904	
183	0	0.717647	0.576911	306.5	186.328	
184	0	0.721569	0.588793	306.5	185.747	
185	0	0.72549	0.60076	306.5	185.163	
186	0	0.729412	0.612813	306.5	184.574	
187	0	0.733333	0.624956	306.5	183.981	
188	0.0198026	0.737255	0.637192	308.266	183.384	
189	0.0295588	0.741176	0.649522	309.136	182.782	
190	0.0392207	0.745098	0.661955	309.997	182.175	
191	0.0861777	0.74902	0.67449	314.184	181.562	
192	0.0953102	0.752941	0.68396	314.998	181.1	
193	0.0953102	0.756863	0.696684	314.998	180.479	
194	0.182322	0.760784	0.709522	322.757	179.852	
195	0.182322	0.764706	0.722479	322.757	179.219	
196	0.182322	0.768627	0.735557	322.757	178.58	
197	0.182322	0.772549	0.748762	322.757	177.935	
198	0.262364	0.776471	0.7621	329.894	177.284	
199	0.262364	0.780392	0.775574	329.894	176.626	
200	0.262364	0.784314	0.789191	329.894	175.961	
201	0.262364	0.788235	0.802956	329.894	175.289	
202	0.262364	0.792157	0.816874	329.894	174.609	
203	0.270027	0.796078	0.830953	330.577	173.922	
204	0.277632	0.8	0.841621	331.255	173.401	
205	0.300105	0.803922	0.855996	333.259	172.699	
206	0.322083	0.807843	0.87055	335.219	171.988	
207	0.336472	0.811765	0.885291	336.502	171.268	
208	0.405465	0.815686	0.900227	342.654	170.539	
209	0.431782	0.819608	0.915365	345.001	169.8	
210	0.431782	0.823529	0.930718	345.001	169.05	
211	0.530628	0.827451	0.946291	353.814	168.289	
212	0.587787	0.831373	0.9621	358.911	167.517	
213	0.587787	0.835294	0.97815	358.911	166.734	
214	0.641854	0.839216	0.994457	363.732	165.937	
215	0.652325	0.843137	1.01104	364.666	165.128	
216	0.693147	0.847059	1.02789	368.306	164.305	
217	0.693147	0.85098	1.04073	368.306	163.678	
218	0.741937	0.854902	1.05812	372.656	162.828	
219	0.741937	0.858824	1.07584	372.656	161.963	
220	0.741937	0.862745	1.0939	372.656	161.081	
221	0.788457	0.866667	1.11232	376.804	160.182	
222	0.788457	0.870588	1.13113	376.804	159.263	
223	0.788457	0.87451	1.15035	376.804	158.325	
224	0.916291	0.878431	1.17	388.203	157.365	
225	0.932164	0.882353	1.19012	389.618	156.383	
226	0.955511	0.886275	1.21073	391.7	155.376	
227	0.993252	0.890196	1.23187	395.065	154.344	
228	1.00063	0.894118	1.25357	395.723	153.284	
229	1.06471	0.898039	1.27588	401.437	152.195	
230	1.06471	0.901961	1.29303	401.437	151.357	
231	1.06471	0.905882	1.31652	401.437	150.21	
232	1.09861	0.909804	1.34075	404.46	149.026	
233	1.09861	0.913725	1.36581	404.46	147.803	
234	1.09861	0.917647	1.39175	404.46	146.536	

235	1.16315	0.921569		1.41865	410.214	145.222
236	1.16938	0.92549	1.44663	410.77	143.856	
237	1.25276	0.929412		1.47579	418.205	142.432
238	1.25276	0.933333		1.50626	418.205	140.944
239	1.28093	0.937255		1.5382	420.717	139.385
240	1.28093	0.941176		1.57179	420.717	137.744
241	1.335	0.945098		1.60725	425.538	136.013
242	1.39377	0.94902	1.64485	430.778	134.176	
243	1.40364	0.952941		1.67466	431.658	132.721
244	1.50408	0.956863		1.71688	440.614	130.659
245	1.5217	0.960784		1.76241	442.185	128.436
246	1.60744	0.964706		1.81191	449.83	126.018
247	1.60944	0.968627		1.86629	450.008	123.363
248	1.60944	0.972549		1.92684	450.008	120.406
249	1.6864	0.976471		1.99539	456.871	117.058
250	1.72277	0.980392		2.07485	460.113	113.178
251	1.79176	0.984314		2.17009	466.265	108.527
252	1.84055	0.988235		2.29036	470.616	102.654
253	2.07944	0.992157		2.45727	491.917	94.5032
254	2.19722	0.996078		2.74777	502.419	80.3175

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	80
	9/23/1999	ND<0	80
	3/15/2000	ND<0	80
	9/24/2003	ND<0	80
	3/11/2004	ND<0	80
	10/12/2004	ND<0	80
	4/1/2005	ND<0	80
	10/25/2005	ND<0	80
	4/29/2006	ND<0	80
	11/18/2006	ND<0	80
	5/23/2007	ND<0	80
	11/28/2007	ND<0	80
	6/5/2008	ND<0	80
	11/20/2008	ND<0	80
	6/11/2009	ND<-2.07944	80
	11/16/2009	ND<-2.07944	80
	6/30/2010	ND<-2.07944	80
	11/12/2010	ND<-2.07944 U	80
	7/5/2011	ND<-2.07944 U	80

Rank Sum = 1520
Rank Mean = 80

Background Rank Sum = 1520
Background Rank Mean = 80

Compliance Locations

Loc. ID	Date	Value	Rank
MW-8	7/20/1995	ND<0	80
	8/24/1995	ND<0	80
	9/28/1995	ND<0	80
	10/26/1995	ND<0	80
	11/19/1996	ND<0	80
	12/19/1996	ND<0	80
	3/24/1997	ND<0	80
	9/24/1997	1.6864	249
	4/7/1998	ND<0	80
	9/23/1998	1.72277	250
	3/16/1999	1.25276	237
	9/23/1999	1.28093	239
	3/15/2000	ND<0	80
	9/24/2003	ND<0	80
	3/11/2004	ND<0	80
	10/12/2004	ND<0	80
	4/1/2005	1.16938	236
	10/25/2005	1.60744	246
	4/29/2006	0.932164	225
	11/18/2006	1.39377	242
	5/23/2007	1.16315	235

	11/28/2007	1.50408		244
	6/5/2008	1.40364	243	
	11/20/2008	1.00063		228
	6/11/2009	1.28093		240
	6/30/2010	0.741937		218
	11/12/2010	1.06471		229
	7/5/2011	1.25276	238	
	11/22/2011	1.06471		230
	11/22/2011	1.06471		231
	6/5/2012	0.993252	227	

Rank Sum = 5447
Rank Mean = 175.71

MW-11R	7/20/1995	0.741937		219
	8/24/1995	1.84055		252
	9/28/1995	1.79176		251
	10/26/1995	2.07944		253
	11/19/1996	ND<0	80	
	12/19/1996	2.19722		254
	3/24/1997	ND<0	80	
	9/24/1997	ND<0	80	
	4/7/1998	ND<0	80	
	9/23/1998	1.60944		247
	3/16/1999	1.60944		248
	9/23/1999	ND<0	80	
	3/15/2000	ND<0	80	
	9/24/2003	ND<0	80	
	3/11/2004	ND<0	80	
	10/12/2004	ND<0	80	
	4/1/2005	1.5217	245	
	10/25/2005	0.431782 J		209
	4/29/2006	-0.18633 J		179
	11/18/2006	-0.0725707 J		181
	5/23/2007	0.741937		220
	11/28/2007	0.262364 J		198
	6/5/2008	ND<0	80	
	11/20/2008	ND<0	80	
	6/11/2009	-0.527633 J		165
	11/16/2009	ND<-2.07944		80
	6/30/2010	-0.210721 J		176
	11/12/2010	ND<-2.07944 U		80
	7/5/2011	ND<-2.07944 U	80	
	11/22/2011	ND<-2.07944 U		80
	11/22/2011	ND<-2.07944 U		80
	6/5/2012	ND<-2.07944 U	80	

Rank Sum = 4657
Rank Mean = 145.531

MW-9	7/20/1995	0.916291		224
	8/24/1995	0.955511		226
	9/28/1995	1.09861		232
	10/26/1995	1.09861		233
	11/19/1996	ND<0	80	
	12/19/1996	ND<0	80	
	3/24/1997	ND<0	80	
	9/24/1997	ND<0	80	
	4/7/1998	ND<0	80	
	9/23/1998	ND<0	80	
	3/16/1999	0.788457		221
	9/23/1999	ND<0	80	
	3/15/2000	ND<0	80	
	9/24/2003	ND<0	80	

	3/11/2004	ND<0	80	
	10/12/2004	ND<0	80	
	4/1/2005	0.652325 J	215	
	10/25/2005	0.0861777 J		191
	4/29/2006	-0.34249 J		168
	11/18/2006	-0.223144 J		175
	5/23/2007	0.788457		222
	11/28/2007	0.431782 J		210
	6/5/2008	ND<0	80	
	11/20/2008	0.300105 J		205
	6/11/2009	0.641854		214
	11/16/2009	0.336472		207
	6/30/2010	0.587787		212
	11/12/2010	0.182322		194
	7/5/2011	-0.274437 J	172	
	11/22/2011	-0.198451 J		177
	11/22/2011	-0.198451 J		178
	6/5/2012	-0.040822 J	183	

Rank Sum = 5019
Rank Mean = 156.844

MW-10	7/20/1995	ND<0	80	
	8/24/1995	0.182322 J		195
	9/28/1995	0.693147		216
	10/26/1995	0.693147		217
	11/19/1996	ND<0	80	
	12/19/1996	ND<0	80	
	3/24/1997	ND<0	80	
	9/24/1997	ND<0	80	
	4/7/1998	ND<0	80	
	9/23/1998	ND<0	80	
	3/16/1999	0.788457		223
	9/23/1999	ND<0	80	
	3/15/2000	ND<0	80	
	9/24/2003	ND<0	80	
	3/11/2004	ND<0	80	
	10/12/2004	ND<0	80	
	4/1/2005	0.587787 J	213	
	10/25/2005	0.277632 J		204
	4/29/2006	0.270027 J		203
	11/18/2006	-0.040822 J		184
	5/23/2007	ND<0	80	
	11/28/2007	0.322083		206
	6/5/2008	ND<0	80	
	11/20/2008	0 J	185	
	6/11/2009	0	186	
	11/16/2009	0.262364		199
	6/30/2010	-0.0618754 J		182
	11/12/2010	0.262364		200
	7/5/2011	0.405465	208	
	11/22/2011	0.262364		201
	11/22/2011	0.262364		202
	6/5/2012	0.530628	211	

Rank Sum = 4755
Rank Mean = 148.594

MW-6	7/20/1995	ND<0	80	
	8/24/1995	ND<0	80	
	9/28/1995	ND<0	80	
	10/26/1995	ND<0	80	
	11/19/1996	ND<0	80	
	12/19/1996	ND<0	80	

	3/24/1997	ND<0	80	
	9/24/1997	ND<0	80	
	4/7/1998	ND<0	80	
	9/23/1998	ND<0	80	
	3/16/1999	ND<0	80	
	9/23/1999	ND<0	80	
	3/15/2000	ND<0	80	
	9/24/2003	ND<0	80	
	3/11/2004	ND<0	80	
	10/12/2004	ND<0	80	
	4/1/2005	ND<0	80	
	10/25/2005	ND<0	80	
	4/29/2006	ND<0	80	
	11/18/2006	ND<0	80	
	5/23/2007	0.182322		196
	11/28/2007	ND<0	80	
	6/5/2008	ND<0	80	
	11/20/2008	ND<0	80	
	6/11/2009	ND<-2.07944		80
	11/16/2009	ND<-2.07944		80
	6/30/2010	ND<-2.07944		80
	11/12/2010	ND<-2.07944 U		80
	7/5/2011	ND<-2.07944 U	80	
	11/22/2011	ND<-2.07944 U		80
	11/22/2011	ND<-2.07944 U		80
	6/5/2012	ND<-2.07944 U	80	

Rank Sum = 2676
Rank Mean = 83.625

MW-7	7/20/1995	ND<0	80	
	8/24/1995	ND<0	80	
	9/28/1995	ND<0	80	
	10/26/1995	ND<0	80	
	11/19/1996	ND<0	80	
	12/19/1996	ND<0	80	
	3/24/1997	ND<0	80	
	9/24/1997	ND<0	80	
	4/7/1998	ND<0	80	
	9/23/1998	ND<0	80	
	3/16/1999	ND<0	80	
	9/23/1999	ND<0	80	
	3/15/2000	ND<0	80	
	9/24/2003	ND<0	80	
	3/11/2004	ND<0	80	
	10/12/2004	ND<0	80	
	4/1/2005	ND<0	80	
	10/25/2005	-0.673345 J		163
	4/29/2006	-0.385662 J		167
	11/18/2006	-1.02165 J		161
	5/23/2007	0.182322		197
	11/28/2007	-0.693147 J		162
	6/5/2008	ND<0	80	
	11/20/2008	0.0198026 J		188
	6/11/2009	-0.314711 J		170
	11/16/2009	ND<-2.07944		80
	6/30/2010	-0.328504 J		169
	11/12/2010	-0.510826 J		166
	7/5/2011	0	187	
	11/22/2011	0.0953102		192
	11/22/2011	0.0953102		193
	6/5/2012	-0.274437 J	173	

Rank Sum = 3808

Rank Mean = 119

MW-12AR	3/16/1999	ND<0	80
	9/23/1999	ND<0	80
	3/15/2000	ND<0	80
	9/24/2003	ND<0	80
	3/11/2004	ND<0	80
	10/12/2004	ND<0	80
	4/1/2005	ND<0	80
	10/25/2005	0.0295588 J	189
	4/29/2006	0.0392207 J	190
	11/18/2006	-0.274437 J	174
	5/23/2007	ND<0	80
	11/28/2007	-0.174353 J	180
	6/5/2008	ND<0	80
	11/20/2008	-0.634878 J	164
	6/11/2009	ND<-2.07944	80
	11/16/2009	-1.34707 J	160
	6/30/2010	ND<-2.07944	80
	11/12/2010	-0.314711 J	171
	7/5/2011	ND<-2.07944 U	80
	11/22/2011	ND<-2.07944 U	80
	11/22/2011	ND<-2.07944 U	80
	6/5/2012	ND<-2.07944 U	80

Rank Sum = 2428
Rank Mean = 110.364

MW-12BR	3/16/1999	1.335	241
	9/23/1999	1.09861	234
	3/15/2000	ND<0	80
	9/24/2003	ND<0	80
	3/11/2004	ND<0	80
	10/12/2004	ND<0	80
	4/1/2005	ND<0	80
	10/25/2005	ND<0	80
	4/29/2006	ND<0	80
	11/18/2006	ND<0	80
	5/23/2007	ND<0	80
	11/28/2007	ND<0	80
	6/5/2008	ND<0	80
	11/20/2008	ND<0	80
	6/11/2009	ND<-2.07944	80
	11/16/2009	ND<-2.07944	80
	6/30/2010	ND<-2.07944	80
	11/12/2010	ND<-2.07944 U	80
	7/5/2011	ND<-2.07944 U	80
	11/22/2011	ND<-2.07944 U	80
	11/22/2011	ND<-2.07944 U	80
	6/5/2012	ND<-2.07944 U	80

Rank Sum = 2075
Rank Mean = 94.3182

Calculation Results:

Kruskal-Wallis H Statistic = 48.4872
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 64.2462
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
48.4872 > 15.5073 indicating a significant group difference at 5% significance level
64.2462 > 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 80

Well	Mean Rank	Dif from Bkg	Critical Value
MW-8	**175.71**	**95.7097**	**49.7963**
MW-11R	**145.531**	**65.5313**	**49.4998**
MW-9	**156.844**	**76.8438**	**49.4998**
MW-10	**148.594**	**68.5938**	**49.4998**
MW-6	**83.625**	**3.625**	**49.4998**
MW-7	**119**	**39**	**49.4998**
MW-12AR		**110.364**	**30.3636**	**53.5271**
MW-12BR		**94.3182**	**14.3182**	**53.5271**

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 80

Well	Mean Rank	Dif from Bkg	Critical Value
MW-8	**175.71**	**95.7097**	**53.7733**
MW-11R	**145.531**	**65.5313**	**53.453**
MW-9	**156.844**	**76.8438**	**53.453**
MW-10	**148.594**	**68.5938**	**53.453**
MW-6	**83.625**	**3.625**	**53.453**
MW-7	**119**	**39**	**53.453**
MW-12AR		**110.364**	**30.3636**	**57.802**
MW-12BR		**94.3182**	**14.3182**	**57.802**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Benzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 62.5984%
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-8	6/5/2012	1	0.993252	TRUE
MW-11R	6/5/2012	1	-2.07944	FALSE
MW-9	6/5/2012	1	-0.040822	FALSE
MW-10	6/5/2012	1	0.530628	TRUE
MW-6	6/5/2012	1	-2.07944	FALSE
MW-7	6/5/2012	1	-0.274437	FALSE
MW-12AR	6/5/2012	1	-2.07944	FALSE
MW-12BR	6/5/2012	1	-2.07944	FALSE

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
6/5/2012	0.993252	0	0
6/5/2012	0.993252	0	0

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	-0.0487227
4/1/2005	0.652325	0	-0.0487227
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	
6/5/2012	-0.040822	0	-1.35539	
6/5/2012	-0.040822	0	-1.35539	

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
6/5/2012	0.530628	0	0.787628
6/5/2012	0.530628	0	0.787628

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	-0.18633	0	-1.86094
4/29/2006	-0.18633	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	-2.079440	-4.02472	
11/22/2011	-2.079440	-5.69181	
11/22/2011	-2.079440	-5.69181	
6/5/2012	-2.079440	-4.02472	
6/5/2012	-2.079440	-4.02472	

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)
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0.741937	(5/23/2007)	0.741937 (7/20/1995)	(0.741937 - 0.741937)/(21 - 1)
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ND<0	(6/5/2008)	0.741937 (7/20/1995)	(0 - 0.741937)/(23 - 1)
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ND<0	(11/20/2008)	0.741937 (7/20/1995)	(0 - 0.741937)/(24 - 1)
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-0.0528988			
ND<-2.07944	(11/16/2009)	0.741937 (7/20/1995)	(-2.07944 - 0.741937)/(26 - 1)
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ND<-2.07944 U (11/22/2011) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(30 - 1)
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ND<-2.07944 U (6/5/2012) 0.741937 (7/20/1995) (-2.07944 - 0.741937)/(31 - 1)
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ND<-2.07944 U (11/22/2011) 1.84055 (8/24/1995) (-2.07944 - 1.84055)/(30 - 2)
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ND<-2.07944 U (6/5/2012) 1.84055 (8/24/1995) (-2.07944 - 1.84055)/(31 - 2)
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ND<0 (4/7/1998) 1.79176 (9/28/1995) (0 - 1.79176)/(9 - 3)
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ND<0 (6/5/2008) 1.79176 (9/28/1995) (0 - 1.79176)/(23 - 3)
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ND<-2.07944 (11/16/2009) 1.79176 (9/28/1995) (-2.07944 - 1.79176)/(26 - 3)
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ND<-2.07944 U (11/12/2010) 1.79176 (9/28/1995) (-2.07944 - 1.79176)/(28 - 3)
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ND<-2.07944 U (6/5/2012) 1.79176 (9/28/1995) (-2.07944 - 1.79176)/(31 - 3)
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ND<0 (9/24/2003) 2.07944 (10/26/1995) (0 - 2.07944)/(14 - 4)
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ND<0 (10/12/2004) 2.07944 (10/26/1995) (0 - 2.07944)/(16 - 4)
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ND<-2.07944 U (11/12/2010) 2.07944 (10/26/1995) (-2.07944 - 2.07944)/(28 - 4)
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ND<-2.07944 U (7/5/2011) 2.07944 (10/26/1995) (-2.07944 - 2.07944)/(29 - 4)
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ND<-2.07944 U (6/5/2012) 2.07944 (10/26/1995) (-2.07944 - 2.07944)/(31 - 4)
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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)		
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-0.18633 J (4/29/2006)	ND<0 (11/19/1996)	(-0.18633 - 0)/(19 - 5)		
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-0.0725707 J (11/18/2006)	ND<0 (11/19/1996)	(-0.0725707 - 0)/(20 - 5)		
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0.741937 (5/23/2007)	ND<0 (11/19/1996)	(0.741937 - 0)/(21 - 5)		
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0.262364 J (11/28/2007)	ND<0 (11/19/1996)	(0.262364 - 0)/(22 - 5)		
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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	
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ND<-2.07944 U (11/22/2011)	ND<0 (11/19/1996)	(-2.07944 - 0)/(30 - 5)		
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ND<-2.07944 U (6/5/2012)	ND<0 (11/19/1996)	(-2.07944 - 0)/(31 - 5)		
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1.60944 (3/16/1999)	2.19722 (12/19/1996)	(1.60944 - 2.19722)/(11 - 6)	
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ND<0 (9/23/1999)	2.19722 (12/19/1996)	(0 - 2.19722)/(12 - 6)	
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ND<0 (3/15/2000)	2.19722 (12/19/1996)	(0 - 2.19722)/(13 - 6)	
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ND<0 (9/24/2003)	2.19722 (12/19/1996)	(0 - 2.19722)/(14 - 6)	
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ND<0 (3/11/2004)	2.19722 (12/19/1996)	(0 - 2.19722)/(15 - 6)	
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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)	
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0.431782 J (10/25/2005)	2.19722 (12/19/1996)	(0.431782 - 2.19722)/(18 - 6)	
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ND<0 (11/20/2008) 2.19722 (12/19/1996) (0 - 2.19722)/(24 - 6)
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ND<-2.07944 U (11/12/2010) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(28 - 6)
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ND<-2.07944 U (7/5/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(29 - 6)
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ND<-2.07944 U (11/22/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(30 - 6)
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ND<-2.07944 U (11/22/2011) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(30 - 6)
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ND<-2.07944 U (6/5/2012) 2.19722 (12/19/1996) (-2.07944 - 2.19722)/(31 - 6)
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ND<0 (9/24/1997) ND<0 (3/24/1997) (0 - 0)/(8 - 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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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)
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-0.18633 J (4/29/2006) ND<0 (3/24/1997) (-0.18633 - 0)/(19 - 7)
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-0.0725707 J (11/18/2006) ND<0 (3/24/1997) (-0.0725707 - 0)/(20 - 7)
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0.741937 (5/23/2007) ND<0 (3/24/1997) (0.741937 - 0)/(21 - 7)
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0.262364 J (11/28/2007) ND<0 (3/24/1997) (0.262364 - 0)/(22 - 7)
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ND<-2.07944 (11/16/2009) ND<0 (3/24/1997) (-2.07944 - 0)/(26 - 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<-2.07944 U (11/22/2011) ND<0 (9/24/1997) (-2.07944 - 0)/(30 - 8)
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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 (7/5/2011) 1.60944 (9/23/1998) (-2.07944 - 1.60944)/(29 - 10)
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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 (3/11/2004) (-2.07944 - 0)/(30 - 15)
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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
ND<-2.07944 U (6/5/2012) 1.5217 (4/1/2005) (-2.07944 - 1.5217)/(31 - 17)
-0.257224

-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)
0.103385
0.262364 J (11/28/2007) 0.431782 J (10/25/2005) (0.262364 - 0.431782)/(22 - 18)
-0.0423545
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)
-0.0719637
-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)
-0.313903
-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
ND<-2.07944 U (6/5/2012) 0.431782 J (10/25/2005) (-2.07944 - 0.431782)/(31 - 18)
-0.193171

-0.0725707 J (11/18/2006) -0.18633 J (4/29/2006) (-0.0725707 - -0.18633)/(20 - 19)
0.113759
0.741937 (5/23/2007) -0.18633 J (4/29/2006) (0.741937 - -0.18633)/(21 - 19)
0.464133
0.262364 J (11/28/2007) -0.18633 J (4/29/2006) (0.262364 - -0.18633)/(22 - 19)
0.149565
ND<0 (6/5/2008) -0.18633 J (4/29/2006) (0 - -0.18633)/(23 - 19)
0.0465824
ND<0 (11/20/2008) -0.18633 J (4/29/2006) (0 - -0.18633)/(24 - 19)
0.0372659
-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
ND<-2.07944 U (6/5/2012) -0.18633 J (4/29/2006) (-2.07944 - -0.18633)/(31 - 19)
-0.157759

0.741937 (5/23/2007) -0.0725707 J (11/18/2006) (0.741937 - -0.0725707)/(21 - 20)
0.814508
0.262364 J (11/28/2007) -0.0725707 J (11/18/2006) (0.262364 - -0.0725707)/(22 - 20)
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0.0241902
ND<0 (11/20/2008) -0.0725707 J (11/18/2006) (0 - -0.0725707)/(24 - 20)
0.0181427
-0.527633 J (6/11/2009) -0.0725707 J (11/18/2006) (-0.527633 - -0.0725707)/(25 - 20)
-0.0910124

ND<-2.07944 (11/16/2009) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(26 - 20)
-0.334478
-0.210721 J (6/30/2010) -0.0725707 J (11/18/2006) (-0.210721 - -0.0725707)/(27 - 20)
-0.0197358
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
ND<-2.07944 U (6/5/2012) -0.0725707 J (11/18/2006) (-2.07944 - -0.0725707)/(31 - 20)
-0.182443

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<-2.07944 U (6/5/2012) 0.741937 (5/23/2007) (-2.07944 - 0.741937)/(31 - 21)
-0.282138

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<-2.07944 U (6/5/2012) 0.262364 J (11/28/2007) (-2.07944 - 0.262364)/(31 - 22)
-0.260201

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
ND<-2.07944 U (6/5/2012) ND<0 (6/5/2008) (-2.07944 - 0)/(31 - 23) -0.25993

-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 U (6/5/2012) ND<0 (11/20/2008) (-2.07944 - 0)/(31 - 24)
-0.297063

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
ND<-2.07944 U (6/5/2012) -0.527633 J (6/11/2009) (-2.07944 - -0.527633)/(31 - 25)
-0.258635

-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 (6/5/2012) ND<-2.07944 (11/16/2009) (-2.07944 - -2.07944)/(31 - 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 (6/5/2012) -0.210721 J (6/30/2010) (-2.07944 - -0.210721)/(31 - 27)
-0.46718

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 (6/5/2012) ND<-2.07944 U (11/12/2010) (-2.07944 - -2.07944)/(31 - 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 (6/5/2012) ND<-2.07944 U (7/5/2011) (-2.07944 - -2.07944)/(31 - 29)
0

ND<-2.07944 U (11/22/2011) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date
ND<-2.07944 U (6/5/2012) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(31 - 30)
0

ND<-2.07944 U (6/5/2012) ND<-2.07944 U (11/22/2011) (-2.07944 - -2.07944)/(31 - 30)
0

Number of Q values = 495

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	-0.46718
32	-0.44794
33	-0.415888
34	-0.415888
35	-0.415888
36	-0.403054
37	-0.402359
38	-0.402359
39	-0.400127
40	-0.390301
41	-0.387952
42	-0.370969
43	-0.36811
44	-0.366204
45	-0.358352
46	-0.352672
47	-0.346574
48	-0.346574
49	-0.346574
50	-0.334544
51	-0.334478
52	-0.327376
53	-0.321888
54	-0.321888
55	-0.317393
56	-0.313903
57	-0.313889
58	-0.313487
59	-0.313487
60	-0.310362
61	-0.310362
62	-0.306758
63	-0.300095
64	-0.298627
65	-0.297063
66	-0.297063
67	-0.297063
68	-0.292726
69	-0.292726
70	-0.282138
71	-0.277011
72	-0.277011
73	-0.274653
74	-0.270445
75	-0.26824
76	-0.263816
77	-0.263332
78	-0.262936
79	-0.262364
80	-0.260201
81	-0.25993
82	-0.25993
83	-0.258635
84	-0.257224
85	-0.256166

86	-0.253616
87	-0.252177
88	-0.251867
89	-0.251122
90	-0.250859
91	-0.247312
92	-0.245925
93	-0.244136
94	-0.231049
95	-0.230555
96	-0.228293
97	-0.224471
98	-0.222986
99	-0.219722
100	-0.217386
101	-0.216993
102	-0.213833
103	-0.210346
104	-0.209269
105	-0.209269
106	-0.207944
107	-0.207944
108	-0.204938
109	-0.204938
110	-0.200687
111	-0.200687
112	-0.19953
113	-0.199084
114	-0.19494
115	-0.194394
116	-0.194152
117	-0.194152
118	-0.194152
119	-0.193171
120	-0.189311
121	-0.18904
122	-0.18904
123	-0.18904
124	-0.18689
125	-0.185942
126	-0.185484
127	-0.184444
128	-0.184444
129	-0.184444
130	-0.184055
131	-0.18335
132	-0.182443
133	-0.179176
134	-0.178194
135	-0.178194
136	-0.175661
137	-0.173287
138	-0.173287
139	-0.173287
140	-0.173287
141	-0.173242
142	-0.172101
143	-0.172101
144	-0.171067
145	-0.168313
146	-0.168236
147	-0.168201

148	-0.167323
149	-0.166355
150	-0.163333
151	-0.162887
152	-0.162128
153	-0.159957
154	-0.159957
155	-0.159957
156	-0.159957
157	-0.159957
158	-0.158776
159	-0.157759
160	-0.154848
161	-0.154033
162	-0.153379
163	-0.152648
164	-0.151051
165	-0.150769
166	-0.149313
167	-0.148892
168	-0.148532
169	-0.148532
170	-0.148532
171	-0.148532
172	-0.148532
173	-0.147207
174	-0.14712
175	-0.146947
176	-0.145185
177	-0.143414
178	-0.143378
179	-0.143378
180	-0.142471
181	-0.141581
182	-0.14
183	-0.14
184	-0.138629
185	-0.138629
186	-0.138629
187	-0.138629
188	-0.138629
189	-0.138257
190	-0.137828
191	-0.137059
192	-0.135172
193	-0.134501
194	-0.13412
195	-0.131468
196	-0.131182
197	-0.129965
198	-0.129965
199	-0.129965
200	-0.129965
201	-0.129965
202	-0.129249
203	-0.124146
204	-0.123803
205	-0.123803
206	-0.123656
207	-0.123631
208	-0.122461
209	-0.12232

210	-0.12232
211	-0.12232
212	-0.12232
213	-0.12232
214	-0.122068
215	-0.120929
216	-0.119228
217	-0.11769
218	-0.117557
219	-0.115525
220	-0.115525
221	-0.115525
222	-0.115525
223	-0.11496
224	-0.114664
225	-0.11376
226	-0.112855
227	-0.112256
228	-0.109666
229	-0.109444
230	-0.109444
231	-0.109444
232	-0.109444
233	-0.107068
234	-0.106284
235	-0.105991
236	-0.105427
237	-0.104496
238	-0.103972
239	-0.103972
240	-0.103972
241	-0.102964
242	-0.100949
243	-0.100764
244	-0.0995723
245	-0.099021
246	-0.099021
247	-0.099021
248	-0.099021
249	-0.099021
250	-0.0972889
251	-0.0972889
252	-0.0970191
253	-0.0946171
254	-0.0945201
255	-0.0945201
256	-0.0945201
257	-0.0945201
258	-0.094046
259	-0.0927422
260	-0.0910124
261	-0.0906651
262	-0.0904105
263	-0.0904105
264	-0.0904105
265	-0.0904105
266	-0.089588
267	-0.088048
268	-0.0876452
269	-0.0867501
270	-0.0866434
271	-0.0866434

272	-0.0863565
273	-0.0853219
274	-0.0836613
275	-0.0834367
276	-0.0831777
277	-0.0831777
278	-0.0820508
279	-0.0804945
280	-0.0799785
281	-0.0789093
282	-0.0788637
283	-0.0786767
284	-0.0783339
285	-0.0719637
286	-0.0713893
287	-0.0702403
288	-0.0674488
289	-0.0671434
290	-0.0621099
291	-0.0618281
292	-0.0614114
293	-0.0586259
294	-0.0583235
295	-0.0578217
296	-0.0570721
297	-0.0568839
298	-0.0529955
299	-0.0528988
300	-0.0527633
301	-0.0526803
302	-0.0515704
303	-0.0494625
304	-0.0487902
305	-0.0479666
306	-0.0465824
307	-0.0439694
308	-0.0429033
309	-0.0428688
310	-0.0423545
311	-0.0405871
312	-0.0372659
313	-0.0366407
314	-0.0337244
315	-0.032977
316	-0.0322581
317	-0.0310549
318	-0.0310372
319	-0.0293129
320	-0.028889
321	-0.0266185
322	-0.0263816
323	-0.0260459
324	-0.0256791
325	-0.0228368
326	-0.0227902
327	-0.0212567
328	-0.0197358
329	-0.01929
330	-0.0191565
331	-0.018633
332	-0.0182444
333	-0.0181427

334	-0.0175601
335	-0.0169391
336	-0.0162093
337	-0.0155275
338	-0.0150515
339	-0.0146232
340	-0.0145141
341	-0.0140481
342	-0.0133093
343	-0.0125341
344	-0.0120951
345	-0.0117067
346	-0.0110906
347	-0.0105361
348	-0.0103672
349	-0.00957823
350	-0.00907134
351	-0.00659734
352	-0.00604756
353	-0.00558236
354	-0.00483805
355	-0.00304893
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
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
425	0
426	0
427	0.0154332
428	0.017491
429	0.0181427
430	0.0187403
431	0.0201819
432	0.0241902
433	0.0262364
434	0.0291516
435	0.0327955
436	0.033214
437	0.0372659
438	0.0374806
439	0.0392529
440	0.0431782
441	0.0437274
442	0.0463711
443	0.0465824
444	0.0479758
445	0.0487351
446	0.0529955
447	0.0570721
448	0.0588915
449	0.0618281
450	0.0719637
451	0.0824375
452	0.0863565
453	0.0867501
454	0.0891687
455	0.0927422
456	0.096389
457	0.103385

458	0.105991
459	0.107946
460	0.113759
461	0.119446
462	0.123656
463	0.126808
464	0.135155
465	0.143927
466	0.148387
467	0.149565
468	0.15217
469	0.158456
470	0.167467
471	0.169078
472	0.190212
473	0.215891
474	0.26824
475	0.287682
476	0.291057
477	0.30434
478	0.321888
479	0.380425
480	0.402359
481	0.445835
482	0.464133
483	0.507233
484	0.524911
485	0.536479
486	0.536479
487	0.760849
488	0.804719
489	0.804719
490	0.814508
491	1.09861
492	1.5217
493	1.60944
494	1.86872
495	2.19722

Sen's Estimator (Median Q) is -0.099021

Tied Group	Value	Members
1	0.741937	2
2	0	11
3	1.60944	2
4	-2.07944	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
6/5/2012	1	

There are 1 time periods with multiple data

A = 3516
B = 18
C = 1110
D = 0
E = 144
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3606.48
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 98.7799
M1 = (495 - 98.7799)/2.0 = 198.11
M2 = (495 + 98.7799)/2.0 + 1 = 297.89
Lower limit is -0.129965 = Q(198)
Upper limit is -0.0529955 = Q(298)
-0.0529955 < 0 indicating a downward 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			
0.993252 (6/5/2012)	ND<0 (7/20/1995)	(0.993252 - 0)/(30 - 1)	
0.0342501			
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						
0.993252	(6/5/2012)	ND<0	(8/24/1995)	(0.993252 - 0)/(30 - 2)		
0.0354733						
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						
0.993252	(6/5/2012)	ND<0	(9/28/1995)	(0.993252 - 0)/(30 - 3)		
0.0367871						
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					
0.993252	(6/5/2012)	ND<0	(10/26/1995)	(0.993252 - 0)/(30 - 4)	
0.038202					
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					
0.993252	(6/5/2012)	ND<0	(11/19/1996)	(0.993252 - 0)/(30 - 5)	
0.0397301					

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						
0.993252	(6/5/2012)	ND<0	(12/19/1996)	(0.993252 - 0)/(30 - 6)		
0.0413855						
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					
0.993252	(6/5/2012)	ND<0	(3/24/1997)	(0.993252 - 0)/(30 - 7)		
	0.0431849					
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					
0.993252	(6/5/2012)	1.6864	(9/24/1997)	(0.993252 - 1.6864)/(30 - 8)	
-0.0315067					
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					
0.993252	(6/5/2012)	ND<0	(4/7/1998)	(0.993252 - 0)/(30 - 9)	
0.0472977					
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
0.993252	(6/5/2012)	1.72277	(9/23/1998)	(0.993252 - 1.72277)/(30 - 10)	-0.0364757
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						
0.993252	(6/5/2012)	1.25276	(3/16/1999)	(0.993252 - 1.25276)/(30 - 11)		
-0.0136585						
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						
0.993252	(6/5/2012)	1.28093	(9/23/1999)	(0.993252 - 1.28093)/(30 - 12)		
-0.0159823						
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						
0.993252	(6/5/2012)	ND<0	(3/15/2000)	(0.993252 - 0)/(30 - 13)		
0.0584266						
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						
0.993252	(6/5/2012)	ND<0	(9/24/2003)	(0.993252 - 0)/(30 - 14)		
0.0620782						
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					
0.993252	(6/5/2012)	ND<0	(3/11/2004)	(0.993252 - 0)/(30 - 15)	
0.0662168					
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					
0.993252	(6/5/2012)	ND<0	(10/12/2004)	(0.993252 - 0)/(30 - 16)	
0.0709466					
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				
0.993252	(6/5/2012)	1.16938	(4/1/2005)	(0.993252 - 1.16938)/(30 - 17)
-0.0135484				
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				
0.993252	(6/5/2012)	1.60744	(10/25/2005)	(0.993252 - 1.60744)/(30 - 18)
-0.051182				
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
0.993252	(6/5/2012)	0.932164	(4/29/2006)	(0.993252 - 0.932164)/(30 - 19)	0.00555343
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
0.993252	(6/5/2012)	1.39377	(11/18/2006)	(0.993252 - 1.39377)/(30 - 20)	-0.0400515
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
0.993252	(6/5/2012)	1.16315	(5/23/2007)	(0.993252 - 1.16315)/(30 - 21)	-0.0188777
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				
0.993252	(6/5/2012)	1.50408	(11/28/2007)	(0.993252 - 1.50408)/(30 - 22)
-0.0638532				
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				
0.993252	(6/5/2012)	1.40364	(6/5/2008)	(0.993252 - 1.40364)/(30 - 23)
-0.0586273				
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				
0.993252	(6/5/2012)	1.00063	(11/20/2008)	(0.993252 - 1.00063)/(30 - 24)
-0.00123002				
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				
0.993252	(6/5/2012)	1.28093	(6/11/2009)	(0.993252 - 1.28093)/(30 - 25)
-0.0575364				
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				
0.993252	(6/5/2012)	0.741937	(6/30/2010)	(0.993252 - 0.741937)/(30 - 26)
0.0628286				

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
0.993252	(6/5/2012)	1.06471	(11/12/2010)	(0.993252 - 1.06471)/(30 - 27)	-0.0238197
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
0.993252	(6/5/2012)	1.25276	(7/5/2011)	(0.993252 - 1.25276)/(30 - 28)	-0.129756
1.06471	(11/22/2011)	1.06471	(11/22/2011)	(1.06471 - 1.06471)/(29 - 29)	Same Date
0.993252	(6/5/2012)	1.06471	(11/22/2011)	(0.993252 - 1.06471)/(30 - 29)	-0.071459
0.993252	(6/5/2012)	1.06471	(11/22/2011)	(0.993252 - 1.06471)/(30 - 29)	-0.071459

Number of Q values = 464

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	-0.129756

32	-0.129347
33	-0.118609
34	-0.108638
35	-0.108187
36	-0.108112
37	-0.106835
38	-0.101366
39	-0.101134
40	-0.100434
41	-0.0982836
42	-0.0878733
43	-0.0878447
44	-0.0847331
45	-0.0842427
46	-0.079055
47	-0.0743812
48	-0.071459
49	-0.071459
50	-0.0685668
51	-0.0638532
52	-0.0627667
53	-0.0627667
54	-0.0613546
55	-0.0613018
56	-0.0603028
57	-0.0586273
58	-0.0575364
59	-0.0574464
60	-0.0564887
61	-0.0564887
62	-0.054173
63	-0.0540558
64	-0.0540558
65	-0.0524701
66	-0.0515811
67	-0.051182
68	-0.0508742
69	-0.0498243
70	-0.0493387
71	-0.0493387
72	-0.0474938
73	-0.0470079
74	-0.0466432
75	-0.0428604
76	-0.0418857
77	-0.0407586
78	-0.0402499
79	-0.0400749
80	-0.0400515
81	-0.0387092
82	-0.0384998
83	-0.0365617
84	-0.0365617
85	-0.0364757
86	-0.0354673
87	-0.0346345
88	-0.0346345
89	-0.034055
90	-0.0329
91	-0.0327204
92	-0.0315067
93	-0.030176

94	-0.0296042
95	-0.0296042
96	-0.0294555
97	-0.0271752
98	-0.0261113
99	-0.0258396
100	-0.024548
101	-0.024386
102	-0.0241071
103	-0.0238509
104	-0.0238197
105	-0.0233585
106	-0.0225665
107	-0.0223105
108	-0.0216818
109	-0.0193947
110	-0.0188777
111	-0.0188504
112	-0.0182241
113	-0.0176254
114	-0.0164067
115	-0.0159823
116	-0.0144163
117	-0.0144149
118	-0.0138969
119	-0.0136585
120	-0.0135484
121	-0.013087
122	-0.013023
123	-0.012719
124	-0.012719
125	-0.012305
126	-0.012305
127	-0.0117533
128	-0.0104671
129	-0.0104473
130	-0.0104473
131	-0.00939029
132	-0.00896122
133	-0.00872255
134	-0.00872255
135	-0.0078963
136	-0.00176068
137	-0.00155764
138	-0.00123002
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
198	0
199	0
200	0
201	0
202	0
203	0
204	0
205	0
206	0
207	0
208	0
209	0.00201221
210	0.00329221
211	0.00555343
212	0.00758015
213	0.0111554
214	0.0125733
215	0.0128017
216	0.0128158
217	0.0128158

218	0.0132547
219	0.0132547
220	0.0136936
221	0.0139441
222	0.0141041
223	0.015667
224	0.0165683
225	0.0181838
226	0.0213596
227	0.0223144
228	0.0228468
229	0.0281709
230	0.0294458
231	0.0296775
232	0.0309141
233	0.0322581
234	0.0337244
235	0.0342501
236	0.0353303
237	0.0354733
238	0.0356221
239	0.0367871
240	0.0370969
241	0.0380254
242	0.0380254
243	0.038202
244	0.0390436
245	0.0390493
246	0.0394337
247	0.0394337
248	0.0397301
249	0.0409504
250	0.0409504
251	0.0409504
252	0.0413855
253	0.0425884
254	0.0425884
255	0.0425884
256	0.0431849
257	0.0435057
258	0.0436434
259	0.0443629
260	0.0443629
261	0.0443629
262	0.0454833
263	0.0462918
264	0.0462918
265	0.0462918
266	0.0463986
267	0.0472977
268	0.0476491
269	0.0481832
270	0.0483959
271	0.0483959
272	0.0483959
273	0.0500316
274	0.0501105
275	0.0506676
276	0.0507005
277	0.0517869
278	0.0521985
279	0.0526648

280	0.0532355
281	0.0532355
282	0.0532355
283	0.0533722
284	0.054417
285	0.054468
286	0.0548332
287	0.0551555
288	0.0555907
289	0.0556928
290	0.0569438
291	0.0570721
292	0.0581283
293	0.0581575
294	0.0582243
295	0.0582603
296	0.0584266
297	0.0588607
298	0.0591506
299	0.0596554
300	0.0609968
301	0.0612185
302	0.0618281
303	0.0620782
304	0.0621443
305	0.0628286
306	0.0630328
307	0.063802
308	0.0640467
309	0.0646195
310	0.0659349
311	0.0662168
312	0.0665444
313	0.0665444
314	0.0665831
315	0.0667088
316	0.0668401
317	0.0669392
318	0.0674176
319	0.0674488
320	0.0684206
321	0.0701821
322	0.0709466
323	0.0709807
324	0.0709807
325	0.071163
326	0.0716227
327	0.0717049
328	0.0726969
329	0.0730863
330	0.0733561
331	0.0738759
332	0.0741937
333	0.074795
334	0.0752039
335	0.0760508
336	0.0760508
337	0.0760508
338	0.0774315
339	0.0775434
340	0.0776803
341	0.0779588

342	0.0779802
343	0.079162
344	0.0800584
345	0.0819008
346	0.0819008
347	0.0819008
348	0.0819863
349	0.0825672
350	0.0830822
351	0.0835175
352	0.0835272
353	0.0835599
354	0.0871104
355	0.0877277
356	0.0884751
357	0.0887259
358	0.0894831
359	0.0899524
360	0.0909665
361	0.0929178
362	0.0932164
363	0.0940048
364	0.0945551
365	0.0963664
366	0.0967919
367	0.0969292
368	0.0974484
369	0.0995547
370	0.100063
371	0.10026
372	0.100272
373	0.100465
374	0.104397
375	0.106307
376	0.106744
377	0.107162
378	0.107213
379	0.107591
380	0.107591
381	0.111181
382	0.114817
383	0.115493
384	0.115698
385	0.116449
386	0.116449
387	0.116938
388	0.11787
389	0.120246
390	0.123649
391	0.125079
392	0.125276
393	0.126706
394	0.128093
395	0.128093
396	0.133953
397	0.139196
398	0.140364
399	0.142326
400	0.142326
401	0.145394
402	0.146131
403	0.146173

404	0.155361
405	0.15596
406	0.156595
407	0.160117
408	0.166164
409	0.16712
410	0.175455
411	0.178604
412	0.178966
413	0.182991
414	0.186433
415	0.18801
416	0.188052
417	0.190638
418	0.191419
419	0.193858
420	0.199109
421	0.20052
422	0.208794
423	0.213489
424	0.214868
425	0.215346
426	0.232294
427	0.23263
428	0.233041
429	0.240914
430	0.24611
431	0.250553
432	0.25068
433	0.255413
434	0.256187
435	0.278753
436	0.280302
437	0.281066
438	0.287128
439	0.292345
440	0.310721
441	0.313191
442	0.321487
443	0.322773
444	0.33728
445	0.340927
446	0.344553
447	0.348442
448	0.389794
449	0.401859
450	0.4216
451	0.426978
452	0.430692
453	0.438055
454	0.461602
455	0.535812
456	0.562133
457	0.574256
458	0.584691
459	0.626381
460	0.803718
461	0.843199
462	1.16938
463	1.6864
464	1.72277

Sen's Estimator (Median Q) is 0.0315861

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 3930
B = 18
C = 1326
D = 0
E = 142
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3242.49
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 93.6626
M1 = (464 - 93.6626)/2.0 = 185.169
M2 = (464 + 93.6626)/2.0 + 1 = 279.831
Lower limit is 0 = Q(185)
Upper limit is 0.0532355 = Q(280)
0 < 0 < 0.0532355 indicating no 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			
-0.040822 J (6/5/2012)	0.916291	(7/20/1995)	(-0.040822 - 0.916291)/(31 - 1)
-0.0319038			
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				
-0.040822 J (6/5/2012)	0.955511 (8/24/1995)	(-0.040822 - 0.955511)/(31 - 2)		
-0.0343563				
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				
-0.040822 J (6/5/2012)	1.09861	(9/28/1995)	(-0.040822 - 1.09861)/(31 - 3)	
-0.0406941				
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				
-0.040822 J (6/5/2012)	1.09861	(10/26/1995)	(-0.040822 - 1.09861)/(31 - 4)	
-0.0422013				

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				
-0.040822 J (6/5/2012)	ND<0 (11/19/1996)	(-0.040822 - 0)/(31 - 5)		
-0.00157008				

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				
-0.040822 J (6/5/2012)	ND<0	(12/19/1996)	(-0.040822 - 0)/(31 - 6)	
-0.00163288				
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				
-0.040822 J (6/5/2012)	ND<0	(3/24/1997)	(-0.040822 - 0)/(31 - 7)	
-0.00170092				
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				
-0.040822 J (6/5/2012)	ND<0	(9/24/1997)	(-0.040822 - 0)/(31 - 8)	
-0.00177487				
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				
-0.040822 J (6/5/2012)	ND<0	(4/7/1998)	(-0.040822 - 0)/(31 - 9)	
-0.00185555				
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				

-0.040822 J (6/5/2012)	ND<0 (9/23/1998)	(-0.040822 - 0)/(31 - 10)	
-0.0019439			
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			
-0.040822 J (6/5/2012)	0.788457 (3/16/1999)	(-0.040822 - 0.788457)/(31 - 11)	
-0.041464			
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			
-0.040822 J (6/5/2012)	ND<0 (9/23/1999)	(-0.040822 - 0)/(31 - 12)	
-0.00214853			
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			
-0.040822 J (6/5/2012)	ND<0 (3/15/2000)	(-0.040822 - 0)/(31 - 13)	
-0.00226789			
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					
-0.040822 J (6/5/2012)	ND<0	(9/24/2003)	(-0.040822 - 0)/(31 - 14)		
-0.00240129					
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					
-0.040822 J (6/5/2012)	ND<0	(3/11/2004)	(-0.040822 - 0)/(31 - 15)		
-0.00255137					
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			
-0.040822 J (6/5/2012)	ND<0 (10/12/2004)	(-0.040822 - 0)/(31 - 16)	
-0.00272147			

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		
-0.040822 J (6/5/2012)	0.652325 J (4/1/2005)	(-0.040822 - 0.652325)/(31 - 17)
-0.0495105		

-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
-0.040822 J (6/5/2012)	0.0861777 J (10/25/2005)	(-0.040822 - 0.0861777)/(31 - 18)	-0.00976921
-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
-0.040822 J (6/5/2012)	-0.34249 J (4/29/2006)	(-0.040822 - -0.34249)/(31 - 19)	0.025139
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
-0.040822 J (6/5/2012)	-0.223144 J (11/18/2006)	(-0.040822 - -0.223144)/(31 - 20)	0.0165747

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
-0.040822 J (6/5/2012)	0.788457 (5/23/2007)	(-0.040822 - 0.788457)/(31 - 21)	-0.0829279

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
-0.040822 J (6/5/2012)	0.431782 J (11/28/2007)	(-0.040822 - 0.431782)/(31 - 22)	-0.0525116

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
-0.040822 J (6/5/2012)	ND<0 (6/5/2008)	(-0.040822 - 0)/(31 - 23)	-0.00510275
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
-0.040822 J (6/5/2012)	0.300105 J (11/20/2008)	(-0.040822 - 0.300105)/(31 - 24)	-0.0487038
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
-0.040822 J (6/5/2012)	0.641854 (6/11/2009)	(-0.040822 - 0.641854)/(31 - 25)	-0.113779
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

-0.040822 J (6/5/2012)	0.336472 (11/16/2009)	(-0.040822 - 0.336472)/(31 - 26)	-0.0754588
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
-0.040822 J (6/5/2012)	0.587787 (6/30/2010)	(-0.040822 - 0.587787)/(31 - 27)	-0.157152
-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
-0.040822 J (6/5/2012)	0.182322 (11/12/2010)	(-0.040822 - 0.182322)/(31 - 28)	-0.0743812
-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
-0.040822 J (6/5/2012)	-0.274437 J (7/5/2011)	(-0.040822 - -0.274437)/(31 - 29)	0.116807
-0.198451 J (11/22/2011)	-0.198451 J (11/22/2011)	(-0.198451 - -0.198451)/(30 - 30)	Same Date
-0.040822 J (6/5/2012)	-0.198451 J (11/22/2011)	(-0.040822 - -0.198451)/(31 - 30)	0.157629
-0.040822 J (6/5/2012)	-0.198451 J (11/22/2011)	(-0.040822 - -0.198451)/(31 - 30)	0.157629

Number of Q values = 495

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	-0.157152
44	-0.156945
45	-0.154661
46	-0.153177
47	-0.152715
48	-0.141368
49	-0.137327
50	-0.136502
51	-0.133731
52	-0.133731
53	-0.132862
54	-0.130899
55	-0.122068
56	-0.122068
57	-0.119439
58	-0.114908
59	-0.114536
60	-0.114163
61	-0.113779
62	-0.1124
63	-0.109861
64	-0.109861
65	-0.109656
66	-0.109656
67	-0.108721
68	-0.10181
69	-0.100888
70	-0.100326
71	-0.0998738
72	-0.0998738
73	-0.0960735
74	-0.0955511
75	-0.091551
76	-0.091551
77	-0.090397
78	-0.0900689
79	-0.0868647
80	-0.0865908

81	-0.0856226
82	-0.0845086
83	-0.0832992
84	-0.0830926
85	-0.0830926
86	-0.0829279
87	-0.0826097
88	-0.079626
89	-0.0787792
90	-0.0787792
91	-0.0777503
92	-0.0772302
93	-0.0770753
94	-0.0763576
95	-0.076353
96	-0.0754588
97	-0.0743812
98	-0.0735009
99	-0.0723168
100	-0.0704839
101	-0.0699323
102	-0.0684981
103	-0.0682508
104	-0.0674956
105	-0.0658389
106	-0.0657048
107	-0.0654808
108	-0.0654493
109	-0.0654443
110	-0.0654443
111	-0.061086
112	-0.0599702
113	-0.0590497
114	-0.0578217
115	-0.0570817
116	-0.0557859
117	-0.0549306
118	-0.054922
119	-0.0543334
120	-0.0528096
121	-0.0525116
122	-0.0519425
123	-0.0519425
124	-0.0503172
125	-0.049887
126	-0.049887
127	-0.0495105
128	-0.0489272
129	-0.0488302
130	-0.0487038
131	-0.0480394
132	-0.0480394
133	-0.0457395
134	-0.0455536
135	-0.0455005
136	-0.0446287
137	-0.0443078
138	-0.0441086
139	-0.0427276
140	-0.042526
141	-0.0422013
142	-0.0416496

143	-0.0415768
144	-0.041464
145	-0.0412129
146	-0.0412129
147	-0.0406941
148	-0.0399254
149	-0.0387694
150	-0.0384394
151	-0.0384394
152	-0.0381788
153	-0.0380545
154	-0.0380242
155	-0.0375656
156	-0.0371906
157	-0.0370461
158	-0.0366516
159	-0.0366509
160	-0.035655
161	-0.0350963
162	-0.0350948
163	-0.0346427
164	-0.0343563
165	-0.0343298
166	-0.034249
167	-0.0334451
168	-0.0331365
169	-0.0327831
170	-0.032425
171	-0.0319038
172	-0.0318777
173	-0.0318777
174	-0.0311355
175	-0.0301323
176	-0.0297912
177	-0.0297381
178	-0.0294458
179	-0.0285409
180	-0.0283501
181	-0.0283501
182	-0.0278929
183	-0.027184
184	-0.0270336
185	-0.0267907
186	-0.0263454
187	-0.0261865
188	-0.0257933
189	-0.0244636
190	-0.0238275
191	-0.0237191
192	-0.0237191
193	-0.0231927
194	-0.0230718
195	-0.0226887
196	-0.0223144
197	-0.0222098
198	-0.0217504
199	-0.0212844
200	-0.0211105
201	-0.0207617
202	-0.0202858
203	-0.0202124
204	-0.0196026

205	-0.0185953
206	-0.0185616
207	-0.0182958
208	-0.0182444
209	-0.0172355
210	-0.0172308
211	-0.0171649
212	-0.0171523
213	-0.0164978
214	-0.0161433
215	-0.0159388
216	-0.0148762
217	-0.014709
218	-0.014444
219	-0.0141751
220	-0.0141751
221	-0.0137218
222	-0.0136373
223	-0.0132301
224	-0.0132301
225	-0.0130684
226	-0.0127833
227	-0.0126348
228	-0.0125419
229	-0.0124744
230	-0.0124032
231	-0.0124032
232	-0.011932
233	-0.0116736
234	-0.0116736
235	-0.0114349
236	-0.0114349
237	-0.0110251
238	-0.0110251
239	-0.0104717
240	-0.00992255
241	-0.00992255
242	-0.00976921
243	-0.00945004
244	-0.00945004
245	-0.0090205
246	-0.0090205
247	-0.00879232
248	-0.0086283
249	-0.0086283
250	-0.00826879
251	-0.00826879
252	-0.00793804
253	-0.00793804
254	-0.00645385
255	-0.00639167
256	-0.00569925
257	-0.00510275
258	-0.00272147
259	-0.00255137
260	-0.00240129
261	-0.00226789
262	-0.00214853
263	-0.0019439
264	-0.00185555
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266	-0.00170092

267	-0.00163288
268	-0.00157008
269	-0.00130891
270	0
271	0
272	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	0.00246926
339	0.00246926
340	0.00662905
341	0.00680535
342	0.00718147
343	0.00783434
344	0.00792702
345	0.00828734
346	0.00861777
347	0.00868198
348	0.00911608
349	0.0095753
350	0.00959587
351	0.00961439
352	0.010129
353	0.0107722
354	0.0113951
355	0.0121548
356	0.013023
357	0.0130945
358	0.0130945
359	0.0140247
360	0.0143629
361	0.0151935
362	0.015795
363	0.0160225
364	0.0165747
365	0.0166725
366	0.0168236
367	0.0172355
368	0.0176532
369	0.0177091
370	0.0181838
371	0.0186929
372	0.0187565
373	0.0197925
374	0.020007
375	0.0210295
376	0.021436
377	0.0215444
378	0.0240337
379	0.0250087
380	0.025139
381	0.025399
382	0.0258825
383	0.0267176
384	0.0269864
385	0.0272822
386	0.0279898
387	0.0280394
388	0.0287259
389	0.0287855
390	0.0293893

391	0.0300105
392	0.0305884
393	0.0308416
394	0.0309361
395	0.0312008
396	0.0312868
397	0.0320927
398	0.0326548
399	0.033214
400	0.033345
401	0.0336472
402	0.0337818
403	0.034033
404	0.0345757
405	0.0356545
406	0.0356585
407	0.0359819
408	0.0364643
409	0.0375131
410	0.0377561
411	0.0391858
412	0.0392207
413	0.0401159
414	0.0419848
415	0.0427903
416	0.0430888
417	0.0431782
418	0.0452144
419	0.0479758
420	0.0489822
421	0.0492786
422	0.0493734
423	0.0506831
424	0.0525638
425	0.0534352
426	0.0534878
427	0.0539728
428	0.0543604
429	0.0557343
430	0.0563184
431	0.0583124
432	0.0583504
433	0.0593023
434	0.0606506
435	0.0607739
436	0.0616832
437	0.0641854
438	0.0652325
439	0.0657048
440	0.0700238
441	0.0713171
442	0.0715504
443	0.0716779
444	0.0719637
445	0.0724806
446	0.0743812
447	0.0759859
448	0.0759859
449	0.0793823
450	0.0815406
451	0.0856226
452	0.0864012

453	0.0876064
454	0.0911608
455	0.0931893
456	0.0932693
457	0.095894
458	0.0969946
459	0.0985572
460	0.112157
461	0.112637
462	0.115847
463	0.116285
464	0.116807
465	0.119347
466	0.128519
467	0.130465
468	0.130812
469	0.13141
470	0.13141
471	0.143101
472	0.146947
473	0.157629
474	0.157629
475	0.157691
476	0.157691
477	0.163081
478	0.164057
479	0.172999
480	0.197114
481	0.217442
482	0.234093
483	0.251314
484	0.258091
485	0.262819
486	0.300105
487	0.320927
488	0.326163
489	0.327463
490	0.341749
491	0.394229
492	0.565474
493	0.652325
494	0.788457
495	1.0116

Sen's Estimator (Median Q) is -0.0086283

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 3882
B = 18
C = 1320
D = 0
E = 138
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3586.14
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 98.501
M1 = (495 - 98.501)/2.0 = 198.249
M2 = (495 + 98.501)/2.0 + 1 = 297.751
Lower limit is -0.0217504 = Q(198)
Upper limit is 0 = Q(298)
-0.0217504 < 0 < 0 indicating no trend in data.

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
0.530628 (6/5/2012)	ND<0 (7/20/1995)	(0.530628 - 0)/(31 - 1)	0.0176876
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
0.530628 (6/5/2012) 0.182322 J (8/24/1995) (0.530628 - 0.182322)/(31 - 2)
0.0120106

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
0.530628 (6/5/2012) 0.693147 (9/28/1995) (0.530628 - 0.693147)/(31 - 3)
-0.00580425

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
0.530628	(6/5/2012)	0.693147	(10/26/1995)	(0.530628 - 0.693147)/(31 - 4)	-0.00601922

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
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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 (10/12/2004) ND<0 (4/7/1998) (0 - 0)/(16 - 9) 0
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ND<0 (10/12/2004) ND<0 (9/23/1998) (0 - 0)/(16 - 10) 0

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0.270027 J (4/29/2006) ND<0 (3/11/2004) (0.270027 - 0)/(19 - 15)
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-0.040822 J (11/18/2006) ND<0 (3/11/2004) (-0.040822 - 0)/(20 - 15)
-0.0081644
ND<0 (5/23/2007) ND<0 (3/11/2004) (0 - 0)/(21 - 15) 0
0.322083 (11/28/2007) ND<0 (3/11/2004) (0.322083 - 0)/(22 - 15)
0.0460119
ND<0 (6/5/2008) ND<0 (3/11/2004) (0 - 0)/(23 - 15) 0
0 J (11/20/2008) ND<0 (3/11/2004) (0 - 0)/(24 - 15) 0
0 (6/11/2009) ND<0 (3/11/2004) (0 - 0)/(25 - 15) 0
0.262364 (11/16/2009) ND<0 (3/11/2004) (0.262364 - 0)/(26 - 15)
0.0238513

-0.0618754 J (6/30/2010) ND<0 (3/11/2004) (-0.0618754 - 0)/(27 - 15)
-0.00515628
0.262364 (11/12/2010) ND<0 (3/11/2004) (0.262364 - 0)/(28 - 15)
0.0201819
0.405465 (7/5/2011) ND<0 (3/11/2004) (0.405465 - 0)/(29 - 15)
0.0289618
0.262364 (11/22/2011) ND<0 (3/11/2004) (0.262364 - 0)/(30 - 15)
0.017491
0.262364 (11/22/2011) ND<0 (3/11/2004) (0.262364 - 0)/(30 - 15)
0.017491
0.530628 (6/5/2012) ND<0 (3/11/2004) (0.530628 - 0)/(31 - 15)
0.0331643

0.587787 J (4/1/2005) ND<0 (10/12/2004) (0.587787 - 0)/(17 - 16)
0.587787
0.277632 J (10/25/2005) ND<0 (10/12/2004) (0.277632 - 0)/(18 - 16)
0.138816
0.270027 J (4/29/2006) ND<0 (10/12/2004) (0.270027 - 0)/(19 - 16)
0.090009
-0.040822 J (11/18/2006) ND<0 (10/12/2004) (-0.040822 - 0)/(20 - 16)
-0.0102055
ND<0 (5/23/2007) ND<0 (10/12/2004) (0 - 0)/(21 - 16) 0
0.322083 (11/28/2007) ND<0 (10/12/2004) (0.322083 - 0)/(22 - 16)
0.0536806
ND<0 (6/5/2008) ND<0 (10/12/2004) (0 - 0)/(23 - 16) 0
0 J (11/20/2008) ND<0 (10/12/2004) (0 - 0)/(24 - 16) 0
0 (6/11/2009) ND<0 (10/12/2004) (0 - 0)/(25 - 16) 0
0.262364 (11/16/2009) ND<0 (10/12/2004) (0.262364 - 0)/(26 - 16)
0.0262364
-0.0618754 J (6/30/2010) ND<0 (10/12/2004) (-0.0618754 - 0)/(27 - 16)
-0.00562504
0.262364 (11/12/2010) ND<0 (10/12/2004) (0.262364 - 0)/(28 - 16)
0.0218637
0.405465 (7/5/2011) ND<0 (10/12/2004) (0.405465 - 0)/(29 - 16)
0.0311896
0.262364 (11/22/2011) ND<0 (10/12/2004) (0.262364 - 0)/(30 - 16)
0.0187403
0.262364 (11/22/2011) ND<0 (10/12/2004) (0.262364 - 0)/(30 - 16)
0.0187403
0.530628 (6/5/2012) ND<0 (10/12/2004) (0.530628 - 0)/(31 - 16)
0.0353752

0.277632 J (10/25/2005) 0.587787 J (4/1/2005) (0.277632 - 0.587787)/(18 - 17)
-0.310155
0.270027 J (4/29/2006) 0.587787 J (4/1/2005) (0.270027 - 0.587787)/(19 - 17)
-0.15888
-0.040822 J (11/18/2006) 0.587787 J (4/1/2005) (-0.040822 - 0.587787)/(20 - 17)
-0.209536
ND<0 (5/23/2007) 0.587787 J (4/1/2005) (0 - 0.587787)/(21 - 17)
-0.146947
0.322083 (11/28/2007) 0.587787 J (4/1/2005) (0.322083 - 0.587787)/(22 - 17)
-0.0531406
ND<0 (6/5/2008) 0.587787 J (4/1/2005) (0 - 0.587787)/(23 - 17)
-0.0979644
0 J (11/20/2008) 0.587787 J (4/1/2005) (0 - 0.587787)/(24 - 17) -0.0839695
0 (6/11/2009) 0.587787 J (4/1/2005) (0 - 0.587787)/(25 - 17) -0.0734733
0.262364 (11/16/2009) 0.587787 J (4/1/2005) (0.262364 - 0.587787)/(26 - 17)
-0.036158
-0.0618754 J (6/30/2010) 0.587787 J (4/1/2005) (-0.0618754 - 0.587787)/(27 - 17)
-0.0649662
0.262364 (11/12/2010) 0.587787 J (4/1/2005) (0.262364 - 0.587787)/(28 - 17)
-0.0295839

0.405465 (7/5/2011) 0.587787 J (4/1/2005) (0.405465 - 0.587787)/(29 - 17)
-0.0151935
0.262364 (11/22/2011) 0.587787 J (4/1/2005) (0.262364 - 0.587787)/(30 - 17)
-0.0250325
0.262364 (11/22/2011) 0.587787 J (4/1/2005) (0.262364 - 0.587787)/(30 - 17)
-0.0250325
0.530628 (6/5/2012) 0.587787 J (4/1/2005) (0.530628 - 0.587787)/(31 - 17)
-0.00408274

0.270027 J (4/29/2006) 0.277632 J (10/25/2005) (0.270027 - 0.277632)/(19 - 18)
-0.0076046
-0.040822 J (11/18/2006) 0.277632 J (10/25/2005) (-0.040822 - 0.277632)/(20 - 18)
-0.159227
ND<0 (5/23/2007) 0.277632 J (10/25/2005) (0 - 0.277632)/(21 - 18)
-0.0925439
0.322083 (11/28/2007) 0.277632 J (10/25/2005) (0.322083 - 0.277632)/(22 - 18)
0.0111129
ND<0 (6/5/2008) 0.277632 J (10/25/2005) (0 - 0.277632)/(23 - 18)
-0.0555263
0 J (11/20/2008) 0.277632 J (10/25/2005) (0 - 0.277632)/(24 - 18) -0.046272
0 (6/11/2009) 0.277632 J (10/25/2005) (0 - 0.277632)/(25 - 18) -0.0396617
0.262364 (11/16/2009) 0.277632 J (10/25/2005) (0.262364 - 0.277632)/(26 - 18)
-0.00190843
-0.0618754 J (6/30/2010) 0.277632 J (10/25/2005) (-0.0618754 - 0.277632)/(27 - 18)
-0.037723
0.262364 (11/12/2010) 0.277632 J (10/25/2005) (0.262364 - 0.277632)/(28 - 18)
-0.00152675
0.405465 (7/5/2011) 0.277632 J (10/25/2005) (0.405465 - 0.277632)/(29 - 18)
0.0116212
0.262364 (11/22/2011) 0.277632 J (10/25/2005) (0.262364 - 0.277632)/(30 - 18)
-0.00127229
0.262364 (11/22/2011) 0.277632 J (10/25/2005) (0.262364 - 0.277632)/(30 - 18)
-0.00127229
0.530628 (6/5/2012) 0.277632 J (10/25/2005) (0.530628 - 0.277632)/(31 - 18)
0.0194613

-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
0.530628 (6/5/2012) 0.270027 J (4/29/2006) (0.530628 - 0.270027)/(31 - 19)
0.0217168

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
0.530628 (6/5/2012) -0.040822 J (11/18/2006) (0.530628 - -0.040822)/(31 - 20)
0.05195

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
0.530628 (6/5/2012) ND<0 (5/23/2007) (0.530628 - 0)/(31 - 21)
0.0530628

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
0.530628 (6/5/2012) 0.322083 (11/28/2007) (0.530628 - 0.322083)/(31 - 22)
0.0231716

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
0.530628 (6/5/2012) ND<0 (6/5/2008) (0.530628 - 0)/(31 - 23) 0.0663285

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
0.530628 (6/5/2012) 0 J (11/20/2008) (0.530628 - 0)/(31 - 24) 0.075804

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
0.530628 (6/5/2012) 0 (6/11/2009) (0.530628 - 0)/(31 - 25) 0.088438

-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
0.530628 (6/5/2012) 0.262364 (11/16/2009) (0.530628 - 0.262364)/(31 - 26) 0.0536528

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
0.530628 (6/5/2012) -0.0618754 J (6/30/2010) (0.530628 - -0.0618754)/(31 - 27) 0.148126

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
0.530628	(6/5/2012)	0.262364	(11/12/2010)	(0.530628 - 0.262364)/(31 - 28)	0.0894213
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
0.530628	(6/5/2012)	0.405465	(7/5/2011)	(0.530628 - 0.405465)/(31 - 29)	0.0625816
0.262364	(11/22/2011)	0.262364	(11/22/2011)	(0.262364 - 0.262364)/(30 - 30)	Same Date
0.530628	(6/5/2012)	0.262364	(11/22/2011)	(0.530628 - 0.262364)/(31 - 30)	0.268264
0.530628	(6/5/2012)	0.262364	(11/22/2011)	(0.530628 - 0.262364)/(31 - 30)	0.268264

Number of Q values = 495

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	-0.0128915
118	-0.0123969
119	-0.0115073
120	-0.0110647
121	-0.0103126
122	-0.0102055
123	-0.00995321
124	-0.00976788
125	-0.00959587
126	-0.00868198
127	-0.00828734
128	-0.0081644
129	-0.00810466
130	-0.00792702
131	-0.0076046
132	-0.00752575
133	-0.0074649
134	-0.0074649
135	-0.00680367
136	-0.00601922
137	-0.00583171
138	-0.00580425
139	-0.00562504
140	-0.00515628
141	-0.00510275
142	-0.00475965
143	-0.00441967
144	-0.00412503
145	-0.00408274
146	-0.0040822
147	-0.00371109
148	-0.00363973
149	-0.00343752
150	-0.00340183
151	-0.0032566
152	-0.00314015
153	-0.00309377
154	-0.00300763
155	-0.00294645
156	-0.00291586
157	-0.00281252
158	-0.00272147
159	-0.00237982
160	-0.00214853

161	-0.00190843
162	-0.00152675
163	-0.00127229
164	-0.00127229
165	-0.0010947
166	-0.00085143
167	-0.000696625
168	-0.000696625
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
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
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
281	0
282	0
283	0
284	0

285	0
286	0
287	0
288	0
289	0
290	0
291	0
292	0
293	0
294	0
295	0.00285867
296	0.00285867
297	0.00307857
298	0.00333511
299	0.00515915
300	0.00595689
301	0.0069881
302	0.0081644
303	0.00826458
304	0.00904704
305	0.00904704
306	0.00971719
307	0.0102055
308	0.0104946
309	0.0104946
310	0.0104946
311	0.0109318
312	0.0109318
313	0.0111129
314	0.0114071
315	0.0114071
316	0.0114071
317	0.0116212
318	0.0119117
319	0.0119138
320	0.0119256
321	0.0119256
322	0.0119256
323	0.0120106
324	0.0124935
325	0.0124935
326	0.0124935
327	0.0124935
328	0.0131182
329	0.0131182
330	0.0131182
331	0.0131182
332	0.0135438
333	0.0136073
334	0.0136157
335	0.0138086
336	0.0138086
337	0.0144809
338	0.0145758
339	0.0145758
340	0.0145758
341	0.0145758
342	0.0150015
343	0.0153373
344	0.0154332
345	0.0154332
346	0.0154332

347	0.0163313
348	0.0163978
349	0.0163978
350	0.0163978
351	0.0163978
352	0.0168944
353	0.0173521
354	0.017491
355	0.017491
356	0.017491
357	0.0176289
358	0.0176876
359	0.0184302
360	0.0187403
361	0.0187403
362	0.0187403
363	0.0187403
364	0.0189461
365	0.0192877
366	0.0193079
367	0.0194613
368	0.0201302
369	0.0201819
370	0.0201819
371	0.0202733
372	0.0204088
373	0.0207713
374	0.0212251
375	0.0213403
376	0.0213563
377	0.0214722
378	0.0217168
379	0.0218637
380	0.0218637
381	0.0221095
382	0.0225023
383	0.023006
384	0.0230708
385	0.023136
386	0.0231716
387	0.0238509
388	0.0238513
389	0.0241195
390	0.0245479
391	0.0247757
392	0.0252392
393	0.025268
394	0.0253416
395	0.0262364
396	0.0268403
397	0.0270027
398	0.027031
399	0.027031
400	0.0277632
401	0.0279278
402	0.0289618
403	0.0291516
404	0.0291516
405	0.0294793
406	0.030003
407	0.0303186
408	0.0303186

409	0.030848
410	0.0311896
411	0.0312134
412	0.0322083
413	0.0331643
414	0.034704
415	0.0353752
416	0.0357871
417	0.0367367
418	0.0374806
419	0.0374806
420	0.0374806
421	0.0378983
422	0.0385753
423	0.0402604
424	0.040822
425	0.0437274
426	0.0437274
427	0.0450045
428	0.0460119
429	0.046272
430	0.0477003
431	0.0489822
432	0.0495875
433	0.050531
434	0.0506831
435	0.05195
436	0.0524729
437	0.0524729
438	0.0524729
439	0.0524729
440	0.0530628
441	0.0534352
442	0.0536528
443	0.0536806
444	0.0540054
445	0.0555263
446	0.0587787
447	0.0625816
448	0.0653096
449	0.0655911
450	0.0663285
451	0.0673484
452	0.0675068
453	0.0675775
454	0.0694079
455	0.0734733
456	0.075804
457	0.0788457
458	0.081093
459	0.0839695
460	0.0874548
461	0.0874548
462	0.088438
463	0.0894213
464	0.090009
465	0.0925439
466	0.101366
467	0.10808
468	0.10808
469	0.117557
470	0.131182

471	0.13141
472	0.138816
473	0.143101
474	0.146947
475	0.148126
476	0.157691
477	0.181453
478	0.182322
479	0.195929
480	0.197114
481	0.231049
482	0.23367
483	0.255413
484	0.262364
485	0.262819
486	0.268264
487	0.268264
488	0.293893
489	0.322083
490	0.32424
491	0.346574
492	0.394229
493	0.510826
494	0.587787
495	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
6/5/2012 1
There are 1 time periods with multiple data

A = 9054
B = 18
C = 3384
D = 0
E = 254
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3298.92
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 94.4742
M1 = (495 - 94.4742)/2.0 = 200.263
M2 = (495 + 94.4742)/2.0 + 1 = 295.737
Lower limit is 0 = Q(200)
Upper limit is 0.00285867 = Q(296)
0 < 0 < 0.00285867 indicating no trend in data.

Concentrations (ppb)
Parameter: Beryllium
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 225
Percent Non-Detects: 90.7258%
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-7	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	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
			6/5/2012	ND<0.07 U	ND<0.07 U
MW-9	32	31 (96.875%)	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
			6/5/2012	ND<0.07 U	ND<0.07 U
MW-8	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	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
			6/5/2012	ND<0.07 U	ND<0.07 U	
MW-10	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	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
			6/5/2012	ND<0.07 U	ND<0.07 U	
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<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
			6/5/2012	ND<0.07 U	ND<0.07 U	
MW-11R	32	28 (87.5%)	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	
			6/5/2012	0.072 J	0.072 J	
MW-12BR	21	14 (66.6667%)	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		
		6/5/2012	0.39	0.39		
MW-12AR	21	14 (66.6667%)	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		
		6/5/2012	0.15 J	0.15 J		

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 = 248

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	-1.91103	34.3095	-0.539164
8	0.035	-1.85218	37.7401	-0.60399
9	0.035	-1.79912	40.9769	-0.66696
10	0.035	-1.75069	44.0418	-0.728234
11	0.035	-1.70604	46.9524	-0.787945
12	0.035	-1.66456	49.7231	-0.846205
13	0.035	-1.62576	52.3662	-0.903106
14	0.035	-1.58927	54.892	-0.958731
15	0.035	-1.55477	57.3093	-1.01315
16	0.035	-1.52203	59.6259	-1.06642
17	0.035	-1.49085	61.8486	-1.1186
18	0.035	-1.46106	63.9833	-1.16974
19	0.035	-1.4325	66.0353	-1.21987
20	0.035	-1.40507	68.0096	-1.26905
21	0.035	-1.37866	69.9102	-1.3173
22	0.035	-1.35317	71.7413	-1.36467
23	0.035	-1.32854	73.5063	-1.41116
24	0.035	-1.30469	75.2086	-1.45683
25	0.035	-1.28155	76.8509	-1.50168
26	0.035	-1.25908	78.4362	-1.54575
27	0.035	-1.23724	79.967	-1.58905
28	0.035	-1.21596	81.4455	-1.63161
29	0.035	-1.19522	82.8741	-1.67345
30	0.035	-1.17499	84.2547	-1.71457
31	0.035	-1.15522	85.5892	-1.755
32	0.035	-1.1359	86.8795	-1.79476
33	0.035	-1.11699	88.1271	-1.83385
34	0.035	-1.09847	89.3338	-1.8723
35	0.035	-1.08032	90.5009	-1.91011
36	0.035	-1.06252	91.6298	-1.9473
37	0.035	-1.04505	92.7219	-1.98388
38	0.035	-1.02789	93.7785	-2.01985
39	0.035	-1.01104	94.8007	-2.05524
40	0.035	-0.994457	95.7896	-2.09004
41	0.035	-0.97815	96.7464	-2.12428
42	0.035	-0.9621	97.6721	-2.15795
43	0.07	-0.946291	98.5675	-2.22419
44	0.07	-0.930718	99.4338	-2.28934
45	0.07	-0.915365	100.272	-2.35342
46	0.072	-0.900227	101.082	-2.41824
47	0.074	-0.885291	101.866	-2.48375
48	0.11	-0.87055	102.624	-2.57951
49	0.12	-0.855996	103.356	-2.68223
50	0.12	-0.841621	104.065	-2.78322
51	0.13	-0.827417	104.749	-2.89079

52	0.13	-0.813379	105.411	-2.99653
53	0.15	-0.7995	106.05	-3.11645
54	0.175	-0.785774	106.668	-3.25396
55	0.175	-0.772193	107.264	-3.38909
56	0.33	-0.758753	107.84	-3.63948
57	0.34	-0.745449	108.395	-3.89294
58	0.36	-0.732275	108.931	-4.15655
59	0.37	-0.719228	109.449	-4.42267
60	0.39	-0.706302	109.948	-4.69813
61	0.41	-0.693493	110.429	-4.98246
62	0.41	-0.680797	110.892	-5.26159
63	2	-0.665079	111.334	-6.59174
64	5	-0.652622	111.76	-9.85485
65	5	-0.640266	112.17	-13.0562
66	5	-0.628006	112.565	-16.1962
67	5	-0.615839	112.944	-19.2754
68	5	-0.603765	113.308	-22.2942
69	5	-0.591776	113.659	-25.2531
70	5	-0.579873	113.995	-28.1525
71	5	-0.568052	114.318	-30.9927
72	5	-0.556308	114.627	-33.7743
73	5	-0.544642	114.924	-36.4975
74	5	-0.533048	115.208	-39.1627
75	5	-0.521527	115.48	-41.7704
76	5	-0.510074	115.74	-44.3207
77	5	-0.498687	115.989	-46.8142
78	5	-0.487364	116.226	-49.251
79	5	-0.476105	116.453	-51.6315
80	5	-0.464904	116.669	-53.956
81	5	-0.453763	116.875	-56.2249
82	5	-0.442676	117.071	-58.4382
83	5	-0.431644	117.257	-60.5965
84	5	-0.420664	117.434	-62.6998
85	5	-0.409735	117.602	-64.7485
86	5	-0.398855	117.761	-66.7427
87	5	-0.388022	117.912	-68.6828
88	5	-0.377233	118.054	-70.569
89	5	-0.36649	118.188	-72.4015
90	5	-0.355788	118.315	-74.1804
91	5	-0.345126	118.434	-75.906
92	5	-0.334503	118.546	-77.5785
93	5	-0.323919	118.651	-79.1981
94	5	-0.31337	118.749	-80.765
95	5	-0.302855	118.841	-82.2793
96	5	-0.292375	118.926	-83.7411
97	5	-0.281926	119.006	-85.1508
98	5	-0.271509	119.079	-86.5083
99	5	-0.26112	119.148	-87.8139
100	5	-0.250759	119.21	-89.0677
101	5	-0.240426	119.268	-90.2698
102	5	-0.230118	119.321	-91.4204
103	5	-0.219834	119.37	-92.5196
104	5	-0.209575	119.413	-93.5675
105	5	-0.199336	119.453	-94.5642
106	5	-0.189118	119.489	-95.5097
107	5	-0.17892	119.521	-96.4043
108	5	-0.168741	119.549	-97.2481
109	5	-0.158579	119.575	-98.0409
110	5	-0.148434	119.597	-98.7831
111	5	-0.138305	119.616	-99.4746
112	5	-0.128189	119.632	-100.116
113	5	-0.118085	119.646	-100.706

114	5	-0.107995	119.658	-101.246
115	5	-0.0979139	119.667	-101.736
116	5	-0.0878447	119.675	-102.175
117	5	-0.0777834	119.681	-102.564
118	5	-0.0677301	119.686	-102.902
119	5	-0.0576847	119.689	-103.191
120	5	-0.0476439	119.691	-103.429
121	5	-0.0376076	119.693	-103.617
122	5	-0.0275759	119.694	-103.755
123	5	-0.0175476	119.694	-103.843
124	5	-0.00751925	119.694	-103.88
125	5	0.00751925	119.694	-103.843
126	5	0.0175476	119.694	-103.755
127	5	0.0275759	119.695	-103.617
128	5	0.0376076	119.696	-103.429
129	5	0.0476439	119.699	-103.191
130	5	0.0576847	119.702	-102.902
131	5	0.0677301	119.707	-102.564
132	5	0.0777834	119.713	-102.175
133	5	0.0878447	119.72	-101.736
134	5	0.0979139	119.73	-101.246
135	5	0.107995	119.742	-100.706
136	5	0.118085	119.756	-100.116
137	5	0.128189	119.772	-99.4746
138	5	0.138305	119.791	-98.7831
139	5	0.148434	119.813	-98.0409
140	5	0.158579	119.838	-97.2481
141	5	0.168741	119.867	-96.4043
142	5	0.17892	119.899	-95.5097
143	5	0.189118	119.935	-94.5642
144	5	0.199336	119.974	-93.5675
145	5	0.209575	120.018	-92.5196
146	5	0.219834	120.067	-91.4204
147	5	0.230118	120.119	-90.2698
148	5	0.240426	120.177	-89.0677
149	5	0.250759	120.24	-87.8139
150	5	0.26112	120.308	-86.5083
151	5	0.271509	120.382	-85.1508
152	5	0.281926	120.462	-83.7411
153	5	0.292375	120.547	-82.2793
154	5	0.302855	120.639	-80.765
155	5	0.31337	120.737	-79.1981
156	5	0.323919	120.842	-77.5785
157	5	0.334503	120.954	-75.906
158	5	0.345126	121.073	-74.1804
159	5	0.355788	121.199	-72.4015
160	5	0.36649	121.334	-70.569
161	5	0.377233	121.476	-68.6828
162	5	0.388022	121.627	-66.7427
163	5	0.398855	121.786	-64.7485
164	5	0.409735	121.954	-62.6998
165	5	0.420664	122.131	-60.5965
166	5	0.431644	122.317	-58.4382
167	5	0.442676	122.513	-56.2249
168	5	0.453763	122.719	-53.956
169	5	0.464904	122.935	-51.6315
170	5	0.476105	123.162	-49.251
171	5	0.487364	123.399	-46.8142
172	5	0.498687	123.648	-44.3207
173	5	0.510074	123.908	-41.7704
174	5	0.521527	124.18	-39.1627
175	5	0.533048	124.464	-36.4975

176	5	0.544642		124.761	-33.7743
177	5	0.556308		125.07	-30.9927
178	5	0.568052		125.393	-28.1525
179	5	0.579873		125.729	-25.2531
180	5	0.591776		126.079	-22.2942
181	5	0.603765		126.444	-19.2754
182	5	0.615839		126.823	-16.1962
183	5	0.628006		127.218	-13.0562
184	5	0.640266		127.627	-9.85485
185	5	0.652622		128.053	-6.59174
186	5	0.665079		128.496	-3.26635
187	5	0.680797		128.959	0.137635
188	5	0.693493		129.44	3.6051
189	5	0.706302		129.939	7.13661
190	5	0.719228		130.456	10.7328
191	5	0.732275		130.993	14.3941
192	5	0.745449		131.548	18.1214
193	5	0.758753		132.124	21.9151
194	5	0.772193		132.72	25.7761
195	5	0.785774		133.338	29.705
196	5	0.7995	133.977	33.7025	
197	5	0.813379		134.638	37.7694
198	5	0.827417		135.323	41.9065
199	5	0.841621		136.031	46.1146
200	5	0.855996		136.764	50.3945
201	5	0.87055	137.522	54.7473	
202	5	0.885291		138.306	59.1737
203	5	0.900227		139.116	63.6749
204	5	0.915365		139.954	68.2517
205	5	0.930718		140.82	72.9053
206	5	0.946291		141.716	77.6368
207	5	0.9621	142.641	82.4473	
208	5	0.97815	143.598	87.338	
209	5	0.994457		144.587	92.3103
210	5	1.01104	145.609	97.3655	
211	5	1.02789	146.666	102.505	
212	5	1.04505	147.758	107.73	
213	5	1.06252	148.887	113.043	
214	5	1.08032	150.054	118.444	
215	5	1.09847	151.261	123.937	
216	5	1.11699	152.508	129.522	
217	5	1.1359	153.799	135.201	
218	5	1.15522	155.133	140.977	
219	5	1.17499	156.514	146.852	
220	5	1.19522	157.942	152.828	
221	5	1.21596	159.421	158.908	
222	5	1.23724	160.952	165.094	
223	5	1.25908	162.537	171.39	
224	5	1.28155	164.179	177.797	
225	5	1.30469	165.881	184.321	
226	5	1.32854	167.646	190.964	
227	5	1.35317	169.477	197.729	
228	5	1.37866	171.378	204.623	
229	5	1.40507	173.352	211.648	
230	5	1.4325	175.404	218.811	
231	5	1.46106	177.539	226.116	
232	5	1.49085	179.762	233.57	
233	5	1.52203	182.078	241.18	
234	5	1.55477	184.496	248.954	
235	5	1.58927	187.022	256.901	
236	5	1.62576	189.665	265.029	
237	5	1.66456	192.435	273.352	

238	5	1.70604	195.346	281.882
239	5	1.75069	198.411	290.636
240	5	1.79912	201.648	299.631
241	5	1.85218	205.078	308.892
242	5	1.91103	208.73	318.447
243	5	1.97737	212.64	328.334
244	5	2.05375	216.858	338.603
245	41	2.14441	221.457	426.524
246	44	2.25713	226.551	525.837
247	46	2.40892	232.354	636.648
248	56	2.65209	239.388	785.165

Data Set Standard Deviation = 5.8746
Numerator = 616484
Denominator = 2.04059e+006
W Statistic = 0.30211 = 616484 / 2.04059e+006

5% Critical value of 0.976 exceeds 0.30211
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.30211
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 = 0.55838
0.55838 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.035	0.00401606		-2.65209	39.3121	344.01
2	0.035	0.00803213		-2.40892	39.3121	332.136
3	0.035	0.0120482		-2.25713	39.3121	324.723
4	0.035	0.0160643		-2.14441	39.3121	319.219
5	0.035	0.0200803		-2.05375	39.3121	314.791
6	0.035	0.0240964		-1.97737	39.3121	311.062
7	0.035	0.0281124		-1.91103	39.3121	307.822
8	0.035	0.0321285		-1.85218	39.3121	304.948
9	0.035	0.0361446		-1.79912	39.3121	302.357
10	0.035	0.0401606		-1.75069	39.3121	299.992
11	0.035	0.0441767		-1.70604	39.3121	297.812
12	0.035	0.0481928		-1.66456	39.3121	295.786
13	0.035	0.0522088		-1.62576	39.3121	293.891
14	0.035	0.0562249		-1.58927	39.3121	292.109
15	0.035	0.060241		-1.55477	39.3121	290.425
16	0.035	0.064257		-1.52203	39.3121	288.826
17	0.035	0.0682731		-1.49085	39.3121	287.303
18	0.035	0.0722892		-1.46106	39.3121	285.848
19	0.035	0.0763052		-1.4325	39.3121	284.454
20	0.035	0.0803213		-1.40507	39.3121	283.114
21	0.035	0.0843373		-1.37866	39.3121	281.824
22	0.035	0.0883534		-1.35317	39.3121	280.58
23	0.035	0.0923695		-1.32854	39.3121	279.377
24	0.035	0.0963855		-1.30469	39.3121	278.212
25	0.035	0.100402		-1.28155	39.3121	277.082
26	0.035	0.104418		-1.25908	39.3121	275.985
27	0.035	0.108434		-1.23724	39.3121	274.918
28	0.035	0.11245		-1.21596	39.3121	273.879
29	0.035	0.116466		-1.19522	39.3121	272.867
30	0.035	0.120482		-1.17499	39.3121	271.879
31	0.035	0.124498		-1.15522	39.3121	270.913
32	0.035	0.128514		-1.1359	39.3121	269.97
33	0.035	0.13253		-1.11699	39.3121	269.046
34	0.035	0.136546		-1.09847	39.3121	268.142
35	0.035	0.140562		-1.08032	39.3121	267.256
36	0.035	0.144578		-1.06252	39.3121	266.386
37	0.035	0.148594		-1.04505	39.3121	265.533
38	0.035	0.15261		-1.02789	39.3121	264.695
39	0.035	0.156627		-1.01104	39.3121	263.872
40	0.035	0.160643		-0.994457	39.3121	263.063
41	0.035	0.164659		-0.97815	39.3121	262.266
42	0.035	0.168675		-0.9621	39.3121	261.483
43	0.07	0.172691		-0.946291	39.6242	260.711
44	0.07	0.176707		-0.930718	39.6242	259.95
45	0.07	0.180723		-0.915365	39.6242	259.2
46	0.072	0.184739		-0.900227	39.642	258.461
47	0.074	0.188755		-0.885291	39.6598	257.732
48	0.11	0.192771		-0.87055	39.9808	257.012

49	0.12	0.196787	-0.855996	40.07	256.301
50	0.12	0.200803	-0.841621	40.07	255.599
51	0.13	0.204819	-0.827417	40.1592	254.906
52	0.13	0.208835	-0.813379	40.1592	254.22
53	0.15	0.212851	-0.7995	40.3375	253.542
54	0.175	0.216867	-0.785774	40.5604	252.872
55	0.175	0.220884	-0.772193	40.5604	252.209
56	0.33	0.2249	-0.758753	41.9425	251.552
57	0.34	0.228916	-0.745449	42.0317	250.903
58	0.36	0.232932	-0.732275	42.21	250.259
59	0.37	0.236948	-0.719228	42.2992	249.622
60	0.39	0.240964	-0.706302	42.4775	248.991
61	0.41	0.24498	-0.693493	42.6558	248.366
62	0.41	0.248996	-0.680797	42.6558	247.746
63	2	0.253012	-0.665079	56.8333	246.978
64	5	0.257028	-0.652622	83.5833	246.37
65	5	0.261044	-0.640266	83.5833	245.766
66	5	0.26506	-0.628006	83.5833	245.168
67	5	0.269076	-0.615839	83.5833	244.573
68	5	0.273092	-0.603765	83.5833	243.984
69	5	0.277108	-0.591776	83.5833	243.398
70	5	0.281124	-0.579873	83.5833	242.817
71	5	0.285141	-0.568052	83.5833	242.24
72	5	0.289157	-0.556308	83.5833	241.666
73	5	0.293173	-0.544642	83.5833	241.097
74	5	0.297189	-0.533048	83.5833	240.531
75	5	0.301205	-0.521527	83.5833	239.968
76	5	0.305221	-0.510074	83.5833	239.409
77	5	0.309237	-0.498687	83.5833	238.853
78	5	0.313253	-0.487364	83.5833	238.3
79	5	0.317269	-0.476105	83.5833	237.75
80	5	0.321285	-0.464904	83.5833	237.203
81	5	0.325301	-0.453763	83.5833	236.659
82	5	0.329317	-0.442676	83.5833	236.117
83	5	0.333333	-0.431644	83.5833	235.579
84	5	0.337349	-0.420664	83.5833	235.042
85	5	0.341365	-0.409735	83.5833	234.509
86	5	0.345382	-0.398855	83.5833	233.977
87	5	0.349398	-0.388022	83.5833	233.448
88	5	0.353414	-0.377233	83.5833	232.922
89	5	0.35743	-0.3664	83.5833	232.397
90	5	0.361446	-0.355788	83.5833	231.874
91	5	0.365462	-0.345126	83.5833	231.354
92	5	0.369478	-0.334503	83.5833	230.835
93	5	0.373494	-0.323919	83.5833	230.318
94	5	0.37751	-0.3133	83.5833	229.803
95	5	0.381526	-0.302855	83.5833	229.289
96	5	0.385542	-0.292375	83.5833	228.778
97	5	0.389558	-0.281926	83.5833	228.267
98	5	0.393574	-0.271509	83.5833	227.759
99	5	0.39759	-0.2611	83.5833	227.251
100	5	0.401606	-0.250759	83.5833	226.745
101	5	0.405622	-0.240426	83.5833	226.241
102	5	0.409639	-0.230118	83.5833	225.737
103	5	0.413655	-0.219834	83.5833	225.235
104	5	0.417671	-0.209575	83.5833	224.734
105	5	0.421687	-0.199336	83.5833	224.234
106	5	0.425703	-0.189118	83.5833	223.735
107	5	0.429719	-0.1789	83.5833	223.237
108	5	0.433735	-0.168741	83.5833	222.74
109	5	0.437751	-0.158579	83.5833	222.244
110	5	0.441767	-0.148434	83.5833	221.749

111	5	0.445783	-0.138305	83.5833	221.254
112	5	0.449799	-0.128189	83.5833	220.76
113	5	0.453815	-0.118085	83.5833	220.267
114	5	0.457831	-0.107995	83.5833	219.774
115	5	0.461847	-0.0979139	83.5833	219.281
116	5	0.465863	-0.0878447	83.5833	218.79
117	5	0.46988	-0.0777834	83.5833	218.298
118	5	0.473896	-0.0677301	83.5833	217.807
119	5	0.477912	-0.0576847	83.5833	217.317
120	5	0.481928	-0.0476439	83.5833	216.827
121	5	0.485944	-0.0376076	83.5833	216.337
122	5	0.48996	-0.0275759	83.5833	215.847
123	5	0.493976	-0.0175476	83.5833	215.357
124	5	0.497992	-0.00751925	83.5833	214.867
125	5	0.502008	0.00751925	83.5833	214.133
126	5	0.506024	0.0175476	83.5833	213.643
127	5	0.51004	0.0275759	83.5833	213.153
128	5	0.514056	0.0376076	83.5833	212.663
129	5	0.518072	0.0476439	83.5833	212.173
130	5	0.522088	0.0576847	83.5833	211.683
131	5	0.526104	0.0677301	83.5833	211.193
132	5	0.53012	0.0777834	83.5833	210.702
133	5	0.534137	0.0878447	83.5833	210.21
134	5	0.538153	0.0979139	83.5833	209.719
135	5	0.542169	0.107995	83.5833	209.226
136	5	0.546185	0.118085	83.5833	208.733
137	5	0.550201	0.128189	83.5833	208.24
138	5	0.554217	0.138305	83.5833	207.746
139	5	0.558233	0.148434	83.5833	207.251
140	5	0.562249	0.158579	83.5833	206.756
141	5	0.566265	0.168741	83.5833	206.26
142	5	0.570281	0.17892	83.5833	205.763
143	5	0.574297	0.189118	83.5833	205.265
144	5	0.578313	0.199336	83.5833	204.766
145	5	0.582329	0.209575	83.5833	204.266
146	5	0.586345	0.219834	83.5833	203.765
147	5	0.590361	0.230118	83.5833	203.263
148	5	0.594378	0.240426	83.5833	202.759
149	5	0.598394	0.250759	83.5833	202.255
150	5	0.60241	0.26112	83.5833	201.749
151	5	0.606426	0.271509	83.5833	201.241
152	5	0.610442	0.281926	83.5833	200.733
153	5	0.614458	0.292375	83.5833	200.222
154	5	0.618474	0.302855	83.5833	199.711
155	5	0.62249	0.31337	83.5833	199.197
156	5	0.626506	0.323919	83.5833	198.682
157	5	0.630522	0.334503	83.5833	198.165
158	5	0.634538	0.345126	83.5833	197.646
159	5	0.638554	0.355788	83.5833	197.126
160	5	0.64257	0.36649	83.5833	196.603
161	5	0.646586	0.377233	83.5833	196.078
162	5	0.650602	0.388022	83.5833	195.552
163	5	0.654618	0.398855	83.5833	195.023
164	5	0.658635	0.409735	83.5833	194.491
165	5	0.662651	0.420664	83.5833	193.958
166	5	0.666667	0.431644	83.5833	193.421
167	5	0.670683	0.442676	83.5833	192.883
168	5	0.674699	0.453763	83.5833	192.341
169	5	0.678715	0.464904	83.5833	191.797
170	5	0.682731	0.476105	83.5833	191.25
171	5	0.686747	0.487364	83.5833	190.7
172	5	0.690763	0.498687	83.5833	190.147

173	5	0.694779	0.510074	83.5833	189.591
174	5	0.698795	0.521527	83.5833	189.032
175	5	0.702811	0.533048	83.5833	188.469
176	5	0.706827	0.544642	83.5833	187.903
177	5	0.710843	0.556308	83.5833	187.334
178	5	0.714859	0.568052	83.5833	186.76
179	5	0.718876	0.579873	83.5833	186.183
180	5	0.722892	0.591776	83.5833	185.602
181	5	0.726908	0.603765	83.5833	185.016
182	5	0.730924	0.615839	83.5833	184.427
183	5	0.73494	0.628006	83.5833	183.832
184	5	0.738956	0.640266	83.5833	183.234
185	5	0.742972	0.652622	83.5833	182.63
186	5	0.746988	0.665079	83.5833	182.022
187	5	0.751004	0.680797	83.5833	181.254
188	5	0.75502	0.693493	83.5833	180.634
189	5	0.759036	0.706302	83.5833	180.009
190	5	0.763052	0.719228	83.5833	179.378
191	5	0.767068	0.732275	83.5833	178.741
192	5	0.771084	0.745449	83.5833	178.097
193	5	0.7751	0.758753	83.5833	177.448
194	5	0.779116	0.772193	83.5833	176.791
195	5	0.783133	0.785774	83.5833	176.128
196	5	0.787149	0.7995	83.5833	175.458
197	5	0.791165	0.813379	83.5833	174.78
198	5	0.795181	0.827417	83.5833	174.094
199	5	0.799197	0.841621	83.5833	173.401
200	5	0.803213	0.855996	83.5833	172.699
201	5	0.807229	0.87055	83.5833	171.988
202	5	0.811245	0.885291	83.5833	171.268
203	5	0.815261	0.900227	83.5833	170.539
204	5	0.819277	0.915365	83.5833	169.8
205	5	0.823293	0.930718	83.5833	169.05
206	5	0.827309	0.946291	83.5833	168.289
207	5	0.831325	0.9621	83.5833	167.517
208	5	0.835341	0.97815	83.5833	166.734
209	5	0.839357	0.994457	83.5833	165.937
210	5	0.843373	1.01104	83.5833	165.128
211	5	0.84739	1.02789	83.5833	164.305
212	5	0.851406	1.04505	83.5833	163.467
213	5	0.855422	1.06252	83.5833	162.614
214	5	0.859438	1.08032	83.5833	161.744
215	5	0.863454	1.09847	83.5833	160.858
216	5	0.86747	1.11699	83.5833	159.954
217	5	0.871486	1.1359	83.5833	159.03
218	5	0.875502	1.15522	83.5833	158.087
219	5	0.879518	1.17499	83.5833	157.121
220	5	0.883534	1.19522	83.5833	156.133
221	5	0.88755	1.21596	83.5833	155.121
222	5	0.891566	1.23724	83.5833	154.082
223	5	0.895582	1.25908	83.5833	153.015
224	5	0.899598	1.28155	83.5833	151.918
225	5	0.903614	1.30469	83.5833	150.788
226	5	0.907631	1.32854	83.5833	149.623
227	5	0.911647	1.35317	83.5833	148.42
228	5	0.915663	1.37866	83.5833	147.176
229	5	0.919679	1.40507	83.5833	145.886
230	5	0.923695	1.4325	83.5833	144.546
231	5	0.927711	1.46106	83.5833	143.152
232	5	0.931727	1.49085	83.5833	141.697
233	5	0.935743	1.52203	83.5833	140.174
234	5	0.939759	1.55477	83.5833	138.575

235	5	0.943775		1.58927	83.5833	136.891
236	5	0.947791		1.62576	83.5833	135.109
237	5	0.951807		1.66456	83.5833	133.214
238	5	0.955823		1.70604	83.5833	131.188
239	5	0.959839		1.75069	83.5833	129.008
240	5	0.963855		1.79912	83.5833	126.643
241	5	0.967871		1.85218	83.5833	124.052
242	5	0.971888		1.91103	83.5833	121.178
243	5	0.975904		1.97737	83.5833	117.938
244	5	0.97992	2.05375	83.5833	114.209	
245	41	0.983936		2.14441	404.583	109.781
246	44	0.987952		2.25713	431.333	104.277
247	46	0.991968		2.40892	449.167	96.8642
248	56	0.995984		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 = 248

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	-1.91103	34.3095	51.6428
8	-3.35241	-1.85218	37.7401	57.8521
9	-3.35241	-1.79912	40.9769	63.8834
10	-3.35241	-1.75069	44.0418	69.7524
11	-3.35241	-1.70604	46.9524	75.4718
12	-3.35241	-1.66456	49.7231	81.0521
13	-3.35241	-1.62576	52.3662	86.5023
14	-3.35241	-1.58927	54.892	91.8302
15	-3.35241	-1.55477	57.3093	97.0424
16	-3.35241	-1.52203	59.6259	102.145
17	-3.35241	-1.49085	61.8486	107.143
18	-3.35241	-1.46106	63.9833	112.041
19	-3.35241	-1.4325	66.0353	116.843
20	-3.35241	-1.40507	68.0096	121.554
21	-3.35241	-1.37866	69.9102	126.175
22	-3.35241	-1.35317	71.7413	130.712
23	-3.35241	-1.32854	73.5063	135.166
24	-3.35241	-1.30469	75.2086	139.539
25	-3.35241	-1.28155	76.8509	143.836
26	-3.35241	-1.25908	78.4362	148.057
27	-3.35241	-1.23724	79.967	152.204
28	-3.35241	-1.21596	81.4455	156.281
29	-3.35241	-1.19522	82.8741	160.288
30	-3.35241	-1.17499	84.2547	164.227
31	-3.35241	-1.15522	85.5892	168.1
32	-3.35241	-1.1359	86.8795	171.907
33	-3.35241	-1.11699	88.1271	175.652
34	-3.35241	-1.09847	89.3338	179.335
35	-3.35241	-1.08032	90.5009	182.956
36	-3.35241	-1.06252	91.6298	186.518
37	-3.35241	-1.04505	92.7219	190.022
38	-3.35241	-1.02789	93.7785	193.468
39	-3.35241	-1.01104	94.8007	196.857
40	-3.35241	-0.994457	95.7896	200.191
41	-3.35241	-0.97815	96.7464	203.47
42	-3.35241	-0.9621	97.6721	206.695
43	-2.65926	-0.946291	98.5675	209.212
44	-2.65926	-0.930718	99.4338	211.687
45	-2.65926	-0.915365	100.272	214.121
46	-2.63109	-0.900227	101.082	216.49
47	-2.60369	-0.885291	101.866	218.795
48	-2.20727	-0.87055	102.624	220.716
49	-2.12026	-0.855996	103.356	222.531
50	-2.12026	-0.841621	104.065	224.316
51	-2.04022	-0.827417	104.749	226.004

52	-2.04022	-0.813379	105.411	227.663	
53	-1.89712	-0.7995	106.05	229.18	
54	-1.74297	-0.785774	106.668	230.549	
55	-1.74297	-0.772193	107.264	231.895	
56	-1.10866	-0.758753	107.84	232.737	
57	-1.07881	-0.745449	108.395	233.541	
58	-1.02165	-0.732275	108.931	234.289	
59	-0.994252	-0.719228	109.449	235.004	
60	-0.941609	-0.706302	109.948	235.669	
61	-0.891598	-0.693493	110.429	236.287	
62	-0.891598	-0.680797	110.892	236.894	
63	0.693147	-0.665079	111.334	236.433	
64	1.60944	-0.652622	111.76	235.383	
65	1.60944	-0.640266	112.17	234.353	
66	1.60944	-0.628006	112.565	233.342	
67	1.60944	-0.615839	112.944	232.351	
68	1.60944	-0.603765	113.308	231.379	
69	1.60944	-0.591776	113.659	230.427	
70	1.60944	-0.579873	113.995	229.493	
71	1.60944	-0.568052	114.318	228.579	
72	1.60944	-0.556308	114.627	227.684	
73	1.60944	-0.544642	114.924	226.807	
74	1.60944	-0.533048	115.208	225.949	
75	1.60944	-0.521527	115.48	225.11	
76	1.60944	-0.510074	115.74	224.289	
77	1.60944	-0.498687	115.989	223.486	
78	1.60944	-0.487364	116.226	222.702	
79	1.60944	-0.476105	116.453	221.936	
80	1.60944	-0.464904	116.669	221.187	
81	1.60944	-0.453763	116.875	220.457	
82	1.60944	-0.442676	117.071	219.745	
83	1.60944	-0.431644	117.257	219.05	
84	1.60944	-0.420664	117.434	218.373	
85	1.60944	-0.409735	117.602	217.713	
86	1.60944	-0.398855	117.761	217.072	
87	1.60944	-0.388022	117.912	216.447	
88	1.60944	-0.377233	118.054	215.84	
89	1.60944	-0.36649	118.188	215.25	
90	1.60944	-0.355788	118.315	214.677	
91	1.60944	-0.345126	118.434	214.122	
92	1.60944	-0.334503	118.546	213.584	
93	1.60944	-0.323919	118.651	213.062	
94	1.60944	-0.31337	118.749	212.558	
95	1.60944	-0.302855	118.841	212.071	
96	1.60944	-0.292375	118.926	211.6	
97	1.60944	-0.281926	119.006	211.146	
98	1.60944	-0.271509	119.079	210.709	
99	1.60944	-0.26112	119.148	210.289	
100	1.60944	-0.250759	119.21	209.885	
101	1.60944	-0.240426	119.268	209.498	
102	1.60944	-0.230118	119.321	209.128	
103	1.60944	-0.219834	119.37	208.774	
104	1.60944	-0.209575	119.413	208.437	
105	1.60944	-0.199336	119.453	208.116	
106	1.60944	-0.189118	119.489	207.812	
107	1.60944	-0.17892	119.521	207.524	
108	1.60944	-0.168741	119.549	207.252	
109	1.60944	-0.158579	119.575	206.997	
110	1.60944	-0.148434	119.597	206.758	
111	1.60944	-0.138305	119.616	206.536	
112	1.60944	-0.128189	119.632	206.329	
113	1.60944	-0.118085	119.646	206.139	

114	1.60944	-0.107995	119.658	205.965
115	1.60944	-0.0979139	119.667	205.808
116	1.60944	-0.0878447	119.675	205.666
117	1.60944	-0.0777834	119.681	205.541
118	1.60944	-0.0677301	119.686	205.432
119	1.60944	-0.0576847	119.689	205.339
120	1.60944	-0.0476439	119.691	205.263
121	1.60944	-0.0376076	119.693	205.202
122	1.60944	-0.0275759	119.694	205.158
123	1.60944	-0.0175476	119.694	205.13
124	1.60944	-0.00751925	119.694	205.117
125	1.60944	0.00751925	119.694	205.13
126	1.60944	0.0175476	119.694	205.158
127	1.60944	0.0275759	119.695	205.202
128	1.60944	0.0376076	119.696	205.263
129	1.60944	0.0476439	119.699	205.339
130	1.60944	0.0576847	119.702	205.432
131	1.60944	0.0677301	119.707	205.541
132	1.60944	0.0777834	119.713	205.666
133	1.60944	0.0878447	119.72	205.808
134	1.60944	0.0979139	119.73	205.965
135	1.60944	0.107995	119.742	206.139
136	1.60944	0.118085	119.756	206.329
137	1.60944	0.128189	119.772	206.536
138	1.60944	0.138305	119.791	206.758
139	1.60944	0.148434	119.813	206.997
140	1.60944	0.158579	119.838	207.252
141	1.60944	0.168741	119.867	207.524
142	1.60944	0.17892	119.899	207.812
143	1.60944	0.189118	119.935	208.116
144	1.60944	0.199336	119.974	208.437
145	1.60944	0.209575	120.018	208.774
146	1.60944	0.219834	120.067	209.128
147	1.60944	0.230118	120.119	209.498
148	1.60944	0.240426	120.177	209.885
149	1.60944	0.250759	120.24	210.289
150	1.60944	0.26112	120.308	210.709
151	1.60944	0.271509	120.382	211.146
152	1.60944	0.281926	120.462	211.6
153	1.60944	0.292375	120.547	212.071
154	1.60944	0.302855	120.639	212.558
155	1.60944	0.31337	120.737	213.062
156	1.60944	0.323919	120.842	213.584
157	1.60944	0.334503	120.954	214.122
158	1.60944	0.345126	121.073	214.677
159	1.60944	0.355788	121.199	215.25
160	1.60944	0.36649	121.334	215.84
161	1.60944	0.377233	121.476	216.447
162	1.60944	0.388022	121.627	217.072
163	1.60944	0.398855	121.786	217.713
164	1.60944	0.409735	121.954	218.373
165	1.60944	0.420664	122.131	219.05
166	1.60944	0.431644	122.317	219.745
167	1.60944	0.442676	122.513	220.457
168	1.60944	0.453763	122.719	221.187
169	1.60944	0.464904	122.935	221.936
170	1.60944	0.476105	123.162	222.702
171	1.60944	0.487364	123.399	223.486
172	1.60944	0.498687	123.648	224.289
173	1.60944	0.510074	123.908	225.11
174	1.60944	0.521527	124.18	225.949
175	1.60944	0.533048	124.464	226.807

176	1.60944	0.544642		124.761	227.684
177	1.60944	0.556308		125.07	228.579
178	1.60944	0.568052		125.393	229.493
179	1.60944	0.579873		125.729	230.427
180	1.60944	0.591776		126.079	231.379
181	1.60944	0.603765		126.444	232.351
182	1.60944	0.615839		126.823	233.342
183	1.60944	0.628006		127.218	234.353
184	1.60944	0.640266		127.627	235.383
185	1.60944	0.652622		128.053	236.433
186	1.60944	0.665079		128.496	237.504
187	1.60944	0.680797		128.959	238.599
188	1.60944	0.693493		129.44	239.716
189	1.60944	0.706302		129.939	240.852
190	1.60944	0.719228		130.456	242.01
191	1.60944	0.732275		130.993	243.188
192	1.60944	0.745449		131.548	244.388
193	1.60944	0.758753		132.124	245.609
194	1.60944	0.772193		132.72	246.852
195	1.60944	0.785774		133.338	248.117
196	1.60944	0.7995	133.977	249.404	
197	1.60944	0.813379		134.638	250.713
198	1.60944	0.827417		135.323	252.044
199	1.60944	0.841621		136.031	253.399
200	1.60944	0.855996		136.764	254.777
201	1.60944	0.87055	137.522	256.178	
202	1.60944	0.885291		138.306	257.602
203	1.60944	0.900227		139.116	259.051
204	1.60944	0.915365		139.954	260.525
205	1.60944	0.930718		140.82	262.022
206	1.60944	0.946291		141.716	263.545
207	1.60944	0.9621	142.641	265.094	
208	1.60944	0.97815	143.598	266.668	
209	1.60944	0.994457		144.587	268.269
210	1.60944	1.01104	145.609	269.896	
211	1.60944	1.02789	146.666	271.55	
212	1.60944	1.04505	147.758	273.232	
213	1.60944	1.06252	148.887	274.942	
214	1.60944	1.08032	150.054	276.681	
215	1.60944	1.09847	151.261	278.449	
216	1.60944	1.11699	152.508	280.247	
217	1.60944	1.1359	153.799	282.075	
218	1.60944	1.15522	155.133	283.934	
219	1.60944	1.17499	156.514	285.825	
220	1.60944	1.19522	157.942	287.749	
221	1.60944	1.21596	159.421	289.706	
222	1.60944	1.23724	160.952	291.697	
223	1.60944	1.25908	162.537	293.723	
224	1.60944	1.28155	164.179	295.786	
225	1.60944	1.30469	165.881	297.886	
226	1.60944	1.32854	167.646	300.024	
227	1.60944	1.35317	169.477	302.202	
228	1.60944	1.37866	171.378	304.421	
229	1.60944	1.40507	173.352	306.682	
230	1.60944	1.4325	175.404	308.988	
231	1.60944	1.46106	177.539	311.339	
232	1.60944	1.49085	179.762	313.739	
233	1.60944	1.52203	182.078	316.188	
234	1.60944	1.55477	184.496	318.69	
235	1.60944	1.58927	187.022	321.248	
236	1.60944	1.62576	189.665	323.865	
237	1.60944	1.66456	192.435	326.544	

238	1.60944	1.70604	195.346	329.29
239	1.60944	1.75069	198.411	332.107
240	1.60944	1.79912	201.648	335.003
241	1.60944	1.85218	205.078	337.984
242	1.60944	1.91103	208.73	341.059
243	1.60944	1.97737	212.64	344.242
244	1.60944	2.05375	216.858	347.547
245	3.71357	2.14441	221.457	355.511
246	3.78419	2.25713	226.551	364.052
247	3.82864	2.40892	232.354	373.275
248	4.02535	2.65209	239.388	383.951

Data Set Standard Deviation = 2.01746
Numerator = 147418
Denominator = 240664
W Statistic = 0.612548 = 147418 / 240664

5% Critical value of 0.976 exceeds 0.612548
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.612548
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 = 0.78151
0.78151 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.35241	0.00401606	-2.65209	77.4958	344.01
2	-3.35241	0.00803213	-2.40892	77.4958	332.136
3	-3.35241	0.0120482	-2.25713	77.4958	324.723
4	-3.35241	0.0160643	-2.14441	77.4958	319.219
5	-3.35241	0.0200803	-2.05375	77.4958	314.791
6	-3.35241	0.0240964	-1.97737	77.4958	311.062
7	-3.35241	0.0281124	-1.91103	77.4958	307.822
8	-3.35241	0.0321285	-1.85218	77.4958	304.948
9	-3.35241	0.0361446	-1.79912	77.4958	302.357
10	-3.35241	0.0401606	-1.75069	77.4958	299.992
11	-3.35241	0.0441767	-1.70604	77.4958	297.812
12	-3.35241	0.0481928	-1.66456	77.4958	295.786
13	-3.35241	0.0522088	-1.62576	77.4958	293.891
14	-3.35241	0.0562249	-1.58927	77.4958	292.109
15	-3.35241	0.060241	-1.55477	77.4958	290.425
16	-3.35241	0.064257	-1.52203	77.4958	288.826
17	-3.35241	0.0682731	-1.49085	77.4958	287.303
18	-3.35241	0.0722892	-1.46106	77.4958	285.848
19	-3.35241	0.0763052	-1.4325	77.4958	284.454
20	-3.35241	0.0803213	-1.40507	77.4958	283.114
21	-3.35241	0.0843373	-1.37866	77.4958	281.824
22	-3.35241	0.0883534	-1.35317	77.4958	280.58
23	-3.35241	0.0923695	-1.32854	77.4958	279.377
24	-3.35241	0.0963855	-1.30469	77.4958	278.212
25	-3.35241	0.100402	-1.28155	77.4958	277.082
26	-3.35241	0.104418	-1.25908	77.4958	275.985
27	-3.35241	0.108434	-1.23724	77.4958	274.918
28	-3.35241	0.11245	-1.21596	77.4958	273.879
29	-3.35241	0.116466	-1.19522	77.4958	272.867
30	-3.35241	0.120482	-1.17499	77.4958	271.879
31	-3.35241	0.124498	-1.15522	77.4958	270.913
32	-3.35241	0.128514	-1.1359	77.4958	269.97
33	-3.35241	0.13253	-1.11699	77.4958	269.046
34	-3.35241	0.136546	-1.09847	77.4958	268.142
35	-3.35241	0.140562	-1.08032	77.4958	267.256
36	-3.35241	0.144578	-1.06252	77.4958	266.386
37	-3.35241	0.148594	-1.04505	77.4958	265.533
38	-3.35241	0.15261	-1.02789	77.4958	264.695
39	-3.35241	0.156627	-1.01104	77.4958	263.872
40	-3.35241	0.160643	-0.994457	77.4958	263.063
41	-3.35241	0.164659	-0.97815	77.4958	262.266
42	-3.35241	0.168675	-0.9621	77.4958	261.483
43	-2.65926	0.172691	-0.946291	118.7	260.711
44	-2.65926	0.176707	-0.930718	118.7	259.95
45	-2.65926	0.180723	-0.915365	118.7	259.2
46	-2.63109	0.184739	-0.900227	120.374	258.461
47	-2.60369	0.188755	-0.885291	122.003	257.732
48	-2.20727	0.192771	-0.87055	145.568	257.012

49	-2.12026	0.196787	-0.855996	150.74	256.301	
50	-2.12026	0.200803	-0.841621	150.74	255.599	
51	-2.04022	0.204819	-0.827417	155.498	254.906	
52	-2.04022	0.208835	-0.813379	155.498	254.22	
53	-1.89712	0.212851	-0.7995	164.005	253.542	
54	-1.74297	0.216867	-0.785774	173.168	252.872	
55	-1.74297	0.220884	-0.772193	173.168	252.209	
56	-1.10866	0.2249	-0.758753	210.874	251.552	
57	-1.07881	0.228916	-0.745449	212.649	250.903	
58	-1.02165	0.232932	-0.732275	216.046	250.259	
59	-0.994252	0.236948	-0.719228	217.675	249.622	
60	-0.941609	0.240964	-0.706302	220.804	248.991	
61	-0.891598	0.24498	-0.693493	223.777	248.366	
62	-0.891598	0.248996	-0.680797	223.777	247.746	
63	0.693147	0.253012	-0.665079	317.982	246.978	
64	1.60944	0.257028	-0.652622	372.45	246.37	
65	1.60944	0.261044	-0.640266	372.45	245.766	
66	1.60944	0.26506	-0.628006	372.45	245.168	
67	1.60944	0.269076	-0.615839	372.45	244.573	
68	1.60944	0.273092	-0.603765	372.45	243.984	
69	1.60944	0.277108	-0.591776	372.45	243.398	
70	1.60944	0.281124	-0.579873	372.45	242.817	
71	1.60944	0.285141	-0.568052	372.45	242.24	
72	1.60944	0.289157	-0.556308	372.45	241.666	
73	1.60944	0.293173	-0.544642	372.45	241.097	
74	1.60944	0.297189	-0.533048	372.45	240.531	
75	1.60944	0.301205	-0.521527	372.45	239.968	
76	1.60944	0.305221	-0.510074	372.45	239.409	
77	1.60944	0.309237	-0.498687	372.45	238.853	
78	1.60944	0.313253	-0.487364	372.45	238.3	
79	1.60944	0.317269	-0.476105	372.45	237.75	
80	1.60944	0.321285	-0.464904	372.45	237.203	
81	1.60944	0.325301	-0.453763	372.45	236.659	
82	1.60944	0.329317	-0.442676	372.45	236.117	
83	1.60944	0.333333	-0.431644	372.45	235.579	
84	1.60944	0.337349	-0.420664	372.45	235.042	
85	1.60944	0.341365	-0.409735	372.45	234.509	
86	1.60944	0.345382	-0.398855	372.45	233.977	
87	1.60944	0.349398	-0.388022	372.45	233.448	
88	1.60944	0.353414	-0.377233	372.45	232.922	
89	1.60944	0.35743	-0.36649	372.45	232.397	
90	1.60944	0.361446	-0.355788	372.45	231.874	
91	1.60944	0.365462	-0.345126	372.45	231.354	
92	1.60944	0.369478	-0.334503	372.45	230.835	
93	1.60944	0.373494	-0.323919	372.45	230.318	
94	1.60944	0.37751	-0.31337	372.45	229.803	
95	1.60944	0.381526	-0.302855	372.45	229.289	
96	1.60944	0.385542	-0.292375	372.45	228.778	
97	1.60944	0.389558	-0.281926	372.45	228.267	
98	1.60944	0.393574	-0.271509	372.45	227.759	
99	1.60944	0.39759	-0.26112	372.45	227.251	
100	1.60944	0.401606	-0.250759	372.45	226.745	
101	1.60944	0.405622	-0.240426	372.45	226.241	
102	1.60944	0.409639	-0.230118	372.45	225.737	
103	1.60944	0.413655	-0.219834	372.45	225.235	
104	1.60944	0.417671	-0.209575	372.45	224.734	
105	1.60944	0.421687	-0.199336	372.45	224.234	
106	1.60944	0.425703	-0.189118	372.45	223.735	
107	1.60944	0.429719	-0.17892	372.45	223.237	
108	1.60944	0.433735	-0.168741	372.45	222.74	
109	1.60944	0.437751	-0.158579	372.45	222.244	
110	1.60944	0.441767	-0.148434	372.45	221.749	

111	1.60944	0.445783	-0.138305	372.45	221.254
112	1.60944	0.449799	-0.128189	372.45	220.76
113	1.60944	0.453815	-0.118085	372.45	220.267
114	1.60944	0.457831	-0.107995	372.45	219.774
115	1.60944	0.461847	-0.0979139	372.45	219.281
116	1.60944	0.465863	-0.0878447	372.45	218.79
117	1.60944	0.46988	-0.0777834	372.45	218.298
118	1.60944	0.473896	-0.0677301	372.45	217.807
119	1.60944	0.477912	-0.0576847	372.45	217.317
120	1.60944	0.481928	-0.0476439	372.45	216.827
121	1.60944	0.485944	-0.0376076	372.45	216.337
122	1.60944	0.48996	-0.0275759	372.45	215.847
123	1.60944	0.493976	-0.0175476	372.45	215.357
124	1.60944	0.497992	-0.00751925	372.45	214.867
125	1.60944	0.502008	0.00751925	372.45	214.133
126	1.60944	0.506024	0.0175476	372.45	213.643
127	1.60944	0.51004	0.0275759	372.45	213.153
128	1.60944	0.514056	0.0376076	372.45	212.663
129	1.60944	0.518072	0.0476439	372.45	212.173
130	1.60944	0.522088	0.0576847	372.45	211.683
131	1.60944	0.526104	0.0677301	372.45	211.193
132	1.60944	0.53012	0.0777834	372.45	210.702
133	1.60944	0.534137	0.0878447	372.45	210.21
134	1.60944	0.538153	0.0979139	372.45	209.719
135	1.60944	0.542169	0.107995	372.45	209.226
136	1.60944	0.546185	0.118085	372.45	208.733
137	1.60944	0.550201	0.128189	372.45	208.24
138	1.60944	0.554217	0.138305	372.45	207.746
139	1.60944	0.558233	0.148434	372.45	207.251
140	1.60944	0.562249	0.158579	372.45	206.756
141	1.60944	0.566265	0.168741	372.45	206.26
142	1.60944	0.570281	0.17892	372.45	205.763
143	1.60944	0.574297	0.189118	372.45	205.265
144	1.60944	0.578313	0.199336	372.45	204.766
145	1.60944	0.582329	0.209575	372.45	204.266
146	1.60944	0.586345	0.219834	372.45	203.765
147	1.60944	0.590361	0.230118	372.45	203.263
148	1.60944	0.594378	0.240426	372.45	202.759
149	1.60944	0.598394	0.250759	372.45	202.255
150	1.60944	0.60241	0.26112	372.45	201.749
151	1.60944	0.606426	0.271509	372.45	201.241
152	1.60944	0.610442	0.281926	372.45	200.733
153	1.60944	0.614458	0.292375	372.45	200.222
154	1.60944	0.618474	0.302855	372.45	199.711
155	1.60944	0.62249	0.31337	372.45	199.197
156	1.60944	0.626506	0.323919	372.45	198.682
157	1.60944	0.630522	0.334503	372.45	198.165
158	1.60944	0.634538	0.345126	372.45	197.646
159	1.60944	0.638554	0.355788	372.45	197.126
160	1.60944	0.64257	0.36649	372.45	196.603
161	1.60944	0.646586	0.377233	372.45	196.078
162	1.60944	0.650602	0.388022	372.45	195.552
163	1.60944	0.654618	0.398855	372.45	195.023
164	1.60944	0.658635	0.409735	372.45	194.491
165	1.60944	0.662651	0.420664	372.45	193.958
166	1.60944	0.666667	0.431644	372.45	193.421
167	1.60944	0.670683	0.442676	372.45	192.883
168	1.60944	0.674699	0.453763	372.45	192.341
169	1.60944	0.678715	0.464904	372.45	191.797
170	1.60944	0.682731	0.476105	372.45	191.25
171	1.60944	0.686747	0.487364	372.45	190.7
172	1.60944	0.690763	0.498687	372.45	190.147

173	1.60944	0.694779	0.510074	372.45	189.591
174	1.60944	0.698795	0.521527	372.45	189.032
175	1.60944	0.702811	0.533048	372.45	188.469
176	1.60944	0.706827	0.544642	372.45	187.903
177	1.60944	0.710843	0.556308	372.45	187.334
178	1.60944	0.714859	0.568052	372.45	186.76
179	1.60944	0.718876	0.579873	372.45	186.183
180	1.60944	0.722892	0.591776	372.45	185.602
181	1.60944	0.726908	0.603765	372.45	185.016
182	1.60944	0.730924	0.615839	372.45	184.427
183	1.60944	0.73494	0.628006	372.45	183.832
184	1.60944	0.738956	0.640266	372.45	183.234
185	1.60944	0.742972	0.652622	372.45	182.63
186	1.60944	0.746988	0.665079	372.45	182.022
187	1.60944	0.751004	0.680797	372.45	181.254
188	1.60944	0.75502	0.693493	372.45	180.634
189	1.60944	0.759036	0.706302	372.45	180.009
190	1.60944	0.763052	0.719228	372.45	179.378
191	1.60944	0.767068	0.732275	372.45	178.741
192	1.60944	0.771084	0.745449	372.45	178.097
193	1.60944	0.7751	0.758753	372.45	177.448
194	1.60944	0.779116	0.772193	372.45	176.791
195	1.60944	0.783133	0.785774	372.45	176.128
196	1.60944	0.787149	0.7995	372.45	175.458
197	1.60944	0.791165	0.813379	372.45	174.78
198	1.60944	0.795181	0.827417	372.45	174.094
199	1.60944	0.799197	0.841621	372.45	173.401
200	1.60944	0.803213	0.855996	372.45	172.699
201	1.60944	0.807229	0.87055	372.45	171.988
202	1.60944	0.811245	0.885291	372.45	171.268
203	1.60944	0.815261	0.900227	372.45	170.539
204	1.60944	0.819277	0.915365	372.45	169.8
205	1.60944	0.823293	0.930718	372.45	169.05
206	1.60944	0.827309	0.946291	372.45	168.289
207	1.60944	0.831325	0.9621	372.45	167.517
208	1.60944	0.835341	0.97815	372.45	166.734
209	1.60944	0.839357	0.994457	372.45	165.937
210	1.60944	0.843373	1.01104	372.45	165.128
211	1.60944	0.84739	1.02789	372.45	164.305
212	1.60944	0.851406	1.04505	372.45	163.467
213	1.60944	0.855422	1.06252	372.45	162.614
214	1.60944	0.859438	1.08032	372.45	161.744
215	1.60944	0.863454	1.09847	372.45	160.858
216	1.60944	0.86747	1.11699	372.45	159.954
217	1.60944	0.871486	1.1359	372.45	159.03
218	1.60944	0.875502	1.15522	372.45	158.087
219	1.60944	0.879518	1.17499	372.45	157.121
220	1.60944	0.883534	1.19522	372.45	156.133
221	1.60944	0.88755	1.21596	372.45	155.121
222	1.60944	0.891566	1.23724	372.45	154.082
223	1.60944	0.895582	1.25908	372.45	153.015
224	1.60944	0.899598	1.28155	372.45	151.918
225	1.60944	0.903614	1.30469	372.45	150.788
226	1.60944	0.907631	1.32854	372.45	149.623
227	1.60944	0.911647	1.35317	372.45	148.42
228	1.60944	0.915663	1.37866	372.45	147.176
229	1.60944	0.919679	1.40507	372.45	145.886
230	1.60944	0.923695	1.4325	372.45	144.546
231	1.60944	0.927711	1.46106	372.45	143.152
232	1.60944	0.931727	1.49085	372.45	141.697
233	1.60944	0.935743	1.52203	372.45	140.174
234	1.60944	0.939759	1.55477	372.45	138.575

235	1.60944	0.943775	1.58927	372.45	136.891
236	1.60944	0.947791	1.62576	372.45	135.109
237	1.60944	0.951807	1.66456	372.45	133.214
238	1.60944	0.955823	1.70604	372.45	131.188
239	1.60944	0.959839	1.75069	372.45	129.008
240	1.60944	0.963855	1.79912	372.45	126.643
241	1.60944	0.967871	1.85218	372.45	124.052
242	1.60944	0.971888	1.91103	372.45	121.178
243	1.60944	0.975904	1.97737	372.45	117.938
244	1.60944	0.97992	2.05375	372.45	114.209
245	3.71357	0.983936	2.14441	497.529	109.781
246	3.78419	0.987952	2.25713	501.727	104.277
247	3.82864	0.991968	2.40892	504.369	96.8642
248	4.02535	0.995984	2.65209	516.063	84.9898

Kruskal-Wallis Non-Parametric Test

Parameter: Beryllium

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<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	0.693147 J	244
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	ND<1.60944	113
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-3.35241 U	113
	7/5/2011	ND<-3.35241 U	113

Rank Sum = 2278
Rank Mean = 119.895

Background Rank Sum = 2278
Background Rank Mean = 119.895

Compliance Locations

Loc. ID	Date	Value	Rank
MW-7	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113
	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113

	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	3.78419	246
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-3.35241 U	113
	7/5/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	6/5/2012	ND<-3.35241 U	113

Rank Sum = 3636
Rank Mean = 117.29

MW-9	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113
	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	3.71357	245
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-3.35241 U	113
	7/5/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	6/5/2012	ND<-3.35241 U	113

Rank Sum = 3748
Rank Mean = 117.125

MW-8	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113
	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113

	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	3.82864	247
	6/11/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-1.74297 U	113
	7/5/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	6/5/2012	ND<-3.35241 U	113

Rank Sum = 3524
Rank Mean = 117.467

MW-10	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113
	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	4.02535	248
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-1.74297 U	113
	7/5/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	6/5/2012	ND<-3.35241 U	113

Rank Sum = 3638
Rank Mean = 117.355

MW-6	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113

	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	ND<1.60944	113
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-3.35241 U	113
	7/5/2011	ND<-3.35241 U	113
	11/22/2011	ND<-3.35241 U	113
	6/5/2012	ND<-3.35241 U	113

Rank Sum = 3503
Rank Mean = 113

MW-11R	7/20/1995	ND<1.60944	113
	8/24/1995	ND<1.60944	113
	9/28/1995	ND<1.60944	113
	10/26/1995	ND<1.60944	113
	11/19/1996	ND<1.60944	113
	12/19/1996	ND<1.60944	113
	3/24/1997	ND<1.60944	113
	9/24/1997	ND<1.60944	113
	4/7/1998	ND<1.60944	113
	9/23/1998	ND<1.60944	113
	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	ND<1.60944	113
	6/11/2009	ND<-3.35241	113
	11/16/2009	ND<-3.35241	113
	6/30/2010	ND<-3.35241	113
	11/12/2010	ND<-3.35241 U	113
	7/5/2011	-2.60369 J	230
	11/22/2011	-2.65926 J	226
	11/22/2011	-2.65926 J	227
	6/5/2012	-2.63109 J	229

Rank Sum = 4076
Rank Mean = 127.375

MW-12BR	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113

	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	ND<1.60944	113
	6/11/2009	-1.02165	239
	11/16/2009	-1.10866	237
	6/30/2010	-0.994252	240
	11/12/2010	-1.07881	238
	7/5/2011	-0.891598	242
	11/22/2011	-0.891598	243
	6/5/2012	-0.941609	241

Rank Sum = 3262
Rank Mean = 155.333

MW-12AR	3/16/1999	ND<1.60944	113
	9/23/1999	ND<1.60944	113
	3/15/2000	ND<1.60944	113
	9/24/2003	ND<1.60944	113
	3/11/2004	ND<1.60944	113
	10/12/2004	ND<1.60944	113
	4/1/2005	ND<1.60944	113
	10/25/2005	ND<1.60944	113
	4/29/2006	ND<1.60944	113
	11/18/2006	ND<1.60944	113
	5/23/2007	ND<1.60944	113
	11/28/2007	ND<1.60944	113
	6/5/2008	ND<1.60944	113
	11/20/2008	ND<1.60944	113
	6/11/2009	-2.04022 J	234
	11/16/2009	-2.12026 J	232
	6/30/2010	-2.12026 J	233
	11/12/2010	-2.65926 J	228
	7/5/2011	-2.20727 J	231
	11/22/2011	-2.04022 J	235
	6/5/2012	-1.89712 J	236

Rank Sum = 3211
Rank Mean = 152.905

Calculation Results:

Kruskal-Wallis H Statistic = 9.34586
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 36.9076
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
9.34586 < 15.5073 indicating no significant group difference at 5% significance level
36.9076 > 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 119.895

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	**117.29**	**-2.6044**	**48.6223**
MW-9	**117.125**	**-2.7697**	**48.3328**

MW-8	**117.467**	**-2.42807**	**48.9293**	
MW-10	**117.355**	**-2.5399**	**48.6223**	
MW-6	**113**	**-6.89474**	**48.6223**	
MW-11R	**127.375**	**7.48026**	**48.3328**	
MW-12BR		**155.333**	**35.4386**	**52.8387**
MW-12AR		**152.905**	**33.01**	**52.8387**

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 119.895

Well	Mean Rank	Dif from Bkg	Critical Value
MW-7	**117.29**	**-2.60441**	**52.5055**
MW-9	**117.125**	**-2.76974**	**52.1928**
MW-8	**117.467**	**-2.42807**	**52.837**
MW-10	**117.355**	**-2.5399**	**52.5055**
MW-6	**113**	**-6.89474**	**52.5055**
MW-11R	**127.375**	**7.48026**	**52.1928**
MW-12BR		**155.333**	**35.4386**	**57.0586**
MW-12AR		**152.905**	**33.01**	**57.0586**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Beryllium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 90.7258%
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-7	6/5/2012	1	-3.35241	FALSE
MW-9	6/5/2012	1	-3.35241	FALSE
MW-8	6/5/2012	1	-3.35241	FALSE
MW-10	6/5/2012	1	-3.35241	FALSE
MW-6	6/5/2012	1	-3.35241	FALSE
MW-11R	6/5/2012	1	-2.63109	FALSE
MW-12BR	6/5/2012	1	-0.941609	FALSE
MW-12AR	6/5/2012	1	-1.89712	FALSE

Concentrations (ppb)

Parameter: Chlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 194
Percent Non-Detects: 76.378%
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-11R	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<0.25	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
			6/5/2012	ND<0.25 U	ND<0.25 U
MW-7	32	25 (78.125%)	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
			6/5/2012	0.7 J	0.7 J
MW-9	32	14 (43.75%)	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	
			6/5/2012	0.49 J	0.49 J	
MW-10	32	18 (56.25%)	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	
			6/5/2012	0.79 J	0.79 J	
MW-8	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	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	
			6/5/2012	3.2	3.2	
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<0.25	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	
			6/5/2012	ND<0.25 U	ND<0.25 U	
MW-12BR	22	21 (95.4545%)	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	
		6/5/2012	ND<0.25 U	ND<0.25 U		
MW-12AR	22	15 (68.1818%)	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	
		6/5/2012	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: Chlorobenzene
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.125	-2.747777	7.55021	-0.343471
2	0.125	-2.457271	13.5884	-0.65063
3	0.125	-2.290361	18.8342	-0.936925
4	0.125	-2.170092	23.5435	-1.20819
5	0.125	-2.074852	7.8485	-1.46754
6	0.125	-1.995393	1.8301	-1.71697
7	0.125	-1.926843	5.5428	-1.95782
8	0.125	-1.866293	9.0258	-2.19111
9	0.125	-1.811914	2.3088	-2.4176
10	0.125	-1.762414	5.4149	-2.6379
11	0.125	-1.716884	8.3626	-2.85251
12	0.125	-1.674665	1.1671	-3.06184
13	0.125	-1.644855	3.8726	-3.26745
14	0.125	-1.607255	6.4559	-3.46835
15	0.125	-1.571795	8.9264	-3.66483
16	0.125	-1.5382	61.2925	-3.8571
17	0.125	-1.506263	3.5613	-4.04539
18	0.125	-1.475796	5.7393	-4.22986
19	0.125	-1.446636	7.832	-4.41069
20	0.125	-1.418656	9.8446	-4.58802
21	0.125	-1.391757	1.7815	-4.76199
22	0.125	-1.365817	3.647	-4.93271
23	0.125	-1.340757	5.4446	-5.10031
24	0.125	-1.316527	7.1778	-5.26487
25	0.125	-1.293037	8.8498	-5.4265
26	0.125	-1.275888	0.4776	-5.58599
27	0.125	-1.253578	2.049	-5.74268
28	0.125	-1.231878	3.5665	-5.89667
29	0.125	-1.210738	5.0324	-6.04801
30	0.125	-1.190128	6.4488	-6.19677
31	0.125	-1.17	87.8177	-6.34302
32	0.125	-1.150358	9.141	-6.48682
33	0.125	-1.131139	0.4204	-6.62821
34	0.125	-1.112329	1.6577	-6.76725
35	0.125	-1.0939	92.8543	-6.90398
36	0.125	-1.075849	4.0117	-7.03846
37	0.125	-1.058129	5.1314	-7.17073
38	0.125	-1.040739	6.2145	-7.30082
39	0.125	-1.027899	7.271	-7.42931
40	0.25	-1.011049	8.2932	-7.68207
41	0.28	-0.994457	99.2822	-7.96051
42	0.29	-0.978151	00.239	-8.24418
43	0.3	-0.9621	101.165	-8.53281
44	0.3	-0.946291	102.06	-8.8167
45	0.33	-0.930718	102.926	-9.12383
46	0.34	-0.915365	103.764	-9.43506
47	0.36	-0.900227	104.575	-9.75914
48	0.4	-0.885291	105.358	-10.1133
49	0.4	-0.870551	06.116	-10.4615
50	0.43	-0.855996	106.849	-10.8296
51	0.43	-0.841621	107.557	-11.1915

52	0.45	-0.830953	108.248	-11.5654
53	0.46	-0.816874	108.915	-11.9411
54	0.46	-0.802956	109.56	-12.3105
55	0.49	-0.789191	110.183	-12.6972
56	0.52	-0.775574	110.784	-13.1005
57	0.53	-0.7621	111.365	-13.5044
58	0.56	-0.748762	111.926	-13.9237
59	0.56	-0.735557	112.467	-14.3356
60	0.57	-0.722479	112.989	-14.7474
61	0.59	-0.709522	113.492	-15.1661
62	0.59	-0.696684	113.977	-15.5771
63	0.59	-0.68396	114.445	-15.9806
64	0.6	-0.67449	114.9	-16.3853
65	0.62	-0.661955	115.338	-16.7958
66	0.62	-0.649522	115.76	-17.1985
67	0.63	-0.637192	116.166	-17.5999
68	0.65	-0.624956	116.557	-18.0061
69	0.65	-0.612813	116.932	-18.4044
70	0.69	-0.60076	117.293	-18.819
71	0.7	-0.588793	117.64	-19.2311
72	0.73	-0.576911	117.973	-19.6523
73	0.73	-0.565108	118.292	-20.0648
74	0.73	-0.553384	118.598	-20.4688
75	0.74	-0.541736	118.892	-20.8696
76	0.78	-0.530162	119.173	-21.2832
77	0.79	-0.521527	119.445	-21.6952
78	0.8	-0.510074	119.705	-22.1032
79	0.81	-0.498687	119.954	-22.5072
80	0.83	-0.487364	120.191	-22.9117
81	0.93	-0.476105	120.418	-23.3545
82	0.93	-0.464904	120.634	-23.7868
83	1	-0.453763	120.84	-24.2406
84	1	-0.442676	121.036	-24.6833
85	1	-0.431644	121.222	-25.1149
86	1	-0.420664	121.399	-25.5356
87	1	-0.409735	121.567	-25.9453
88	1	-0.398855	121.726	-26.3442
89	1	-0.388022	121.877	-26.7322
90	1	-0.379927	122.021	-27.1121
91	1	-0.369171	122.157	-27.4813
92	1	-0.358459	122.286	-27.8397
93	1	-0.347787	122.407	-28.1875
94	1	-0.337155	122.52	-28.5247
95	1	-0.326561	122.627	-28.8512
96	1	-0.316004	122.727	-29.1672
97	1	-0.305481	122.82	-29.4727
98	1	-0.294992	122.907	-29.7677
99	1	-0.284535	122.988	-30.0523
100	1	-0.27411	123.063	-30.3264
101	1	-0.263715	123.133	-30.5901
102	1	-0.253347	123.197	-30.8434
103	1	-0.24559	123.257	-31.089
104	1	-0.235269	123.313	-31.3243
105	1	-0.224974	123.363	-31.5493
106	1	-0.214702	123.409	-31.764
107	1	-0.204452	123.451	-31.9684
108	1	-0.194225	123.489	-32.1626
109	1	-0.184017	123.523	-32.3467
110	1	-0.173829	123.553	-32.5205
111	1	-0.163659	123.58	-32.6841
112	1	-0.153505	123.603	-32.8377
113	1	-0.143367	123.624	-32.981

114	1	-0.133244	123.642	-33.1143
115	1	-0.125661	123.658	-33.2399
116	1	-0.115562	123.671	-33.3555
117	1	-0.105474	123.682	-33.461
118	1	-0.0953969	123.691	-33.5564
119	1	-0.0853288	123.698	-33.6417
120	1	-0.0752698	123.704	-33.717
121	1	-0.0652187	123.708	-33.7822
122	1	-0.0551734	123.711	-33.8373
123	1	-0.0451348	123.713	-33.8825
124	1	-0.0350997	123.715	-33.9176
125	1	-0.0250691	123.715	-33.9426
126	1	-0.0150408	123.715	-33.9577
127	1	-0.00501359	123.715	-33.9627
128	1	0.00501359	123.716	-33.9577
129	1	0.0150408	123.716	-33.9426
130	1	0.0250691	123.716	-33.9176
131	1	0.0350997	123.718	-33.8825
132	1	0.0451348	123.72	-33.8373
133	1	0.0551734	123.723	-33.7822
134	1	0.0652187	123.727	-33.717
135	1	0.0752698	123.733	-33.6417
136	1	0.0853288	123.74	-33.5564
137	1	0.0953969	123.749	-33.461
138	1	0.105474	123.76	-33.3555
139	1	0.115562	123.773	-33.2399
140	1	0.125661	123.789	-33.1143
141	1	0.133244	123.807	-32.981
142	1	0.143367	123.828	-32.8377
143	1	0.153505	123.851	-32.6841
144	1	0.163659	123.878	-32.5205
145	1	0.173829	123.908	-32.3467
146	1	0.184017	123.942	-32.1626
147	1	0.194225	123.98	-31.9684
148	1	0.204452	124.022	-31.764
149	1	0.214702	124.068	-31.5493
150	1	0.224974	124.118	-31.3243
151	1	0.235269	124.174	-31.089
152	1	0.24559	124.234	-30.8434
153	1	0.253347	124.298	-30.5901
154	1	0.263715	124.368	-30.3264
155	1	0.27411	124.443	-30.0523
156	1	0.284535	124.524	-29.7677
157	1	0.294992	124.611	-29.4727
158	1	0.305481	124.704	-29.1672
159	1	0.316004	124.804	-28.8512
160	1	0.326561	124.911	-28.5247
161	1	0.337155	125.024	-28.1875
162	1	0.347787	125.145	-27.8397
163	1	0.358459	125.274	-27.4813
164	1	0.369171	125.41	-27.1121
165	1	0.379927	125.554	-26.7322
166	1	0.388022	125.705	-26.3442
167	1	0.398855	125.864	-25.9453
168	1	0.409735	126.032	-25.5356
169	1	0.420664	126.209	-25.1149
170	1	0.431644	126.395	-24.6833
171	1	0.442676	126.591	-24.2406
172	1	0.453763	126.797	-23.7868
173	1	0.464904	127.013	-23.3219
174	1	0.476105	127.24	-22.8458
175	1	0.487364	127.477	-22.3585

176	1	0.498687		127.726	-21.8598
177	1	0.510074		127.986	-21.3497
178	1	0.521527		128.258	-20.8282
179	1	0.530162		128.539	-20.298
180	1	0.541736		128.833	-19.7563
181	1	0.553384		129.139	-19.2029
182	1	0.565108		129.458	-18.6378
183	1	0.576911		129.791	-18.0609
184	1	0.588793		130.138	-17.4721
185	1	0.60076	130.499	-16.8713	
186	1	0.612813		130.874	-16.2585
187	1	0.624956		131.265	-15.6335
188	1	0.637192		131.671	-14.9963
189	1	0.649522		132.093	-14.3468
190	1	0.661955		132.531	-13.6849
191	1	0.67449	132.986	-13.0104	
192	1	0.68396	133.454	-12.3264	
193	1	0.696684		133.939	-11.6297
194	1	0.709522		134.442	-10.9202
195	1	0.722479		134.964	-10.1977
196	1	0.735557		135.505	-9.46218
197	1	0.748762		136.066	-8.71342
198	1	0.7621	136.647	-7.95132	
199	1	0.775574		137.248	-7.17574
200	1	0.789191		137.871	-6.38655
201	1	0.802956		138.516	-5.58359
202	1	0.816874		139.183	-4.76672
203	1	0.830953		139.874	-3.93577
204	1	0.841621		140.582	-3.09415
205	1	0.855996		141.315	-2.23815
206	1	0.87055	142.073	-1.3676	
207	1	0.885291		142.856	-0.482309
208	1	0.900227		143.667	0.417918
209	1	0.915365		144.505	1.33328
210	1	0.930718		145.371	2.264
211	1	0.946291		146.266	3.21029
212	1	0.9621	147.192	4.17239	
213	1	0.97815	148.149	5.15054	
214	1	0.994457		149.138	6.145
215	1	1.01104	150.16	7.15603	
216	1	1.02789	151.217	8.18393	
217	1	1.04073	152.3	9.22466	
218	1	1.05812	153.419	10.2828	
219	1	1.07584	154.577	11.3586	
220	1	1.0939	155.773	12.4525	
221	1	1.11232	157.011	13.5648	
222	1	1.13113	158.29	14.696	
223	1	1.15035	159.613	15.8463	
224	1	1.17	160.982	17.0163	
225	1	1.19012	162.399	18.2064	
226	1	1.21073	163.864	19.4172	
227	1	1.23187	165.382	20.649	
228	1	1.25357	166.953	21.9026	
229	1	1.27588	168.581	23.1785	
230	1	1.29303	170.253	24.4715	
231	1	1.31652	171.986	25.788	
232	1	1.34075	173.784	27.1288	
233	1	1.36581	175.649	28.4946	
234	1	1.39175	177.586	29.8863	
235	1	1.41865	179.599	31.305	
236	1	1.44663	181.692	32.7516	
237	1	1.47579	183.87	34.2274	

238	1	1.50626	186.139	35.7337
239	1.01	1.5382	188.505	37.2873
240	1.1	1.57179	190.975	39.0162
241	1.4	1.60725	193.558	41.2664
242	1.69	1.64485	196.264	44.0462
243	1.9	1.67466	199.068	47.228
244	2.18	1.71688	202.016	50.9708
245	2.2	1.76241	205.122	54.8481
246	2.75	1.81191	208.405	59.8309
247	3.2	1.86629	211.888	65.803
248	3.36	1.92684	215.601	72.2772
249	3.46	1.99539	219.583	79.1813
250	3.7	2.07485	223.888	86.8582
251	3.7	2.17009	228.597	94.8876
252	3.9	2.29036	233.843	103.82
253	4.4	2.45727	239.881	114.632
254	4.8	2.74777	247.431	127.821

Data Set Standard Deviation = 0.658838
Numerator = 16338.3
Denominator = 27172.6
W Statistic = 0.601277 = 16338.3 / 27172.6

5% Critical value of 0.976 exceeds 0.601277
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.601277
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 = 0.77792
0.77792 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.125	0.00392157	-2.747775	2.375	348.683	
2	0.125	0.00784314	-2.457275	2.375	334.497	
3	0.125	0.0117647	-2.290365	2.375	326.346	
4	0.125	0.0156863	-2.170095	2.375	320.473	
5	0.125	0.0196078	-2.074855	2.375	315.822	
6	0.125	0.0235294	-1.995395	2.375	311.942	
7	0.125	0.027451	-1.926845	2.375	308.594	
8	0.125	0.0313725	-1.866295	2.375	305.637	
9	0.125	0.0352941	-1.811915	2.375	302.982	
10	0.125	0.0392157	-1.762415	2.375	300.564	
11	0.125	0.0431373	-1.716885	2.375	298.341	
12	0.125	0.0470588	-1.674665	2.375	296.279	
13	0.125	0.0509804	-1.644855	2.375	294.824	
14	0.125	0.054902	-1.607255	2.375	292.987	
15	0.125	0.0588235	-1.571795	2.375	291.256	
16	0.125	0.0627451	-1.5382	52.375	289.615	
17	0.125	0.0666667	-1.506265	2.375	288.056	
18	0.125	0.0705882	-1.475795	2.375	286.568	
19	0.125	0.0745098	-1.446635	2.375	285.144	
20	0.125	0.0784314	-1.418655	2.375	283.778	
21	0.125	0.0823529	-1.391755	2.375	282.464	
22	0.125	0.0862745	-1.365815	2.375	281.197	
23	0.125	0.0901961	-1.340755	2.375	279.974	
24	0.125	0.0941176	-1.316525	2.375	278.79	
25	0.125	0.0980392	-1.293035	2.375	277.643	
26	0.125	0.101961	-1.275885	2.375	276.805	
27	0.125	0.105882	-1.253575	2.375	275.716	
28	0.125	0.109804	-1.231875	2.375	274.656	
29	0.125	0.113725	-1.210735	2.375	273.624	
30	0.125	0.117647	-1.190125	2.375	272.617	
31	0.125	0.121569	-1.17	52.375	271.635	
32	0.125	0.12549	-1.150355	2.375	270.675	
33	0.125	0.129412	-1.131135	2.375	269.737	
34	0.125	0.133333	-1.112325	2.375	268.818	
35	0.125	0.137255	-1.0939	52.375	267.919	
36	0.125	0.141176	-1.075845	2.375	267.037	
37	0.125	0.145098	-1.058125	2.375	266.172	
38	0.125	0.14902	-1.040735	2.375	265.322	
39	0.125	0.152941	-1.027895	2.375	264.695	
40	0.25	0.156863	-1.011046	5.75	263.872	
41	0.28	0.160784	-0.994457		68.96	263.063
42	0.29	0.164706	-0.978157	0.03	262.266	
43	0.3	0.168627	-0.9621	71.1	261.483	
44	0.3	0.172549	-0.946291		71.1	260.711
45	0.33	0.176471	-0.930718		74.31	259.95
46	0.34	0.180392	-0.915365		75.38	259.2
47	0.36	0.184314	-0.900227		77.52	258.461
48	0.4	0.188235	-0.885291		81.8	257.732

49	0.4	0.192157	-0.870581.8	257.012	
50	0.43	0.196078	-0.855996	85.01	256.301
51	0.43	0.2	-0.841621	85.01	255.599
52	0.45	0.203922	-0.830953	87.15	255.078
53	0.46	0.207843	-0.816874	88.22	254.391
54	0.46	0.211765	-0.802956	88.22	253.711
55	0.49	0.215686	-0.789191	91.43	253.039
56	0.52	0.219608	-0.775574	94.64	252.374
57	0.53	0.223529	-0.7621	95.71	251.716
58	0.56	0.227451	-0.748762	98.92	251.065
59	0.56	0.231373	-0.735557	98.92	250.42
60	0.57	0.235294	-0.722479	99.99	249.781
61	0.59	0.239216	-0.709522	102.13	249.148
62	0.59	0.243137	-0.696684	102.13	248.521
63	0.59	0.247059	-0.68396	102.13	247.9
64	0.6	0.25098	-0.67449	103.2	247.438
65	0.62	0.254902	-0.661955	105.34	246.825
66	0.62	0.258824	-0.649522	105.34	246.218
67	0.63	0.262745	-0.637192	106.41	245.616
68	0.65	0.266667	-0.624956	108.55	245.019
69	0.65	0.270588	-0.612813	108.55	244.426
70	0.69	0.27451	-0.60076	112.83	243.837
71	0.7	0.278431	-0.588793	113.9	243.253
72	0.73	0.282353	-0.576911	117.11	242.672
73	0.73	0.286275	-0.565108	117.11	242.096
74	0.73	0.290196	-0.553384	117.11	241.524
75	0.74	0.294118	-0.541736	118.18	240.955
76	0.78	0.298039	-0.530162	122.46	240.39
77	0.79	0.301961	-0.521527	123.53	239.968
78	0.8	0.305882	-0.510074	124.6	239.409
79	0.81	0.309804	-0.498687	125.67	238.853
80	0.83	0.313725	-0.487364	127.81	238.3
81	0.93	0.317647	-0.476105	138.51	237.75
82	0.93	0.321569	-0.464904	138.51	237.203
83	1	0.32549	-0.453763	146	236.659
84	1	0.329412	-0.442676	146	236.117
85	1	0.333333	-0.431644	146	235.579
86	1	0.337255	-0.420664	146	235.042
87	1	0.341176	-0.409735	146	234.509
88	1	0.345098	-0.398855	146	233.977
89	1	0.34902	-0.388022	146	233.448
90	1	0.352941	-0.379927	146	233.053
91	1	0.356863	-0.369171	146	232.528
92	1	0.360784	-0.358459	146	232.005
93	1	0.364706	-0.347787	146	231.484
94	1	0.368627	-0.337155	146	230.964
95	1	0.372549	-0.326561	146	230.447
96	1	0.376471	-0.316004	146	229.932
97	1	0.380392	-0.305481	146	229.418
98	1	0.384314	-0.294992	146	228.905
99	1	0.388235	-0.284535	146	228.395
100	1	0.392157	-0.27411	146	227.886
101	1	0.396078	-0.263715	146	227.378
102	1	0.4	-0.253347	146	226.872
103	1	0.403922	-0.24559	146	226.493
104	1	0.407843	-0.235269	146	225.989
105	1	0.411765	-0.224974	146	225.486
106	1	0.415686	-0.214702	146	224.985
107	1	0.419608	-0.204452	146	224.484
108	1	0.423529	-0.194225	146	223.985
109	1	0.427451	-0.184017	146	223.486
110	1	0.431373	-0.173829	146	222.989

111	1	0.435294	-0.163659	146	222.492
112	1	0.439216	-0.153505	146	221.996
113	1	0.443137	-0.143367	146	221.501
114	1	0.447059	-0.133244	146	221.007
115	1	0.45098	-0.125661	146	220.636
116	1	0.454902	-0.115562	146	220.143
117	1	0.458824	-0.105474	146	219.651
118	1	0.462745	-0.0953969	146	219.159
119	1	0.466667	-0.0853288	146	218.667
120	1	0.470588	-0.0752698	146	218.176
121	1	0.47451	-0.0652187	146	217.685
122	1	0.478431	-0.0551734	146	217.194
123	1	0.482353	-0.0451348	146	216.704
124	1	0.486275	-0.0350997	146	216.214
125	1	0.490196	-0.0250691	146	215.724
126	1	0.494118	-0.0150408	146	215.234
127	1	0.498039	-0.00501359	146	214.745
128	1	0.501961	0.00501359	146	214.255
129	1	0.505882	0.0150408	146	213.766
130	1	0.509804	0.0250691	146	213.276
131	1	0.513725	0.0350997	146	212.786
132	1	0.517647	0.0451348	146	212.296
133	1	0.521569	0.0551734	146	211.806
134	1	0.52549	0.0652187	146	211.315
135	1	0.529412	0.0752698	146	210.824
136	1	0.533333	0.0853288	146	210.333
137	1	0.537255	0.0953969	146	209.841
138	1	0.541176	0.105474	146	209.349
139	1	0.545098	0.115562	146	208.857
140	1	0.54902	0.125661	146	208.364
141	1	0.552941	0.133244	146	207.993
142	1	0.556863	0.143367	146	207.499
143	1	0.560784	0.153505	146	207.004
144	1	0.564706	0.163659	146	206.508
145	1	0.568627	0.173829	146	206.011
146	1	0.572549	0.184017	146	205.514
147	1	0.576471	0.194225	146	205.015
148	1	0.580392	0.204452	146	204.516
149	1	0.584314	0.214702	146	204.015
150	1	0.588235	0.224974	146	203.514
151	1	0.592157	0.235269	146	203.011
152	1	0.596078	0.24559	146	202.507
153	1	0.6	0.253347	146	202.128
154	1	0.603922	0.263715	146	201.622
155	1	0.607843	0.27411	146	201.114
156	1	0.611765	0.284535	146	200.605
157	1	0.615686	0.294992	146	200.095
158	1	0.619608	0.305481	146	199.582
159	1	0.623529	0.316004	146	199.068
160	1	0.627451	0.326561	146	198.553
161	1	0.631373	0.337155	146	198.036
162	1	0.635294	0.347787	146	197.516
163	1	0.639216	0.358459	146	196.995
164	1	0.643137	0.369171	146	196.472
165	1	0.647059	0.379927	146	195.947
166	1	0.65098	0.388022	146	195.552
167	1	0.654902	0.398855	146	195.023
168	1	0.658824	0.409735	146	194.491
169	1	0.662745	0.420664	146	193.958
170	1	0.666667	0.431644	146	193.421
171	1	0.670588	0.442676	146	192.883
172	1	0.67451	0.453763	146	192.341

173	1	0.678431	0.464904	146	191.797
174	1	0.682353	0.476105	146	191.25
175	1	0.686275	0.487364	146	190.7
176	1	0.690196	0.498687	146	190.147
177	1	0.694118	0.510074	146	189.591
178	1	0.698039	0.521527	146	189.032
179	1	0.701961	0.530162	146	188.61
180	1	0.705882	0.541736	146	188.045
181	1	0.709804	0.553384	146	187.476
182	1	0.713725	0.565108	146	186.904
183	1	0.717647	0.576911	146	186.328
184	1	0.721569	0.588793	146	185.747
185	1	0.72549	0.60076	146	185.163
186	1	0.729412	0.612813	146	184.574
187	1	0.733333	0.624956	146	183.981
188	1	0.737255	0.637192	146	183.384
189	1	0.741176	0.649522	146	182.782
190	1	0.745098	0.661955	146	182.175
191	1	0.74902	0.67449	146	181.562
192	1	0.752941	0.68396	146	181.1
193	1	0.756863	0.696684	146	180.479
194	1	0.760784	0.709522	146	179.852
195	1	0.764706	0.722479	146	179.219
196	1	0.768627	0.735557	146	178.58
197	1	0.772549	0.748762	146	177.935
198	1	0.776471	0.7621	146	177.284
199	1	0.780392	0.775574	146	176.626
200	1	0.784314	0.789191	146	175.961
201	1	0.788235	0.802956	146	175.289
202	1	0.792157	0.816874	146	174.609
203	1	0.796078	0.830953	146	173.922
204	1	0.8	0.841621	146	173.401
205	1	0.803922	0.855996	146	172.699
206	1	0.807843	0.87055	146	171.988
207	1	0.811765	0.885291	146	171.268
208	1	0.815686	0.900227	146	170.539
209	1	0.819608	0.915365	146	169.8
210	1	0.823529	0.930718	146	169.05
211	1	0.827451	0.946291	146	168.289
212	1	0.831373	0.9621	146	167.517
213	1	0.835294	0.97815	146	166.734
214	1	0.839216	0.994457	146	165.937
215	1	0.843137	1.01104	146	165.128
216	1	0.847059	1.02789	146	164.305
217	1	0.85098	1.04073	146	163.678
218	1	0.854902	1.05812	146	162.828
219	1	0.858824	1.07584	146	161.963
220	1	0.862745	1.0939	146	161.081
221	1	0.866667	1.11232	146	160.182
222	1	0.870588	1.13113	146	159.263
223	1	0.87451	1.15035	146	158.325
224	1	0.878431	1.17	146	157.365
225	1	0.882353	1.19012	146	156.383
226	1	0.886275	1.21073	146	155.376
227	1	0.890196	1.23187	146	154.344
228	1	0.894118	1.25357	146	153.284
229	1	0.898039	1.27588	146	152.195
230	1	0.901961	1.29303	146	151.357
231	1	0.905882	1.31652	146	150.21
232	1	0.909804	1.34075	146	149.026
233	1	0.913725	1.36581	146	147.803
234	1	0.917647	1.39175	146	146.536

235	1	0.921569		1.41865	146	145.222
236	1	0.92549	1.44663	146	143.856	
237	1	0.929412		1.47579	146	142.432
238	1	0.933333		1.50626	146	140.944
239	1.01	0.937255		1.5382	147.07	139.385
240	1.1	0.941176		1.57179	156.7	137.744
241	1.4	0.945098		1.60725	188.8	136.013
242	1.69	0.94902	1.64485	219.83	134.176	
243	1.9	0.952941		1.67466	242.3	132.721
244	2.18	0.956863		1.71688	272.26	130.659
245	2.2	0.960784		1.76241	274.4	128.436
246	2.75	0.964706		1.81191	333.25	126.018
247	3.2	0.968627		1.86629	381.4	123.363
248	3.36	0.972549		1.92684	398.52	120.406
249	3.46	0.976471		1.99539	409.22	117.058
250	3.7	0.980392		2.07485	434.9	113.178
251	3.7	0.984314		2.17009	434.9	108.527
252	3.9	0.988235		2.29036	456.3	102.654
253	4.4	0.992157		2.45727	509.8	94.5032
254	4.8	0.996078		2.74777	552.6	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.07944	-2.74777	7.55021	5.71382
2	-2.07944	-2.45727	13.5884	10.8236
3	-2.07944	-2.29036	18.8342	15.5862
4	-2.07944	-2.17009	23.5435	20.0988
5	-2.07944	-2.07485	27.8485	24.4134
6	-2.07944	-1.99539	31.8301	28.5627
7	-2.07944	-1.92684	35.5428	32.5694
8	-2.07944	-1.86629	39.0258	36.4502
9	-2.07944	-1.81191	42.3088	40.218
10	-2.07944	-1.76241	45.4149	43.8828
11	-2.07944	-1.71688	48.3626	47.453
12	-2.07944	-1.67466	51.1671	50.9354
13	-2.07944	-1.64485	53.8726	54.3557
14	-2.07944	-1.60725	56.4559	57.6979
15	-2.07944	-1.57179	58.9264	60.9664
16	-2.07944	-1.5382	61.2925	64.165
17	-2.07944	-1.50626	63.5613	67.2971
18	-2.07944	-1.47579	65.7393	70.366
19	-2.07944	-1.44663	67.832	73.3742
20	-2.07944	-1.41865	69.8446	76.3242
21	-2.07944	-1.39175	71.7815	79.2182
22	-2.07944	-1.36581	73.647	82.0583
23	-2.07944	-1.34075	75.4446	84.8464
24	-2.07944	-1.31652	77.1778	87.584
25	-2.07944	-1.29303	78.8498	90.2728
26	-2.07944	-1.27588	80.4776	92.9259
27	-2.07944	-1.25357	82.049	95.5326
28	-2.07944	-1.23187	83.5665	98.0942
29	-2.07944	-1.21073	85.0324	100.612
30	-2.07944	-1.19012	86.4488	103.087
31	-2.07944	-1.17	87.8177	105.52
32	-2.07944	-1.15035	89.141	107.912
33	-2.07944	-1.13113	90.4204	110.264
34	-2.07944	-1.11232	91.6577	112.577
35	-2.07944	-1.0939	92.8543	114.851
36	-2.07944	-1.07584	94.0117	117.089
37	-2.07944	-1.05812	95.1314	119.289
38	-2.07944	-1.04073	96.2145	121.453
39	-2.07944	-1.02789	97.271	123.59
40	-1.38629	-1.01104	98.2932	124.992
41	-1.27297	-0.994457	99.2822	126.258
42	-1.23787	-0.97815	100.239	127.469
43	-1.20397	-0.9621	101.165	128.627
44	-1.20397	-0.946291	102.06	129.766
45	-1.10866	-0.930718	102.926	130.798
46	-1.07881	-0.915365	103.764	131.786
47	-1.02165	-0.900227	104.575	132.706
48	-0.916291	-0.885291	105.358	133.517
49	-0.916291	-0.87055	106.116	134.314
50	-0.84397	-0.855996	106.849	135.037
51	-0.84397	-0.841621	107.557	135.747

52	-0.798508	-0.830953	108.248	136.411
53	-0.776529	-0.816874	108.915	137.045
54	-0.776529	-0.802956	109.56	137.669
55	-0.71335	-0.789191	110.183	138.231
56	-0.653926	-0.775574	110.784	138.739
57	-0.634878	-0.7621	111.365	139.222
58	-0.579818	-0.748762	111.926	139.657
59	-0.579818	-0.735557	112.467	140.083
60	-0.562119	-0.722479	112.989	140.489
61	-0.527633	-0.709522	113.492	140.864
62	-0.527633	-0.696684	113.977	141.231
63	-0.527633	-0.68396	114.445	141.592
64	-0.510826	-0.67449	114.9	141.937
65	-0.478036	-0.661955	115.338	142.253
66	-0.478036	-0.649522	115.76	142.564
67	-0.462035	-0.637192	116.166	142.858
68	-0.430783	-0.624956	116.557	143.127
69	-0.430783	-0.612813	116.932	143.391
70	-0.371064	-0.60076	117.293	143.614
71	-0.356675	-0.588793	117.64	143.824
72	-0.314711	-0.576911	117.973	144.006
73	-0.314711	-0.565108	118.292	144.184
74	-0.314711	-0.553384	118.598	144.358
75	-0.301105	-0.541736	118.892	144.521
76	-0.248461	-0.530162	119.173	144.653
77	-0.235722	-0.521527	119.445	144.775
78	-0.223144	-0.510074	119.705	144.889
79	-0.210721	-0.498687	119.954	144.994
80	-0.18633	-0.487364	120.191	145.085
81	-0.0725707	-0.476105	120.418	145.12
82	-0.0725707	-0.464904	120.634	145.153
83	0	-0.453763	120.84	145.153
84	0	-0.442676	121.036	145.153
85	0	-0.431644	121.222	145.153
86	0	-0.420664	121.399	145.153
87	0	-0.409735	121.567	145.153
88	0	-0.398855	121.726	145.153
89	0	-0.388022	121.877	145.153
90	0	-0.379927	122.021	145.153
91	0	-0.369171	122.157	145.153
92	0	-0.358459	122.286	145.153
93	0	-0.347787	122.407	145.153
94	0	-0.337155	122.52	145.153
95	0	-0.326561	122.627	145.153
96	0	-0.316004	122.727	145.153
97	0	-0.305481	122.82	145.153
98	0	-0.294992	122.907	145.153
99	0	-0.284535	122.988	145.153
100	0	-0.27411	123.063	145.153
101	0	-0.263715	123.133	145.153
102	0	-0.253347	123.197	145.153
103	0	-0.24559	123.257	145.153
104	0	-0.235269	123.313	145.153
105	0	-0.224974	123.363	145.153
106	0	-0.214702	123.409	145.153
107	0	-0.204452	123.451	145.153
108	0	-0.194225	123.489	145.153
109	0	-0.184017	123.523	145.153
110	0	-0.173829	123.553	145.153
111	0	-0.163659	123.58	145.153
112	0	-0.153505	123.603	145.153
113	0	-0.143367	123.624	145.153

114	0	-0.133244	123.642	145.153
115	0	-0.125661	123.658	145.153
116	0	-0.115562	123.671	145.153
117	0	-0.105474	123.682	145.153
118	0	-0.0953969	123.691	145.153
119	0	-0.0853288	123.698	145.153
120	0	-0.0752698	123.704	145.153
121	0	-0.0652187	123.708	145.153
122	0	-0.0551734	123.711	145.153
123	0	-0.0451348	123.713	145.153
124	0	-0.0350997	123.715	145.153
125	0	-0.0250691	123.715	145.153
126	0	-0.0150408	123.715	145.153
127	0	-0.00501359	123.715	145.153
128	0	0.00501359	123.716	145.153
129	0	0.0150408	123.716	145.153
130	0	0.0250691	123.716	145.153
131	0	0.0350997	123.718	145.153
132	0	0.0451348	123.72	145.153
133	0	0.0551734	123.723	145.153
134	0	0.0652187	123.727	145.153
135	0	0.0752698	123.733	145.153
136	0	0.0853288	123.74	145.153
137	0	0.0953969	123.749	145.153
138	0	0.105474	123.76	145.153
139	0	0.115562	123.773	145.153
140	0	0.125661	123.789	145.153
141	0	0.133244	123.807	145.153
142	0	0.143367	123.828	145.153
143	0	0.153505	123.851	145.153
144	0	0.163659	123.878	145.153
145	0	0.173829	123.908	145.153
146	0	0.184017	123.942	145.153
147	0	0.194225	123.98	145.153
148	0	0.204452	124.022	145.153
149	0	0.214702	124.068	145.153
150	0	0.224974	124.118	145.153
151	0	0.235269	124.174	145.153
152	0	0.24559	124.234	145.153
153	0	0.253347	124.298	145.153
154	0	0.263715	124.368	145.153
155	0	0.27411	124.443	145.153
156	0	0.284535	124.524	145.153
157	0	0.294992	124.611	145.153
158	0	0.305481	124.704	145.153
159	0	0.316004	124.804	145.153
160	0	0.326561	124.911	145.153
161	0	0.337155	125.024	145.153
162	0	0.347787	125.145	145.153
163	0	0.358459	125.274	145.153
164	0	0.369171	125.41	145.153
165	0	0.379927	125.554	145.153
166	0	0.388022	125.705	145.153
167	0	0.398855	125.864	145.153
168	0	0.409735	126.032	145.153
169	0	0.420664	126.209	145.153
170	0	0.431644	126.395	145.153
171	0	0.442676	126.591	145.153
172	0	0.453763	126.797	145.153
173	0	0.464904	127.013	145.153
174	0	0.476105	127.24	145.153
175	0	0.487364	127.477	145.153

176	0	0.498687		127.726	145.153
177	0	0.510074		127.986	145.153
178	0	0.521527		128.258	145.153
179	0	0.530162		128.539	145.153
180	0	0.541736		128.833	145.153
181	0	0.553384		129.139	145.153
182	0	0.565108		129.458	145.153
183	0	0.576911		129.791	145.153
184	0	0.588793		130.138	145.153
185	0	0.60076	130.499	145.153	
186	0	0.612813		130.874	145.153
187	0	0.624956		131.265	145.153
188	0	0.637192		131.671	145.153
189	0	0.649522		132.093	145.153
190	0	0.661955		132.531	145.153
191	0	0.67449	132.986	145.153	
192	0	0.68396	133.454	145.153	
193	0	0.696684		133.939	145.153
194	0	0.709522		134.442	145.153
195	0	0.722479		134.964	145.153
196	0	0.735557		135.505	145.153
197	0	0.748762		136.066	145.153
198	0	0.7621	136.647	145.153	
199	0	0.775574		137.248	145.153
200	0	0.789191		137.871	145.153
201	0	0.802956		138.516	145.153
202	0	0.816874		139.183	145.153
203	0	0.830953		139.874	145.153
204	0	0.841621		140.582	145.153
205	0	0.855996		141.315	145.153
206	0	0.87055	142.073	145.153	
207	0	0.885291		142.856	145.153
208	0	0.900227		143.667	145.153
209	0	0.915365		144.505	145.153
210	0	0.930718		145.371	145.153
211	0	0.946291		146.266	145.153
212	0	0.9621	147.192	145.153	
213	0	0.97815	148.149	145.153	
214	0	0.994457		149.138	145.153
215	0	1.01104	150.16	145.153	
216	0	1.02789	151.217	145.153	
217	0	1.04073	152.3	145.153	
218	0	1.05812	153.419	145.153	
219	0	1.07584	154.577	145.153	
220	0	1.0939	155.773	145.153	
221	0	1.11232	157.011	145.153	
222	0	1.13113	158.29	145.153	
223	0	1.15035	159.613	145.153	
224	0	1.17	160.982	145.153	
225	0	1.19012	162.399	145.153	
226	0	1.21073	163.864	145.153	
227	0	1.23187	165.382	145.153	
228	0	1.25357	166.953	145.153	
229	0	1.27588	168.581	145.153	
230	0	1.29303	170.253	145.153	
231	0	1.31652	171.986	145.153	
232	0	1.34075	173.784	145.153	
233	0	1.36581	175.649	145.153	
234	0	1.39175	177.586	145.153	
235	0	1.41865	179.599	145.153	
236	0	1.44663	181.692	145.153	
237	0	1.47579	183.87	145.153	

238	0	1.50626	186.139	145.153	
239	0.00995033		1.5382	188.505	145.169
240	0.0953102		1.57179	190.975	145.319
241	0.336472		1.60725	193.558	145.859
242	0.524729		1.64485	196.264	146.722
243	0.641854		1.67466	199.068	147.797
244	0.779325		1.71688	202.016	149.135
245	0.788457		1.76241	205.122	150.525
246	1.0116	1.81191	208.405	152.358	
247	1.16315	1.86629	211.888	154.529	
248	1.21194	1.92684	215.601	156.864	
249	1.24127	1.99539	219.583	159.341	
250	1.30833	2.07485	223.888	162.055	
251	1.30833	2.17009	228.597	164.894	
252	1.36098	2.29036	233.843	168.012	
253	1.4816	2.45727	239.881	171.652	
254	1.56862	2.74777	247.431	175.963	

Data Set Standard Deviation = 0.828583
Numerator = 30962.8
Denominator = 42978
W Statistic = 0.720434 = 30962.8 / 42978

5% Critical value of 0.976 exceeds 0.720434
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.720434
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 = 0.848901
0.848901 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00392157	-2.74777	137.5	348.683
2	-2.07944	0.00784314	-2.45727	137.5	334.497
3	-2.07944	0.0117647	-2.29036	137.5	326.346
4	-2.07944	0.0156863	-2.17009	137.5	320.473
5	-2.07944	0.0196078	-2.07485	137.5	315.822
6	-2.07944	0.0235294	-1.99539	137.5	311.942
7	-2.07944	0.027451	-1.92684	137.5	308.594
8	-2.07944	0.0313725	-1.86629	137.5	305.637
9	-2.07944	0.0352941	-1.81191	137.5	302.982
10	-2.07944	0.0392157	-1.76241	137.5	300.564
11	-2.07944	0.0431373	-1.71688	137.5	298.341
12	-2.07944	0.0470588	-1.67466	137.5	296.279
13	-2.07944	0.0509804	-1.64485	137.5	294.824
14	-2.07944	0.054902	-1.60725	137.5	292.987
15	-2.07944	0.0588235	-1.57179	137.5	291.256
16	-2.07944	0.0627451	-1.5382	137.5	289.615
17	-2.07944	0.0666667	-1.50626	137.5	288.056
18	-2.07944	0.0705882	-1.47579	137.5	286.568
19	-2.07944	0.0745098	-1.44663	137.5	285.144
20	-2.07944	0.0784314	-1.41865	137.5	283.778
21	-2.07944	0.0823529	-1.39175	137.5	282.464
22	-2.07944	0.0862745	-1.36581	137.5	281.197
23	-2.07944	0.0901961	-1.34075	137.5	279.974
24	-2.07944	0.0941176	-1.31652	137.5	278.79
25	-2.07944	0.0980392	-1.29303	137.5	277.643
26	-2.07944	0.101961	-1.27588	137.5	276.805
27	-2.07944	0.105882	-1.25357	137.5	275.716
28	-2.07944	0.109804	-1.23187	137.5	274.656
29	-2.07944	0.113725	-1.21073	137.5	273.624
30	-2.07944	0.117647	-1.19012	137.5	272.617
31	-2.07944	0.121569	-1.17	137.5	271.635
32	-2.07944	0.12549	-1.15035	137.5	270.675
33	-2.07944	0.129412	-1.13113	137.5	269.737
34	-2.07944	0.133333	-1.11232	137.5	268.818
35	-2.07944	0.137255	-1.0939	137.5	267.919
36	-2.07944	0.141176	-1.07584	137.5	267.037
37	-2.07944	0.145098	-1.05812	137.5	266.172
38	-2.07944	0.14902	-1.04073	137.5	265.322
39	-2.07944	0.152941	-1.02789	137.5	264.695
40	-1.38629	0.156863	-1.01104	211.667	263.872
41	-1.27297	0.160784	-0.994457	223.793	263.063
42	-1.23787	0.164706	-0.97815	227.547	262.266
43	-1.20397	0.168627	-0.9621	231.175	261.483
44	-1.20397	0.172549	-0.946291	231.175	260.711
45	-1.10866	0.176471	-0.930718	241.373	259.95
46	-1.07881	0.180392	-0.915365	244.567	259.2
47	-1.02165	0.184314	-0.900227	250.683	258.461
48	-0.916291	0.188235	-0.885291	261.957	257.732

49	-0.916291	0.192157	-0.87055	261.957	257.012	
50	-0.843970.196078	-0.855996	269.695	256.301		
51	-0.843970.2	-0.841621	269.695	255.599		
52	-0.798508	0.203922	-0.830953	274.56	255.078	
53	-0.776529	0.207843	-0.816874	276.911	254.391	
54	-0.776529	0.211765	-0.802956	276.911	253.711	
55	-0.713350.215686	-0.789191	283.672	253.039		
56	-0.653926	0.219608	-0.775574	290.03	252.374	
57	-0.634878	0.223529	-0.7621	292.068	251.716	
58	-0.579818	0.227451	-0.748762	297.959	251.065	
59	-0.579818	0.231373	-0.735557	297.959	250.42	
60	-0.562119	0.235294	-0.722479	299.853	249.781	
61	-0.527633	0.239216	-0.709522	303.543	249.148	
62	-0.527633	0.243137	-0.696684	303.543	248.521	
63	-0.527633	0.247059	-0.68396	303.543	247.9	
64	-0.510826	0.25098	-0.67449	305.342	247.438	
65	-0.478036	0.254902	-0.661955	308.85	246.825	
66	-0.478036	0.258824	-0.649522	308.85	246.218	
67	-0.462035	0.262745	-0.637192	310.562	245.616	
68	-0.430783	0.266667	-0.624956	313.906	245.019	
69	-0.430783	0.270588	-0.612813	313.906	244.426	
70	-0.371064	0.27451	-0.60076	320.296	243.837	
71	-0.356675	0.278431	-0.588793	321.836	243.253	
72	-0.314711	0.282353	-0.576911	326.326	242.672	
73	-0.314711	0.286275	-0.565108	326.326	242.096	
74	-0.314711	0.290196	-0.553384	326.326	241.524	
75	-0.301105	0.294118	-0.541736	327.782	240.955	
76	-0.248461	0.298039	-0.530162	333.415	240.39	
77	-0.235722	0.301961	-0.521527	334.778	239.968	
78	-0.223144	0.305882	-0.510074	336.124	239.409	
79	-0.210721	0.309804	-0.498687	337.453	238.853	
80	-0.186330.313725	-0.487364	340.063	238.3		
81	-0.0725707	0.317647	-0.476105	352.235	237.75	
82	-0.0725707	0.321569	-0.464904	352.235	237.203	
83	0	0.32549	-0.453763	360	236.659	
84	0	0.329412	-0.442676	360	236.117	
85	0	0.333333	-0.431644	360	235.579	
86	0	0.337255	-0.420664	360	235.042	
87	0	0.341176	-0.409735	360	234.509	
88	0	0.345098	-0.398855	360	233.977	
89	0	0.34902	-0.388022	360	233.448	
90	0	0.352941	-0.379927	360	233.053	
91	0	0.356863	-0.369171	360	232.528	
92	0	0.360784	-0.358459	360	232.005	
93	0	0.364706	-0.347787	360	231.484	
94	0	0.368627	-0.337155	360	230.964	
95	0	0.372549	-0.326561	360	230.447	
96	0	0.376471	-0.316004	360	229.932	
97	0	0.380392	-0.305481	360	229.418	
98	0	0.384314	-0.294992	360	228.905	
99	0	0.388235	-0.284535	360	228.395	
100	0	0.392157	-0.27411	360	227.886	
101	0	0.396078	-0.263715	360	227.378	
102	0	0.4	-0.253347	360	226.872	
103	0	0.403922	-0.24559	360	226.493	
104	0	0.407843	-0.235269	360	225.989	
105	0	0.411765	-0.224974	360	225.486	
106	0	0.415686	-0.214702	360	224.985	
107	0	0.419608	-0.204452	360	224.484	
108	0	0.423529	-0.194225	360	223.985	
109	0	0.427451	-0.184017	360	223.486	
110	0	0.431373	-0.173829	360	222.989	

111	0	0.435294	-0.163659	360	222.492
112	0	0.439216	-0.153505	360	221.996
113	0	0.443137	-0.143367	360	221.501
114	0	0.447059	-0.133244	360	221.007
115	0	0.45098	-0.125661	360	220.636
116	0	0.454902	-0.115562	360	220.143
117	0	0.458824	-0.105474	360	219.651
118	0	0.462745	-0.0953969	360	219.159
119	0	0.466667	-0.0853288	360	218.667
120	0	0.470588	-0.0752698	360	218.176
121	0	0.47451	-0.0652187	360	217.685
122	0	0.478431	-0.0551734	360	217.194
123	0	0.482353	-0.0451348	360	216.704
124	0	0.486275	-0.0350997	360	216.214
125	0	0.490196	-0.0250691	360	215.724
126	0	0.494118	-0.0150408	360	215.234
127	0	0.498039	-0.00501359	360	214.745
128	0	0.501961	0.00501359	360	214.255
129	0	0.505882	0.0150408	360	213.766
130	0	0.509804	0.0250691	360	213.276
131	0	0.513725	0.0350997	360	212.786
132	0	0.517647	0.0451348	360	212.296
133	0	0.521569	0.0551734	360	211.806
134	0	0.52549	0.0652187	360	211.315
135	0	0.529412	0.0752698	360	210.824
136	0	0.533333	0.0853288	360	210.333
137	0	0.537255	0.0953969	360	209.841
138	0	0.541176	0.105474	360	209.349
139	0	0.545098	0.115562	360	208.857
140	0	0.54902	0.125661	360	208.364
141	0	0.552941	0.133244	360	207.993
142	0	0.556863	0.143367	360	207.499
143	0	0.560784	0.153505	360	207.004
144	0	0.564706	0.163659	360	206.508
145	0	0.568627	0.173829	360	206.011
146	0	0.572549	0.184017	360	205.514
147	0	0.576471	0.194225	360	205.015
148	0	0.580392	0.204452	360	204.516
149	0	0.584314	0.214702	360	204.015
150	0	0.588235	0.224974	360	203.514
151	0	0.592157	0.235269	360	203.011
152	0	0.596078	0.24559	360	202.507
153	0	0.6	0.253347	360	202.128
154	0	0.603922	0.263715	360	201.622
155	0	0.607843	0.27411	360	201.114
156	0	0.611765	0.284535	360	200.605
157	0	0.615686	0.294992	360	200.095
158	0	0.619608	0.305481	360	199.582
159	0	0.623529	0.316004	360	199.068
160	0	0.627451	0.326561	360	198.553
161	0	0.631373	0.337155	360	198.036
162	0	0.635294	0.347787	360	197.516
163	0	0.639216	0.358459	360	196.995
164	0	0.643137	0.369171	360	196.472
165	0	0.647059	0.379927	360	195.947
166	0	0.65098	0.388022	360	195.552
167	0	0.654902	0.398855	360	195.023
168	0	0.658824	0.409735	360	194.491
169	0	0.662745	0.420664	360	193.958
170	0	0.666667	0.431644	360	193.421
171	0	0.670588	0.442676	360	192.883
172	0	0.67451	0.453763	360	192.341

173	0	0.678431	0.464904	360	191.797
174	0	0.682353	0.476105	360	191.25
175	0	0.686275	0.487364	360	190.7
176	0	0.690196	0.498687	360	190.147
177	0	0.694118	0.510074	360	189.591
178	0	0.698039	0.521527	360	189.032
179	0	0.701961	0.530162	360	188.61
180	0	0.705882	0.541736	360	188.045
181	0	0.709804	0.553384	360	187.476
182	0	0.713725	0.565108	360	186.904
183	0	0.717647	0.576911	360	186.328
184	0	0.721569	0.588793	360	185.747
185	0	0.72549	0.60076	360	185.163
186	0	0.729412	0.612813	360	184.574
187	0	0.733333	0.624956	360	183.981
188	0	0.737255	0.637192	360	183.384
189	0	0.741176	0.649522	360	182.782
190	0	0.745098	0.661955	360	182.175
191	0	0.74902	0.67449	360	181.562
192	0	0.752941	0.68396	360	181.1
193	0	0.756863	0.696684	360	180.479
194	0	0.760784	0.709522	360	179.852
195	0	0.764706	0.722479	360	179.219
196	0	0.768627	0.735557	360	178.58
197	0	0.772549	0.748762	360	177.935
198	0	0.776471	0.7621	360	177.284
199	0	0.780392	0.775574	360	176.626
200	0	0.784314	0.789191	360	175.961
201	0	0.788235	0.802956	360	175.289
202	0	0.792157	0.816874	360	174.609
203	0	0.796078	0.830953	360	173.922
204	0	0.8	0.841621	360	173.401
205	0	0.803922	0.855996	360	172.699
206	0	0.807843	0.87055	360	171.988
207	0	0.811765	0.885291	360	171.268
208	0	0.815686	0.900227	360	170.539
209	0	0.819608	0.915365	360	169.8
210	0	0.823529	0.930718	360	169.05
211	0	0.827451	0.946291	360	168.289
212	0	0.831373	0.9621	360	167.517
213	0	0.835294	0.97815	360	166.734
214	0	0.839216	0.994457	360	165.937
215	0	0.843137	1.01104	360	165.128
216	0	0.847059	1.02789	360	164.305
217	0	0.85098	1.04073	360	163.678
218	0	0.854902	1.05812	360	162.828
219	0	0.858824	1.07584	360	161.963
220	0	0.862745	1.0939	360	161.081
221	0	0.866667	1.11232	360	160.182
222	0	0.870588	1.13113	360	159.263
223	0	0.87451	1.15035	360	158.325
224	0	0.878431	1.17	360	157.365
225	0	0.882353	1.19012	360	156.383
226	0	0.886275	1.21073	360	155.376
227	0	0.890196	1.23187	360	154.344
228	0	0.894118	1.25357	360	153.284
229	0	0.898039	1.27588	360	152.195
230	0	0.901961	1.29303	360	151.357
231	0	0.905882	1.31652	360	150.21
232	0	0.909804	1.34075	360	149.026
233	0	0.913725	1.36581	360	147.803
234	0	0.917647	1.39175	360	146.536

235	0	0.921569	1.41865	360	145.222	
236	0	0.92549	1.44663	360	143.856	
237	0	0.929412	1.47579	360	142.432	
238	0	0.933333	1.50626	360	140.944	
239	0.00995033	0.937255	1.5382	361.065	139.385	
240	0.0953102	0.941176	1.57179	370.198	137.744	
241	0.336472	0.945098	1.60725	396.003	136.013	
242	0.524729	0.94902	1.64485	416.146	134.176	
243	0.641854	0.952941	1.67466	428.678	132.721	
244	0.779325	0.956863	1.71688	443.388	130.659	
245	0.788457	0.960784	1.76241	444.365	128.436	
246	1.0116	0.964706	1.81191	468.241	126.018	
247	1.16315	0.968627	1.86629	484.457	123.363	
248	1.21194	0.972549	1.92684	489.678	120.406	
249	1.24127	0.976471	1.99539	492.816	117.058	
250	1.30833	0.980392	2.07485	499.992	113.178	
251	1.30833	0.984314	2.17009	499.992	108.527	
252	1.36098	0.988235	2.29036	505.624	102.654	
253	1.4816	0.992157	2.45727	518.532	94.5032	
254	1.56862	0.996078	2.74777	527.842	80.3175	

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	97.5
	9/23/1999	ND<0	97.5
	3/15/2000	ND<0	97.5
	9/24/2003	ND<0	97.5
	3/11/2004	ND<0	97.5
	10/12/2004	ND<0	97.5
	4/1/2005	ND<0	97.5
	10/25/2005	ND<0	97.5
	4/29/2006	ND<0	97.5
	11/18/2006	ND<0	97.5
	5/23/2007	ND<0	97.5
	11/28/2007	ND<0	97.5
	6/5/2008	ND<0	97.5
	11/20/2008	ND<0	97.5
	6/11/2009	ND<-2.07944	97.5
	11/16/2009	ND<-2.07944	97.5
	6/30/2010	ND<-2.07944	97.5
	11/12/2010	ND<-2.07944 U	97.5
	7/5/2011	ND<-2.07944 U	97.5

Rank Sum = 1852.5
Rank Mean = 97.5

Background Rank Sum = 1852.5
Background Rank Mean = 97.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	ND<0	97.5
	8/24/1995	ND<0	97.5
	9/28/1995	ND<0	97.5
	10/26/1995	ND<0	97.5
	11/19/1996	ND<0	97.5
	12/19/1996	ND<0	97.5
	3/24/1997	ND<0	97.5
	9/24/1997	ND<0	97.5
	4/7/1998	ND<0	97.5
	9/23/1998	ND<0	97.5
	3/16/1999	ND<0	97.5
	9/23/1999	ND<0	97.5
	3/15/2000	ND<0	97.5
	9/24/2003	ND<0	97.5
	3/11/2004	ND<0	97.5
	10/12/2004	ND<0	97.5
	4/1/2005	ND<0	97.5
	10/25/2005	ND<0	97.5
	4/29/2006	ND<0	97.5
	11/18/2006	ND<0	97.5
	5/23/2007	ND<0	97.5

	11/28/2007	ND<0	97.5	
	6/5/2008	ND<0	97.5	
	11/20/2008	ND<0	97.5	
	6/11/2009	ND<-2.07944		97.5
	11/16/2009	ND<-2.07944		97.5
	6/30/2010	ND<-2.07944		97.5
	11/12/2010	ND<-2.07944 U		97.5
	7/5/2011	ND<-2.07944 U	97.5	
	11/22/2011	ND<-2.07944 U		97.5
	11/22/2011	ND<-2.07944 U		97.5
	6/5/2012	ND<-2.07944 U	97.5	

Rank Sum = 3120
Rank Mean = 97.5

MW-7	7/20/1995	ND<0	97.5	
	8/24/1995	ND<0	97.5	
	9/28/1995	ND<0	97.5	
	10/26/1995	ND<0	97.5	
	11/19/1996	ND<0	97.5	
	12/19/1996	ND<0	97.5	
	3/24/1997	ND<0	97.5	
	9/24/1997	ND<0	97.5	
	4/7/1998	ND<0	97.5	
	9/23/1998	ND<0	97.5	
	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	ND<0	97.5	
	10/25/2005	ND<0	97.5	
	4/29/2006	ND<0	97.5	
	11/18/2006	ND<0	97.5	
	5/23/2007	ND<0	97.5	
	11/28/2007	ND<0	97.5	
	6/5/2008	ND<0	97.5	
	11/20/2008	-1.23787 J		197
	6/11/2009	ND<-2.07944		97.5
	11/16/2009	ND<-2.07944		97.5
	6/30/2010	-0.527633 J		216
	11/12/2010	-1.02165 J		202
	7/5/2011	-0.248461 J	231	
	11/22/2011	-0.0725707 J		236
	11/22/2011	-0.0725707 J		237
	6/5/2012	-0.356675 J	226	

Rank Sum = 3982.5
Rank Mean = 124.453

MW-9	7/20/1995	ND<0	97.5	
	8/24/1995	-1.20397 J		198
	9/28/1995	ND<0	97.5	
	10/26/1995	-1.20397 J		199
	11/19/1996	ND<0	97.5	
	12/19/1996	ND<0	97.5	
	3/24/1997	ND<0	97.5	
	9/24/1997	ND<0	97.5	
	4/7/1998	ND<0	97.5	
	9/23/1998	ND<0	97.5	
	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	

	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	-0.653926	J	211
	10/25/2005	-1.07881	J	201
	4/29/2006	-1.38629	J	195
	11/18/2006	-1.27297	J	196
	5/23/2007	0.0953102		240
	11/28/2007	-0.301105	J	230
	6/5/2008	-0.579818	J	213
	11/20/2008	-0.430783	J	223
	6/11/2009	-0.210721	J	234
	11/16/2009	-0.223144	J	233
	6/30/2010	0.336472		241
	11/12/2010	0	238	
	7/5/2011	-0.84397	J	205
	11/22/2011	-0.776529	J	208
	11/22/2011	-0.776529	J	209
	6/5/2012	-0.71335	J	210

Rank Sum = 5249
Rank Mean = 164.031

MW-10	7/20/1995	ND<0	97.5	
	8/24/1995	ND<0	97.5	
	9/28/1995	ND<0	97.5	
	10/26/1995	ND<0	97.5	
	11/19/1996	ND<0	97.5	
	12/19/1996	ND<0	97.5	
	3/24/1997	ND<0	97.5	
	9/24/1997	ND<0	97.5	
	4/7/1998	ND<0	97.5	
	9/23/1998	ND<0	97.5	
	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	-1.10866	J	200
	10/25/2005	-0.84397	J	206
	4/29/2006	-0.527633	J	217
	11/18/2006	-0.916291	J	203
	5/23/2007	ND<0	97.5	
	11/28/2007	-0.527633	J	218
	6/5/2008	-0.510826	J	219
	11/20/2008	-0.478036	J	220
	6/11/2009	-0.798508	J	207
	11/16/2009	-0.462035	J	222
	6/30/2010	ND<-2.07944		97.5
	11/12/2010	-0.371064	J	225
	7/5/2011	-0.18633	J	235
	11/22/2011	-0.314711	J	227
	11/22/2011	-0.314711	J	228
	6/5/2012	-0.235722	J	232

Rank Sum = 4814
Rank Mean = 150.438

MW-8	7/20/1995	ND<0	97.5	
	8/24/1995	ND<0	97.5	
	9/28/1995	ND<0	97.5	
	10/26/1995	ND<0	97.5	
	11/19/1996	ND<0	97.5	

	12/19/1996	ND<0	97.5	
	3/24/1997	ND<0	97.5	
	9/24/1997	ND<0	97.5	
	4/7/1998	ND<0	97.5	
	9/23/1998	ND<0	97.5	
	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	ND<0	97.5	
	10/25/2005	1.0116	246	
	4/29/2006	0.524729	J	242
	11/18/2006	1.24127		249
	5/23/2007	0.788457		245
	11/28/2007	1.21194		248
	6/5/2008	ND<0	97.5	
	11/20/2008	0.779325		244
	6/11/2009	1.56862		254
	6/30/2010	0.641854		243
	11/12/2010	1.4816	253	
	7/5/2011	1.36098	252	
	11/22/2011	1.30833		250
	11/22/2011	1.30833		251
	6/5/2012	1.16315	247	

Rank Sum = 4979
Rank Mean = 160.613

MW-6	7/20/1995	ND<0	97.5	
	8/24/1995	ND<0	97.5	
	9/28/1995	ND<0	97.5	
	10/26/1995	ND<0	97.5	
	11/19/1996	ND<0	97.5	
	12/19/1996	ND<0	97.5	
	3/24/1997	ND<0	97.5	
	9/24/1997	ND<0	97.5	
	4/7/1998	ND<0	97.5	
	9/23/1998	ND<0	97.5	
	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	ND<0	97.5	
	10/25/2005	ND<0	97.5	
	4/29/2006	ND<0	97.5	
	11/18/2006	ND<0	97.5	
	5/23/2007	ND<0	97.5	
	11/28/2007	ND<0	97.5	
	6/5/2008	ND<0	97.5	
	11/20/2008	ND<0	97.5	
	6/11/2009	ND<-2.07944		97.5
	11/16/2009	ND<-2.07944		97.5
	6/30/2010	ND<-2.07944		97.5
	11/12/2010	ND<-2.07944	U	97.5
	7/5/2011	ND<-2.07944	U	97.5
	11/22/2011	ND<-2.07944	U	97.5
	11/22/2011	ND<-2.07944	U	97.5
	6/5/2012	ND<-2.07944	U	97.5

Rank Sum = 3120

Rank Mean = 97.5

MW-12BR	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	0.00995033 J	239	
	10/25/2005	ND<0	97.5	
	4/29/2006	ND<0	97.5	
	11/18/2006	ND<0	97.5	
	5/23/2007	ND<0	97.5	
	11/28/2007	ND<0	97.5	
	6/5/2008	ND<0	97.5	
	11/20/2008	ND<0	97.5	
	6/11/2009	ND<-2.07944	97.5	
	11/16/2009	ND<-2.07944	97.5	
	6/30/2010	ND<-2.07944	97.5	
	11/12/2010	ND<-2.07944 U	97.5	
	7/5/2011	ND<-2.07944 U	97.5	
	11/22/2011	ND<-2.07944 U	97.5	
	11/22/2011	ND<-2.07944 U	97.5	
	6/5/2012	ND<-2.07944 U	97.5	

Rank Sum = 2286.5
Rank Mean = 103.932

MW-12AR	3/16/1999	ND<0	97.5	
	9/23/1999	ND<0	97.5	
	3/15/2000	ND<0	97.5	
	9/24/2003	ND<0	97.5	
	3/11/2004	ND<0	97.5	
	10/12/2004	ND<0	97.5	
	4/1/2005	ND<0	97.5	
	10/25/2005	-0.562119 J	215	
	4/29/2006	-0.478036 J	221	
	11/18/2006	-0.634878 J	212	
	5/23/2007	ND<0	97.5	
	11/28/2007	-0.579818 J	214	
	6/5/2008	-0.430783 J	224	
	11/20/2008	-0.916291 J	204	
	6/11/2009	ND<-2.07944	97.5	
	11/16/2009	ND<-2.07944	97.5	
	6/30/2010	ND<-2.07944	97.5	
	11/12/2010	-0.314711 J	229	
	7/5/2011	ND<-2.07944 U	97.5	
	11/22/2011	ND<-2.07944 U	97.5	
	11/22/2011	ND<-2.07944 U	97.5	
	6/5/2012	ND<-2.07944 U	97.5	

Rank Sum = 2981.5
Rank Mean = 135.523

Calculation Results:

Kruskal-Wallis H Statistic = 33.7498
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 60.8711
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
33.7498 > 15.5073 indicating a significant group difference at 5% significance level
60.8711 > 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 97.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	**97.5**	**0**	**49.4998**
MW-7	**124.453**	**26.9531**	**49.4998**
MW-9	**164.031**	**66.5313**	**49.4998**
MW-10	**150.438**	**52.9375**	**49.4998**
MW-8	**160.613**	**63.1129**	**49.7963**
MW-6	**97.5**	**0**	**49.4998**
MW-12BR	**103.932**	**6.43182**	**53.5271**
MW-12AR	**135.523**	**38.0227**	**53.5271**

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 97.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-11R	**97.5**	**0**	**53.453**
MW-7	**124.453**	**26.9531**	**53.453**
MW-9	**164.031**	**66.5313**	**53.453**
MW-10	**150.438**	**52.9375**	**53.453**
MW-8	**160.613**	**63.1129**	**53.7733**
MW-6	**97.5**	**0**	**53.453**
MW-12BR	**103.932**	**6.43182**	**57.802**
MW-12AR	**135.523**	**38.0227**	**57.802**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chlorobenzene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 76.378%
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-11R	6/5/2012	1	-2.07944	FALSE
MW-7	6/5/2012	1	-0.356675	FALSE
MW-9	6/5/2012	1	-0.71335	FALSE
MW-10	6/5/2012	1	-0.235722	FALSE
MW-8	6/5/2012	1	1.16315	TRUE
MW-6	6/5/2012	1	-2.07944	FALSE
MW-12BR	6/5/2012	1	-2.07944	FALSE
MW-12AR	6/5/2012	1	-2.07944	FALSE

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			
1.16315 (6/5/2012)	ND<0 (7/20/1995)	(1.16315 - 0)/(30 - 1)	
0.0401086			
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					
1.16315	(6/5/2012)	ND<0	(8/24/1995)	(1.16315 - 0)/(30 - 2)	
0.0415411					

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)	ND<0 (9/28/1995)	(0.641854 - 0)/(26 - 3)		
0.0279067				
1.4816 (11/12/2010)	ND<0 (9/28/1995)	(1.4816 - 0)/(27 - 3)		
0.0617335				
1.36098 (7/5/2011)	ND<0 (9/28/1995)	(1.36098 - 0)/(28 - 3)		
0.0544391				
1.30833 (11/22/2011)	ND<0 (9/28/1995)	(1.30833 - 0)/(29 - 3)		
0.0503205				
1.30833 (11/22/2011)	ND<0 (9/28/1995)	(1.30833 - 0)/(29 - 3)		
0.0503205				
1.16315 (6/5/2012)	ND<0 (9/28/1995)	(1.16315 - 0)/(30 - 3)		
0.0430797				
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)	ND<0 (10/26/1995)	(1.0116 - 0)/(18 - 4)		
0.0722572				
0.524729 J (4/29/2006)	ND<0 (10/26/1995)	(0.524729 - 0)/(19 - 4)		
0.0349819				
1.24127 (11/18/2006)	ND<0 (10/26/1995)	(1.24127 - 0)/(20 - 4)		
0.0775793				
0.788457 (5/23/2007)	ND<0 (10/26/1995)	(0.788457 - 0)/(21 - 4)		
0.0463798				
1.21194 (11/28/2007)	ND<0 (10/26/1995)	(1.21194 - 0)/(22 - 4)		
0.0673301				
ND<0 (6/5/2008)	ND<0 (10/26/1995)	(0 - 0)/(23 - 4)	0	
0.779325 (11/20/2008)	ND<0 (10/26/1995)	(0.779325 - 0)/(24 - 4)		
0.0389662				
1.56862 (6/11/2009)	ND<0 (10/26/1995)	(1.56862 - 0)/(25 - 4)		
0.074696				
0.641854 (6/30/2010)	ND<0 (10/26/1995)	(0.641854 - 0)/(26 - 4)		
0.0291752				
1.4816 (11/12/2010)	ND<0 (10/26/1995)	(1.4816 - 0)/(27 - 4)		
0.0644176				
1.36098 (7/5/2011)	ND<0 (10/26/1995)	(1.36098 - 0)/(28 - 4)		
0.0567074				
1.30833 (11/22/2011)	ND<0 (10/26/1995)	(1.30833 - 0)/(29 - 4)		
0.0523333				
1.30833 (11/22/2011)	ND<0 (10/26/1995)	(1.30833 - 0)/(29 - 4)		
0.0523333				
1.16315 (6/5/2012)	ND<0 (10/26/1995)	(1.16315 - 0)/(30 - 4)		
0.0447366				
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					
1.16315	(6/5/2012)	ND<0	(11/19/1996)	(1.16315 - 0)/(30 - 5)	
0.046526					

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					
1.16315 (6/5/2012)	ND<0 (12/19/1996)	(1.16315 - 0)/(30 - 6)			
0.0484646					
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					
1.16315 (6/5/2012)	ND<0 (3/24/1997)	(1.16315 - 0)/(30 - 7)			
0.0505718					
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				
1.16315 (6/5/2012)	ND<0 (9/24/1997)	(1.16315 - 0)/(30 - 8)		
0.0528705				
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				
1.16315 (6/5/2012)	ND<0 (4/7/1998)	(1.16315 - 0)/(30 - 9)		
0.0553881				
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
1.16315	(6/5/2012)	ND<0	(9/23/1998)	(1.16315 - 0)/(30 - 10)	0.0581575

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					
1.16315 (6/5/2012)	ND<0 (3/16/1999)	(1.16315 - 0)/(30 - 11)			
0.0612185					
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					
1.16315 (6/5/2012)	ND<0 (9/23/1999)	(1.16315 - 0)/(30 - 12)			
0.0646195					
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					
1.16315 (6/5/2012)	ND<0 (3/15/2000)	(1.16315 - 0)/(30 - 13)			
0.0684206					
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					
1.16315 (6/5/2012)	ND<0 (9/24/2003)	(1.16315 - 0)/(30 - 14)			
0.0726969					
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					
1.16315 (6/5/2012)	ND<0 (3/11/2004)	(1.16315 - 0)/(30 - 15)			
0.0775434					

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				
1.16315 (6/5/2012)	ND<0 (10/12/2004)	(1.16315 - 0)/(30 - 16)		
0.0830822				
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				
1.16315 (6/5/2012)	ND<0 (4/1/2005)	(1.16315 - 0)/(30 - 17)		
0.0894731				
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			
1.16315	(6/5/2012)	1.0116 (10/25/2005)	(1.16315 - 1.0116)/(30 - 18)
0.0126292			
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			
1.16315	(6/5/2012)	0.524729 J (4/29/2006)	(1.16315 - 0.524729)/(30 - 19)
0.0580384			
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			

1.16315 (6/5/2012)	1.24127 (11/18/2006)	(1.16315 - 1.24127)/(30 - 20)		
-0.00781178				
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				
1.16315 (6/5/2012)	0.788457 (5/23/2007)	(1.16315 - 0.788457)/(30 - 21)		
0.0416326				
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				
1.16315 (6/5/2012)	1.21194 (11/28/2007)	(1.16315 - 1.21194)/(30 - 22)		
-0.00609877				
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				
1.16315 (6/5/2012)	ND<0 (6/5/2008)	(1.16315 - 0)/(30 - 23)		
0.166164				
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		
1.16315 (6/5/2012)	0.779325 (11/20/2008)	(1.16315 - 0.779325)/(30 - 24)
0.063971		
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		
1.16315 (6/5/2012)	1.56862 (6/11/2009)	(1.16315 - 1.56862)/(30 - 25)
-0.081093		
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		
1.16315 (6/5/2012)	0.641854 (6/30/2010)	(1.16315 - 0.641854)/(30 - 26)
0.130324		
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		
1.16315 (6/5/2012)	1.4816 (11/12/2010)	(1.16315 - 1.4816)/(30 - 27)
-0.106151		
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		
1.16315 (6/5/2012)	1.36098 (7/5/2011)	(1.16315 - 1.36098)/(30 - 28)
-0.0989129		
1.30833 (11/22/2011)	1.30833 (11/22/2011)	(1.30833 - 1.30833)/(29 - 29)
Same Date		
1.16315 (6/5/2012)	1.30833 (11/22/2011)	(1.16315 - 1.30833)/(30 - 29)
-0.145182		
1.16315 (6/5/2012)	1.30833 (11/22/2011)	(1.16315 - 1.30833)/(30 - 29)
-0.145182		

Number of Q values = 464

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	-0.145182
10	-0.145182
11	-0.142522
12	-0.131182
13	-0.120628
14	-0.115486
15	-0.106151
16	-0.0999025
17	-0.0989129
18	-0.0866359
19	-0.0866359
20	-0.081093
21	-0.0743812
22	-0.0692131
23	-0.0687355
24	-0.0650708
25	-0.0650708
26	-0.0526437
27	-0.0526437
28	-0.0462184
29	-0.0435057
30	-0.0387127
31	-0.0293207
32	-0.0146638
33	-0.00781178
34	-0.00609877
35	-0.00304416
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
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106	0
107	0
108	0
109	0
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111	0
112	0
113	0
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116	0
117	0
118	0
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120	0
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124	0
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126	0
127	0
128	0
129	0
130	0
131	0
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168	0
169	0
170	0
171	0
172	0
173	0
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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	0.00745158
190	0.00745158
191	0.0126292
192	0.0137703
193	0.0137703
194	0.0149635
195	0.0167322
196	0.0248393
197	0.0256742
198	0.0267439
199	0.0269756
200	0.0269756
201	0.0279067
202	0.0291516
203	0.0291752
204	0.0305645
205	0.0308664
206	0.0320927
207	0.0327955
208	0.0337818
209	0.0338837
210	0.0343337
211	0.0349376
212	0.0349819
213	0.0354239
214	0.0356585
215	0.0371107
216	0.0374806
217	0.0377561
218	0.0389662
219	0.0394229
220	0.0401086
221	0.0401159
222	0.0403637
223	0.0410171
224	0.0414978
225	0.0415411
226	0.0416326
227	0.0427903
228	0.0430797
229	0.0432958
230	0.0437274
231	0.0438032
232	0.0447366
233	0.0458426
234	0.0458467
235	0.0463798
236	0.046526
237	0.0467262
238	0.0467262
239	0.0477026
240	0.0484568
241	0.0484568
242	0.0484646
243	0.0487078

244	0.0492786
245	0.0493734
246	0.050085
247	0.0503205
248	0.0503205
249	0.0504065
250	0.0505718
251	0.0509193
252	0.051955
253	0.0522226
254	0.0523333
255	0.0523333
256	0.0523453
257	0.0524729
258	0.0525638
259	0.0528705
260	0.0534878
261	0.0539327
262	0.0544391
263	0.0545139
264	0.0545139
265	0.0553881
266	0.0556661
267	0.0563184
268	0.0567074
269	0.056884
270	0.056884
271	0.0569848
272	0.0577115
273	0.0580384
274	0.0581575
275	0.0583032
276	0.0583504
277	0.0591729
278	0.0592642
279	0.0594697
280	0.0594697
281	0.0595059
282	0.0599481
283	0.060597
284	0.0606506
285	0.0612185
286	0.0617335
287	0.0618626
288	0.0623016
289	0.0623016
290	0.0632251
291	0.0637864
292	0.063971
293	0.0641854
294	0.0644176
295	0.0646195
296	0.0648084
297	0.0649437
298	0.0649844
299	0.0649844
300	0.0653299
301	0.065359
302	0.0654166
303	0.0654166
304	0.0654695
305	0.0655911

306	0.0657048
307	0.0673301
308	0.0673457
309	0.0674401
310	0.0680488
311	0.0682007
312	0.0684206
313	0.0688596
314	0.0688596
315	0.0689594
316	0.0705526
317	0.0708477
318	0.0712906
319	0.0713007
320	0.0713171
321	0.0716303
322	0.0716779
323	0.0722572
324	0.0726852
325	0.0726852
326	0.0726969
327	0.0730158
328	0.0740802
329	0.074696
330	0.0749612
331	0.0756098
332	0.0757463
333	0.0769608
334	0.0769608
335	0.0775434
336	0.0775793
337	0.0778155
338	0.0779325
339	0.0779792
340	0.0783604
341	0.0783604
342	0.0784308
343	0.0788457
344	0.0795736
345	0.0800574
346	0.0807961
347	0.0817708
348	0.0817708
349	0.0817885
350	0.0823114
351	0.0825587
352	0.0827512
353	0.0830822
354	0.0843001
355	0.085061
356	0.0865672
357	0.0865917
358	0.0871453
359	0.0871532
360	0.0872222
361	0.0872222
362	0.0874548
363	0.0876064
364	0.088662
365	0.0894731
366	0.0907318
367	0.0919637

368	0.0922715
369	0.0926003
370	0.0929164
371	0.0932262
372	0.0934523
373	0.0934523
374	0.0954822
375	0.0972126
376	0.0974156
377	0.0980385
378	0.0985572
379	0.0987736
380	0.100641
381	0.100641
382	0.100995
383	0.10116
384	0.103439
385	0.104574
386	0.104691
387	0.104946
388	0.105802
389	0.105802
390	0.105829
391	0.109028
392	0.109028
393	0.110176
394	0.111332
395	0.112044
396	0.1124
397	0.112637
398	0.112843
399	0.113415
400	0.11397
401	0.114834
402	0.115525
403	0.118892
404	0.11961
405	0.120663
406	0.121194
407	0.123467
408	0.123725
409	0.124127
410	0.12645
411	0.130324
412	0.130718
413	0.131182
414	0.13141
415	0.131864
416	0.13466
417	0.134691
418	0.137919
419	0.142601
420	0.144514
421	0.145413
422	0.14816
423	0.151493
424	0.155159
425	0.156862
426	0.157691
427	0.166164
428	0.1686
429	0.173134

430	0.173981
431	0.174291
432	0.17491
433	0.177324
434	0.19504
435	0.196077
436	0.197114
437	0.20199
438	0.20232
439	0.206878
440	0.213951
441	0.218055
442	0.218055
443	0.22216
444	0.22216
445	0.229071
446	0.234093
447	0.242388
448	0.248254
449	0.2529
450	0.262364
451	0.272195
452	0.310317
453	0.3372
454	0.359561
455	0.370401
456	0.413756
457	0.423484
458	0.5058
459	0.71654
460	0.779325
461	0.784308
462	0.789291
463	0.839751
464	1.0116

Sen's Estimator (Median Q) is 0.0452896

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 12564
B = 18
C = 4896
D = 0
E = 308
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 2763
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 86.4604
M1 = (464 - 86.4604)/2.0 = 188.77
M2 = (464 + 86.4604)/2.0 + 1 = 276.23
Lower limit is 0.00745158 = Q(189)
Upper limit is 0.0583504 = Q(276)
0.00745158 > 0 indicating an upward 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		
-0.235722 J	(6/5/2012)	ND<0 (7/20/1995)	(-0.235722 - 0)/(31 - 1)
	-0.00785741		
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)	
-0.235722 J (6/5/2012) -0.00812836	ND<0 (8/24/1995)	(-0.235722 - 0)/(31 - 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)	ND<0	(9/28/1995)	(-0.916291 - 0)/(20 - 3)	
-0.0538995				
ND<0 (5/23/2007)	ND<0	(9/28/1995)	(0 - 0)/(21 - 3)	0
-0.527633 J (11/28/2007)	ND<0	(9/28/1995)	(-0.527633 - 0)/(22 - 3)	
-0.0277701				
-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				
-0.235722 J (6/5/2012)	ND<0	(9/28/1995)	(-0.235722 - 0)/(31 - 3)	
-0.00841865				
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			
-0.235722 J (6/5/2012)	ND<0 (10/26/1995)	(-0.235722 - 0)/(31 - 4)	
-0.00873046			
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)	ND<0 (11/19/1996)	(-1.10866 - 0)/(17 - 5)	
-0.0923886			
-0.84397 J (10/25/2005)	ND<0 (11/19/1996)	(-0.84397 - 0)/(18 - 5)	
-0.0649208			
-0.527633 J (4/29/2006)	ND<0 (11/19/1996)	(-0.527633 - 0)/(19 - 5)	
-0.0376881			
-0.916291 J (11/18/2006)	ND<0 (11/19/1996)	(-0.916291 - 0)/(20 - 5)	
-0.061086			
ND<0 (5/23/2007)	ND<0 (11/19/1996)	(0 - 0)/(21 - 5)	0
-0.527633 J (11/28/2007)	ND<0 (11/19/1996)	(-0.527633 - 0)/(22 - 5)	
-0.0310372			
-0.510826 J (6/5/2008)	ND<0 (11/19/1996)	(-0.510826 - 0)/(23 - 5)	
-0.0283792			
-0.478036 J (11/20/2008)	ND<0 (11/19/1996)	(-0.478036 - 0)/(24 - 5)	
-0.0251598			
-0.798508 J (6/11/2009)	ND<0 (11/19/1996)	(-0.798508 - 0)/(25 - 5)	
-0.0399254			
-0.462035 J (11/16/2009)	ND<0 (11/19/1996)	(-0.462035 - 0)/(26 - 5)	
-0.0220017			
ND<-2.07944 (6/30/2010)	ND<0 (11/19/1996)	(-2.07944 - 0)/(27 - 5)	
-0.0945201			
-0.371064 J (11/12/2010)	ND<0 (11/19/1996)	(-0.371064 - 0)/(28 - 5)	
-0.0161332			
-0.18633 J (7/5/2011)	ND<0 (11/19/1996)	(-0.18633 - 0)/(29 - 5)	
-0.00776373			
-0.314711 J (11/22/2011)	ND<0 (11/19/1996)	(-0.314711 - 0)/(30 - 5)	
-0.0125884			
-0.314711 J (11/22/2011)	ND<0 (11/19/1996)	(-0.314711 - 0)/(30 - 5)	
-0.0125884			
-0.235722 J (6/5/2012)	ND<0 (11/19/1996)	(-0.235722 - 0)/(31 - 5)	
-0.00906624			
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)	ND<0	(12/19/1996)	(-1.10866 - 0)/(17 - 6)	
-0.100788				
-0.84397 J (10/25/2005)	ND<0	(12/19/1996)	(-0.84397 - 0)/(18 - 6)	
-0.0703308				
-0.527633 J (4/29/2006)	ND<0	(12/19/1996)	(-0.527633 - 0)/(19 - 6)	
-0.0405871				
-0.916291 J (11/18/2006)	ND<0	(12/19/1996)	(-0.916291 - 0)/(20 - 6)	
-0.0654493				
ND<0 (5/23/2007)	ND<0	(12/19/1996)	(0 - 0)/(21 - 6)	0
-0.527633 J (11/28/2007)	ND<0	(12/19/1996)	(-0.527633 - 0)/(22 - 6)	
-0.032977				
-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				
-0.235722 J (6/5/2012)	ND<0	(12/19/1996)	(-0.235722 - 0)/(31 - 6)	
-0.00942889				
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			
-0.235722 J (6/5/2012)	ND<0 (3/24/1997)	(-0.235722 - 0)/(31 - 7)	
-0.00982176			
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			
-0.235722 J (6/5/2012)	ND<0 (9/24/1997)	(-0.235722 - 0)/(31 - 8)	
-0.0102488			
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					
-0.235722 J (6/5/2012)	ND<0	(4/7/1998)	(-0.235722 - 0)/(31 - 9)		
-0.0107147					
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					

-0.235722 J (6/5/2012)	ND<0	(9/23/1998)	(-0.235722 - 0)/(31 - 10)		
-0.0112249					
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					
-0.235722 J (6/5/2012)	ND<0	(3/16/1999)	(-0.235722 - 0)/(31 - 11)		
-0.0117861					
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			
-0.235722 J (6/5/2012)	ND<0 (9/23/1999)	(-0.235722 - 0)/(31 - 12)	
-0.0124064			
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			
-0.235722 J (6/5/2012)	ND<0 (3/15/2000)	(-0.235722 - 0)/(31 - 13)	
-0.0130957			
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					
-0.235722 J (6/5/2012)	ND<0	(9/24/2003)	(-0.235722 - 0)/(31 - 14)		
-0.013866					
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					
-0.235722 J (6/5/2012)	ND<0	(3/11/2004)	(-0.235722 - 0)/(31 - 15)		
-0.0147326					
-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			
-0.235722 J (6/5/2012)	ND<0 (10/12/2004)	(-0.235722 - 0)/(31 - 16)	
-0.0157148			
-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			
-0.235722 J (6/5/2012)	-1.10866 J (4/1/2005)	(-0.235722 - -1.10866)/(31 - 17)	
0.0623529			
-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
-0.235722 J (6/5/2012)	-0.84397 J (10/25/2005)	(-0.235722 - -0.84397)/(31 - 18)	0.0467883
-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
-0.235722 J (6/5/2012)	-0.527633 J (4/29/2006)	(-0.235722 - -0.527633)/(31 - 19)	0.0243259
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		
-0.235722 J (6/5/2012)	-0.916291 J (11/18/2006)	(-0.235722 - -0.916291)/(31 - 20)
0.0618699		
-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		
-0.235722 J (6/5/2012)	ND<0 (5/23/2007)	(-0.235722 - 0)/(31 - 21)
-0.0235722		
-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		
-0.235722 J (6/5/2012)	-0.527633 J (11/28/2007)	(-0.235722 - -0.527633)/(31 - 22)
0.0324345		
-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
-0.235722 J (6/5/2012)	-0.510826 J (6/5/2008)	(-0.235722 - -0.510826)/(31 - 23)	0.0343879
-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
-0.235722 J (6/5/2012)	-0.478036 J (11/20/2008)	(-0.235722 - -0.478036)/(31 - 24)	0.0346162
-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
-0.235722 J (6/5/2012)	-0.798508 J (6/11/2009)	(-0.235722 - -0.798508)/(31 - 25)	0.0937976
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
-0.235722 J (6/5/2012)	-0.462035 J (11/16/2009)	(-0.235722 - -0.462035)/(31 - 26)	0.0452626
-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
-0.235722 J (6/5/2012)	ND<-2.07944 (6/30/2010)	(-0.235722 - -2.07944)/(31 - 27)	0.46093
-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
-0.235722 J (6/5/2012)	-0.371064 J (11/12/2010)	(-0.235722 - -0.371064)/(31 - 28)	0.0451138
-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
-0.235722 J (6/5/2012)	-0.18633 J (7/5/2011)	(-0.235722 - -0.18633)/(31 - 29)	-0.0246964
-0.314711 J (11/22/2011)	-0.314711 J (11/22/2011)	(-0.314711 - -0.314711)/(30 - 30)	Same Date
-0.235722 J (6/5/2012)	-0.314711 J (11/22/2011)	(-0.235722 - -0.314711)/(31 - 30)	0.0789884
-0.235722 J (6/5/2012)	-0.314711 J (11/22/2011)	(-0.235722 - -0.314711)/(31 - 30)	0.0789884

Number of Q values = 495

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	-0.0246964
179	-0.024325
180	-0.0243177
181	-0.0239018
182	-0.0235722
183	-0.0232912
184	-0.0232193
185	-0.0231915
186	-0.0231018
187	-0.0227636
188	-0.0224793
189	-0.0224793
190	-0.0220017
191	-0.0218273
192	-0.0217289
193	-0.0210016
194	-0.0209807
195	-0.0209807
196	-0.0207842
197	-0.0206146
198	-0.0200885
199	-0.0196694
200	-0.0196694
201	-0.0195297
202	-0.0192515
203	-0.0185532
204	-0.0185124
205	-0.0185124
206	-0.0184814
207	-0.0176697
208	-0.0174839
209	-0.0174839
210	-0.0168665
211	-0.0165637

212	-0.0165637
213	-0.0161332
214	-0.0157355
215	-0.0157355
216	-0.0157148
217	-0.015461
218	-0.0149862
219	-0.0149862
220	-0.0148425
221	-0.0147326
222	-0.014333
223	-0.014305
224	-0.014305
225	-0.0142717
226	-0.013866
227	-0.0137431
228	-0.0136831
229	-0.0136831
230	-0.0133093
231	-0.0131129
232	-0.0131129
233	-0.0130957
234	-0.0125884
235	-0.0125884
236	-0.012422
237	-0.0124064
238	-0.0121043
239	-0.0121043
240	-0.0117861
241	-0.011656
242	-0.011656
243	-0.0116456
244	-0.0112397
245	-0.0112397
246	-0.0112249
247	-0.0109606
248	-0.0108521
249	-0.0108521
250	-0.0107147
251	-0.0103516
252	-0.0102488
253	-0.00982176
254	-0.00980682
255	-0.00942889
256	-0.00931648
257	-0.00906624
258	-0.00887284
259	-0.00873046
260	-0.00846953
261	-0.00841865
262	-0.00812836
263	-0.00810129
264	-0.00785741
265	-0.00776373
266	-0.00745318
267	-0.00716652
268	-0.0069011
269	-0.00665463
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
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286	0
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369	0
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372	0
373	0
374	0
375	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
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	0.00420178
408	0.00649462
409	0.00800017
410	0.00937104
411	0.00991939
412	0.0162634
413	0.0163993
414	0.0168071
415	0.0173966
416	0.0193565
417	0.0193565
418	0.0235566
419	0.0243259
420	0.0247985
421	0.0260948
422	0.0266152
423	0.0266152
424	0.026743
425	0.0272208
426	0.0272208
427	0.0279524
428	0.0280164
429	0.0280164
430	0.0281765
431	0.0281765
432	0.0324345
433	0.0327898
434	0.0341303
435	0.0343879
436	0.0346162
437	0.0368312
438	0.0368312
439	0.0387694
440	0.0441049
441	0.0441049
442	0.0451138
443	0.0452626
444	0.0454859
445	0.0467883
446	0.0472906
447	0.0477418
448	0.0487576
449	0.0540827
450	0.0583412
451	0.0597855
452	0.060158
453	0.060158
454	0.060989
455	0.0610732
456	0.0610732
457	0.0618699
458	0.0623529
459	0.064124

460	0.0666289
461	0.0670544
462	0.0681534
463	0.0718475
464	0.0757092
465	0.0768611
466	0.0789884
467	0.0789884
468	0.0790843
469	0.0811068
470	0.0900895
471	0.091902
472	0.0937976
473	0.0967594
474	0.0967594
475	0.0996395
476	0.109564
477	0.116206
478	0.135155
479	0.142481
480	0.153045
481	0.184734
482	0.194329
483	0.263816
484	0.264693
485	0.277166
486	0.281323
487	0.290515
488	0.316337
489	0.336472
490	0.46093
491	0.588244
492	0.588244
493	0.916291
494	0.946556
495	1.70838

Sen's Estimator (Median Q) is -0.0108521

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 10644
B = 18
C = 4080
D = 0
E = 276
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3210.61
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 93.2011
M1 = (495 - 93.2011)/2.0 = 200.899
M2 = (495 + 93.2011)/2.0 + 1 = 295.101
Lower limit is -0.0195297 = Q(201)
Upper limit is 0 = Q(295)
-0.0195297 < 0 < 0 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
-0.71335 J (6/5/2012)	ND<0 (7/20/1995)	(-0.71335 - 0)/(31 - 1)	-0.0237783
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
ND<0 (10/12/2004) -1.20397 J (8/24/1995) (0 - -1.20397)/(16 - 2)
0.0859981
-0.653926 J (4/1/2005) -1.20397 J (8/24/1995) (-0.653926 - -1.20397)/(17 - 2)
0.0366698
-1.07881 J (10/25/2005) -1.20397 J (8/24/1995) (-1.07881 - -1.20397)/(18 - 2)
0.0078227
-1.38629 J (4/29/2006) -1.20397 J (8/24/1995) (-1.38629 - -1.20397)/(19 - 2)
-0.0107248
-1.27297 J (11/18/2006) -1.20397 J (8/24/1995) (-1.27297 - -1.20397)/(20 - 2)
-0.00383294
0.0953102 (5/23/2007) -1.20397 J (8/24/1995) (0.0953102 - -1.20397)/(21 - 2)
0.0683833
-0.301105 J (11/28/2007) -1.20397 J (8/24/1995) (-0.301105 - -1.20397)/(22 - 2)
0.0451434
-0.579818 J (6/5/2008) -1.20397 J (8/24/1995) (-0.579818 - -1.20397)/(23 - 2)
0.0297216
-0.430783 J (11/20/2008) -1.20397 J (8/24/1995) (-0.430783 - -1.20397)/(24 - 2)
0.035145
-0.210721 J (6/11/2009) -1.20397 J (8/24/1995) (-0.210721 - -1.20397)/(25 - 2)
0.0431849
-0.223144 J (11/16/2009) -1.20397 J (8/24/1995) (-0.223144 - -1.20397)/(26 - 2)
0.0408679
0.336472 (6/30/2010) -1.20397 J (8/24/1995) (0.336472 - -1.20397)/(27 - 2)
0.0616178
0 (11/12/2010) -1.20397 J (8/24/1995) (0 - -1.20397)/(28 - 2) 0.0463066
-0.84397 J (7/5/2011) -1.20397 J (8/24/1995) (-0.84397 - -1.20397)/(29 - 2)
0.0133334
-0.776529 J (11/22/2011) -1.20397 J (8/24/1995) (-0.776529 - -1.20397)/(30 - 2)
0.0152659
-0.776529 J (11/22/2011) -1.20397 J (8/24/1995) (-0.776529 - -1.20397)/(30 - 2)
0.0152659
-0.71335 J (6/5/2012) -1.20397 J (8/24/1995) (-0.71335 - -1.20397)/(31 - 2)
0.016918

-1.20397 J (10/26/1995) ND<0 (9/28/1995) (-1.20397 - 0)/(4 - 3) -1.20397
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
-0.653926 J (4/1/2005) ND<0 (9/28/1995) (-0.653926 - 0)/(17 - 3)
-0.046709
-1.07881 J (10/25/2005) ND<0 (9/28/1995) (-1.07881 - 0)/(18 - 3)
-0.0719206
-1.38629 J (4/29/2006) ND<0 (9/28/1995) (-1.38629 - 0)/(19 - 3)
-0.0866434
-1.27297 J (11/18/2006) ND<0 (9/28/1995) (-1.27297 - 0)/(20 - 3)
-0.0748803
0.0953102 (5/23/2007) ND<0 (9/28/1995) (0.0953102 - 0)/(21 - 3)
0.00529501
-0.301105 J (11/28/2007) ND<0 (9/28/1995) (-0.301105 - 0)/(22 - 3)
-0.0158476
-0.579818 J (6/5/2008) ND<0 (9/28/1995) (-0.579818 - 0)/(23 - 3)
-0.0289909
-0.430783 J (11/20/2008) ND<0 (9/28/1995) (-0.430783 - 0)/(24 - 3)
-0.0205135
-0.210721 J (6/11/2009) ND<0 (9/28/1995) (-0.210721 - 0)/(25 - 3)
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-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
-0.71335 J (6/5/2012) -0.579818 J (6/5/2008) (-0.71335 - -0.579818)/(31 - 23) -0.0166914

-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
-0.71335 J (6/5/2012) -0.430783 J (11/20/2008) (-0.71335 - -0.430783)/(31 - 24) -0.0403667

-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
-0.71335 J (6/5/2012) -0.210721 J (6/11/2009) (-0.71335 - -0.210721)/(31 - 25) -0.0837715

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
-0.71335 J (6/5/2012) -0.223144 J (11/16/2009) (-0.71335 - -0.223144)/(31 - 26)
-0.0980413

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
-0.71335 J (6/5/2012) 0.336472 (6/30/2010) (-0.71335 - 0.336472)/(31 - 27)
-0.262456

-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
-0.71335 J (6/5/2012) 0 (11/12/2010) (-0.71335 - 0)/(31 - 28) -0.237783

-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
-0.71335 J (6/5/2012) -0.84397 J (7/5/2011) (-0.71335 - -0.84397)/(31 - 29)
0.0653101

-0.776529 J (11/22/2011) -0.776529 J (11/22/2011) (-0.776529 - -0.776529)/(30 - 30)
Same Date
-0.71335 J (6/5/2012) -0.776529 J (11/22/2011) (-0.71335 - -0.776529)/(31 - 30)
0.0631789

-0.71335 J (6/5/2012) -0.776529 J (11/22/2011) (-0.71335 - -0.776529)/(31 - 30)
0.0631789

Number of Q values = 495

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	-0.262456
27	-0.254593
28	-0.237783
29	-0.231049
30	-0.217975
31	-0.215762
32	-0.212161
33	-0.206942
34	-0.206346
35	-0.198042
36	-0.181852
37	-0.179802
38	-0.175364
39	-0.173287
40	-0.163482
41	-0.159121
42	-0.158312
43	-0.154116
44	-0.154033
45	-0.141441
46	-0.138629
47	-0.138346
48	-0.138346
49	-0.134851
50	-0.130785
51	-0.127297
52	-0.126027
53	-0.119868
54	-0.11741
55	-0.115724
56	-0.115525
57	-0.113162
58	-0.113162
59	-0.108988
60	-0.107881
61	-0.106638
62	-0.10608
63	-0.099021
64	-0.0980736
65	-0.0980413
66	-0.0979204
67	-0.097078
68	-0.096871
69	-0.096871
70	-0.0934181
71	-0.0909261
72	-0.0899008
73	-0.0866434
74	-0.0848644
75	-0.0837715
76	-0.0829854

77	-0.0828312
78	-0.0826374
79	-0.0817408
80	-0.080866
81	-0.0775521
82	-0.0770164
83	-0.0765078
84	-0.0748803
85	-0.0726585
86	-0.0724773
87	-0.0719206
88	-0.0669982
89	-0.0653926
90	-0.0649208
91	-0.0648389
92	-0.0644243
93	-0.0636907
94	-0.0634594
95	-0.0602836
96	-0.0594479
97	-0.059428
98	-0.059428
99	-0.0579818
100	-0.0576243
101	-0.0576243
102	-0.0562647
103	-0.0554663
104	-0.0554663
105	-0.0544939
106	-0.0538479
107	-0.0527481
108	-0.0527108
109	-0.0517686
110	-0.0517686
111	-0.0501842
112	-0.0496453
113	-0.048533
114	-0.048533
115	-0.0483182
116	-0.0478648
117	-0.0475567
118	-0.0468872
119	-0.046709
120	-0.045805
121	-0.0456782
122	-0.0456782
123	-0.0446014
124	-0.0445844
125	-0.0444195
126	-0.0440253
127	-0.0431405
128	-0.0431405
129	-0.0430783
130	-0.043015
131	-0.0421985
132	-0.0419618
133	-0.0414156
134	-0.0408704
135	-0.0408699
136	-0.0408699
137	-0.0403667
138	-0.0401891

139	-0.0396305
140	-0.0391621
141	-0.0388264
142	-0.0388264
143	-0.0386546
144	-0.0383623
145	-0.0376381
146	-0.0375447
147	-0.0369776
148	-0.0369776
149	-0.0366944
150	-0.0362387
151	-0.0358986
152	-0.0356675
153	-0.0352968
154	-0.0352968
155	-0.0351654
156	-0.034107
157	-0.033969
158	-0.0337621
159	-0.0337621
160	-0.0334561
161	-0.0331371
162	-0.0324604
163	-0.032425
164	-0.0323554
165	-0.0323554
166	-0.0322121
167	-0.0310612
168	-0.0310612
169	-0.0310152
170	-0.0307702
171	-0.0301418
172	-0.0301105
173	-0.0297229
174	-0.0289909
175	-0.0287603
176	-0.0287603
177	-0.0287189
178	-0.028534
179	-0.0281015
180	-0.0281015
181	-0.0274365
182	-0.0273732
183	-0.0269239
184	-0.0267769
185	-0.0267769
186	-0.0263554
187	-0.0254768
188	-0.0253402
189	-0.0250921
190	-0.0239324
191	-0.0237783
192	-0.0234134
193	-0.0231619
194	-0.0226728
195	-0.0223144
196	-0.0215075
197	-0.0210721
198	-0.0205135
199	-0.0202858
200	-0.0200737

201	-0.0191565
202	-0.0188191
203	-0.0187297
204	-0.0185953
205	-0.0177121
206	-0.0175601
207	-0.0171649
208	-0.0166914
209	-0.0162093
210	-0.0159388
211	-0.0158476
212	-0.015837
213	-0.0150515
214	-0.0148762
215	-0.0143383
216	-0.0140481
217	-0.0139465
218	-0.0136157
219	-0.0131701
220	-0.0131261
221	-0.0124225
222	-0.0123969
223	-0.0123954
224	-0.0121548
225	-0.0117444
226	-0.0117067
227	-0.0111572
228	-0.0110906
229	-0.0107248
230	-0.0106259
231	-0.0105361
232	-0.00970189
233	-0.00957823
234	-0.00943095
235	-0.00943095
236	-0.00892574
237	-0.00878004
238	-0.00431205
239	-0.00424453
240	-0.00383294
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
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
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
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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	0.00476551
348	0.00529501
349	0.00595689
350	0.00635401
351	0.00680787
352	0.00733155
353	0.0078227
354	0.00794251
355	0.00866456
356	0.00894022
357	0.00953102
358	0.01059
359	0.0119138
360	0.0123513
361	0.0129412
362	0.0133334
363	0.0136157
364	0.0140197
365	0.0144001
366	0.0152659
367	0.0152659
368	0.0152942
369	0.015885
370	0.0160225
371	0.0164402
372	0.0164402
373	0.0168236
374	0.016918
375	0.0177091
376	0.0181712
377	0.0186929
378	0.019062
379	0.0194904
380	0.0197925
381	0.0210295
382	0.0213491
383	0.0224315
384	0.0240337
385	0.0251901
386	0.0251901

387	0.0258825
388	0.0280394
389	0.0281123
390	0.0297216
391	0.030128
392	0.0305884
393	0.0318777
394	0.0328502
395	0.035145
396	0.0366698
397	0.0386595
398	0.0401937
399	0.0408679
400	0.0423113
401	0.0431849
402	0.0445831
403	0.0451434
404	0.0463066
405	0.0472977
406	0.0476662
407	0.0478648
408	0.0496437
409	0.0496437
410	0.0501593
411	0.0501655
412	0.0501842
413	0.0508742
414	0.0542324
415	0.0554007
416	0.0554332
417	0.0554332
418	0.0560787
419	0.0594479
420	0.0616178
421	0.0631789
422	0.0631789
423	0.0653101
424	0.0669759
425	0.0674413
426	0.0674413
427	0.0683833
428	0.0702403
429	0.0705643
430	0.0764284
431	0.0859981
432	0.0926133
433	0.0990399
434	0.0997982
435	0.100331
436	0.100331
437	0.10382
438	0.106958
439	0.107696
440	0.107881
441	0.108004
442	0.109452
443	0.109452
444	0.111572
445	0.113329
446	0.115964
447	0.118892
448	0.120397

449	0.120397
450	0.124013
451	0.127515
452	0.133775
453	0.133775
454	0.149036
455	0.150497
456	0.150497
457	0.154033
458	0.157254
459	0.159121
460	0.166164
461	0.171996
462	0.171996
463	0.17497
464	0.184549
465	0.187309
466	0.191102
467	0.194426
468	0.195929
469	0.200662
470	0.200662
471	0.201619
472	0.210546
473	0.212449
474	0.215346
475	0.220062
476	0.229073
477	0.22992
478	0.231049
479	0.240795
480	0.240795
481	0.255752
482	0.273597
483	0.300993
484	0.300993
485	0.36173
486	0.391373
487	0.401324
488	0.401324
489	0.48593
490	0.559616
491	0.601986
492	0.740802
493	1.20397
494	1.20397
495	1.36828

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	15
2	-1.203972	
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
6/5/2012	1	

There are 1 time periods with multiple data

A = 7386
B = 18
C = 2730
D = 0
E = 214
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3391.55
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 95.7913
M1 = (495 - 95.7913)/2.0 = 199.604
M2 = (495 + 95.7913)/2.0 + 1 = 296.396
Lower limit is -0.0200737 = Q(200)
Upper limit is 0 = Q(296)
-0.0200737 < 0 < 0 indicating no trend in data.

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
6/5/2012	1.16315	0	0
6/5/2012	1.16315	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	-0.843970	-0.71196	

7/5/2011	-0.843970	-0.71196	
11/22/2011	-0.776529	0	-0.853458
11/22/2011	-0.776529	0	-0.853458
6/5/2012	-0.713350	-0.501868	
6/5/2012	-0.713350	-0.501868	

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	-0.843970	0	0	
10/25/2005	-0.843970	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	-2.079440	0	0	
6/30/2010	-2.079440	0	0	
11/12/2010	-0.371064	0	0	
11/12/2010	-0.371064	0	0	
7/5/2011	-0.186330	0		

7/5/2011	-0.186330	0		
11/22/2011	-0.314711	0	0	
11/22/2011	-0.314711	0	0	
6/5/2012	-0.235722	0	0	
6/5/2012	-0.235722	0	0	

Concentrations (ppb)

Parameter: Chloroform

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 227
Percent Non-Detects: 89.3701%
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-10	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<0.14	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
			6/5/2012	ND<0.14 U	ND<0.14 U
MW-6	32	20 (62.5%)	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
			6/5/2012	0.24 J	0.24 J
MW-9	32	28 (87.5%)	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
			6/5/2012	ND<0.14 U	ND<0.14 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<0.14	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
			6/5/2012	ND<0.14 U	ND<0.14 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<0.14		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
			6/5/2012	ND<0.14 U	ND<0.14 U	
MW-11R	32	22 (68.75%)	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	
			6/5/2012	0.25 J	0.25 J	
MW-12AR	22	21 (95.4545%)	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	
		6/5/2012	ND<0.14 U	ND<0.14 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<0.14		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	
		6/5/2012	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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.07	-2.747777	7.55021	-0.192344
2	0.07	-2.457271	3.5884	-0.364353
3	0.07	-2.290361	8.8342	-0.524678
4	0.07	-2.170092	3.5435	-0.676584
5	0.07	-2.074852	7.8485	-0.821824
6	0.07	-1.995393	1.8301	-0.961501
7	0.07	-1.926843	5.5428	-1.09638
8	0.07	-1.866293	9.0258	-1.22702
9	0.07	-1.811914	2.3088	-1.35385
10	0.07	-1.762414	5.4149	-1.47722
11	0.07	-1.716884	8.3626	-1.59741
12	0.07	-1.674665	1.1671	-1.71463
13	0.07	-1.644855	3.8726	-1.82977
14	0.07	-1.607255	6.4559	-1.94228
15	0.07	-1.571795	8.9264	-2.0523
16	0.07	-1.5382	61.2925	-2.15998
17	0.07	-1.506263	3.5613	-2.26542
18	0.07	-1.475796	5.7393	-2.36872
19	0.07	-1.446636	7.832	-2.46999
20	0.07	-1.418656	9.8446	-2.56929
21	0.07	-1.391757	1.7815	-2.66671
22	0.07	-1.365817	3.647	-2.76232
23	0.07	-1.340757	5.4446	-2.85617
24	0.07	-1.316527	7.1778	-2.94833
25	0.07	-1.293037	8.8498	-3.03884
26	0.07	-1.275888	0.4776	-3.12815
27	0.07	-1.253578	2.049	-3.2159
28	0.07	-1.231878	3.5665	-3.30213
29	0.07	-1.210738	5.0324	-3.38688
30	0.07	-1.190128	6.4488	-3.47019
31	0.07	-1.17	87.8177	-3.55209
32	0.07	-1.150358	9.141	-3.63262
33	0.07	-1.131139	0.4204	-3.7118
34	0.07	-1.112329	1.6577	-3.78966
35	0.07	-1.0939	92.8543	-3.86623
36	0.07	-1.075849	4.0117	-3.94154
37	0.07	-1.058129	5.1314	-4.01561
38	0.07	-1.040739	6.2145	-4.08846
39	0.07	-1.027899	7.271	-4.16041
40	0.07	-1.011049	8.2932	-4.23118
41	0.07	-0.994457	99.2822	-4.3008
42	0.07	-0.978151	00.239	-4.36927
43	0.07	-0.9621	101.165	-4.43661
44	0.07	-0.946291	102.06	-4.50285
45	0.07	-0.930718	102.926	-4.568
46	0.07	-0.915365	103.764	-4.63208
47	0.07	-0.900227	104.575	-4.6951
48	0.07	-0.885291	105.358	-4.75707
49	0.07	-0.870551	06.116	-4.81801
50	0.07	-0.855996	106.849	-4.87792
51	0.07	-0.841621	107.557	-4.93684

52	0.07	-0.830953	108.248	-4.99501
53	0.07	-0.816874	108.915	-5.05219
54	0.18	-0.802956	109.56	-5.19672
55	0.21	-0.789191	110.183	-5.36245
56	0.21	-0.775574	110.784	-5.52532
57	0.22	-0.7621	111.365	-5.69298
58	0.22	-0.748762	111.926	-5.85771
59	0.23	-0.735557	112.467	-6.02689
60	0.24	-0.722479	112.989	-6.20028
61	0.24	-0.709522	113.492	-6.37057
62	0.25	-0.696684	113.977	-6.54474
63	0.26	-0.68396	114.445	-6.72257
64	0.26	-0.67449	114.9	-6.89794
65	0.27	-0.661955	115.338	-7.07666
66	0.27	-0.649522	115.76	-7.25203
67	0.27	-0.637192	116.166	-7.42408
68	0.28	-0.624956	116.557	-7.59906
69	0.31	-0.612813	116.932	-7.78904
70	0.37	-0.60076	117.293	-8.01132
71	0.38	-0.588793	117.64	-8.23506
72	0.44	-0.576911	117.973	-8.4889
73	0.5	-0.565108	118.292	-8.77145
74	0.5	-0.553384	118.598	-9.04815
75	0.51	-0.541736	118.892	-9.32443
76	0.6	-0.530162	119.173	-9.64253
77	0.6	-0.521527	119.445	-9.95544
78	0.9	-0.510074	119.705	-10.4145
79	0.96	-0.498687	119.954	-10.8933
80	1	-0.487364	120.191	-11.3806
81	1	-0.476105	120.418	-11.8567
82	1	-0.464904	120.634	-12.3216
83	1	-0.453763	120.84	-12.7754
84	1	-0.442676	121.036	-13.2181
85	1	-0.431644	121.222	-13.6497
86	1	-0.420664	121.399	-14.0704
87	1	-0.409735	121.567	-14.4801
88	1	-0.398855	121.726	-14.879
89	1	-0.388022	121.877	-15.267
90	1	-0.379927	122.021	-15.6469
91	1	-0.369171	122.157	-16.0161
92	1	-0.358459	122.286	-16.3745
93	1	-0.347787	122.407	-16.7223
94	1	-0.337155	122.52	-17.0595
95	1	-0.326561	122.627	-17.386
96	1	-0.316004	122.727	-17.702
97	1	-0.305481	122.82	-18.0075
98	1	-0.294992	122.907	-18.3025
99	1	-0.284535	122.988	-18.5871
100	1	-0.27411	123.063	-18.8612
101	1	-0.263715	123.133	-19.1249
102	1	-0.253347	123.197	-19.3782
103	1	-0.24559	123.257	-19.6238
104	1	-0.235269	123.313	-19.8591
105	1	-0.224974	123.363	-20.0841
106	1	-0.214702	123.409	-20.2988
107	1	-0.204452	123.451	-20.5032
108	1	-0.194225	123.489	-20.6974
109	1	-0.184017	123.523	-20.8815
110	1	-0.173829	123.553	-21.0553
111	1	-0.163659	123.58	-21.2189
112	1	-0.153505	123.603	-21.3724
113	1	-0.143367	123.624	-21.5158

114	1	-0.133244	123.642	-21.6491
115	1	-0.125661	123.658	-21.7747
116	1	-0.115562	123.671	-21.8903
117	1	-0.105474	123.682	-21.9958
118	1	-0.0953969	123.691	-22.0912
119	1	-0.0853288	123.698	-22.1765
120	1	-0.0752698	123.704	-22.2518
121	1	-0.0652187	123.708	-22.317
122	1	-0.0551734	123.711	-22.3721
123	1	-0.0451348	123.713	-22.4173
124	1	-0.0350997	123.715	-22.4524
125	1	-0.0250691	123.715	-22.4774
126	1	-0.0150408	123.715	-22.4925
127	1	-0.00501359	123.715	-22.4975
128	1	0.00501359	123.716	-22.4925
129	1	0.0150408	123.716	-22.4774
130	1	0.0250691	123.716	-22.4524
131	1	0.0350997	123.718	-22.4173
132	1	0.0451348	123.72	-22.3721
133	1	0.0551734	123.723	-22.317
134	1	0.0652187	123.727	-22.2518
135	1	0.0752698	123.733	-22.1765
136	1	0.0853288	123.74	-22.0912
137	1	0.0953969	123.749	-21.9958
138	1	0.105474	123.76	-21.8903
139	1	0.115562	123.773	-21.7747
140	1	0.125661	123.789	-21.6491
141	1	0.133244	123.807	-21.5158
142	1	0.143367	123.828	-21.3724
143	1	0.153505	123.851	-21.2189
144	1	0.163659	123.878	-21.0553
145	1	0.173829	123.908	-20.8815
146	1	0.184017	123.942	-20.6974
147	1	0.194225	123.98	-20.5032
148	1	0.204452	124.022	-20.2988
149	1	0.214702	124.068	-20.0841
150	1	0.224974	124.118	-19.8591
151	1	0.235269	124.174	-19.6238
152	1	0.24559	124.234	-19.3782
153	1	0.253347	124.298	-19.1249
154	1	0.263715	124.368	-18.8612
155	1	0.27411	124.443	-18.5871
156	1	0.284535	124.524	-18.3025
157	1	0.294992	124.611	-18.0075
158	1	0.305481	124.704	-17.702
159	1	0.316004	124.804	-17.386
160	1	0.326561	124.911	-17.0595
161	1	0.337155	125.024	-16.7223
162	1	0.347787	125.145	-16.3745
163	1	0.358459	125.274	-16.0161
164	1	0.369171	125.41	-15.6469
165	1	0.379927	125.554	-15.267
166	1	0.388022	125.705	-14.879
167	1	0.398855	125.864	-14.4801
168	1	0.409735	126.032	-14.0704
169	1	0.420664	126.209	-13.6497
170	1	0.431644	126.395	-13.2181
171	1	0.442676	126.591	-12.7754
172	1	0.453763	126.797	-12.3216
173	1	0.464904	127.013	-11.8567
174	1	0.476105	127.24	-11.3806
175	1	0.487364	127.477	-10.8933

176	1	0.498687	127.726	-10.3946
177	1	0.510074	127.986	-9.88449
178	1	0.521527	128.258	-9.36296
179	1	0.530162	128.539	-8.8328
180	1	0.541736	128.833	-8.29106
181	1	0.553384	129.139	-7.73768
182	1	0.565108	129.458	-7.17257
183	1	0.576911	129.791	-6.59566
184	1	0.588793	130.138	-6.00687
185	1	0.60076	130.499	-5.40611
186	1	0.612813	130.874	-4.7933
187	1	0.624956	131.265	-4.16834
188	1	0.637192	131.671	-3.53115
189	1	0.649522	132.093	-2.88163
190	1	0.661955	132.531	-2.21967
191	1	0.67449	132.986	-1.54518
192	1	0.68396	133.454	-0.861219
193	1	0.696684	133.939	-0.164535
194	1	0.709522	134.442	0.544987
195	1	0.722479	134.964	1.26747
196	1	0.735557	135.505	2.00302
197	1	0.748762	136.066	2.75179
198	1	0.7621	136.647	3.51388
199	1	0.775574	137.248	4.28946
200	1	0.789191	137.871	5.07865
201	1	0.802956	138.516	5.88161
202	1	0.816874	139.183	6.69848
203	1	0.830953	139.874	7.52943
204	1	0.841621	140.582	8.37105
205	1	0.855996	141.315	9.22705
206	1	0.87055	142.073	10.0976
207	1	0.885291	142.856	10.9829
208	1	0.900227	143.667	11.8831
209	1	0.915365	144.505	12.7985
210	1	0.930718	145.371	13.7292
211	1	0.946291	146.266	14.6755
212	1	0.9621	147.192	15.6376
213	1	0.97815	148.149	16.6157
214	1	0.994457	149.138	17.6102
215	1	1.01104	150.16	18.6212
216	1	1.02789	151.217	19.6491
217	1	1.04073	152.3	20.6899
218	1	1.05812	153.419	21.748
219	1	1.07584	154.577	22.8238
220	1	1.0939	155.773	23.9177
221	1	1.11232	157.011	25.03
222	1	1.13113	158.29	26.1612
223	1	1.15035	159.613	27.3115
224	1	1.17	160.982	28.4815
225	1	1.19012	162.399	29.6716
226	1	1.21073	163.864	30.8824
227	1	1.23187	165.382	32.1142
228	1	1.25357	166.953	33.3678
229	1	1.27588	168.581	34.6437
230	1	1.29303	170.253	35.9367
231	1	1.31652	171.986	37.2532
232	1	1.34075	173.784	38.594
233	1	1.36581	175.649	39.9598
234	1	1.39175	177.586	41.3515
235	1	1.41865	179.599	42.7702
236	1	1.44663	181.692	44.2168
237	1	1.47579	183.87	45.6926

238	1	1.50626	186.139	47.1989
239	1	1.5382	188.505	48.7371
240	1	1.57179	190.975	50.3089
241	1	1.60725	193.558	51.9161
242	1	1.64485	196.264	53.561
243	1	1.67466	199.068	55.2356
244	1	1.71688	202.016	56.9525
245	1	1.76241	205.122	58.7149
246	1	1.81191	208.405	60.5268
247	1	1.86629	211.888	62.3931
248	1	1.92684	215.601	64.32
249	1	1.99539	219.583	66.3154
250	1	2.07485	223.888	68.3902
251	1	2.17009	228.597	70.5603
252	1	2.29036	233.843	72.8507
253	1	2.45727	239.881	75.3079
254	1.3	2.74777	247.431	78.88

Data Set Standard Deviation = 0.399801
Numerator = 6222.06
Denominator = 10006.1
W Statistic = 0.621829 = 6222.06 / 10006.1

5% Critical value of 0.976 exceeds 0.621829
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.621829
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 = 0.787146
0.787146 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.07	0.00392157	-2.747	77.725	348.683	
2	0.07	0.00784314	-2.457	27.725	334.497	
3	0.07	0.0117647	-2.290	36.725	326.346	
4	0.07	0.0156863	-2.170	09.725	320.473	
5	0.07	0.0196078	-2.074	85.725	315.822	
6	0.07	0.0235294	-1.995	39.725	311.942	
7	0.07	0.027451	-1.926	84.725	308.594	
8	0.07	0.0313725	-1.866	29.725	305.637	
9	0.07	0.0352941	-1.811	91.725	302.982	
10	0.07	0.0392157	-1.762	41.725	300.564	
11	0.07	0.0431373	-1.716	88.725	298.341	
12	0.07	0.0470588	-1.674	66.725	296.279	
13	0.07	0.0509804	-1.644	85.725	294.824	
14	0.07	0.054902	-1.607	25.725	292.987	
15	0.07	0.0588235	-1.571	79.725	291.256	
16	0.07	0.0627451	-1.538	2 57.725	289.615	
17	0.07	0.0666667	-1.506	26.725	288.056	
18	0.07	0.0705882	-1.475	79.725	286.568	
19	0.07	0.0745098	-1.446	63.725	285.144	
20	0.07	0.0784314	-1.418	65.725	283.778	
21	0.07	0.0823529	-1.391	75.725	282.464	
22	0.07	0.0862745	-1.365	81.725	281.197	
23	0.07	0.0901961	-1.340	75.725	279.974	
24	0.07	0.0941176	-1.316	52.725	278.79	
25	0.07	0.0980392	-1.293	03.725	277.643	
26	0.07	0.101961	-1.275	88.725	276.805	
27	0.07	0.105882	-1.253	57.725	275.716	
28	0.07	0.109804	-1.231	87.725	274.656	
29	0.07	0.113725	-1.210	73.725	273.624	
30	0.07	0.117647	-1.190	12.725	272.617	
31	0.07	0.121569	-1.17	57.725	271.635	
32	0.07	0.12549	-1.150	35.725	270.675	
33	0.07	0.129412	-1.131	13.725	269.737	
34	0.07	0.133333	-1.112	32.725	268.818	
35	0.07	0.137255	-1.093	9 57.725	267.919	
36	0.07	0.141176	-1.075	84.725	267.037	
37	0.07	0.145098	-1.058	12.725	266.172	
38	0.07	0.14902	-1.040	73.725	265.322	
39	0.07	0.152941	-1.027	89.725	264.695	
40	0.07	0.156863	-1.011	04.725	263.872	
41	0.07	0.160784	-0.994	457	57.725	263.063
42	0.07	0.164706	-0.978	15.725	262.266	
43	0.07	0.168627	-0.962	1 57.725	261.483	
44	0.07	0.172549	-0.946	291	57.725	260.711
45	0.07	0.176471	-0.930	718	57.725	259.95
46	0.07	0.180392	-0.915	365	57.725	259.2
47	0.07	0.184314	-0.900	227	57.725	258.461
48	0.07	0.188235	-0.885	291	57.725	257.732

49	0.07	0.192157	-0.870557.725	257.012	
50	0.07	0.196078	-0.855996	57.725	256.301
51	0.07	0.2	-0.841621	57.725	255.599
52	0.07	0.203922	-0.830953	57.725	255.078
53	0.07	0.207843	-0.816874	57.725	254.391
54	0.18	0.211765	-0.802956	87.15	253.711
55	0.21	0.215686	-0.789191	95.175	253.039
56	0.21	0.219608	-0.775574	95.175	252.374
57	0.22	0.223529	-0.7621 97.85	251.716	
58	0.22	0.227451	-0.748762	97.85	251.065
59	0.23	0.231373	-0.735557	100.525	250.42
60	0.24	0.235294	-0.722479	103.2	249.781
61	0.24	0.239216	-0.709522	103.2	249.148
62	0.25	0.243137	-0.696684	105.875	248.521
63	0.26	0.247059	-0.68396108.55	247.9	
64	0.26	0.25098 -0.67449108.55	247.438		
65	0.27	0.254902	-0.661955	111.225	246.825
66	0.27	0.258824	-0.649522	111.225	246.218
67	0.27	0.262745	-0.637192	111.225	245.616
68	0.28	0.266667	-0.624956	113.9	245.019
69	0.31	0.270588	-0.612813	121.925	244.426
70	0.37	0.27451 -0.60076137.975	243.837		
71	0.38	0.278431	-0.588793	140.65	243.253
72	0.44	0.282353	-0.576911	156.7	242.672
73	0.5	0.286275	-0.565108	172.75	242.096
74	0.5	0.290196	-0.553384	172.75	241.524
75	0.51	0.294118	-0.541736	175.425	240.955
76	0.6	0.298039	-0.530162	199.5	240.39
77	0.6	0.301961	-0.521527	199.5	239.968
78	0.9	0.305882	-0.510074	279.75	239.409
79	0.96	0.309804	-0.498687	295.8	238.853
80	1	0.313725	-0.487364	306.5	238.3
81	1	0.317647	-0.476105	306.5	237.75
82	1	0.321569	-0.464904	306.5	237.203
83	1	0.32549 -0.453763	306.5	236.659	
84	1	0.329412	-0.442676	306.5	236.117
85	1	0.333333	-0.431644	306.5	235.579
86	1	0.337255	-0.420664	306.5	235.042
87	1	0.341176	-0.409735	306.5	234.509
88	1	0.345098	-0.398855	306.5	233.977
89	1	0.34902 -0.388022	306.5	233.448	
90	1	0.352941	-0.379927	306.5	233.053
91	1	0.356863	-0.369171	306.5	232.528
92	1	0.360784	-0.358459	306.5	232.005
93	1	0.364706	-0.347787	306.5	231.484
94	1	0.368627	-0.337155	306.5	230.964
95	1	0.372549	-0.326561	306.5	230.447
96	1	0.376471	-0.316004	306.5	229.932
97	1	0.380392	-0.305481	306.5	229.418
98	1	0.384314	-0.294992	306.5	228.905
99	1	0.388235	-0.284535	306.5	228.395
100	1	0.392157	-0.27411306.5	227.886	
101	1	0.396078	-0.263715	306.5	227.378
102	1	0.4	-0.253347	306.5	226.872
103	1	0.403922	-0.24559306.5	226.493	
104	1	0.407843	-0.235269	306.5	225.989
105	1	0.411765	-0.224974	306.5	225.486
106	1	0.415686	-0.214702	306.5	224.985
107	1	0.419608	-0.204452	306.5	224.484
108	1	0.423529	-0.194225	306.5	223.985
109	1	0.427451	-0.184017	306.5	223.486
110	1	0.431373	-0.173829	306.5	222.989

111	1	0.435294	-0.163659	306.5	222.492
112	1	0.439216	-0.153505	306.5	221.996
113	1	0.443137	-0.143367	306.5	221.501
114	1	0.447059	-0.133244	306.5	221.007
115	1	0.45098	-0.125661	306.5	220.636
116	1	0.454902	-0.115562	306.5	220.143
117	1	0.458824	-0.105474	306.5	219.651
118	1	0.462745	-0.0953969	306.5	219.159
119	1	0.466667	-0.0853288	306.5	218.667
120	1	0.470588	-0.0752698	306.5	218.176
121	1	0.47451	-0.0652187	306.5	217.685
122	1	0.478431	-0.0551734	306.5	217.194
123	1	0.482353	-0.0451348	306.5	216.704
124	1	0.486275	-0.0350997	306.5	216.214
125	1	0.490196	-0.0250691	306.5	215.724
126	1	0.494118	-0.0150408	306.5	215.234
127	1	0.498039	-0.00501359	306.5	214.745
128	1	0.501961	0.00501359	306.5	214.255
129	1	0.505882	0.0150408	306.5	213.766
130	1	0.509804	0.0250691	306.5	213.276
131	1	0.513725	0.0350997	306.5	212.786
132	1	0.517647	0.0451348	306.5	212.296
133	1	0.521569	0.0551734	306.5	211.806
134	1	0.52549	0.0652187	306.5	211.315
135	1	0.529412	0.0752698	306.5	210.824
136	1	0.533333	0.0853288	306.5	210.333
137	1	0.537255	0.0953969	306.5	209.841
138	1	0.541176	0.105474	306.5	209.349
139	1	0.545098	0.115562	306.5	208.857
140	1	0.54902	0.125661	306.5	208.364
141	1	0.552941	0.133244	306.5	207.993
142	1	0.556863	0.143367	306.5	207.499
143	1	0.560784	0.153505	306.5	207.004
144	1	0.564706	0.163659	306.5	206.508
145	1	0.568627	0.173829	306.5	206.011
146	1	0.572549	0.184017	306.5	205.514
147	1	0.576471	0.194225	306.5	205.015
148	1	0.580392	0.204452	306.5	204.516
149	1	0.584314	0.214702	306.5	204.015
150	1	0.588235	0.224974	306.5	203.514
151	1	0.592157	0.235269	306.5	203.011
152	1	0.596078	0.24559	306.5	202.507
153	1	0.6	0.253347	306.5	202.128
154	1	0.603922	0.263715	306.5	201.622
155	1	0.607843	0.27411	306.5	201.114
156	1	0.611765	0.284535	306.5	200.605
157	1	0.615686	0.294992	306.5	200.095
158	1	0.619608	0.305481	306.5	199.582
159	1	0.623529	0.316004	306.5	199.068
160	1	0.627451	0.326561	306.5	198.553
161	1	0.631373	0.337155	306.5	198.036
162	1	0.635294	0.347787	306.5	197.516
163	1	0.639216	0.358459	306.5	196.995
164	1	0.643137	0.369171	306.5	196.472
165	1	0.647059	0.379927	306.5	195.947
166	1	0.65098	0.388022	306.5	195.552
167	1	0.654902	0.398855	306.5	195.023
168	1	0.658824	0.409735	306.5	194.491
169	1	0.662745	0.420664	306.5	193.958
170	1	0.666667	0.431644	306.5	193.421
171	1	0.670588	0.442676	306.5	192.883
172	1	0.67451	0.453763	306.5	192.341

173	1	0.678431	0.464904	306.5	191.797
174	1	0.682353	0.476105	306.5	191.25
175	1	0.686275	0.487364	306.5	190.7
176	1	0.690196	0.498687	306.5	190.147
177	1	0.694118	0.510074	306.5	189.591
178	1	0.698039	0.521527	306.5	189.032
179	1	0.701961	0.530162	306.5	188.61
180	1	0.705882	0.541736	306.5	188.045
181	1	0.709804	0.553384	306.5	187.476
182	1	0.713725	0.565108	306.5	186.904
183	1	0.717647	0.576911	306.5	186.328
184	1	0.721569	0.588793	306.5	185.747
185	1	0.72549	0.60076	306.5	185.163
186	1	0.729412	0.612813	306.5	184.574
187	1	0.733333	0.624956	306.5	183.981
188	1	0.737255	0.637192	306.5	183.384
189	1	0.741176	0.649522	306.5	182.782
190	1	0.745098	0.661955	306.5	182.175
191	1	0.74902	0.67449	306.5	181.562
192	1	0.752941	0.68396	306.5	181.1
193	1	0.756863	0.696684	306.5	180.479
194	1	0.760784	0.709522	306.5	179.852
195	1	0.764706	0.722479	306.5	179.219
196	1	0.768627	0.735557	306.5	178.58
197	1	0.772549	0.748762	306.5	177.935
198	1	0.776471	0.7621	306.5	177.284
199	1	0.780392	0.775574	306.5	176.626
200	1	0.784314	0.789191	306.5	175.961
201	1	0.788235	0.802956	306.5	175.289
202	1	0.792157	0.816874	306.5	174.609
203	1	0.796078	0.830953	306.5	173.922
204	1	0.8	0.841621	306.5	173.401
205	1	0.803922	0.855996	306.5	172.699
206	1	0.807843	0.87055	306.5	171.988
207	1	0.811765	0.885291	306.5	171.268
208	1	0.815686	0.900227	306.5	170.539
209	1	0.819608	0.915365	306.5	169.8
210	1	0.823529	0.930718	306.5	169.05
211	1	0.827451	0.946291	306.5	168.289
212	1	0.831373	0.9621	306.5	167.517
213	1	0.835294	0.97815	306.5	166.734
214	1	0.839216	0.994457	306.5	165.937
215	1	0.843137	1.01104	306.5	165.128
216	1	0.847059	1.02789	306.5	164.305
217	1	0.85098	1.04073	306.5	163.678
218	1	0.854902	1.05812	306.5	162.828
219	1	0.858824	1.07584	306.5	161.963
220	1	0.862745	1.0939	306.5	161.081
221	1	0.866667	1.11232	306.5	160.182
222	1	0.870588	1.13113	306.5	159.263
223	1	0.87451	1.15035	306.5	158.325
224	1	0.878431	1.17	306.5	157.365
225	1	0.882353	1.19012	306.5	156.383
226	1	0.886275	1.21073	306.5	155.376
227	1	0.890196	1.23187	306.5	154.344
228	1	0.894118	1.25357	306.5	153.284
229	1	0.898039	1.27588	306.5	152.195
230	1	0.901961	1.29303	306.5	151.357
231	1	0.905882	1.31652	306.5	150.21
232	1	0.909804	1.34075	306.5	149.026
233	1	0.913725	1.36581	306.5	147.803
234	1	0.917647	1.39175	306.5	146.536

235	1	0.921569	1.41865	306.5	145.222
236	1	0.92549	1.44663	306.5	143.856
237	1	0.929412	1.47579	306.5	142.432
238	1	0.933333	1.50626	306.5	140.944
239	1	0.937255	1.5382	306.5	139.385
240	1	0.941176	1.57179	306.5	137.744
241	1	0.945098	1.60725	306.5	136.013
242	1	0.94902	1.64485	306.5	134.176
243	1	0.952941	1.67466	306.5	132.721
244	1	0.956863	1.71688	306.5	130.659
245	1	0.960784	1.76241	306.5	128.436
246	1	0.964706	1.81191	306.5	126.018
247	1	0.968627	1.86629	306.5	123.363
248	1	0.972549	1.92684	306.5	120.406
249	1	0.976471	1.99539	306.5	117.058
250	1	0.980392	2.07485	306.5	113.178
251	1	0.984314	2.17009	306.5	108.527
252	1	0.988235	2.29036	306.5	102.654
253	1	0.992157	2.45727	306.5	94.5032
254	1.3	0.996078	2.74777	386.75	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.65926	-2.74777	7.55021	7.30702
2	-2.65926	-2.45727	13.5884	13.8416
3	-2.65926	-2.29036	18.8342	19.9322
4	-2.65926	-2.17009	23.5435	25.7031
5	-2.65926	-2.07485	27.8485	31.2206
6	-2.65926	-1.99539	31.8301	36.5269
7	-2.65926	-1.92684	35.5428	41.6509
8	-2.65926	-1.86629	39.0258	46.6138
9	-2.65926	-1.81191	42.3088	51.4322
10	-2.65926	-1.76241	45.4149	56.1189
11	-2.65926	-1.71688	48.3626	60.6845
12	-2.65926	-1.67466	51.1671	65.1379
13	-2.65926	-1.64485	53.8726	69.512
14	-2.65926	-1.60725	56.4559	73.7861
15	-2.65926	-1.57179	58.9264	77.9658
16	-2.65926	-1.5382	61.2925	82.0563
17	-2.65926	-1.50626	63.5613	86.0619
18	-2.65926	-1.47579	65.7393	89.9864
19	-2.65926	-1.44663	67.832	93.8334
20	-2.65926	-1.41865	69.8446	97.6059
21	-2.65926	-1.39175	71.7815	101.307
22	-2.65926	-1.36581	73.647	104.939
23	-2.65926	-1.34075	75.4446	108.504
24	-2.65926	-1.31652	77.1778	112.005
25	-2.65926	-1.29303	78.8498	115.444
26	-2.65926	-1.27588	80.4776	118.837
27	-2.65926	-1.25357	82.049	122.17
28	-2.65926	-1.23187	83.5665	125.446
29	-2.65926	-1.21073	85.0324	128.666
30	-2.65926	-1.19012	86.4488	131.831
31	-2.65926	-1.17	87.8177	134.942
32	-2.65926	-1.15035	89.141	138.001
33	-2.65926	-1.13113	90.4204	141.009
34	-2.65926	-1.11232	91.6577	143.967
35	-2.65926	-1.0939	92.8543	146.876
36	-2.65926	-1.07584	94.0117	149.737
37	-2.65926	-1.05812	95.1314	152.551
38	-2.65926	-1.04073	96.2145	155.318
39	-2.65926	-1.02789	97.271	158.052
40	-2.65926	-1.01104	98.2932	160.74
41	-2.65926	-0.994457	99.2822	163.385
42	-2.65926	-0.97815	100.239	165.986
43	-2.65926	-0.9621	101.165	168.544
44	-2.65926	-0.946291	102.06	171.061
45	-2.65926	-0.930718	102.926	173.536
46	-2.65926	-0.915365	103.764	175.97
47	-2.65926	-0.900227	104.575	178.364
48	-2.65926	-0.885291	105.358	180.718
49	-2.65926	-0.87055	106.116	183.033
50	-2.65926	-0.855996	106.849	185.31
51	-2.65926	-0.841621	107.557	187.548

52	-2.65926	-0.830953	108.248	189.757	
53	-2.65926	-0.816874	108.915	191.93	
54	-1.7148	-0.802956	109.56	193.307	
55	-1.56065	-0.789191	110.183	194.538	
56	-1.56065	-0.775574	110.784	195.749	
57	-1.51413	-0.7621	111.365	196.903	
58	-1.51413	-0.748762	111.926	198.036	
59	-1.46968	-0.735557	112.467	199.117	
60	-1.42712	-0.722479	112.989	200.148	
61	-1.42712	-0.709522	113.492	201.161	
62	-1.38629	-0.696684	113.977	202.127	
63	-1.34707	-0.68396	114.445	203.048	
64	-1.34707	-0.67449	114.9	203.957	
65	-1.30933	-0.661955	115.338	204.823	
66	-1.30933	-0.649522	115.76	205.674	
67	-1.30933	-0.637192	116.166	206.508	
68	-1.27297	-0.624956	116.557	207.304	
69	-1.17118	-0.612813	116.932	208.021	
70	-0.994252	-0.60076	117.293	208.619	
71	-0.967584	-0.588793	117.64	209.188	
72	-0.820981	-0.576911	117.973	209.662	
73	-0.693147	-0.565108	118.292	210.054	
74	-0.693147	-0.553384	118.598	210.437	
75	-0.673345	-0.541736	118.892	210.802	
76	-0.510826	-0.530162	119.173	211.073	
77	-0.510826	-0.521527	119.445	211.339	
78	-0.105361	-0.510074	119.705	211.393	
79	-0.040822	-0.498687	119.954	211.413	
80	0	-0.487364	120.191	211.413	
81	0	-0.476105	120.418	211.413	
82	0	-0.464904	120.634	211.413	
83	0	-0.453763	120.84	211.413	
84	0	-0.442676	121.036	211.413	
85	0	-0.431644	121.222	211.413	
86	0	-0.420664	121.399	211.413	
87	0	-0.409735	121.567	211.413	
88	0	-0.398855	121.726	211.413	
89	0	-0.388022	121.877	211.413	
90	0	-0.379927	122.021	211.413	
91	0	-0.369171	122.157	211.413	
92	0	-0.358459	122.286	211.413	
93	0	-0.347787	122.407	211.413	
94	0	-0.337155	122.52	211.413	
95	0	-0.326561	122.627	211.413	
96	0	-0.316004	122.727	211.413	
97	0	-0.305481	122.82	211.413	
98	0	-0.294992	122.907	211.413	
99	0	-0.284535	122.988	211.413	
100	0	-0.27411	123.063	211.413	
101	0	-0.263715	123.133	211.413	
102	0	-0.253347	123.197	211.413	
103	0	-0.24559	123.257	211.413	
104	0	-0.235269	123.313	211.413	
105	0	-0.224974	123.363	211.413	
106	0	-0.214702	123.409	211.413	
107	0	-0.204452	123.451	211.413	
108	0	-0.194225	123.489	211.413	
109	0	-0.184017	123.523	211.413	
110	0	-0.173829	123.553	211.413	
111	0	-0.163659	123.58	211.413	
112	0	-0.153505	123.603	211.413	
113	0	-0.143367	123.624	211.413	

114	0	-0.133244	123.642	211.413
115	0	-0.125661	123.658	211.413
116	0	-0.115562	123.671	211.413
117	0	-0.105474	123.682	211.413
118	0	-0.0953969	123.691	211.413
119	0	-0.0853288	123.698	211.413
120	0	-0.0752698	123.704	211.413
121	0	-0.0652187	123.708	211.413
122	0	-0.0551734	123.711	211.413
123	0	-0.0451348	123.713	211.413
124	0	-0.0350997	123.715	211.413
125	0	-0.0250691	123.715	211.413
126	0	-0.0150408	123.715	211.413
127	0	-0.00501359	123.715	211.413
128	0	0.00501359	123.716	211.413
129	0	0.0150408	123.716	211.413
130	0	0.0250691	123.716	211.413
131	0	0.0350997	123.718	211.413
132	0	0.0451348	123.72	211.413
133	0	0.0551734	123.723	211.413
134	0	0.0652187	123.727	211.413
135	0	0.0752698	123.733	211.413
136	0	0.0853288	123.74	211.413
137	0	0.0953969	123.749	211.413
138	0	0.105474	123.76	211.413
139	0	0.115562	123.773	211.413
140	0	0.125661	123.789	211.413
141	0	0.133244	123.807	211.413
142	0	0.143367	123.828	211.413
143	0	0.153505	123.851	211.413
144	0	0.163659	123.878	211.413
145	0	0.173829	123.908	211.413
146	0	0.184017	123.942	211.413
147	0	0.194225	123.98	211.413
148	0	0.204452	124.022	211.413
149	0	0.214702	124.068	211.413
150	0	0.224974	124.118	211.413
151	0	0.235269	124.174	211.413
152	0	0.24559	124.234	211.413
153	0	0.253347	124.298	211.413
154	0	0.263715	124.368	211.413
155	0	0.27411	124.443	211.413
156	0	0.284535	124.524	211.413
157	0	0.294992	124.611	211.413
158	0	0.305481	124.704	211.413
159	0	0.316004	124.804	211.413
160	0	0.326561	124.911	211.413
161	0	0.337155	125.024	211.413
162	0	0.347787	125.145	211.413
163	0	0.358459	125.274	211.413
164	0	0.369171	125.41	211.413
165	0	0.379927	125.554	211.413
166	0	0.388022	125.705	211.413
167	0	0.398855	125.864	211.413
168	0	0.409735	126.032	211.413
169	0	0.420664	126.209	211.413
170	0	0.431644	126.395	211.413
171	0	0.442676	126.591	211.413
172	0	0.453763	126.797	211.413
173	0	0.464904	127.013	211.413
174	0	0.476105	127.24	211.413
175	0	0.487364	127.477	211.413

176	0	0.498687		127.726	211.413
177	0	0.510074		127.986	211.413
178	0	0.521527		128.258	211.413
179	0	0.530162		128.539	211.413
180	0	0.541736		128.833	211.413
181	0	0.553384		129.139	211.413
182	0	0.565108		129.458	211.413
183	0	0.576911		129.791	211.413
184	0	0.588793		130.138	211.413
185	0	0.60076	130.499	211.413	
186	0	0.612813		130.874	211.413
187	0	0.624956		131.265	211.413
188	0	0.637192		131.671	211.413
189	0	0.649522		132.093	211.413
190	0	0.661955		132.531	211.413
191	0	0.67449	132.986	211.413	
192	0	0.68396	133.454	211.413	
193	0	0.696684		133.939	211.413
194	0	0.709522		134.442	211.413
195	0	0.722479		134.964	211.413
196	0	0.735557		135.505	211.413
197	0	0.748762		136.066	211.413
198	0	0.7621	136.647	211.413	
199	0	0.775574		137.248	211.413
200	0	0.789191		137.871	211.413
201	0	0.802956		138.516	211.413
202	0	0.816874		139.183	211.413
203	0	0.830953		139.874	211.413
204	0	0.841621		140.582	211.413
205	0	0.855996		141.315	211.413
206	0	0.87055	142.073	211.413	
207	0	0.885291		142.856	211.413
208	0	0.900227		143.667	211.413
209	0	0.915365		144.505	211.413
210	0	0.930718		145.371	211.413
211	0	0.946291		146.266	211.413
212	0	0.9621	147.192	211.413	
213	0	0.97815	148.149	211.413	
214	0	0.994457		149.138	211.413
215	0	1.01104	150.16	211.413	
216	0	1.02789	151.217	211.413	
217	0	1.04073	152.3	211.413	
218	0	1.05812	153.419	211.413	
219	0	1.07584	154.577	211.413	
220	0	1.0939	155.773	211.413	
221	0	1.11232	157.011	211.413	
222	0	1.13113	158.29	211.413	
223	0	1.15035	159.613	211.413	
224	0	1.17	160.982	211.413	
225	0	1.19012	162.399	211.413	
226	0	1.21073	163.864	211.413	
227	0	1.23187	165.382	211.413	
228	0	1.25357	166.953	211.413	
229	0	1.27588	168.581	211.413	
230	0	1.29303	170.253	211.413	
231	0	1.31652	171.986	211.413	
232	0	1.34075	173.784	211.413	
233	0	1.36581	175.649	211.413	
234	0	1.39175	177.586	211.413	
235	0	1.41865	179.599	211.413	
236	0	1.44663	181.692	211.413	
237	0	1.47579	183.87	211.413	

238	0	1.50626	186.139	211.413	
239	0	1.5382	188.505	211.413	
240	0	1.57179	190.975	211.413	
241	0	1.60725	193.558	211.413	
242	0	1.64485	196.264	211.413	
243	0	1.67466	199.068	211.413	
244	0	1.71688	202.016	211.413	
245	0	1.76241	205.122	211.413	
246	0	1.81191	208.405	211.413	
247	0	1.86629	211.888	211.413	
248	0	1.92684	215.601	211.413	
249	0	1.99539	219.583	211.413	
250	0	2.07485	223.888	211.413	
251	0	2.17009	228.597	211.413	
252	0	2.29036	233.843	211.413	
253	0	2.45727	239.881	211.413	
254	0.262364		2.74777	247.431	212.134

Data Set Standard Deviation = 1.08684
Numerator = 45001
Denominator = 73944.1
W Statistic = 0.608581 = 45001 / 73944.1

5% Critical value of 0.976 exceeds 0.608581
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.608581
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 = 0.778684
0.778684 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.65926	0.00392157	-2.747778	4.574	348.683
2	-2.65926	0.00784314	-2.457278	4.574	334.497
3	-2.65926	0.0117647	-2.290368	4.574	326.346
4	-2.65926	0.0156863	-2.170098	4.574	320.473
5	-2.65926	0.0196078	-2.074858	4.574	315.822
6	-2.65926	0.0235294	-1.995398	4.574	311.942
7	-2.65926	0.027451	-1.926848	4.574	308.594
8	-2.65926	0.0313725	-1.866298	4.574	305.637
9	-2.65926	0.0352941	-1.811918	4.574	302.982
10	-2.65926	0.0392157	-1.762418	4.574	300.564
11	-2.65926	0.0431373	-1.716888	4.574	298.341
12	-2.65926	0.0470588	-1.674668	4.574	296.279
13	-2.65926	0.0509804	-1.644858	4.574	294.824
14	-2.65926	0.054902	-1.607258	4.574	292.987
15	-2.65926	0.0588235	-1.571798	4.574	291.256
16	-2.65926	0.0627451	-1.5382	84.574	289.615
17	-2.65926	0.0666667	-1.506268	4.574	288.056
18	-2.65926	0.0705882	-1.475798	4.574	286.568
19	-2.65926	0.0745098	-1.446638	4.574	285.144
20	-2.65926	0.0784314	-1.418658	4.574	283.778
21	-2.65926	0.0823529	-1.391758	4.574	282.464
22	-2.65926	0.0862745	-1.365818	4.574	281.197
23	-2.65926	0.0901961	-1.340758	4.574	279.974
24	-2.65926	0.0941176	-1.316528	4.574	278.79
25	-2.65926	0.0980392	-1.293038	4.574	277.643
26	-2.65926	0.101961	-1.275888	4.574	276.805
27	-2.65926	0.105882	-1.253578	4.574	275.716
28	-2.65926	0.109804	-1.231878	4.574	274.656
29	-2.65926	0.113725	-1.210738	4.574	273.624
30	-2.65926	0.117647	-1.190128	4.574	272.617
31	-2.65926	0.121569	-1.17	84.574	271.635
32	-2.65926	0.12549	-1.150358	4.574	270.675
33	-2.65926	0.129412	-1.131138	4.574	269.737
34	-2.65926	0.133333	-1.112328	4.574	268.818
35	-2.65926	0.137255	-1.0939	84.574	267.919
36	-2.65926	0.141176	-1.075848	4.574	267.037
37	-2.65926	0.145098	-1.058128	4.574	266.172
38	-2.65926	0.14902	-1.040738	4.574	265.322
39	-2.65926	0.152941	-1.027898	4.574	264.695
40	-2.65926	0.156863	-1.011048	4.574	263.872
41	-2.65926	0.160784	-0.994457	84.574	263.063
42	-2.65926	0.164706	-0.978158	4.574	262.266
43	-2.65926	0.168627	-0.9621	84.574	261.483
44	-2.65926	0.172549	-0.946291	84.574	260.711
45	-2.65926	0.176471	-0.930718	84.574	259.95
46	-2.65926	0.180392	-0.915365	84.574	259.2
47	-2.65926	0.184314	-0.900227	84.574	258.461
48	-2.65926	0.188235	-0.885291	84.574	257.732

49	-2.65926	0.192157	-0.87055	84.574	257.012	
50	-2.65926	0.196078	-0.855996	84.574	256.301	
51	-2.65926	0.2	-0.841621	84.574	255.599	
52	-2.65926	0.203922	-0.830953	84.574	255.078	
53	-2.65926	0.207843	-0.816874	84.574	254.391	
54	-1.7148	0.211765	-0.802956	210.896	253.711	
55	-1.56065	0.215686	-0.789191	231.513	253.039	
56	-1.56065	0.219608	-0.775574	231.513	252.374	
57	-1.51413	0.223529	-0.7621	237.735	251.716	
58	-1.51413	0.227451	-0.748762	237.735	251.065	
59	-1.46968	0.231373	-0.735557	243.681	250.42	
60	-1.42712	0.235294	-0.722479	249.373	249.781	
61	-1.42712	0.239216	-0.709522	249.373	249.148	
62	-1.38629	0.243137	-0.696684	254.833	248.521	
63	-1.34707	0.247059	-0.68396	260.079	247.9	
64	-1.34707	0.25098	-0.67449	260.079	247.438	
65	-1.30933	0.254902	-0.661955	265.127	246.825	
66	-1.30933	0.258824	-0.649522	265.127	246.218	
67	-1.30933	0.262745	-0.637192	265.127	245.616	
68	-1.27297	0.266667	-0.624956	269.991	245.019	
69	-1.17118	0.270588	-0.612813	283.604	244.426	
70	-0.994252	0.27451	-0.60076	307.269	243.837	
71	-0.967584	0.278431	-0.588793	310.836	243.253	
72	-0.820981	0.282353	-0.576911	330.444	242.672	
73	-0.693147	0.286275	-0.565108	347.542	242.096	
74	-0.693147	0.290196	-0.553384	347.542	241.524	
75	-0.673345	0.294118	-0.541736	350.19	240.955	
76	-0.510826	0.298039	-0.530162	371.927	240.39	
77	-0.510826	0.301961	-0.521527	371.927	239.968	
78	-0.105361	0.305882	-0.510074	426.158	239.409	
79	-0.040822	0.309804	-0.498687	434.79	238.853	
80	0	0.313725	-0.487364	440.25	238.3	
81	0	0.317647	-0.476105	440.25	237.75	
82	0	0.321569	-0.464904	440.25	237.203	
83	0	0.32549	-0.453763	440.25	236.659	
84	0	0.329412	-0.442676	440.25	236.117	
85	0	0.333333	-0.431644	440.25	235.579	
86	0	0.337255	-0.420664	440.25	235.042	
87	0	0.341176	-0.409735	440.25	234.509	
88	0	0.345098	-0.398855	440.25	233.977	
89	0	0.34902	-0.388022	440.25	233.448	
90	0	0.352941	-0.379927	440.25	233.053	
91	0	0.356863	-0.369171	440.25	232.528	
92	0	0.360784	-0.358459	440.25	232.005	
93	0	0.364706	-0.347787	440.25	231.484	
94	0	0.368627	-0.337155	440.25	230.964	
95	0	0.372549	-0.326561	440.25	230.447	
96	0	0.376471	-0.316004	440.25	229.932	
97	0	0.380392	-0.305481	440.25	229.418	
98	0	0.384314	-0.294992	440.25	228.905	
99	0	0.388235	-0.284535	440.25	228.395	
100	0	0.392157	-0.27411	440.25	227.886	
101	0	0.396078	-0.263715	440.25	227.378	
102	0	0.4	-0.253347	440.25	226.872	
103	0	0.403922	-0.24559	440.25	226.493	
104	0	0.407843	-0.235269	440.25	225.989	
105	0	0.411765	-0.224974	440.25	225.486	
106	0	0.415686	-0.214702	440.25	224.985	
107	0	0.419608	-0.204452	440.25	224.484	
108	0	0.423529	-0.194225	440.25	223.985	
109	0	0.427451	-0.184017	440.25	223.486	
110	0	0.431373	-0.173829	440.25	222.989	

111	0	0.435294	-0.163659	440.25	222.492
112	0	0.439216	-0.153505	440.25	221.996
113	0	0.443137	-0.143367	440.25	221.501
114	0	0.447059	-0.133244	440.25	221.007
115	0	0.45098	-0.125661	440.25	220.636
116	0	0.454902	-0.115562	440.25	220.143
117	0	0.458824	-0.105474	440.25	219.651
118	0	0.462745	-0.0953969	440.25	219.159
119	0	0.466667	-0.0853288	440.25	218.667
120	0	0.470588	-0.0752698	440.25	218.176
121	0	0.47451	-0.0652187	440.25	217.685
122	0	0.478431	-0.0551734	440.25	217.194
123	0	0.482353	-0.0451348	440.25	216.704
124	0	0.486275	-0.0350997	440.25	216.214
125	0	0.490196	-0.0250691	440.25	215.724
126	0	0.494118	-0.0150408	440.25	215.234
127	0	0.498039	-0.00501359	440.25	214.745
128	0	0.501961	0.00501359	440.25	214.255
129	0	0.505882	0.0150408	440.25	213.766
130	0	0.509804	0.0250691	440.25	213.276
131	0	0.513725	0.0350997	440.25	212.786
132	0	0.517647	0.0451348	440.25	212.296
133	0	0.521569	0.0551734	440.25	211.806
134	0	0.52549	0.0652187	440.25	211.315
135	0	0.529412	0.0752698	440.25	210.824
136	0	0.533333	0.0853288	440.25	210.333
137	0	0.537255	0.0953969	440.25	209.841
138	0	0.541176	0.105474	440.25	209.349
139	0	0.545098	0.115562	440.25	208.857
140	0	0.54902	0.125661	440.25	208.364
141	0	0.552941	0.133244	440.25	207.993
142	0	0.556863	0.143367	440.25	207.499
143	0	0.560784	0.153505	440.25	207.004
144	0	0.564706	0.163659	440.25	206.508
145	0	0.568627	0.173829	440.25	206.011
146	0	0.572549	0.184017	440.25	205.514
147	0	0.576471	0.194225	440.25	205.015
148	0	0.580392	0.204452	440.25	204.516
149	0	0.584314	0.214702	440.25	204.015
150	0	0.588235	0.224974	440.25	203.514
151	0	0.592157	0.235269	440.25	203.011
152	0	0.596078	0.24559	440.25	202.507
153	0	0.6	0.253347	440.25	202.128
154	0	0.603922	0.263715	440.25	201.622
155	0	0.607843	0.27411	440.25	201.114
156	0	0.611765	0.284535	440.25	200.605
157	0	0.615686	0.294992	440.25	200.095
158	0	0.619608	0.305481	440.25	199.582
159	0	0.623529	0.316004	440.25	199.068
160	0	0.627451	0.326561	440.25	198.553
161	0	0.631373	0.337155	440.25	198.036
162	0	0.635294	0.347787	440.25	197.516
163	0	0.639216	0.358459	440.25	196.995
164	0	0.643137	0.369171	440.25	196.472
165	0	0.647059	0.379927	440.25	195.947
166	0	0.65098	0.388022	440.25	195.552
167	0	0.654902	0.398855	440.25	195.023
168	0	0.658824	0.409735	440.25	194.491
169	0	0.662745	0.420664	440.25	193.958
170	0	0.666667	0.431644	440.25	193.421
171	0	0.670588	0.442676	440.25	192.883
172	0	0.67451	0.453763	440.25	192.341

173	0	0.678431	0.464904	440.25	191.797
174	0	0.682353	0.476105	440.25	191.25
175	0	0.686275	0.487364	440.25	190.7
176	0	0.690196	0.498687	440.25	190.147
177	0	0.694118	0.510074	440.25	189.591
178	0	0.698039	0.521527	440.25	189.032
179	0	0.701961	0.530162	440.25	188.61
180	0	0.705882	0.541736	440.25	188.045
181	0	0.709804	0.553384	440.25	187.476
182	0	0.713725	0.565108	440.25	186.904
183	0	0.717647	0.576911	440.25	186.328
184	0	0.721569	0.588793	440.25	185.747
185	0	0.72549	0.60076	440.25	185.163
186	0	0.729412	0.612813	440.25	184.574
187	0	0.733333	0.624956	440.25	183.981
188	0	0.737255	0.637192	440.25	183.384
189	0	0.741176	0.649522	440.25	182.782
190	0	0.745098	0.661955	440.25	182.175
191	0	0.74902	0.67449	440.25	181.562
192	0	0.752941	0.68396	440.25	181.1
193	0	0.756863	0.696684	440.25	180.479
194	0	0.760784	0.709522	440.25	179.852
195	0	0.764706	0.722479	440.25	179.219
196	0	0.768627	0.735557	440.25	178.58
197	0	0.772549	0.748762	440.25	177.935
198	0	0.776471	0.7621	440.25	177.284
199	0	0.780392	0.775574	440.25	176.626
200	0	0.784314	0.789191	440.25	175.961
201	0	0.788235	0.802956	440.25	175.289
202	0	0.792157	0.816874	440.25	174.609
203	0	0.796078	0.830953	440.25	173.922
204	0	0.8	0.841621	440.25	173.401
205	0	0.803922	0.855996	440.25	172.699
206	0	0.807843	0.87055	440.25	171.988
207	0	0.811765	0.885291	440.25	171.268
208	0	0.815686	0.900227	440.25	170.539
209	0	0.819608	0.915365	440.25	169.8
210	0	0.823529	0.930718	440.25	169.05
211	0	0.827451	0.946291	440.25	168.289
212	0	0.831373	0.9621	440.25	167.517
213	0	0.835294	0.97815	440.25	166.734
214	0	0.839216	0.994457	440.25	165.937
215	0	0.843137	1.01104	440.25	165.128
216	0	0.847059	1.02789	440.25	164.305
217	0	0.85098	1.04073	440.25	163.678
218	0	0.854902	1.05812	440.25	162.828
219	0	0.858824	1.07584	440.25	161.963
220	0	0.862745	1.0939	440.25	161.081
221	0	0.866667	1.11232	440.25	160.182
222	0	0.870588	1.13113	440.25	159.263
223	0	0.87451	1.15035	440.25	158.325
224	0	0.878431	1.17	440.25	157.365
225	0	0.882353	1.19012	440.25	156.383
226	0	0.886275	1.21073	440.25	155.376
227	0	0.890196	1.23187	440.25	154.344
228	0	0.894118	1.25357	440.25	153.284
229	0	0.898039	1.27588	440.25	152.195
230	0	0.901961	1.29303	440.25	151.357
231	0	0.905882	1.31652	440.25	150.21
232	0	0.909804	1.34075	440.25	149.026
233	0	0.913725	1.36581	440.25	147.803
234	0	0.917647	1.39175	440.25	146.536

235	0	0.921569		1.41865	440.25	145.222
236	0	0.92549	1.44663	440.25	143.856	
237	0	0.929412		1.47579	440.25	142.432
238	0	0.933333		1.50626	440.25	140.944
239	0	0.937255		1.5382	440.25	139.385
240	0	0.941176		1.57179	440.25	137.744
241	0	0.945098		1.60725	440.25	136.013
242	0	0.94902	1.64485	440.25	134.176	
243	0	0.952941		1.67466	440.25	132.721
244	0	0.956863		1.71688	440.25	130.659
245	0	0.960784		1.76241	440.25	128.436
246	0	0.964706		1.81191	440.25	126.018
247	0	0.968627		1.86629	440.25	123.363
248	0	0.972549		1.92684	440.25	120.406
249	0	0.976471		1.99539	440.25	117.058
250	0	0.980392		2.07485	440.25	113.178
251	0	0.984314		2.17009	440.25	108.527
252	0	0.988235		2.29036	440.25	102.654
253	0	0.992157		2.45727	440.25	94.5032
254	0.262364		0.996078		2.74777	475.341 80.3175

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	114
	9/23/1999	ND<0	114
	3/15/2000	ND<0	114
	9/24/2003	ND<0	114
	3/11/2004	ND<0	114
	10/12/2004	ND<0	114
	4/1/2005	ND<0	114
	10/25/2005	ND<0	114
	4/29/2006	ND<0	114
	11/18/2006	ND<0	114
	5/23/2007	ND<0	114
	11/28/2007	ND<0	114
	6/5/2008	ND<0	114
	11/20/2008	ND<0	114
	6/11/2009	ND<-2.65926	114
	11/16/2009	ND<-2.65926	114
	6/30/2010	ND<-2.65926	114
	11/12/2010	ND<-2.65926 U	114
	7/5/2011	ND<-2.65926 U	114

Rank Sum = 2166
Rank Mean = 114

Background Rank Sum = 2166
Background Rank Mean = 114

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<0	114
	8/24/1995	ND<0	114
	9/28/1995	ND<0	114
	10/26/1995	ND<0	114
	11/19/1996	ND<0	114
	12/19/1996	ND<0	114
	3/24/1997	ND<0	114
	9/24/1997	ND<0	114
	4/7/1998	ND<0	114
	9/23/1998	ND<0	114
	3/16/1999	ND<0	114
	9/23/1999	ND<0	114
	3/15/2000	ND<0	114
	9/24/2003	ND<0	114
	3/11/2004	ND<0	114
	10/12/2004	ND<0	114
	4/1/2005	ND<0	114
	10/25/2005	ND<0	114
	4/29/2006	ND<0	114
	11/18/2006	ND<0	114
	5/23/2007	ND<0	114

	11/28/2007	ND<0		114
	6/5/2008	ND<0		114
	11/20/2008	ND<0		114
	6/11/2009	ND<-2.65926		114
	11/16/2009	ND<-2.65926		114
	6/30/2010	ND<-2.65926		114
	11/12/2010	ND<-2.65926	U	114
	7/5/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	6/5/2012	ND<-2.65926	U	114

Rank Sum = 3648
Rank Mean = 114

MW-6	7/20/1995	ND<0		114
	8/24/1995	ND<0		114
	9/28/1995	ND<0		114
	10/26/1995	ND<0		114
	11/19/1996	ND<0		114
	12/19/1996	ND<0		114
	3/24/1997	ND<0		114
	9/24/1997	ND<0		114
	4/7/1998	ND<0		114
	9/23/1998	ND<0		114
	3/16/1999	ND<0		114
	9/23/1999	ND<0		114
	3/15/2000	ND<0		114
	9/24/2003	ND<0		114
	3/11/2004	ND<0		114
	10/12/2004	ND<0		114
	4/1/2005	-1.42712	J	234
	10/25/2005	ND<0		114
	4/29/2006	ND<0		114
	11/18/2006	ND<0		114
	5/23/2007	ND<0		114
	11/28/2007	-1.30933	J	239
	6/5/2008	-1.56065	J	229
	11/20/2008	-1.56065	J	230
	6/11/2009	-1.17118	J	243
	11/16/2009	-0.994252	J	244
	6/30/2010	-0.820981	J	246
	11/12/2010	-0.673345	J	249
	7/5/2011	-1.27297	J	242
	11/22/2011	-1.34707	J	237
	11/22/2011	-1.34707	J	238
	6/5/2012	-1.42712	J	235

Rank Sum = 5146
Rank Mean = 160.813

MW-9	7/20/1995	-0.040822	J	253
	8/24/1995	-0.510826	J	250
	9/28/1995	-0.693147	J	247
	10/26/1995	-0.693147	J	248
	11/19/1996	ND<0		114
	12/19/1996	ND<0		114
	3/24/1997	ND<0		114
	9/24/1997	ND<0		114
	4/7/1998	ND<0		114
	9/23/1998	ND<0		114
	3/16/1999	ND<0		114
	9/23/1999	ND<0		114
	3/15/2000	ND<0		114

	9/24/2003	ND<0	114	
	3/11/2004	ND<0	114	
	10/12/2004	ND<0	114	
	4/1/2005	ND<0	114	
	10/25/2005	ND<0	114	
	4/29/2006	ND<0	114	
	11/18/2006	ND<0	114	
	5/23/2007	ND<0	114	
	11/28/2007	ND<0	114	
	6/5/2008	ND<0	114	
	11/20/2008	ND<0	114	
	6/11/2009	ND<-2.65926		114
	11/16/2009	ND<-2.65926		114
	6/30/2010	ND<-2.65926		114
	11/12/2010	ND<-2.65926	U	114
	7/5/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	6/5/2012	ND<-2.65926	U	114

Rank Sum = 4190
Rank Mean = 130.938

MW-8	7/20/1995	ND<0	114	
	8/24/1995	ND<0	114	
	9/28/1995	ND<0	114	
	10/26/1995	ND<0	114	
	11/19/1996	ND<0	114	
	12/19/1996	ND<0	114	
	3/24/1997	ND<0	114	
	9/24/1997	ND<0	114	
	4/7/1998	ND<0	114	
	9/23/1998	ND<0	114	
	3/16/1999	ND<0	114	
	9/23/1999	ND<0	114	
	3/15/2000	ND<0	114	
	9/24/2003	ND<0	114	
	3/11/2004	ND<0	114	
	10/12/2004	ND<0	114	
	4/1/2005	ND<0	114	
	10/25/2005	ND<0	114	
	4/29/2006	ND<0	114	
	11/18/2006	ND<0	114	
	5/23/2007	ND<0	114	
	11/28/2007	ND<0	114	
	6/5/2008	ND<0	114	
	11/20/2008	ND<0	114	
	6/11/2009	ND<-2.65926		114
	6/30/2010	ND<-2.65926		114
	11/12/2010	ND<-2.65926	U	114
	7/5/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	6/5/2012	ND<-2.65926	U	114

Rank Sum = 3534
Rank Mean = 114

MW-7	7/20/1995	ND<0	114	
	8/24/1995	ND<0	114	
	9/28/1995	ND<0	114	
	10/26/1995	ND<0	114	
	11/19/1996	ND<0	114	
	12/19/1996	ND<0	114	

	3/24/1997	ND<0		114
	9/24/1997	ND<0		114
	4/7/1998	ND<0		114
	9/23/1998	ND<0		114
	3/16/1999	ND<0		114
	9/23/1999	ND<0		114
	3/15/2000	ND<0		114
	9/24/2003	ND<0		114
	3/11/2004	ND<0		114
	10/12/2004	ND<0		114
	4/1/2005	ND<0		114
	10/25/2005	ND<0		114
	4/29/2006	ND<0		114
	11/18/2006	ND<0		114
	5/23/2007	ND<0		114
	11/28/2007	ND<0		114
	6/5/2008	ND<0		114
	11/20/2008	ND<0		114
	6/11/2009	ND<-2.65926		114
	11/16/2009	ND<-2.65926		114
	6/30/2010	ND<-2.65926		114
	11/12/2010	ND<-2.65926	U	114
	7/5/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	11/22/2011	ND<-2.65926	U	114
	6/5/2012	ND<-2.65926	U	114

Rank Sum = 3648
Rank Mean = 114

MW-11R	7/20/1995	-0.967584	J	245
	8/24/1995	ND<0		114
	9/28/1995	-0.510826	J	251
	10/26/1995	-0.105361	J	252
	11/19/1996	ND<0		114
	12/19/1996	ND<0		114
	3/24/1997	ND<0		114
	9/24/1997	ND<0		114
	4/7/1998	ND<0		114
	9/23/1998	ND<0		114
	3/16/1999	ND<0		114
	9/23/1999	ND<0		114
	3/15/2000	ND<0		114
	9/24/2003	ND<0		114
	3/11/2004	ND<0		114
	10/12/2004	ND<0		114
	4/1/2005	ND<0		114
	10/25/2005	ND<0		114
	4/29/2006	ND<0		114
	11/18/2006	ND<0		114
	5/23/2007	ND<0		114
	11/28/2007	ND<0		114
	6/5/2008	ND<0		114
	11/20/2008	-1.51413	J	231
	6/11/2009	ND<-2.65926		114
	11/16/2009	-1.46968	J	233
	6/30/2010	ND<-2.65926		114
	11/12/2010	-1.7148	J	228
	7/5/2011	-1.51413	J	232
	11/22/2011	-1.30933	J	240
	11/22/2011	-1.30933	J	241
	6/5/2012	-1.38629	J	236

Rank Sum = 4897

Rank Mean = 153.031

MW-12AR	3/16/1999	ND<0	114	
	9/23/1999	ND<0	114	
	3/15/2000	ND<0	114	
	9/24/2003	ND<0	114	
	3/11/2004	ND<0	114	
	10/12/2004	ND<0	114	
	4/1/2005	ND<0	114	
	10/25/2005	ND<0	114	
	4/29/2006	ND<0	114	
	11/18/2006	ND<0	114	
	5/23/2007	ND<0	114	
	11/28/2007	ND<0	114	
	6/5/2008	ND<0	114	
	11/20/2008	ND<0	114	
	6/11/2009	ND<-2.65926	114	
	11/16/2009	ND<-2.65926	114	
	6/30/2010	ND<-2.65926	114	
	11/12/2010	ND<-2.65926 U	114	
	7/5/2011	0.262364	254	
	11/22/2011	ND<-2.65926 U	114	
	11/22/2011	ND<-2.65926 U	114	
	6/5/2012	ND<-2.65926 U	114	

Rank Sum = 2648
Rank Mean = 120.364

MW-12BR	3/16/1999	ND<0	114	
	9/23/1999	ND<0	114	
	3/15/2000	ND<0	114	
	9/24/2003	ND<0	114	
	3/11/2004	ND<0	114	
	10/12/2004	ND<0	114	
	4/1/2005	ND<0	114	
	10/25/2005	ND<0	114	
	4/29/2006	ND<0	114	
	11/18/2006	ND<0	114	
	5/23/2007	ND<0	114	
	11/28/2007	ND<0	114	
	6/5/2008	ND<0	114	
	11/20/2008	ND<0	114	
	6/11/2009	ND<-2.65926	114	
	11/16/2009	ND<-2.65926	114	
	6/30/2010	ND<-2.65926	114	
	11/12/2010	ND<-2.65926 U	114	
	7/5/2011	ND<-2.65926 U	114	
	11/22/2011	ND<-2.65926 U	114	
	11/22/2011	ND<-2.65926 U	114	
	6/5/2012	ND<-2.65926 U	114	

Rank Sum = 2508
Rank Mean = 114

Calculation Results:

Kruskal-Wallis H Statistic = 15.3135
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 53.5058
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
15.3135 < 15.5073 indicating no significant group difference at 5% significance level
53.5058 > 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 114

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**114**	**0**	**49.4998**
MW-6	**160.813**	**46.8125**	**49.4998**
MW-9	**130.938**	**16.9375**	**49.4998**
MW-8	**114**	**0**	**49.7963**
MW-7	**114**	**0**	**49.4998**
MW-11R	**153.031**	**39.0313**	**49.4998**
MW-12AR	**120.364**	**6.36364**	**53.5271**
MW-12BR	**114**	**0**	**53.5271**

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 114

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**114**	**0**	**53.453**
MW-6	**160.813**	**46.8125**	**53.453**
MW-9	**130.938**	**16.9375**	**53.453**
MW-8	**114**	**0**	**53.7733**
MW-7	**114**	**0**	**53.453**
MW-11R	**153.031**	**39.0313**	**53.453**
MW-12AR	**120.364**	**6.36364**	**57.802**
MW-12BR	**114**	**0**	**57.802**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chloroform

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 89.3701%
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-10	6/5/2012	1	-2.65926	FALSE
MW-6	6/5/2012	1	-1.42712	FALSE
MW-9	6/5/2012	1	-2.65926	FALSE
MW-8	6/5/2012	1	-2.65926	FALSE
MW-7	6/5/2012	1	-2.65926	FALSE
MW-11R	6/5/2012	1	-1.38629	FALSE
MW-12AR	6/5/2012	1	-2.65926	FALSE
MW-12BR	6/5/2012	1	-2.65926	FALSE

Concentrations (ppb)
Parameter: Chromium
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 159
Percent Non-Detects: 64.1129%
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-6	31	22 (70.9677%)	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
			6/5/2012	ND<0.16 U	ND<0.16 U
MW-8	30	20 (66.6667%)	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
			6/5/2012	ND<0.16 U	ND<0.16 U
MW-11R	32	19 (59.375%)	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	
			6/5/2012	ND<0.16 U	ND<0.16 U	
MW-10	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	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	
			6/5/2012	ND<0.16 U	ND<0.16 U	
MW-9	32	25 (78.125%)	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	
			6/5/2012	ND<0.16 U	ND<0.16 U	
MW-7	31	15 (48.3871%)	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	
			6/5/2012	0.26 J	0.26 J	
MW-12AR	21	12 (57.1429%)	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		
		6/5/2012	ND<0.16 U	ND<0.16 U		
MW-12BR	21	14 (66.6667%)	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		
		6/5/2012	ND<0.16 U	ND<0.16 U		

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 = 248

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	-1.91103	34.3095	-1.23238
8	0.08	-1.85218	37.7401	-1.38055
9	0.08	-1.79912	40.9769	-1.52448
10	0.08	-1.75069	44.0418	-1.66453
11	0.08	-1.70604	46.9524	-1.80102
12	0.08	-1.66456	49.7231	-1.93418
13	0.08	-1.62576	52.3662	-2.06424
14	0.08	-1.58927	54.892	-2.19138
15	0.08	-1.55477	57.3093	-2.31577
16	0.08	-1.52203	59.6259	-2.43753
17	0.08	-1.49085	61.8486	-2.5568
18	0.08	-1.46106	63.9833	-2.67368
19	0.16	-1.4325	66.0353	-2.90288
20	0.16	-1.40507	68.0096	-3.12769
21	0.16	-1.37866	69.9102	-3.34828
22	0.17	-1.35317	71.7413	-3.57832
23	0.17	-1.32854	73.5063	-3.80417
24	0.18	-1.30469	75.2086	-4.03901
25	0.19	-1.28155	76.8509	-4.28251
26	0.19	-1.25908	78.4362	-4.52174
27	0.19	-1.23724	79.967	-4.75681
28	0.19	-1.21596	81.4455	-4.98784
29	0.2	-1.19522	82.8741	-5.22689
30	0.2	-1.17499	84.2547	-5.46188
31	0.2	-1.15522	85.5892	-5.69293
32	0.22	-1.1359	86.8795	-5.94283
33	0.22	-1.11699	88.1271	-6.18856
34	0.23	-1.09847	89.3338	-6.44121
35	0.24	-1.08032	90.5009	-6.70049
36	0.24	-1.06252	91.6298	-6.95549
37	0.24	-1.04505	92.7219	-7.2063
38	0.25	-1.02789	93.7785	-7.46328
39	0.25	-1.01104	94.8007	-7.71604
40	0.26	-0.994457	95.7896	-7.9746
41	0.26	-0.97815	96.7464	-8.22891
42	0.27	-0.9621	97.6721	-8.48868
43	0.3	-0.946291	98.5675	-8.77257
44	0.32	-0.930718	99.4338	-9.0704
45	0.32	-0.915365	100.272	-9.36332
46	0.33	-0.900227	101.082	-9.66039
47	0.33	-0.885291	101.866	-9.95254
48	0.36	-0.87055	102.624	-10.2659
49	0.4	-0.855996	103.356	-10.6083
50	0.51	-0.841621	104.065	-11.0376
51	0.52	-0.827417	104.749	-11.4678

52	0.54	-0.813379	105.411	-11.907
53	0.6	-0.7995	106.05	-12.3867
54	0.62	-0.785774	106.668	-12.8739
55	0.67	-0.772193	107.264	-13.3913
56	0.71	-0.758753	107.84	-13.93
57	0.71	-0.745449	108.395	-14.4593
58	0.74	-0.732275	108.931	-15.0012
59	0.87	-0.719228	109.449	-15.6269
60	0.92	-0.706302	109.948	-16.2767
61	1.6	-0.693493	110.429	-17.3863
62	3.11	-0.680797	110.892	-19.5036
63	3.5	-0.665079	111.334	-21.8313
64	4.5	-0.652622	111.76	-24.7681
65	4.61	-0.640266	112.17	-27.7198
66	5.12	-0.628006	112.565	-30.9351
67	5.2	-0.615839	112.944	-34.1375
68	5.63	-0.603765	113.308	-37.5367
69	5.66	-0.591776	113.659	-40.8862
70	7	-0.579873	113.995	-44.9453
71	7.9	-0.568052	114.318	-49.4329
72	8	-0.556308	114.627	-53.8833
73	8.11	-0.544642	114.924	-58.3004
74	10	-0.533048	115.208	-63.6309
75	10	-0.521527	115.48	-68.8461
76	10	-0.510074	115.74	-73.9469
77	10	-0.498687	115.989	-78.9338
78	10	-0.487364	116.226	-83.8074
79	10	-0.476105	116.453	-88.5684
80	10	-0.464904	116.669	-93.2175
81	10	-0.453763	116.875	-97.7551
82	10	-0.442676	117.071	-102.182
83	10	-0.431644	117.257	-106.498
84	10	-0.420664	117.434	-110.705
85	10	-0.409735	117.602	-114.802
86	10	-0.398855	117.761	-118.791
87	10	-0.388022	117.912	-122.671
88	10	-0.377233	118.054	-126.443
89	10	-0.36649	118.188	-130.108
90	10	-0.355788	118.315	-133.666
91	10	-0.345126	118.434	-137.117
92	10	-0.334503	118.546	-140.462
93	10	-0.323919	118.651	-143.702
94	10	-0.31337	118.749	-146.835
95	10	-0.302855	118.841	-149.864
96	10	-0.292375	118.926	-152.788
97	10	-0.281926	119.006	-155.607
98	10	-0.271509	119.079	-158.322
99	10	-0.26112	119.148	-160.933
100	10	-0.250759	119.21	-163.441
101	10	-0.240426	119.268	-165.845
102	10	-0.230118	119.321	-168.146
103	10	-0.219834	119.37	-170.345
104	10	-0.209575	119.413	-172.44
105	10	-0.199336	119.453	-174.434
106	10	-0.189118	119.489	-176.325
107	10	-0.17892	119.521	-178.114
108	10	-0.168741	119.549	-179.802
109	10	-0.158579	119.575	-181.387
110	10	-0.148434	119.597	-182.872
111	10	-0.138305	119.616	-184.255
112	10	-0.128189	119.632	-185.537
113	10	-0.118085	119.646	-186.717

114	10	-0.107995	119.658	-187.797
115	10	-0.0979139	119.667	-188.777
116	10	-0.0878447	119.675	-189.655
117	10	-0.0777834	119.681	-190.433
118	10	-0.0677301	119.686	-191.11
119	10	-0.0576847	119.689	-191.687
120	10	-0.0476439	119.691	-192.163
121	10	-0.0376076	119.693	-192.539
122	10	-0.0275759	119.694	-192.815
123	10	-0.0175476	119.694	-192.991
124	10	-0.00751925	119.694	-193.066
125	10	0.00751925	119.694	-192.991
126	10	0.0175476	119.694	-192.815
127	10	0.0275759	119.695	-192.539
128	10	0.0376076	119.696	-192.163
129	10	0.0476439	119.699	-191.687
130	10	0.0576847	119.702	-191.11
131	10	0.0677301	119.707	-190.433
132	10	0.0777834	119.713	-189.655
133	10	0.0878447	119.72	-188.777
134	10	0.0979139	119.73	-187.797
135	10	0.107995	119.742	-186.717
136	10	0.118085	119.756	-185.537
137	10	0.128189	119.772	-184.255
138	10	0.138305	119.791	-182.872
139	10	0.148434	119.813	-181.387
140	10	0.158579	119.838	-179.802
141	10	0.168741	119.867	-178.114
142	10	0.17892	119.899	-176.325
143	10	0.189118	119.935	-174.434
144	10	0.199336	119.974	-172.44
145	10	0.209575	120.018	-170.345
146	10	0.219834	120.067	-168.146
147	10	0.230118	120.119	-165.845
148	10	0.240426	120.177	-163.441
149	10	0.250759	120.24	-160.933
150	10	0.26112	120.308	-158.322
151	10	0.271509	120.382	-155.607
152	10	0.281926	120.462	-152.788
153	10	0.292375	120.547	-149.864
154	10	0.302855	120.639	-146.835
155	10	0.31337	120.737	-143.702
156	10	0.323919	120.842	-140.462
157	10	0.334503	120.954	-137.117
158	10	0.345126	121.073	-133.666
159	10	0.355788	121.199	-130.108
160	10	0.36649	121.334	-126.443
161	10	0.377233	121.476	-122.671
162	10	0.388022	121.627	-118.791
163	10	0.398855	121.786	-114.802
164	10	0.409735	121.954	-110.705
165	10	0.420664	122.131	-106.498
166	10	0.431644	122.317	-102.182
167	10	0.442676	122.513	-97.7551
168	10	0.453763	122.719	-93.2175
169	10	0.464904	122.935	-88.5684
170	10	0.476105	123.162	-83.8074
171	10	0.487364	123.399	-78.9338
172	10	0.498687	123.648	-73.9469
173	10	0.510074	123.908	-68.8461
174	10	0.521527	124.18	-63.6309
175	10	0.533048	124.464	-58.3004

176	10	0.544642		124.761	-52.854
177	10	0.556308		125.07	-47.2909
178	10	0.568052		125.393	-41.6104
179	10	0.579873		125.729	-35.8116
180	10	0.591776		126.079	-29.8939
181	10	0.603765		126.444	-23.8562
182	10	0.615839		126.823	-17.6978
183	10	0.628006		127.218	-11.4178
184	10	0.640266		127.627	-5.01511
185	10	0.652622		128.053	1.5111
186	10	0.665079		128.496	8.1619
187	10	0.680797		128.959	14.9699
188	10	0.693493		129.44	21.9048
189	10	0.706302		129.939	28.9678
190	10	0.719228		130.456	36.1601
191	10	0.732275		130.993	43.4829
192	10	0.745449		131.548	50.9373
193	10	0.758753		132.124	58.5249
194	10	0.772193		132.72	66.2468
195	10	0.785774		133.338	74.1045
196	10	0.7995	133.977	82.0995	
197	10	0.813379		134.638	90.2333
198	10	0.827417		135.323	98.5075
199	10	0.841621		136.031	106.924
200	10	0.855996		136.764	115.484
201	10	0.87055	137.522	124.189	
202	10	0.885291		138.306	133.042
203	10	0.900227		139.116	142.044
204	10	0.915365		139.954	151.198
205	10	0.930718		140.82	160.505
206	10	0.946291		141.716	169.968
207	10	0.9621	142.641	179.589	
208	10	0.97815	143.598	189.371	
209	10	0.994457		144.587	199.315
210	10	1.01104	145.609	209.426	
211	10	1.02789	146.666	219.704	
212	10	1.04505	147.758	230.155	
213	10	1.06252	148.887	240.78	
214	10	1.08032	150.054	251.583	
215	10	1.09847	151.261	262.568	
216	11	1.11699	152.508	274.855	
217	11	1.1359	153.799	287.35	
218	12	1.15522	155.133	301.212	
219	12	1.17499	156.514	315.312	
220	12	1.19522	157.942	329.655	
221	12.4	1.21596	159.421	344.733	
222	12.8	1.23724	160.952	360.569	
223	13.8	1.25908	162.537	377.945	
224	14	1.28155	164.179	395.887	
225	14	1.30469	165.881	414.152	
226	14	1.32854	167.646	432.752	
227	14	1.35317	169.477	451.696	
228	14	1.37866	171.378	470.997	
229	14	1.40507	173.352	490.668	
230	15	1.4325	175.404	512.156	
231	16	1.46106	177.539	535.533	
232	16.1	1.49085	179.762	559.536	
233	18	1.52203	182.078	586.932	
234	23	1.55477	184.496	622.692	
235	25.8	1.58927	187.022	663.695	
236	28	1.62576	189.665	709.216	
237	29	1.66456	192.435	757.489	

238	30.1	1.70604	195.346	808.841
239	32	1.75069	198.411	864.863
240	32	1.79912	201.648	922.434
241	36.6	1.85218	205.078	990.224
242	40	1.91103	208.73	1066.67
243	40	1.97737	212.64	1145.76
244	42	2.05375	216.858	1232.02
245	56.2	2.14441	221.457	1352.53
246	79.9	2.25713	226.551	1532.88
247	82	2.40892	232.354	1730.41
248	150	2.65209	239.388	2128.22

Data Set Standard Deviation = 13.3649
Numerator = 4.52933e+006
Denominator = 1.05617e+007
W Statistic = 0.428847 = 4.52933e+006 / 1.05617e+007

5% Critical value of 0.976 exceeds 0.428847
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.428847
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 = 0.663687
0.663687 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.08	0.00401606	-2.65209	39.214	344.01	
2	0.08	0.00803213	-2.40892	39.214	332.136	
3	0.08	0.0120482	-2.25713	39.214	324.723	
4	0.08	0.0160643	-2.14441	39.214	319.219	
5	0.08	0.0200803	-2.05375	39.214	314.791	
6	0.08	0.0240964	-1.97737	39.214	311.062	
7	0.08	0.0281124	-1.91103	39.214	307.822	
8	0.08	0.0321285	-1.85218	39.214	304.948	
9	0.08	0.0361446	-1.79912	39.214	302.357	
10	0.08	0.0401606	-1.75069	39.214	299.992	
11	0.08	0.0441767	-1.70604	39.214	297.812	
12	0.08	0.0481928	-1.66456	39.214	295.786	
13	0.08	0.0522088	-1.62576	39.214	293.891	
14	0.08	0.0562249	-1.58927	39.214	292.109	
15	0.08	0.060241	-1.55477	39.214	290.425	
16	0.08	0.064257	-1.52203	39.214	288.826	
17	0.08	0.0682731	-1.49085	39.214	287.303	
18	0.08	0.0722892	-1.46106	39.214	285.848	
19	0.16	0.0763052	-1.4325	39.428	284.454	
20	0.16	0.0803213	-1.40507	39.428	283.114	
21	0.16	0.0843373	-1.37866	39.428	281.824	
22	0.17	0.0883534	-1.35317	39.4547	280.58	
23	0.17	0.0923695	-1.32854	39.4547	279.377	
24	0.18	0.0963855	-1.30469	39.4815	278.212	
25	0.19	0.100402	-1.28155	39.5082	277.082	
26	0.19	0.104418	-1.25908	39.5082	275.985	
27	0.19	0.108434	-1.23724	39.5082	274.918	
28	0.19	0.11245	-1.21596	39.5082	273.879	
29	0.2	0.116466	-1.19522	39.535	272.867	
30	0.2	0.120482	-1.17499	39.535	271.879	
31	0.2	0.124498	-1.15522	39.535	270.913	
32	0.22	0.128514	-1.1359	39.5885	269.97	
33	0.22	0.13253	-1.11699	39.5885	269.046	
34	0.23	0.136546	-1.09847	39.6153	268.142	
35	0.24	0.140562	-1.08032	39.642	267.256	
36	0.24	0.144578	-1.06252	39.642	266.386	
37	0.24	0.148594	-1.04505	39.642	265.533	
38	0.25	0.15261	-1.02789	39.6688	264.695	
39	0.25	0.156627	-1.01104	39.6688	263.872	
40	0.26	0.160643	-0.994457	39.6955	263.063	
41	0.26	0.164659	-0.97815	39.6955	262.266	
42	0.27	0.168675	-0.9621	39.7223	261.483	
43	0.3	0.172691	-0.946291	39.8025	260.711	
44	0.32	0.176707	-0.930718	39.856	259.95	
45	0.32	0.180723	-0.915365	39.856	259.2	
46	0.33	0.184739	-0.900227	39.8828	258.461	
47	0.33	0.188755	-0.885291	39.8828	257.732	
48	0.36	0.192771	-0.87055	39.963	257.012	

49	0.4	0.196787	-0.855996	40.07	256.301
50	0.51	0.200803	-0.841621	40.3642	255.599
51	0.52	0.204819	-0.827417	40.391	254.906
52	0.54	0.208835	-0.813379	40.4445	254.22
53	0.6	0.212851	-0.7995	40.605	253.542
54	0.62	0.216867	-0.785774	40.6585	252.872
55	0.67	0.220884	-0.772193	40.7923	252.209
56	0.71	0.2249	-0.758753	40.8993	251.552
57	0.71	0.228916	-0.745449	40.8993	250.903
58	0.74	0.232932	-0.732275	40.9795	250.259
59	0.87	0.236948	-0.719228	41.3272	249.622
60	0.92	0.240964	-0.706302	41.461	248.991
61	1.6	0.24498	-0.693493	43.28	248.366
62	3.11	0.248996	-0.680797	47.3192	247.746
63	3.5	0.253012	-0.665079	48.3625	246.978
64	4.5	0.257028	-0.652622	51.0375	246.37
65	4.61	0.261044	-0.640266	51.3318	245.766
66	5.12	0.26506	-0.628006	52.696	245.168
67	5.2	0.269076	-0.615839	52.91	244.573
68	5.63	0.273092	-0.603765	54.0602	243.984
69	5.66	0.277108	-0.591776	54.1405	243.398
70	7	0.281124	-0.579873	57.725	242.817
71	7.9	0.285141	-0.568052	60.1325	242.24
72	8	0.289157	-0.556308	60.4	241.666
73	8.11	0.293173	-0.544642	60.6942	241.097
74	10	0.297189	-0.533048	65.75	240.531
75	10	0.301205	-0.521527	65.75	239.968
76	10	0.305221	-0.510074	65.75	239.409
77	10	0.309237	-0.498687	65.75	238.853
78	10	0.313253	-0.487364	65.75	238.3
79	10	0.317269	-0.476105	65.75	237.75
80	10	0.321285	-0.464904	65.75	237.203
81	10	0.325301	-0.453763	65.75	236.659
82	10	0.329317	-0.442676	65.75	236.117
83	10	0.333333	-0.431644	65.75	235.579
84	10	0.337349	-0.420664	65.75	235.042
85	10	0.341365	-0.409735	65.75	234.509
86	10	0.345382	-0.398855	65.75	233.977
87	10	0.349398	-0.388022	65.75	233.448
88	10	0.353414	-0.377233	65.75	232.922
89	10	0.35743	-0.3664	65.75	232.397
90	10	0.361446	-0.355788	65.75	231.874
91	10	0.365462	-0.345126	65.75	231.354
92	10	0.369478	-0.334503	65.75	230.835
93	10	0.373494	-0.323919	65.75	230.318
94	10	0.37751	-0.3133	65.75	229.803
95	10	0.381526	-0.302855	65.75	229.289
96	10	0.385542	-0.292375	65.75	228.778
97	10	0.389558	-0.281926	65.75	228.267
98	10	0.393574	-0.271509	65.75	227.759
99	10	0.39759	-0.2611	65.75	227.251
100	10	0.401606	-0.250759	65.75	226.745
101	10	0.405622	-0.240426	65.75	226.241
102	10	0.409639	-0.230118	65.75	225.737
103	10	0.413655	-0.219834	65.75	225.235
104	10	0.417671	-0.209575	65.75	224.734
105	10	0.421687	-0.199336	65.75	224.234
106	10	0.425703	-0.189118	65.75	223.735
107	10	0.429719	-0.1789	65.75	223.237
108	10	0.433735	-0.168741	65.75	222.74
109	10	0.437751	-0.158579	65.75	222.244
110	10	0.441767	-0.148434	65.75	221.749

111	10	0.445783	-0.138305	65.75	221.254
112	10	0.449799	-0.128189	65.75	220.76
113	10	0.453815	-0.118085	65.75	220.267
114	10	0.457831	-0.107995	65.75	219.774
115	10	0.461847	-0.0979139	65.75	219.281
116	10	0.465863	-0.0878447	65.75	218.79
117	10	0.46988	-0.0777834	65.75	218.298
118	10	0.473896	-0.0677301	65.75	217.807
119	10	0.477912	-0.0576847	65.75	217.317
120	10	0.481928	-0.0476439	65.75	216.827
121	10	0.485944	-0.0376076	65.75	216.337
122	10	0.48996	-0.0275759	65.75	215.847
123	10	0.493976	-0.0175476	65.75	215.357
124	10	0.497992	-0.00751925	65.75	214.867
125	10	0.502008	0.00751925	65.75	214.133
126	10	0.506024	0.0175476	65.75	213.643
127	10	0.51004	0.0275759	65.75	213.153
128	10	0.514056	0.0376076	65.75	212.663
129	10	0.518072	0.0476439	65.75	212.173
130	10	0.522088	0.0576847	65.75	211.683
131	10	0.526104	0.0677301	65.75	211.193
132	10	0.53012	0.0777834	65.75	210.702
133	10	0.534137	0.0878447	65.75	210.21
134	10	0.538153	0.0979139	65.75	209.719
135	10	0.542169	0.107995	65.75	209.226
136	10	0.546185	0.118085	65.75	208.733
137	10	0.550201	0.128189	65.75	208.24
138	10	0.554217	0.138305	65.75	207.746
139	10	0.558233	0.148434	65.75	207.251
140	10	0.562249	0.158579	65.75	206.756
141	10	0.566265	0.168741	65.75	206.26
142	10	0.570281	0.17892	65.75	205.763
143	10	0.574297	0.189118	65.75	205.265
144	10	0.578313	0.199336	65.75	204.766
145	10	0.582329	0.209575	65.75	204.266
146	10	0.586345	0.219834	65.75	203.765
147	10	0.590361	0.230118	65.75	203.263
148	10	0.594378	0.240426	65.75	202.759
149	10	0.598394	0.250759	65.75	202.255
150	10	0.60241	0.26112	65.75	201.749
151	10	0.606426	0.271509	65.75	201.241
152	10	0.610442	0.281926	65.75	200.733
153	10	0.614458	0.292375	65.75	200.222
154	10	0.618474	0.302855	65.75	199.711
155	10	0.62249	0.31337	65.75	199.197
156	10	0.626506	0.323919	65.75	198.682
157	10	0.630522	0.334503	65.75	198.165
158	10	0.634538	0.345126	65.75	197.646
159	10	0.638554	0.355788	65.75	197.126
160	10	0.64257	0.36649	65.75	196.603
161	10	0.646586	0.377233	65.75	196.078
162	10	0.650602	0.388022	65.75	195.552
163	10	0.654618	0.398855	65.75	195.023
164	10	0.658635	0.409735	65.75	194.491
165	10	0.662651	0.420664	65.75	193.958
166	10	0.666667	0.431644	65.75	193.421
167	10	0.670683	0.442676	65.75	192.883
168	10	0.674699	0.453763	65.75	192.341
169	10	0.678715	0.464904	65.75	191.797
170	10	0.682731	0.476105	65.75	191.25
171	10	0.686747	0.487364	65.75	190.7
172	10	0.690763	0.498687	65.75	190.147

173	10	0.694779	0.510074	65.75	189.591
174	10	0.698795	0.521527	65.75	189.032
175	10	0.702811	0.533048	65.75	188.469
176	10	0.706827	0.544642	65.75	187.903
177	10	0.710843	0.556308	65.75	187.334
178	10	0.714859	0.568052	65.75	186.76
179	10	0.718876	0.579873	65.75	186.183
180	10	0.722892	0.591776	65.75	185.602
181	10	0.726908	0.603765	65.75	185.016
182	10	0.730924	0.615839	65.75	184.427
183	10	0.73494	0.628006	65.75	183.832
184	10	0.738956	0.640266	65.75	183.234
185	10	0.742972	0.652622	65.75	182.63
186	10	0.746988	0.665079	65.75	182.022
187	10	0.751004	0.680797	65.75	181.254
188	10	0.75502	0.693493	65.75	180.634
189	10	0.759036	0.706302	65.75	180.009
190	10	0.763052	0.719228	65.75	179.378
191	10	0.767068	0.732275	65.75	178.741
192	10	0.771084	0.745449	65.75	178.097
193	10	0.7751	0.758753	65.75	177.448
194	10	0.779116	0.772193	65.75	176.791
195	10	0.783133	0.785774	65.75	176.128
196	10	0.787149	0.7995	65.75	175.458
197	10	0.791165	0.813379	65.75	174.78
198	10	0.795181	0.827417	65.75	174.094
199	10	0.799197	0.841621	65.75	173.401
200	10	0.803213	0.855996	65.75	172.699
201	10	0.807229	0.87055	65.75	171.988
202	10	0.811245	0.885291	65.75	171.268
203	10	0.815261	0.900227	65.75	170.539
204	10	0.819277	0.915365	65.75	169.8
205	10	0.823293	0.930718	65.75	169.05
206	10	0.827309	0.946291	65.75	168.289
207	10	0.831325	0.9621	65.75	167.517
208	10	0.835341	0.97815	65.75	166.734
209	10	0.839357	0.994457	65.75	165.937
210	10	0.843373	1.01104	65.75	165.128
211	10	0.84739	1.02789	65.75	164.305
212	10	0.851406	1.04505	65.75	163.467
213	10	0.855422	1.06252	65.75	162.614
214	10	0.859438	1.08032	65.75	161.744
215	10	0.863454	1.09847	65.75	160.858
216	11	0.86747	1.11699	68.425	159.954
217	11	0.871486	1.1359	68.425	159.03
218	12	0.875502	1.15522	71.1	158.087
219	12	0.879518	1.17499	71.1	157.121
220	12	0.883534	1.19522	71.1	156.133
221	12.4	0.88755	1.21596	72.17	155.121
222	12.8	0.891566	1.23724	73.24	154.082
223	13.8	0.895582	1.25908	75.915	153.015
224	14	0.899598	1.28155	76.45	151.918
225	14	0.903614	1.30469	76.45	150.788
226	14	0.907631	1.32854	76.45	149.623
227	14	0.911647	1.35317	76.45	148.42
228	14	0.915663	1.37866	76.45	147.176
229	14	0.919679	1.40507	76.45	145.886
230	15	0.923695	1.4325	79.125	144.546
231	16	0.927711	1.46106	81.8	143.152
232	16.1	0.931727	1.49085	82.0675	141.697
233	18	0.935743	1.52203	87.15	140.174
234	23	0.939759	1.55477	100.525	138.575

235	25.8	0.943775		1.58927	108.015	136.891
236	28	0.947791		1.62576	113.9	135.109
237	29	0.951807		1.66456	116.575	133.214
238	30.1	0.955823		1.70604	119.518	131.188
239	32	0.959839		1.75069	124.6	129.008
240	32	0.963855		1.79912	124.6	126.643
241	36.6	0.967871		1.85218	136.905	124.052
242	40	0.971888		1.91103	146	121.178
243	40	0.975904		1.97737	146	117.938
244	42	0.97992	2.05375	151.35	114.209	
245	56.2	0.983936		2.14441	189.335	109.781
246	79.9	0.987952		2.25713	252.733	104.277
247	82	0.991968		2.40892	258.35	96.8642
248	150	0.995984		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 = 248

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	-1.91103	34.3095	38.9081
8	-2.52573	-1.85218	37.7401	43.5862
9	-2.52573	-1.79912	40.9769	48.1303
10	-2.52573	-1.75069	44.0418	52.552
11	-2.52573	-1.70604	46.9524	56.861
12	-2.52573	-1.66456	49.7231	61.0652
13	-2.52573	-1.62576	52.3662	65.1715
14	-2.52573	-1.58927	54.892	69.1855
15	-2.52573	-1.55477	57.3093	73.1125
16	-2.52573	-1.52203	59.6259	76.9567
17	-2.52573	-1.49085	61.8486	80.7222
18	-2.52573	-1.46106	63.9833	84.4125
19	-1.83258	-1.4325	66.0353	87.0376
20	-1.83258	-1.40507	68.0096	89.6125
21	-1.83258	-1.37866	69.9102	92.139
22	-1.77196	-1.35317	71.7413	94.5368
23	-1.77196	-1.32854	73.5063	96.8909
24	-1.7148	-1.30469	75.2086	99.1282
25	-1.66073	-1.28155	76.8509	101.257
26	-1.66073	-1.25908	78.4362	103.348
27	-1.66073	-1.23724	79.967	105.402
28	-1.66073	-1.21596	81.4455	107.422
29	-1.60944	-1.19522	82.8741	109.345
30	-1.60944	-1.17499	84.2547	111.236
31	-1.60944	-1.15522	85.5892	113.096
32	-1.51413	-1.1359	86.8795	114.815
33	-1.51413	-1.11699	88.1271	116.507
34	-1.46968	-1.09847	89.3338	118.121
35	-1.42712	-1.08032	90.5009	119.663
36	-1.42712	-1.06252	91.6298	121.179
37	-1.42712	-1.04505	92.7219	122.671
38	-1.38629	-1.02789	93.7785	124.096
39	-1.38629	-1.01104	94.8007	125.497
40	-1.34707	-0.994457	95.7896	126.837
41	-1.34707	-0.97815	96.7464	128.154
42	-1.30933	-0.9621	97.6721	129.414
43	-1.20397	-0.946291	98.5675	130.553
44	-1.13943	-0.930718	99.4338	131.614
45	-1.13943	-0.915365	100.272	132.657
46	-1.10866	-0.900227	101.082	133.655
47	-1.10866	-0.885291	101.866	134.636
48	-1.02165	-0.87055	102.624	135.526
49	-0.916291	-0.855996	103.356	136.31
50	-0.673345	-0.841621	104.065	136.877
51	-0.653926	-0.827417	104.749	137.418

52	-0.616186	-0.813379	105.411	137.919
53	-0.510826	-0.7995	106.05	138.328
54	-0.478036	-0.785774	106.668	138.703
55	-0.400478	-0.772193	107.264	139.012
56	-0.34249	-0.758753	107.84	139.272
57	-0.34249	-0.745449	108.395	139.528
58	-0.301105	-0.732275	108.931	139.748
59	-0.139262	-0.719228	109.449	139.848
60	-0.0833816	-0.706302	109.948	139.907
61	0.470004	-0.693493	110.429	139.581
62	1.13462	-0.680797	110.892	138.809
63	1.25276	-0.665079	111.334	137.976
64	1.50408	-0.652622	111.76	136.994
65	1.52823	-0.640266	112.17	136.016
66	1.63315	-0.628006	112.565	134.99
67	1.64866	-0.615839	112.944	133.975
68	1.72811	-0.603765	113.308	132.931
69	1.73342	-0.591776	113.659	131.905
70	1.94591	-0.579873	113.995	130.777
71	2.06686	-0.568052	114.318	129.603
72	2.07944	-0.556308	114.627	128.446
73	2.0931	-0.544642	114.924	127.306
74	2.30259	-0.533048	115.208	126.079
75	2.30259	-0.521527	115.48	124.878
76	2.30259	-0.510074	115.74	123.703
77	2.30259	-0.498687	115.989	122.555
78	2.30259	-0.487364	116.226	121.433
79	2.30259	-0.476105	116.453	120.337
80	2.30259	-0.464904	116.669	119.266
81	2.30259	-0.453763	116.875	118.221
82	2.30259	-0.442676	117.071	117.202
83	2.30259	-0.431644	117.257	116.208
84	2.30259	-0.420664	117.434	115.24
85	2.30259	-0.409735	117.602	114.296
86	2.30259	-0.398855	117.761	113.378
87	2.30259	-0.388022	117.912	112.484
88	2.30259	-0.377233	118.054	111.616
89	2.30259	-0.36649	118.188	110.772
90	2.30259	-0.355788	118.315	109.953
91	2.30259	-0.345126	118.434	109.158
92	2.30259	-0.334503	118.546	108.388
93	2.30259	-0.323919	118.651	107.642
94	2.30259	-0.31337	118.749	106.92
95	2.30259	-0.302855	118.841	106.223
96	2.30259	-0.292375	118.926	105.55
97	2.30259	-0.281926	119.006	104.9
98	2.30259	-0.271509	119.079	104.275
99	2.30259	-0.26112	119.148	103.674
100	2.30259	-0.250759	119.21	103.097
101	2.30259	-0.240426	119.268	102.543
102	2.30259	-0.230118	119.321	102.013
103	2.30259	-0.219834	119.37	101.507
104	2.30259	-0.209575	119.413	101.024
105	2.30259	-0.199336	119.453	100.565
106	2.30259	-0.189118	119.489	100.13
107	2.30259	-0.17892	119.521	99.718
108	2.30259	-0.168741	119.549	99.3295
109	2.30259	-0.158579	119.575	98.9643
110	2.30259	-0.148434	119.597	98.6225
111	2.30259	-0.138305	119.616	98.3041
112	2.30259	-0.128189	119.632	98.0089
113	2.30259	-0.118085	119.646	97.737

114	2.30259	-0.107995	119.658	97.4884
115	2.30259	-0.0979139	119.667	97.2629
116	2.30259	-0.0878447	119.675	97.0606
117	2.30259	-0.0777834	119.681	96.8815
118	2.30259	-0.0677301	119.686	96.7256
119	2.30259	-0.0576847	119.689	96.5927
120	2.30259	-0.0476439	119.691	96.483
121	2.30259	-0.0376076	119.693	96.3965
122	2.30259	-0.0275759	119.694	96.333
123	2.30259	-0.0175476	119.694	96.2925
124	2.30259	-0.00751925	119.694	96.2752
125	2.30259	0.00751925	119.694	96.2925
126	2.30259	0.0175476	119.694	96.333
127	2.30259	0.0275759	119.695	96.3965
128	2.30259	0.0376076	119.696	96.483
129	2.30259	0.0476439	119.699	96.5927
130	2.30259	0.0576847	119.702	96.7256
131	2.30259	0.0677301	119.707	96.8815
132	2.30259	0.0777834	119.713	97.0606
133	2.30259	0.0878447	119.72	97.2629
134	2.30259	0.0979139	119.73	97.4884
135	2.30259	0.107995	119.742	97.737
136	2.30259	0.118085	119.756	98.0089
137	2.30259	0.128189	119.772	98.3041
138	2.30259	0.138305	119.791	98.6225
139	2.30259	0.148434	119.813	98.9643
140	2.30259	0.158579	119.838	99.3295
141	2.30259	0.168741	119.867	99.718
142	2.30259	0.17892	119.899	100.13
143	2.30259	0.189118	119.935	100.565
144	2.30259	0.199336	119.974	101.024
145	2.30259	0.209575	120.018	101.507
146	2.30259	0.219834	120.067	102.013
147	2.30259	0.230118	120.119	102.543
148	2.30259	0.240426	120.177	103.097
149	2.30259	0.250759	120.24	103.674
150	2.30259	0.26112	120.308	104.275
151	2.30259	0.271509	120.382	104.9
152	2.30259	0.281926	120.462	105.55
153	2.30259	0.292375	120.547	106.223
154	2.30259	0.302855	120.639	106.92
155	2.30259	0.31337	120.737	107.642
156	2.30259	0.323919	120.842	108.388
157	2.30259	0.334503	120.954	109.158
158	2.30259	0.345126	121.073	109.953
159	2.30259	0.355788	121.199	110.772
160	2.30259	0.36649	121.334	111.616
161	2.30259	0.377233	121.476	112.484
162	2.30259	0.388022	121.627	113.378
163	2.30259	0.398855	121.786	114.296
164	2.30259	0.409735	121.954	115.24
165	2.30259	0.420664	122.131	116.208
166	2.30259	0.431644	122.317	117.202
167	2.30259	0.442676	122.513	118.221
168	2.30259	0.453763	122.719	119.266
169	2.30259	0.464904	122.935	120.337
170	2.30259	0.476105	123.162	121.433
171	2.30259	0.487364	123.399	122.555
172	2.30259	0.498687	123.648	123.703
173	2.30259	0.510074	123.908	124.878
174	2.30259	0.521527	124.18	126.079
175	2.30259	0.533048	124.464	127.306

176	2.30259	0.544642		124.761	128.56
177	2.30259	0.556308		125.07	129.841
178	2.30259	0.568052		125.393	131.149
179	2.30259	0.579873		125.729	132.484
180	2.30259	0.591776		126.079	133.847
181	2.30259	0.603765		126.444	135.237
182	2.30259	0.615839		126.823	136.655
183	2.30259	0.628006		127.218	138.101
184	2.30259	0.640266		127.627	139.576
185	2.30259	0.652622		128.053	141.078
186	2.30259	0.665079		128.496	142.61
187	2.30259	0.680797		128.959	144.177
188	2.30259	0.693493		129.44	145.774
189	2.30259	0.706302		129.939	147.4
190	2.30259	0.719228		130.456	149.056
191	2.30259	0.732275		130.993	150.743
192	2.30259	0.745449		131.548	152.459
193	2.30259	0.758753		132.124	154.206
194	2.30259	0.772193		132.72	155.984
195	2.30259	0.785774		133.338	157.793
196	2.30259	0.7995	133.977	159.634	
197	2.30259	0.813379		134.638	161.507
198	2.30259	0.827417		135.323	163.412
199	2.30259	0.841621		136.031	165.35
200	2.30259	0.855996		136.764	167.321
201	2.30259	0.87055	137.522	169.326	
202	2.30259	0.885291		138.306	171.364
203	2.30259	0.900227		139.116	173.437
204	2.30259	0.915365		139.954	175.545
205	2.30259	0.930718		140.82	177.688
206	2.30259	0.946291		141.716	179.867
207	2.30259	0.9621	142.641	182.082	
208	2.30259	0.97815	143.598	184.334	
209	2.30259	0.994457		144.587	186.624
210	2.30259	1.01104	145.609	188.952	
211	2.30259	1.02789	146.666	191.319	
212	2.30259	1.04505	147.758	193.725	
213	2.30259	1.06252	148.887	196.172	
214	2.30259	1.08032	150.054	198.66	
215	2.30259	1.09847	151.261	201.189	
216	2.3979	1.11699	152.508	203.867	
217	2.3979	1.1359	153.799	206.591	
218	2.48491	1.15522	155.133	209.462	
219	2.48491	1.17499	156.514	212.381	
220	2.48491	1.19522	157.942	215.351	
221	2.5177	1.21596	159.421	218.413	
222	2.54945	1.23724	160.952	221.567	
223	2.62467	1.25908	162.537	224.872	
224	2.63906	1.28155	164.179	228.254	
225	2.63906	1.30469	165.881	231.697	
226	2.63906	1.32854	167.646	235.203	
227	2.63906	1.35317	169.477	238.774	
228	2.63906	1.37866	171.378	242.413	
229	2.63906	1.40507	173.352	246.121	
230	2.70805	1.4325	175.404	250	
231	2.77259	1.46106	177.539	254.051	
232	2.77882	1.49085	179.762	258.194	
233	2.89037	1.52203	182.078	262.593	
234	3.13549	1.55477	184.496	267.468	
235	3.25037	1.58927	187.022	272.634	
236	3.3322	1.62576	189.665	278.051	
237	3.3673	1.66456	192.435	283.656	

238	3.40453	1.70604	195.346	289.464
239	3.46574	1.75069	198.411	295.532
240	3.46574	1.79912	201.648	301.767
241	3.60005	1.85218	205.078	308.435
242	3.68888	1.91103	208.73	315.484
243	3.68888	1.97737	212.64	322.779
244	3.73767	2.05375	216.858	330.455
245	4.02892	2.14441	221.457	339.095
246	4.38078	2.25713	226.551	348.983
247	4.40672	2.40892	232.354	359.598
248	5.01064	2.65209	239.388	372.887

Data Set Standard Deviation = 1.80037
Numerator = 139044
Denominator = 191655
W Statistic = 0.725494 = 139044 / 191655

5% Critical value of 0.976 exceeds 0.725494
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.725494
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 = 0.851161
0.851161 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.52	5730.00401606	-2.65	2067.1928	344.01
2	-2.52	5730.00803213	-2.40	8967.1928	332.136
3	-2.52	5730.0120482	-2.25	7167.1928	324.723
4	-2.52	5730.0160643	-2.14	4467.1928	319.219
5	-2.52	5730.0200803	-2.05	3767.1928	314.791
6	-2.52	5730.0240964	-1.97	7367.1928	311.062
7	-2.52	5730.0281124	-1.91	1067.1928	307.822
8	-2.52	5730.0321285	-1.85	2167.1928	304.948
9	-2.52	5730.0361446	-1.79	9167.1928	302.357
10	-2.52	5730.0401606	-1.75	0967.1928	299.992
11	-2.52	5730.0441767	-1.70	6047.1928	297.812
12	-2.52	5730.0481928	-1.66	4567.1928	295.786
13	-2.52	5730.0522088	-1.62	5767.1928	293.891
14	-2.52	5730.0562249	-1.58	9267.1928	292.109
15	-2.52	5730.060241	-1.55	4767.1928	290.425
16	-2.52	5730.064257	-1.52	2036	7.1928 288.826
17	-2.52	5730.0682731	-1.49	0856	7.1928 287.303
18	-2.52	5730.0722892	-1.46	1067.1928	285.848
19	-1.83	2580.0763052	-1.4325	108.397	284.454
20	-1.83	2580.0803213	-1.40507	108.397	283.114
21	-1.83	2580.0843373	-1.37866	108.397	281.824
22	-1.77	1960.0883534	-1.35317	112	280.58
23	-1.77	1960.0923695	-1.32854	112	279.377
24	-1.7148	0.0963855	-1.30469	115.398	278.212
25	-1.66	0730.100402	-1.28155	118.612	277.082
26	-1.66	0730.104418	-1.25908	118.612	275.985
27	-1.66	0730.108434	-1.23724	118.612	274.918
28	-1.66	0730.11245	-1.21596	118.612	273.879
29	-1.60	9440.116466	-1.19522	121.661	272.867
30	-1.60	9440.120482	-1.17499	121.661	271.879
31	-1.60	9440.124498	-1.15522	121.661	270.913
32	-1.51	4130.128514	-1.1359	127.327	269.97
33	-1.51	4130.13253	-1.11699	127.327	269.046
34	-1.46	9680.136546	-1.09847	129.969	268.142
35	-1.42	7120.140562	-1.08032	132.499	267.256
36	-1.42	7120.144578	-1.06252	132.499	266.386
37	-1.42	7120.148594	-1.04505	132.499	265.533
38	-1.38	6290.15261	-1.02789	134.926	264.695
39	-1.38	6290.156627	-1.01104	134.926	263.872
40	-1.34	7070.160643	-0.994457	137.257	263.063
41	-1.34	7070.164659	-0.97815	137.257	262.266
42	-1.30	9330.168675	-0.9621	139.501	261.483
43	-1.20	3970.172691	-0.946291	145.764	260.711
44	-1.13	9430.176707	-0.930718	149.6	259.95
45	-1.13	9430.180723	-0.915365	149.6	259.2
46	-1.10	8660.184739	-0.900227	151.429	258.461
47	-1.10	8660.188755	-0.885291	151.429	257.732
48	-1.02	1650.192771	-0.87055	156.602	257.012

49	-0.916291	0.196787	-0.855996	162.865	256.301
50	-0.673345	0.200803	-0.841621	177.307	255.599
51	-0.653926	0.204819	-0.827417	178.461	254.906
52	-0.616186	0.208835	-0.813379	180.704	254.22
53	-0.510826	0.212851	-0.7995	186.968	253.542
54	-0.478036	0.216867	-0.785774	188.917	252.872
55	-0.400478	0.220884	-0.772193	193.527	252.209
56	-0.342490.2249	-0.758753	196.974	251.552	
57	-0.342490.228916	-0.745449	196.974	250.903	
58	-0.301105	0.232932	-0.732275	199.434	250.259
59	-0.139262	0.236948	-0.719228	209.055	249.622
60	-0.0833816	0.240964	-0.706302	212.377	248.991
61	0.470004	0.24498	-0.693493	245.272	248.366
62	1.13462	0.248996	-0.680797	284.78	247.746
63	1.25276	0.253012	-0.665079	291.803	246.978
64	1.50408	0.257028	-0.652622	306.742	246.37
65	1.52823	0.261044	-0.640266	308.178	245.766
66	1.63315	0.26506	-0.628006	314.415	245.168
67	1.64866	0.269076	-0.615839	315.337	244.573
68	1.72811	0.273092	-0.603765	320.06	243.984
69	1.73342	0.277108	-0.591776	320.376	243.398
70	1.94591	0.281124	-0.579873	333.007	242.817
71	2.06686	0.285141	-0.568052	340.197	242.24
72	2.07944	0.289157	-0.556308	340.945	241.666
73	2.0931	0.293173	-0.544642	341.756	241.097
74	2.30259	0.297189	-0.533048	354.209	240.531
75	2.30259	0.301205	-0.521527	354.209	239.968
76	2.30259	0.305221	-0.510074	354.209	239.409
77	2.30259	0.309237	-0.498687	354.209	238.853
78	2.30259	0.313253	-0.487364	354.209	238.3
79	2.30259	0.317269	-0.476105	354.209	237.75
80	2.30259	0.321285	-0.464904	354.209	237.203
81	2.30259	0.325301	-0.453763	354.209	236.659
82	2.30259	0.329317	-0.442676	354.209	236.117
83	2.30259	0.333333	-0.431644	354.209	235.579
84	2.30259	0.337349	-0.420664	354.209	235.042
85	2.30259	0.341365	-0.409735	354.209	234.509
86	2.30259	0.345382	-0.398855	354.209	233.977
87	2.30259	0.349398	-0.388022	354.209	233.448
88	2.30259	0.353414	-0.377233	354.209	232.922
89	2.30259	0.35743	-0.36649354.209	232.397	
90	2.30259	0.361446	-0.355788	354.209	231.874
91	2.30259	0.365462	-0.345126	354.209	231.354
92	2.30259	0.369478	-0.334503	354.209	230.835
93	2.30259	0.373494	-0.323919	354.209	230.318
94	2.30259	0.37751	-0.31337354.209	229.803	
95	2.30259	0.381526	-0.302855	354.209	229.289
96	2.30259	0.385542	-0.292375	354.209	228.778
97	2.30259	0.389558	-0.281926	354.209	228.267
98	2.30259	0.393574	-0.271509	354.209	227.759
99	2.30259	0.39759	-0.26112354.209	227.251	
100	2.30259	0.401606	-0.250759	354.209	226.745
101	2.30259	0.405622	-0.240426	354.209	226.241
102	2.30259	0.409639	-0.230118	354.209	225.737
103	2.30259	0.413655	-0.219834	354.209	225.235
104	2.30259	0.417671	-0.209575	354.209	224.734
105	2.30259	0.421687	-0.199336	354.209	224.234
106	2.30259	0.425703	-0.189118	354.209	223.735
107	2.30259	0.429719	-0.17892354.209	223.237	
108	2.30259	0.433735	-0.168741	354.209	222.74
109	2.30259	0.437751	-0.158579	354.209	222.244
110	2.30259	0.441767	-0.148434	354.209	221.749

111	2.30259	0.445783	-0.138305	354.209	221.254
112	2.30259	0.449799	-0.128189	354.209	220.76
113	2.30259	0.453815	-0.118085	354.209	220.267
114	2.30259	0.457831	-0.107995	354.209	219.774
115	2.30259	0.461847	-0.0979139	354.209	219.281
116	2.30259	0.465863	-0.0878447	354.209	218.79
117	2.30259	0.46988	-0.0777834	354.209	218.298
118	2.30259	0.473896	-0.0677301	354.209	217.807
119	2.30259	0.477912	-0.0576847	354.209	217.317
120	2.30259	0.481928	-0.0476439	354.209	216.827
121	2.30259	0.485944	-0.0376076	354.209	216.337
122	2.30259	0.48996	-0.0275759	354.209	215.847
123	2.30259	0.493976	-0.0175476	354.209	215.357
124	2.30259	0.497992	-0.00751925	354.209	214.867
125	2.30259	0.502008	0.00751925	354.209	214.133
126	2.30259	0.506024	0.0175476	354.209	213.643
127	2.30259	0.51004	0.0275759	354.209	213.153
128	2.30259	0.514056	0.0376076	354.209	212.663
129	2.30259	0.518072	0.0476439	354.209	212.173
130	2.30259	0.522088	0.0576847	354.209	211.683
131	2.30259	0.526104	0.0677301	354.209	211.193
132	2.30259	0.53012	0.0777834	354.209	210.702
133	2.30259	0.534137	0.0878447	354.209	210.21
134	2.30259	0.538153	0.0979139	354.209	209.719
135	2.30259	0.542169	0.107995	354.209	209.226
136	2.30259	0.546185	0.118085	354.209	208.733
137	2.30259	0.550201	0.128189	354.209	208.24
138	2.30259	0.554217	0.138305	354.209	207.746
139	2.30259	0.558233	0.148434	354.209	207.251
140	2.30259	0.562249	0.158579	354.209	206.756
141	2.30259	0.566265	0.168741	354.209	206.26
142	2.30259	0.570281	0.17892	354.209	205.763
143	2.30259	0.574297	0.189118	354.209	205.265
144	2.30259	0.578313	0.199336	354.209	204.766
145	2.30259	0.582329	0.209575	354.209	204.266
146	2.30259	0.586345	0.219834	354.209	203.765
147	2.30259	0.590361	0.230118	354.209	203.263
148	2.30259	0.594378	0.240426	354.209	202.759
149	2.30259	0.598394	0.250759	354.209	202.255
150	2.30259	0.60241	0.26112	354.209	201.749
151	2.30259	0.606426	0.271509	354.209	201.241
152	2.30259	0.610442	0.281926	354.209	200.733
153	2.30259	0.614458	0.292375	354.209	200.222
154	2.30259	0.618474	0.302855	354.209	199.711
155	2.30259	0.62249	0.31337	354.209	199.197
156	2.30259	0.626506	0.323919	354.209	198.682
157	2.30259	0.630522	0.334503	354.209	198.165
158	2.30259	0.634538	0.345126	354.209	197.646
159	2.30259	0.638554	0.355788	354.209	197.126
160	2.30259	0.64257	0.36649	354.209	196.603
161	2.30259	0.646586	0.377233	354.209	196.078
162	2.30259	0.650602	0.388022	354.209	195.552
163	2.30259	0.654618	0.398855	354.209	195.023
164	2.30259	0.658635	0.409735	354.209	194.491
165	2.30259	0.662651	0.420664	354.209	193.958
166	2.30259	0.666667	0.431644	354.209	193.421
167	2.30259	0.670683	0.442676	354.209	192.883
168	2.30259	0.674699	0.453763	354.209	192.341
169	2.30259	0.678715	0.464904	354.209	191.797
170	2.30259	0.682731	0.476105	354.209	191.25
171	2.30259	0.686747	0.487364	354.209	190.7
172	2.30259	0.690763	0.498687	354.209	190.147

173	2.30259	0.694779	0.510074	354.209	189.591
174	2.30259	0.698795	0.521527	354.209	189.032
175	2.30259	0.702811	0.533048	354.209	188.469
176	2.30259	0.706827	0.544642	354.209	187.903
177	2.30259	0.710843	0.556308	354.209	187.334
178	2.30259	0.714859	0.568052	354.209	186.76
179	2.30259	0.718876	0.579873	354.209	186.183
180	2.30259	0.722892	0.591776	354.209	185.602
181	2.30259	0.726908	0.603765	354.209	185.016
182	2.30259	0.730924	0.615839	354.209	184.427
183	2.30259	0.73494	0.628006	354.209	183.832
184	2.30259	0.738956	0.640266	354.209	183.234
185	2.30259	0.742972	0.652622	354.209	182.63
186	2.30259	0.746988	0.665079	354.209	182.022
187	2.30259	0.751004	0.680797	354.209	181.254
188	2.30259	0.75502	0.693493	354.209	180.634
189	2.30259	0.759036	0.706302	354.209	180.009
190	2.30259	0.763052	0.719228	354.209	179.378
191	2.30259	0.767068	0.732275	354.209	178.741
192	2.30259	0.771084	0.745449	354.209	178.097
193	2.30259	0.7751	0.758753	354.209	177.448
194	2.30259	0.779116	0.772193	354.209	176.791
195	2.30259	0.783133	0.785774	354.209	176.128
196	2.30259	0.787149	0.7995	354.209	175.458
197	2.30259	0.791165	0.813379	354.209	174.78
198	2.30259	0.795181	0.827417	354.209	174.094
199	2.30259	0.799197	0.841621	354.209	173.401
200	2.30259	0.803213	0.855996	354.209	172.699
201	2.30259	0.807229	0.87055	354.209	171.988
202	2.30259	0.811245	0.885291	354.209	171.268
203	2.30259	0.815261	0.900227	354.209	170.539
204	2.30259	0.819277	0.915365	354.209	169.8
205	2.30259	0.823293	0.930718	354.209	169.05
206	2.30259	0.827309	0.946291	354.209	168.289
207	2.30259	0.831325	0.9621	354.209	167.517
208	2.30259	0.835341	0.97815	354.209	166.734
209	2.30259	0.839357	0.994457	354.209	165.937
210	2.30259	0.843373	1.01104	354.209	165.128
211	2.30259	0.84739	1.02789	354.209	164.305
212	2.30259	0.851406	1.04505	354.209	163.467
213	2.30259	0.855422	1.06252	354.209	162.614
214	2.30259	0.859438	1.08032	354.209	161.744
215	2.30259	0.863454	1.09847	354.209	160.858
216	2.3979	0.86747	1.11699	359.875	159.954
217	2.3979	0.871486	1.1359	359.875	159.03
218	2.48491	0.875502	1.15522	365.047	158.087
219	2.48491	0.879518	1.17499	365.047	157.121
220	2.48491	0.883534	1.19522	365.047	156.133
221	2.5177	0.88755	1.21596	366.996	155.121
222	2.54945	0.891566	1.23724	368.884	154.082
223	2.62467	0.895582	1.25908	373.355	153.015
224	2.63906	0.899598	1.28155	374.211	151.918
225	2.63906	0.903614	1.30469	374.211	150.788
226	2.63906	0.907631	1.32854	374.211	149.623
227	2.63906	0.911647	1.35317	374.211	148.42
228	2.63906	0.915663	1.37866	374.211	147.176
229	2.63906	0.919679	1.40507	374.211	145.886
230	2.70805	0.923695	1.4325	378.312	144.546
231	2.77259	0.927711	1.46106	382.148	143.152
232	2.77882	0.931727	1.49085	382.519	141.697
233	2.89037	0.935743	1.52203	389.15	140.174
234	3.13549	0.939759	1.55477	403.721	138.575

235	3.25037	0.943775		1.58927	410.55	136.891
236	3.3322	0.947791		1.62576	415.414	135.109
237	3.3673	0.951807		1.66456	417.5	133.214
238	3.40453	0.955823		1.70604	419.713	131.188
239	3.46574	0.959839		1.75069	423.352	129.008
240	3.46574	0.963855		1.79912	423.352	126.643
241	3.60005	0.967871		1.85218	431.336	124.052
242	3.68888	0.971888		1.91103	436.617	121.178
243	3.68888	0.975904		1.97737	436.617	117.938
244	3.73767	0.97992	2.05375	439.517	114.209	
245	4.02892	0.983936		2.14441	456.83	109.781
246	4.38078	0.987952		2.25713	477.746	104.277
247	4.40672	0.991968		2.40892	479.288	96.8642
248	5.01064	0.995984		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	242
	9/23/1999	2.63906 J	224
	3/15/2000	5.01064	248
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	1.72811 J	209
	11/20/2008	ND<2.30259	80
	6/11/2009	-1.77196 J	163
	11/16/2009	-1.66073 J	166
	6/30/2010	ND<-2.52573	80
	11/12/2010	-1.34707 J	181
	7/5/2011	-1.83258 J	160

Rank Sum = 2473
Rank Mean = 130.158

Background Rank Sum = 2473
Background Rank Mean = 130.158

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	2.5177 J	221
	8/24/1995	ND<2.30259	80
	9/28/1995	ND<2.30259	80
	10/26/1995	2.62467 J	223
	11/19/1996	ND<2.30259	80
	12/19/1996	2.77882 J	232
	3/24/1997	2.63906 J	225
	9/24/1997	ND<2.30259	80
	4/7/1998	3.13549	234
	9/23/1998	2.63906 J	226
	3/16/1999	ND<2.30259	80
	9/23/1999	ND<2.30259	80
	3/15/2000	3.46574	239
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80

	11/28/2007	ND<2.30259	80
	6/5/2008	1.63315	207
	11/20/2008	ND<2.30259	80
	6/11/2009	ND<-2.52573	80
	11/16/2009	ND<-2.52573	80
	6/30/2010	ND<-2.52573	80
	11/12/2010	ND<-2.52573 U	80
	7/5/2011	ND<-2.52573 U	80
	11/22/2011	-1.66073 J	167
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 3734
Rank Mean = 120.452

MW-8	7/20/1995	ND<2.30259	80
	8/24/1995	ND<2.30259	80
	9/28/1995	4.02892	245
	10/26/1995	ND<2.30259	80
	11/19/1996	ND<2.30259	80
	12/19/1996	3.40453	238
	3/24/1997	ND<2.30259	80
	9/24/1997	ND<2.30259	80
	4/7/1998	ND<2.30259	80
	9/23/1998	2.89037 J	233
	3/16/1999	ND<2.30259	80
	9/23/1999	3.46574	240
	3/15/2000	ND<2.30259	80
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	2.06686 J	212
	11/20/2008	ND<2.30259	80
	6/11/2009	-1.60944 J	170
	6/30/2010	-1.42712 J H	176
	11/12/2010	-1.42712 J	177
	7/5/2011	-1.60944 J	171
	11/22/2011	-0.139262 J	200
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 3662
Rank Mean = 122.067

MW-11R	7/20/1995	ND<2.30259	80
	8/24/1995	ND<2.30259	80
	9/28/1995	ND<2.30259	80
	10/26/1995	3.25037	235
	11/19/1996	ND<2.30259	80
	12/19/1996	2.77259 J	231
	3/24/1997	ND<2.30259	80
	9/24/1997	ND<2.30259	80
	4/7/1998	2.63906 J	227
	9/23/1998	ND<2.30259	80
	3/16/1999	1.94591 J	211
	9/23/1999	2.3979 J	216
	3/15/2000	2.48491 J	218
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80

	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	1.52823 J	206
	11/28/2007	ND<2.30259	80
	6/5/2008	ND<2.30259	80
	11/20/2008	ND<2.30259	80
	6/11/2009	-1.77196 J	164
	11/16/2009	-1.51413 J B	173
	6/30/2010	-1.7148 J H	165
	11/12/2010	ND<-2.52573 U	80
	7/5/2011	-1.02165 J	189
	11/22/2011	-1.10866 J	187
	11/22/2011	-1.10866 J	188
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 4130
Rank Mean = 129.063

MW-10	7/20/1995	ND<2.30259	80
	8/24/1995	ND<2.30259	80
	9/28/1995	ND<2.30259	80
	10/26/1995	ND<2.30259	80
	11/19/1996	ND<2.30259	80
	12/19/1996	2.70805 J	230
	3/24/1997	ND<2.30259	80
	9/24/1997	2.63906	228
	4/7/1998	ND<2.30259	80
	9/23/1998	ND<2.30259	80
	3/16/1999	ND<2.30259	80
	9/23/1999	3.3673	237
	3/15/2000	ND<2.30259	80
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	1.13462 J	203
	11/20/2008	ND<2.30259	80
	6/11/2009	-1.51413 J	174
	11/16/2009	-1.30933 J B	183
	6/30/2010	-1.83258 J H	161
	11/12/2010	-1.60944 J	172
	7/5/2011	-1.83258 U J	162
	11/22/2011	-1.66073 J	168
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 3598
Rank Mean = 116.065

MW-9	7/20/1995	ND<2.30259	80
	8/24/1995	ND<2.30259	80
	9/28/1995	ND<2.30259	80
	10/26/1995	ND<2.30259	80
	11/19/1996	ND<2.30259	80
	12/19/1996	ND<2.30259	80
	3/24/1997	ND<2.30259	80
	9/24/1997	ND<2.30259	80
	4/7/1998	ND<2.30259	80

	9/23/1998	ND<2.30259	80
	3/16/1999	ND<2.30259	80
	9/23/1999	2.3979 J	217
	3/15/2000	ND<2.30259	80
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	1.64866 J	208
	11/20/2008	ND<2.30259	80
	6/11/2009	-0.478036 J	195
	11/16/2009	ND<-2.52573	80
	6/30/2010	-1.46968 J H	175
	11/12/2010	ND<-2.52573 U	80
	7/5/2011	1.25276	204
	11/22/2011	-1.38629 J	179
	11/22/2011	-1.38629 J	180
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 3358
Rank Mean = 104.938

MW-7	7/20/1995	ND<2.30259	80
	8/24/1995	2.54945 J	222
	9/28/1995	4.38078	246
	10/26/1995	ND<2.30259	80
	11/19/1996	ND<2.30259	80
	12/19/1996	3.60005	241
	3/24/1997	ND<2.30259	80
	9/24/1997	2.63906 J	229
	4/7/1998	3.3322	236
	9/23/1998	ND<2.30259	80
	3/16/1999	3.68888	243
	9/23/1999	3.73767	244
	3/15/2000	2.30259 J	215
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	2.0931 J	214
	11/20/2008	ND<2.30259	80
	6/11/2009	-0.34249 J	197
	11/16/2009	-0.400478 J B	196
	6/30/2010	-1.13943 J H	185
	11/12/2010	-0.673345 J	191
	7/5/2011	0.470004	202
	11/22/2011	-0.616186 J	193
	6/5/2012	-1.34707 J	182

Rank Sum = 4636
Rank Mean = 149.548

MW-12AR	3/16/1999	ND<2.30259	80
	9/23/1999	ND<2.30259	80

	3/15/2000	4.40672	247
	9/24/2003	ND<2.30259	80
	3/11/2004	2.48491 J	219
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	1.50408 J	205
	11/20/2008	ND<2.30259	80
	6/11/2009	-1.20397 J	184
	11/16/2009	-0.301105 J B	199
	6/30/2010	-0.916291 J	190
	11/12/2010	-0.510826 J	194
	7/5/2011	-0.0833816 J	201
	11/22/2011	-0.34249 J	198
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 2797
Rank Mean = 133.19

MW-12BR	3/16/1999	2.07944 J	213
	9/23/1999	2.48491 J	220
	3/15/2000	ND<2.30259	80
	9/24/2003	ND<2.30259	80
	3/11/2004	ND<2.30259	80
	10/12/2004	ND<2.30259	80
	4/1/2005	ND<2.30259	80
	10/25/2005	ND<2.30259	80
	4/29/2006	ND<2.30259	80
	11/18/2006	ND<2.30259	80
	5/23/2007	ND<2.30259	80
	11/28/2007	ND<2.30259	80
	6/5/2008	1.73342 J	210
	11/20/2008	ND<2.30259	80
	6/11/2009	ND<-2.52573	80
	11/16/2009	ND<-2.52573	80
	6/30/2010	-1.13943 J	186
	11/12/2010	-0.653926 J	192
	7/5/2011	-1.66073 J	169
	11/22/2011	-1.42712 J	178
	6/5/2012	ND<-2.52573 U	80

Rank Sum = 2488
Rank Mean = 118.476

Calculation Results:

Kruskal-Wallis H Statistic = 7.42521
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.0821
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
7.42521 < 15.5073 indicating no significant group difference at 5% significance level
10.0821 < 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: 246
Total Non-Detect: 135
Percent Non-Detects: 54.878%
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-10	31	4 (12.9032%)	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	
			6/5/2012	8.5	8.5	
MW-11R	31	9 (29.0323%)	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	
			6/5/2012	ND<0.15 U	ND<0.15 U	
MW-9	31	12 (38.7097%)	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	
			6/5/2012	1.4	1.4	
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	
			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	
			6/5/2012	ND<0.15 U	ND<0.15 U	
MW-7	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	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
			6/5/2012	0.17 J	0.17 J	
MW-8	31	2 (6.45161%)	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	
			6/5/2012	57	57	
MW-12AR	21	11 (52.381%)	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		
		6/5/2012	ND<0.15 U	ND<0.15 U		
MW-12BR	21	19 (90.4762%)	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		
		6/5/2012	ND<0.15 U	ND<0.15 U		

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 = 246

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	-1.97737	30.6575	-0.813118
7	0.075	-1.91103	34.3095	-0.956446
8	0.075	-1.85218	37.7401	-1.09536
9	0.075	-1.79912	40.9769	-1.23029
10	0.075	-1.75069	44.0418	-1.36159
11	0.075	-1.70604	46.9524	-1.48955
12	0.075	-1.66456	49.7231	-1.61439
13	0.075	-1.62576	52.3662	-1.73632
14	0.075	-1.58927	54.892	-1.85552
15	0.075	-1.55477	57.3093	-1.97212
16	0.075	-1.52203	59.6259	-2.08628
17	0.075	-1.49085	61.8486	-2.19809
18	0.075	-1.46106	63.9833	-2.30767
19	0.075	-1.4325	66.0353	-2.41511
20	0.075	-1.40507	68.0096	-2.52049
21	0.075	-1.3722	69.8925	-2.6234
22	0.075	-1.34694	71.7067	-2.72442
23	0.075	-1.32251	73.4558	-2.82361
24	0.075	-1.29884	75.1427	-2.92103
25	0.075	-1.27588	76.7706	-3.01672
26	0.075	-1.25357	78.342	-3.11073
27	0.075	-1.23187	79.8595	-3.20312
28	0.075	-1.21073	81.3254	-3.29393
29	0.075	-1.19012	82.7418	-3.38319
30	0.075	-1.17	84.1107	-3.47094
31	0.075	-1.15035	85.434	-3.55721
32	0.075	-1.13113	86.7134	-3.64205
33	0.075	-1.11232	87.9507	-3.72547
34	0.075	-1.0939	89.1473	-3.80751
35	0.17	-1.07584	90.3047	-3.99041
36	0.21	-1.05812	91.4243	-4.21261
37	0.22	-1.04073	92.5075	-4.44157
38	0.22	-1.02365	93.5553	-4.66678
39	0.5	-1.00687	94.5691	-5.17021
40	0.71	-0.990356	95.5499	-5.87336
41	0.83	-0.974114	96.4988	-6.68188
42	0.88	-0.954165	97.4092	-7.52154
43	0.92	-0.938476	98.29	-8.38494
44	1	-0.923014	99.1419	-9.30795
45	1	-0.907769	99.966	-10.2157
46	1	-0.892733	100.763	-11.1085
47	1	-0.877897	101.534	-11.9864
48	1	-0.863249	102.279	-12.8496
49	1	-0.848786	102.999	-13.6984
50	1	-0.834498	103.696	-14.5329
51	1	-0.820379	104.369	-15.3533

52	1	-0.806422	105.019	-16.1597
53	1	-0.792618	105.647	-16.9523
54	1	-0.778966	106.254	-17.7313
55	1	-0.765456	106.84	-18.4967
56	1	-0.752084	107.406	-19.2488
57	1	-0.738846	107.951	-19.9877
58	1	-0.725736	108.478	-20.7134
59	1	-0.712751	108.986	-21.4261
60	1	-0.699883	109.476	-22.126
61	1	-0.687131	109.948	-22.8132
62	1	-0.671346	110.399	-23.4845
63	1	-0.658838	110.833	-24.1433
64	1	-0.646431	111.251	-24.7898
65	1	-0.634124	111.653	-25.4239
66	1	-0.621911	112.04	-26.0458
67	1	-0.609791	112.412	-26.6556
68	1	-0.597761	112.769	-27.2534
69	1	-0.585815	113.112	-27.8392
70	1	-0.573953	113.441	-28.4131
71	1	-0.56217	113.758	-28.9753
72	1	-0.550465	114.061	-29.5258
73	1	-0.538836	114.351	-30.0646
74	1	-0.52728	114.629	-30.5919
75	1	-0.515791	114.895	-31.1077
76	1	-0.504372	115.149	-31.612
77	1	-0.493018	115.392	-32.1051
78	1	-0.481728	115.624	-32.5868
79	1	-0.470498	115.846	-33.0573
80	1	-0.459327	116.057	-33.5166
81	1	-0.448213	116.258	-33.9648
82	1	-0.437153	116.449	-34.402
83	1	-0.423405	116.628	-34.8254
84	1	-0.412463	116.798	-35.2378
85	1	-0.401571	116.959	-35.6394
86	1	-0.390726	117.112	-36.0301
87	1	-0.379927	117.256	-36.4101
88	1	-0.369171	117.393	-36.7792
89	1	-0.358459	117.521	-37.1377
90	1	-0.347787	117.642	-37.4855
91	1	-0.337155	117.756	-37.8226
92	1	-0.326561	117.863	-38.1492
93	1	-0.316004	117.962	-38.4652
94	1	-0.305481	118.056	-38.7707
95	1	-0.294992	118.143	-39.0657
96	1	-0.284535	118.224	-39.3502
97	1	-0.27411	118.299	-39.6243
98	1	-0.263715	118.368	-39.888
99	1	-0.253347	118.433	-40.1414
100	1	-0.243007	118.492	-40.3844
101	1	-0.232693	118.546	-40.6171
102	1	-0.222403	118.595	-40.8395
103	1	-0.209575	118.639	-41.0491
104	1	-0.199336	118.679	-41.2484
105	1	-0.189118	118.715	-41.4375
106	1	-0.17892	118.747	-41.6164
107	1	-0.168741	118.775	-41.7852
108	1	-0.158579	118.8	-41.9438
109	1	-0.148434	118.822	-42.0922
110	1	-0.138305	118.841	-42.2305
111	1	-0.128189	118.858	-42.3587
112	1	-0.118085	118.872	-42.4768
113	1	-0.107995	118.883	-42.5848

114	1	-0.0979139	118.893	-42.6827
115	1	-0.0878447	118.901	-42.7705
116	1	-0.0777834	118.907	-42.8483
117	1	-0.0677301	118.911	-42.916
118	1	-0.0576847	118.915	-42.9737
119	1	-0.0476439	118.917	-43.0214
120	1	-0.0376076	118.918	-43.059
121	1	-0.0275759	118.919	-43.0865
122	1	-0.0175476	118.919	-43.1041
123	1	-0.00751925	118.92	-43.1116
124	1	0.00751925	118.92	-43.1041
125	1	0.0175476	118.92	-43.0865
126	1	0.0275759	118.921	-43.059
127	1	0.0376076	118.922	-43.0214
128	1	0.0476439	118.924	-42.9737
129	1	0.0576847	118.928	-42.916
130	1	0.0677301	118.932	-42.8483
131	1	0.0777834	118.938	-42.7705
132	1	0.0878447	118.946	-42.6827
133	1	0.0979139	118.956	-42.5848
134	1	0.107995	118.967	-42.4768
135	1	0.118085	118.981	-42.3587
136	1	0.128189	118.998	-42.2305
137	1	0.138305	119.017	-42.0922
138	1	0.148434	119.039	-41.9438
139	1	0.158579	119.064	-41.7852
140	1	0.168741	119.092	-41.6164
141	1	0.17892	119.124	-41.4375
142	1	0.189118	119.16	-41.2484
143	1	0.199336	119.2	-41.0491
144	1	0.209575	119.244	-40.8395
145	1	0.222403	119.293	-40.6171
146	1	0.232693	119.347	-40.3844
147	1.09	0.243007	119.407	-40.1195
148	1.1	0.253347	119.471	-39.8408
149	1.1	0.263715	119.54	-39.5507
150	1.2	0.27411	119.615	-39.2218
151	1.2	0.284535	119.696	-38.8804
152	1.22	0.294992	119.783	-38.5205
153	1.26	0.305481	119.877	-38.1356
154	1.3	0.316004	119.977	-37.7248
155	1.4	0.326561	120.083	-37.2676
156	1.6	0.337155	120.197	-36.7281
157	1.7	0.347787	120.318	-36.1369
158	1.7	0.358459	120.446	-35.5275
159	1.71	0.369171	120.583	-34.8962
160	1.78	0.379927	120.727	-34.22
161	1.79	0.390726	120.88	-33.5206
162	1.8	0.401571	121.041	-32.7977
163	2	0.412463	121.211	-31.9728
164	2.3	0.423405	121.39	-30.999
165	2.3	0.437153	121.581	-29.9935
166	2.88	0.448213	121.782	-28.7027
167	2.9	0.459327	121.993	-27.3706
168	3	0.470498	122.215	-25.9591
169	3.19	0.481728	122.447	-24.4224
170	3.24	0.493018	122.69	-22.825
171	4	0.504372	122.944	-20.8076
172	4.56	0.515791	123.21	-18.4556
173	5.2	0.52728	123.488	-15.7137
174	5.4	0.538836	123.779	-12.804
175	5.7	0.550465	124.082	-9.66633

176	5.8	0.56217	124.398	-6.40575	
177	7.1	0.573953		124.727	-2.33069
178	7.6	0.585815		125.07	2.12151
179	8.5	0.597761		125.428	7.20247
180	8.6	0.609791		125.799	12.4467
181	8.96	0.621911		126.186	18.019
182	9	0.634124		126.588	23.7261
183	9.1	0.646431		127.006	29.6086
184	9.4	0.658838		127.44	35.8017
185	9.47	0.671346		127.891	42.1594
186	10	0.687131		128.363	49.0307
187	10	0.699883		128.853	56.0295
188	10	0.712751		129.361	63.157
189	10	0.725736		129.888	70.4144
190	10	0.738846		130.433	77.8028
191	10	0.752084		130.999	85.3237
192	10.7	0.765456		131.585	93.514
193	11	0.778966		132.192	102.083
194	11	0.792618		132.82	110.801
195	11	0.806422		133.47	119.672
196	11	0.820379		134.143	128.696
197	11.1	0.834498		134.84	137.959
198	12	0.848786		135.56	148.145
199	12	0.863249		136.305	158.504
200	12	0.877897		137.076	169.038
201	13	0.892733		137.873	180.644
202	13.4	0.907769		138.697	192.808
203	13.5	0.923014		139.549	205.269
204	13.6	0.938476		140.43	218.032
205	14	0.954165		141.34	231.39
206	14.8	0.974114		142.289	245.807
207	15	0.990356		143.27	260.663
208	15	1.00687	144.284	275.765	
209	15.8	1.02365	145.332	291.939	
210	16	1.04073	146.415	308.591	
211	17	1.05812	147.534	326.579	
212	20	1.07584	148.692	348.096	
213	24.9	1.0939	149.888	375.334	
214	25	1.11232	151.126	403.142	
215	26	1.13113	152.405	432.551	
216	26	1.15035	153.728	462.46	
217	32	1.17	155.097	499.9	
218	32	1.19012	156.514	537.984	
219	35	1.21073	157.98	580.36	
220	35	1.23187	159.497	623.475	
221	38	1.25357	161.068	671.11	
222	39	1.27588	162.696	720.87	
223	40	1.29884	164.383	772.823	
224	42.4	1.32251	166.132	828.897	
225	42.5	1.34694	167.947	886.142	
226	42.7	1.3722	169.83	944.735	
227	43	1.40507	171.804	1005.15	
228	55.9	1.4325	173.856	1085.23	
229	57	1.46106	175.991	1168.51	
230	58	1.49085	178.213	1254.98	
231	60.9	1.52203	180.53	1347.67	
232	64	1.55477	182.947	1447.18	
233	65	1.58927	185.473	1550.48	
234	65	1.62576	188.116	1656.15	
235	83	1.66456	190.887	1794.31	
236	105	1.70604	193.797	1973.45	
237	130	1.75069	196.862	2201.04	

238	130	1.79912	200.099	2434.92
239	139	1.85218	203.53	2692.37
240	140	1.91103	207.182	2959.92
241	159	1.97737	211.092	3274.32
242	160	2.05375	215.309	3602.92
243	180	2.14441	219.908	3988.91
244	280	2.25713	225.003	4620.91
245	330	2.40892	230.806	5415.85
246	360	2.65209	237.839	6370.61

Data Set Standard Deviation = 44.4514
Numerator = 4.05846e+007
Denominator = 1.15138e+008
W Statistic = 0.352486 = 4.05846e+007 / 1.15138e+008

5% Critical value of 0.976 exceeds 0.352486
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.352486
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 = 0.601008
0.601008 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00404858	-2.6520939		344.01	
2	0.075	0.00809717	-2.4089239.1003		332.136	
3	0.075	0.0121457	-2.2571339.1003		324.723	
4	0.075	0.0161943	-2.1444139.1003		319.219	
5	0.075	0.0202429	-2.0537539.1003		314.791	
6	0.075	0.0242915	-1.9773739.1003		311.062	
7	0.075	0.0283401	-1.9110339.1003		307.822	
8	0.075	0.0323887	-1.8521839.1003		304.948	
9	0.075	0.0364372	-1.7991239.1003		302.357	
10	0.075	0.0404858	-1.7506939.1003		299.992	
11	0.075	0.0445344	-1.7060439.1003		297.812	
12	0.075	0.048583	-1.6645639.1003		295.786	
13	0.075	0.0526316	-1.6257639.1003		293.891	
14	0.075	0.0566802	-1.5892739.1003		292.109	
15	0.075	0.0607287	-1.5547739.1003		290.425	
16	0.075	0.0647773	-1.5220339.1003		288.826	
17	0.075	0.0688259	-1.4908539.1003		287.303	
18	0.075	0.0728745	-1.4610639.1003		285.848	
19	0.075	0.0769231	-1.4325 39.1003		284.454	
20	0.075	0.0809717	-1.4050739.1003		283.114	
21	0.075	0.0850202	-1.3722 39.1003		281.509	
22	0.075	0.0890688	-1.3469439.1003		280.276	
23	0.075	0.0931174	-1.3225139.1003		279.082	
24	0.075	0.097166	-1.2988439.1003		277.926	
25	0.075	0.101215	-1.2758839.1003		276.805	
26	0.075	0.105263	-1.2535739.1003		275.716	
27	0.075	0.109312	-1.2318739.1003		274.656	
28	0.075	0.11336	-1.2107339.1003		273.624	
29	0.075	0.117409	-1.1901239.1003		272.617	
30	0.075	0.121457	-1.17 39.1003		271.635	
31	0.075	0.125506	-1.1503539.1003		270.675	
32	0.075	0.129555	-1.1311339.1003		269.737	
33	0.075	0.133603	-1.1123239.1003		268.818	
34	0.075	0.137652	-1.0939 39.1003		267.919	
35	0.17	0.1417	-1.0758439.2274		267.037	
36	0.21	0.145749	-1.0581239.2809		266.172	
37	0.22	0.149798	-1.0407339.2942		265.322	
38	0.22	0.153846	-1.0236539.2942		264.488	
39	0.5	0.157895	-1.0068739.6688		263.669	
40	0.71	0.161943	-0.990356		39.9496	262.862
41	0.83	0.165992	-0.974114		40.1101	262.069
42	0.88	0.17004	-0.954165	40.177	261.095	
43	0.92	0.174089	-0.938476		40.2305	260.329
44	1	0.178138	-0.923014		40.3375	259.574
45	1	0.182186	-0.907769		40.3375	258.829
46	1	0.186235	-0.892733		40.3375	258.095
47	1	0.190283	-0.877897		40.3375	257.371
48	1	0.194332	-0.863249		40.3375	256.655

49	1	0.198381	-0.848786	40.3375	255.949
50	1	0.202429	-0.834498	40.3375	255.251
51	1	0.206478	-0.820379	40.3375	254.562
52	1	0.210526	-0.806422	40.3375	253.88
53	1	0.214575	-0.792618	40.3375	253.206
54	1	0.218623	-0.778966	40.3375	252.54
55	1	0.222672	-0.765456	40.3375	251.88
56	1	0.226721	-0.752084	40.3375	251.227
57	1	0.230769	-0.738846	40.3375	250.58
58	1	0.234818	-0.725736	40.3375	249.94
59	1	0.238866	-0.712751	40.3375	249.306
60	1	0.242915	-0.699883	40.3375	248.678
61	1	0.246964	-0.687131	40.3375	248.055
62	1	0.251012	-0.671346	40.3375	247.284
63	1	0.255061	-0.658838	40.3375	246.673
64	1	0.259109	-0.646431	40.3375	246.067
65	1	0.263158	-0.634124	40.3375	245.466
66	1	0.267206	-0.621911	40.3375	244.87
67	1	0.271255	-0.609791	40.3375	244.278
68	1	0.275304	-0.597761	40.3375	243.691
69	1	0.279352	-0.585815	40.3375	243.107
70	1	0.283401	-0.573953	40.3375	242.528
71	1	0.287449	-0.562174	40.3375	241.953
72	1	0.291498	-0.550465	40.3375	241.381
73	1	0.295547	-0.538836	40.3375	240.813
74	1	0.299595	-0.527284	40.3375	240.249
75	1	0.303644	-0.515791	40.3375	239.688
76	1	0.307692	-0.504372	40.3375	239.13
77	1	0.311741	-0.493018	40.3375	238.576
78	1	0.315789	-0.481728	40.3375	238.024
79	1	0.319838	-0.470498	40.3375	237.476
80	1	0.323887	-0.459327	40.3375	236.93
81	1	0.327935	-0.448213	40.3375	236.388
82	1	0.331984	-0.437153	40.3375	235.848
83	1	0.336032	-0.423405	40.3375	235.176
84	1	0.340081	-0.412463	40.3375	234.642
85	1	0.34413	-0.401571	40.3375	234.11
86	1	0.348178	-0.390726	40.3375	233.58
87	1	0.352227	-0.379927	40.3375	233.053
88	1	0.356275	-0.369171	40.3375	232.528
89	1	0.360324	-0.358459	40.3375	232.005
90	1	0.364372	-0.347787	40.3375	231.484
91	1	0.368421	-0.337155	40.3375	230.964
92	1	0.37247	-0.326561	40.3375	230.447
93	1	0.376518	-0.316004	40.3375	229.932
94	1	0.380567	-0.305481	40.3375	229.418
95	1	0.384615	-0.294992	40.3375	228.905
96	1	0.388664	-0.284535	40.3375	228.395
97	1	0.392713	-0.274114	40.3375	227.886
98	1	0.396761	-0.263715	40.3375	227.378
99	1	0.40081	-0.253347	40.3375	226.872
100	1	0.404858	-0.243007	40.3375	226.367
101	1	0.408907	-0.232693	40.3375	225.863
102	1	0.412955	-0.222403	40.3375	225.361
103	1	0.417004	-0.209575	40.3375	224.734
104	1	0.421053	-0.199336	40.3375	224.234
105	1	0.425101	-0.189118	40.3375	223.735
106	1	0.42915	-0.178924	40.3375	223.237
107	1	0.433198	-0.168741	40.3375	222.74
108	1	0.437247	-0.158579	40.3375	222.244
109	1	0.441296	-0.148434	40.3375	221.749
110	1	0.445344	-0.138305	40.3375	221.254

111	1	0.449393	-0.128189	40.3375	220.76
112	1	0.453441	-0.118085	40.3375	220.267
113	1	0.45749	-0.107995	40.3375	219.774
114	1	0.461538	-0.0979139	40.3375	219.281
115	1	0.465587	-0.0878447	40.3375	218.79
116	1	0.469636	-0.0777834	40.3375	218.298
117	1	0.473684	-0.0677301	40.3375	217.807
118	1	0.477733	-0.0576847	40.3375	217.317
119	1	0.481781	-0.0476439	40.3375	216.827
120	1	0.48583	-0.0376076	40.3375	216.337
121	1	0.489879	-0.0275759	40.3375	215.847
122	1	0.493927	-0.0175476	40.3375	215.357
123	1	0.497976	-0.00751925	40.3375	214.867
124	1	0.502024	0.00751925	40.3375	214.133
125	1	0.506073	0.0175476	40.3375	213.643
126	1	0.510121	0.0275759	40.3375	213.153
127	1	0.51417	0.0376076	40.3375	212.663
128	1	0.518219	0.0476439	40.3375	212.173
129	1	0.522267	0.0576847	40.3375	211.683
130	1	0.526316	0.0677301	40.3375	211.193
131	1	0.530364	0.0777834	40.3375	210.702
132	1	0.534413	0.0878447	40.3375	210.21
133	1	0.538462	0.0979139	40.3375	209.719
134	1	0.54251	0.107995	40.3375	209.226
135	1	0.546559	0.118085	40.3375	208.733
136	1	0.550607	0.128189	40.3375	208.24
137	1	0.554656	0.138305	40.3375	207.746
138	1	0.558704	0.148434	40.3375	207.251
139	1	0.562753	0.158579	40.3375	206.756
140	1	0.566802	0.168741	40.3375	206.26
141	1	0.57085	0.17892	40.3375	205.763
142	1	0.574899	0.189118	40.3375	205.265
143	1	0.578947	0.199336	40.3375	204.766
144	1	0.582996	0.209575	40.3375	204.266
145	1	0.587045	0.222403	40.3375	203.639
146	1	0.591093	0.232693	40.3375	203.137
147	1.09	0.595142	0.243007	40.4579	202.633
148	1.1	0.59919	0.253347	40.4712	202.128
149	1.1	0.603239	0.263715	40.4712	201.622
150	1.2	0.607287	0.27411	40.605	201.114
151	1.2	0.611336	0.284535	40.605	200.605
152	1.22	0.615385	0.294992	40.6317	200.095
153	1.26	0.619433	0.305481	40.6852	199.582
154	1.3	0.623482	0.316004	40.7388	199.068
155	1.4	0.62753	0.326561	40.8725	198.553
156	1.6	0.631579	0.337155	41.14	198.036
157	1.7	0.635628	0.347787	41.2738	197.516
158	1.7	0.639676	0.358459	41.2738	196.995
159	1.71	0.643725	0.369171	41.2871	196.472
160	1.78	0.647773	0.379927	41.3807	195.947
161	1.79	0.651822	0.390726	41.3941	195.42
162	1.8	0.65587	0.401571	41.4075	194.89
163	2	0.659919	0.412463	41.675	194.358
164	2.3	0.663968	0.423405	42.0763	193.824
165	2.3	0.668016	0.437153	42.0763	193.152
166	2.88	0.672065	0.448213	42.852	192.612
167	2.9	0.676113	0.459327	42.8787	192.07
168	3	0.680162	0.470498	43.0125	191.524
169	3.19	0.684211	0.481728	43.2666	190.976
170	3.24	0.688259	0.493018	43.3335	190.424
171	4	0.692308	0.504372	44.35	189.87
172	4.56	0.696356	0.515791	45.099	189.312

173	5.2	0.700405	0.52728	45.955	188.751	
174	5.4	0.704453	0.538836		46.2225	188.187
175	5.7	0.708502	0.550465		46.6238	187.619
176	5.8	0.712551	0.56217	46.7575	187.047	
177	7.1	0.716599	0.573953		48.4963	186.472
178	7.6	0.720648	0.585815		49.165	185.893
179	8.5	0.724696	0.597761		50.3687	185.309
180	8.6	0.728745	0.609791		50.5025	184.722
181	8.96	0.732794	0.621911		50.984	184.13
182	9	0.736842	0.634124		51.0375	183.534
183	9.1	0.740891	0.646431		51.1713	182.933
184	9.4	0.744939	0.658838		51.5725	182.327
185	9.47	0.748988	0.671346		51.6661	181.716
186	10	0.753036	0.687131		52.375	180.945
187	10	0.757085	0.699883		52.375	180.322
188	10	0.761134	0.712751		52.375	179.694
189	10	0.765182	0.725736		52.375	179.06
190	10	0.769231	0.738846		52.375	178.42
191	10	0.773279	0.752084		52.375	177.773
192	10.7	0.777328	0.765456		53.3113	177.12
193	11	0.781377	0.778966		53.7125	176.46
194	11	0.785425	0.792618		53.7125	175.794
195	11	0.789474	0.806422		53.7125	175.12
196	11	0.793522	0.820379		53.7125	174.438
197	11.1	0.797571	0.834498		53.8462	173.749
198	12	0.801619	0.848786		55.05	173.051
199	12	0.805668	0.863249		55.05	172.345
200	12	0.809717	0.877897		55.05	171.629
201	13	0.813765	0.892733		56.3875	170.905
202	13.4	0.817814	0.907769		56.9225	170.171
203	13.5	0.821862	0.923014		57.0563	169.426
204	13.6	0.825911	0.938476		57.19	168.671
205	14	0.82996	0.954165	57.725	167.905	
206	14.8	0.834008	0.974114		58.795	166.931
207	15	0.838057	0.990356		59.0625	166.138
208	15	0.842105	1.00687	59.0625	165.331	
209	15.8	0.846154	1.02365	60.1325	164.512	
210	16	0.850202	1.04073	60.4	163.678	
211	17	0.854251	1.05812	61.7375	162.828	
212	20	0.8583	1.07584	65.75	161.963	
213	24.9	0.862348	1.0939	72.3038	161.081	
214	25	0.866397	1.11232	72.4375	160.182	
215	26	0.870445	1.13113	73.775	159.263	
216	26	0.874494	1.15035	73.775	158.325	
217	32	0.878543	1.17	81.8	157.365	
218	32	0.882591	1.19012	81.8	156.383	
219	35	0.88664	1.21073	85.8125	155.376	
220	35	0.890688	1.23187	85.8125	154.344	
221	38	0.894737	1.25357	89.825	153.284	
222	39	0.898785	1.27588	91.1625	152.195	
223	40	0.902834	1.29884	92.5	151.074	
224	42.4	0.906883	1.32251	95.71	149.918	
225	42.5	0.910931	1.34694	95.8438	148.724	
226	42.7	0.91498	1.3722	96.1113	147.491	
227	43	0.919028	1.40507	96.5125	145.886	
228	55.9	0.923077	1.4325	113.766	144.546	
229	57	0.927126	1.46106	115.238	143.152	
230	58	0.931174	1.49085	116.575	141.697	
231	60.9	0.935223	1.52203	120.454	140.174	
232	64	0.939271	1.55477	124.6	138.575	
233	65	0.94332	1.58927	125.938	136.891	
234	65	0.947368	1.62576	125.938	135.109	

235	83	0.951417	1.66456	150.012	133.214
236	105	0.955466	1.70604	179.438	131.188
237	130	0.959514	1.75069	212.875	129.008
238	130	0.963563	1.79912	212.875	126.643
239	139	0.967611	1.85218	224.912	124.052
240	140	0.97166	1.91103	226.25	121.178
241	159	0.975709	1.97737	251.663	117.938
242	160	0.979757	2.05375	253	114.209
243	180	0.983806	2.14441	279.75	109.781
244	280	0.987854	2.25713	413.5	104.277
245	330	0.991903	2.40892	480.375	96.8642
246	360	0.995951	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 = 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	-1.77196	-1.0939	89.1473	137.474
35	-1.56065	-1.07584	90.3047	139.153
36	-1.51413	-1.05812	91.4243	140.755
37	-1.51413	-1.04073	92.5075	142.331
38	-0.693147	-1.02365	93.5553	143.041
39	-0.34249	-1.00687	94.5691	143.386
40	-0.18633	-0.990356	95.5499	143.57
41	-0.127833	-0.974114	96.4988	143.695
42	-0.0833816	-0.954165	97.4092	143.774
43	0	-0.938476	98.29	143.774
44	0	-0.923014	99.1419	143.774
45	0	-0.907769	99.966	143.774
46	0	-0.892733	100.763	143.774
47	0	-0.877897	101.534	143.774
48	0	-0.863249	102.279	143.774
49	0	-0.848786	102.999	143.774
50	0	-0.834498	103.696	143.774
51	0	-0.820379	104.369	143.774

52	0	-0.806422	105.019	143.774
53	0	-0.792618	105.647	143.774
54	0	-0.778966	106.254	143.774
55	0	-0.765456	106.84	143.774
56	0	-0.752084	107.406	143.774
57	0	-0.738846	107.951	143.774
58	0	-0.725736	108.478	143.774
59	0	-0.712751	108.986	143.774
60	0	-0.699883	109.476	143.774
61	0	-0.687131	109.948	143.774
62	0	-0.671346	110.399	143.774
63	0	-0.658838	110.833	143.774
64	0	-0.646431	111.251	143.774
65	0	-0.634124	111.653	143.774
66	0	-0.621911	112.04	143.774
67	0	-0.609791	112.412	143.774
68	0	-0.597761	112.769	143.774
69	0	-0.585815	113.112	143.774
70	0	-0.573953	113.441	143.774
71	0	-0.56217	113.758	143.774
72	0	-0.550465	114.061	143.774
73	0	-0.538836	114.351	143.774
74	0	-0.52728	114.629	143.774
75	0	-0.515791	114.895	143.774
76	0	-0.504372	115.149	143.774
77	0	-0.493018	115.392	143.774
78	0	-0.481728	115.624	143.774
79	0	-0.470498	115.846	143.774
80	0	-0.459327	116.057	143.774
81	0	-0.448213	116.258	143.774
82	0	-0.437153	116.449	143.774
83	0	-0.423405	116.628	143.774
84	0	-0.412463	116.798	143.774
85	0	-0.401571	116.959	143.774
86	0	-0.390726	117.112	143.774
87	0	-0.379927	117.256	143.774
88	0	-0.369171	117.393	143.774
89	0	-0.358459	117.521	143.774
90	0	-0.347787	117.642	143.774
91	0	-0.337155	117.756	143.774
92	0	-0.326561	117.863	143.774
93	0	-0.316004	117.962	143.774
94	0	-0.305481	118.056	143.774
95	0	-0.294992	118.143	143.774
96	0	-0.284535	118.224	143.774
97	0	-0.27411	118.299	143.774
98	0	-0.263715	118.368	143.774
99	0	-0.253347	118.433	143.774
100	0	-0.243007	118.492	143.774
101	0	-0.232693	118.546	143.774
102	0	-0.222403	118.595	143.774
103	0	-0.209575	118.639	143.774
104	0	-0.199336	118.679	143.774
105	0	-0.189118	118.715	143.774
106	0	-0.17892	118.747	143.774
107	0	-0.168741	118.775	143.774
108	0	-0.158579	118.8	143.774
109	0	-0.148434	118.822	143.774
110	0	-0.138305	118.841	143.774
111	0	-0.128189	118.858	143.774
112	0	-0.118085	118.872	143.774
113	0	-0.107995	118.883	143.774

114	0	-0.0979139	118.893	143.774
115	0	-0.0878447	118.901	143.774
116	0	-0.0777834	118.907	143.774
117	0	-0.0677301	118.911	143.774
118	0	-0.0576847	118.915	143.774
119	0	-0.0476439	118.917	143.774
120	0	-0.0376076	118.918	143.774
121	0	-0.0275759	118.919	143.774
122	0	-0.0175476	118.919	143.774
123	0	-0.00751925	118.92	143.774
124	0	0.00751925	118.92	143.774
125	0	0.0175476	118.92	143.774
126	0	0.0275759	118.921	143.774
127	0	0.0376076	118.922	143.774
128	0	0.0476439	118.924	143.774
129	0	0.0576847	118.928	143.774
130	0	0.0677301	118.932	143.774
131	0	0.0777834	118.938	143.774
132	0	0.0878447	118.946	143.774
133	0	0.0979139	118.956	143.774
134	0	0.107995	118.967	143.774
135	0	0.118085	118.981	143.774
136	0	0.128189	118.998	143.774
137	0	0.138305	119.017	143.774
138	0	0.148434	119.039	143.774
139	0	0.158579	119.064	143.774
140	0	0.168741	119.092	143.774
141	0	0.17892	119.124	143.774
142	0	0.189118	119.16	143.774
143	0	0.199336	119.2	143.774
144	0	0.209575	119.244	143.774
145	0	0.222403	119.293	143.774
146	0	0.232693	119.347	143.774
147	0.0861777	0.243007	119.407	143.795
148	0.0953102	0.253347	119.471	143.819
149	0.0953102	0.263715	119.54	143.844
150	0.182322	0.27411	119.615	143.894
151	0.182322	0.284535	119.696	143.946
152	0.198851	0.294992	119.783	144.005
153	0.231112	0.305481	119.877	144.075
154	0.262364	0.316004	119.977	144.158
155	0.336472	0.326561	120.083	144.268
156	0.470004	0.337155	120.197	144.427
157	0.530628	0.347787	120.318	144.611
158	0.530628	0.358459	120.446	144.801
159	0.536493	0.369171	120.583	145
160	0.576613	0.379927	120.727	145.219
161	0.582216	0.390726	120.88	145.446
162	0.587787	0.401571	121.041	145.682
163	0.693147	0.412463	121.211	145.968
164	0.832909	0.423405	121.39	146.321
165	0.832909	0.437153	121.581	146.685
166	1.05779	0.448213	121.782	147.159
167	1.06471	0.459327	121.993	147.648
168	1.09861	0.470498	122.215	148.165
169	1.16002	0.481728	122.447	148.724
170	1.17557	0.493018	122.69	149.303
171	1.38629	0.504372	122.944	150.002
172	1.51732	0.515791	123.21	150.785
173	1.64866	0.52728	123.488	151.654
174	1.6864	0.538836	123.779	152.563
175	1.74047	0.550465	124.082	153.521

176	1.75786	0.56217	124.398	154.509	
177	1.96009	0.573953		124.727	155.634
178	2.02815	0.585815		125.07	156.822
179	2.14007	0.597761		125.428	158.102
180	2.15176	0.609791		125.799	159.414
181	2.19277	0.621911		126.186	160.778
182	2.19722	0.634124		126.588	162.171
183	2.20827	0.646431		127.006	163.598
184	2.24071	0.658838		127.44	165.075
185	2.24813	0.671346		127.891	166.584
186	2.30259	0.687131		128.363	168.166
187	2.30259	0.699883		128.853	169.778
188	2.30259	0.712751		129.361	171.419
189	2.30259	0.725736		129.888	173.09
190	2.30259	0.738846		130.433	174.791
191	2.30259	0.752084		130.999	176.523
192	2.37024	0.765456		131.585	178.337
193	2.3979	0.778966		132.192	180.205
194	2.3979	0.792618		132.82	182.106
195	2.3979	0.806422		133.47	184.039
196	2.3979	0.820379		134.143	186.007
197	2.40695	0.834498		134.84	188.015
198	2.48491	0.848786		135.56	190.124
199	2.48491	0.863249		136.305	192.269
200	2.48491	0.877897		137.076	194.451
201	2.56495	0.892733		137.873	196.741
202	2.59525	0.907769		138.697	199.097
203	2.60269	0.923014		139.549	201.499
204	2.61007	0.938476		140.43	203.948
205	2.63906	0.954165		141.34	206.466
206	2.69463	0.974114		142.289	209.091
207	2.70805	0.990356		143.27	211.773
208	2.70805	1.00687	144.284	214.5	
209	2.76001	1.02365	145.332	217.325	
210	2.77259	1.04073	146.415	220.211	
211	2.83321	1.05812	147.534	223.209	
212	2.99573	1.07584	148.692	226.432	
213	3.21487	1.0939	149.888	229.948	
214	3.21888	1.11232	151.126	233.529	
215	3.2581	1.13113	152.405	237.214	
216	3.2581	1.15035	153.728	240.962	
217	3.46574	1.17	155.097	245.017	
218	3.46574	1.19012	156.514	249.142	
219	3.55535	1.21073	157.98	253.446	
220	3.55535	1.23187	159.497	257.826	
221	3.63759	1.25357	161.068	262.386	
222	3.66356	1.27588	162.696	267.06	
223	3.68888	1.29884	164.383	271.851	
224	3.74715	1.32251	166.132	276.807	
225	3.7495	1.34694	167.947	281.857	
226	3.7542	1.3722	169.83	287.009	
227	3.7612	1.40507	171.804	292.294	
228	4.02356	1.4325	173.856	298.057	
229	4.04305	1.46106	175.991	303.964	
230	4.06044	1.49085	178.213	310.018	
231	4.10923	1.52203	180.53	316.272	
232	4.15888	1.55477	182.947	322.738	
233	4.17439	1.58927	185.473	329.373	
234	4.17439	1.62576	188.116	336.159	
235	4.41884	1.66456	190.887	343.515	
236	4.65396	1.70604	193.797	351.455	
237	4.86753	1.75069	196.862	359.976	

238	4.86753	1.79912	200.099	368.733
239	4.93447	1.85218	203.53	377.873
240	4.94164	1.91103	207.182	387.317
241	5.0689	1.97737	211.092	397.34
242	5.07517	2.05375	215.309	407.763
243	5.19296	2.14441	219.908	418.899
244	5.63479	2.25713	225.003	431.617
245	5.79909	2.40892	230.806	445.587
246	5.8861	2.65209	237.839	461.197

Data Set Standard Deviation = 2.01047
Numerator = 212703
Denominator = 235529
W Statistic = 0.903085 = 212703 / 235529

5% Critical value of 0.976 exceeds 0.903085
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.903085
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 = 0.949161
0.949161 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.00404858	-2.65209	63.3563	344.01
2	-2.59027	0.00809717	-2.40892	63.3563	332.136
3	-2.59027	0.0121457	-2.25713	63.3563	324.723
4	-2.59027	0.0161943	-2.14441	63.3563	319.219
5	-2.59027	0.0202429	-2.05375	63.3563	314.791
6	-2.59027	0.0242915	-1.97737	63.3563	311.062
7	-2.59027	0.0283401	-1.91103	63.3563	307.822
8	-2.59027	0.0323887	-1.85218	63.3563	304.948
9	-2.59027	0.0364372	-1.79912	63.3563	302.357
10	-2.59027	0.0404858	-1.75069	63.3563	299.992
11	-2.59027	0.0445344	-1.70604	63.3563	297.812
12	-2.59027	0.048583	-1.66456	63.3563	295.786
13	-2.59027	0.0526316	-1.62576	63.3563	293.891
14	-2.59027	0.0566802	-1.58927	63.3563	292.109
15	-2.59027	0.0607287	-1.55477	63.3563	290.425
16	-2.59027	0.0647773	-1.52203	63.3563	288.826
17	-2.59027	0.0688259	-1.49085	63.3563	287.303
18	-2.59027	0.0728745	-1.46106	63.3563	285.848
19	-2.59027	0.0769231	-1.4325	63.3563	284.454
20	-2.59027	0.0809717	-1.40507	63.3563	283.114
21	-2.59027	0.0850202	-1.3722	63.3563	281.509
22	-2.59027	0.0890688	-1.34694	63.3563	280.276
23	-2.59027	0.0931174	-1.32251	63.3563	279.082
24	-2.59027	0.097166	-1.29884	63.3563	277.926
25	-2.59027	0.101215	-1.27588	63.3563	276.805
26	-2.59027	0.105263	-1.25357	63.3563	275.716
27	-2.59027	0.109312	-1.23187	63.3563	274.656
28	-2.59027	0.11336	-1.21073	63.3563	273.624
29	-2.59027	0.117409	-1.19012	63.3563	272.617
30	-2.59027	0.121457	-1.17	63.3563	271.635
31	-2.59027	0.125506	-1.15035	63.3563	270.675
32	-2.59027	0.129555	-1.13113	63.3563	269.737
33	-2.59027	0.133603	-1.11232	63.3563	268.818
34	-1.77196	0.137652	-1.0939	112	267.919
35	-1.56065	0.1417	-1.07584	124.561	267.037
36	-1.51413	0.145749	-1.05812	127.327	266.172
37	-1.51413	0.149798	-1.04073	127.327	265.322
38	-0.693147	0.153846	-1.02365	176.13	264.488
39	-0.34249	0.157895	-1.00687	196.974	263.669
40	-0.18633	0.161943	-0.990356	206.257	262.862
41	-0.127833	0.165992	-0.974114	209.734	262.069
42	-0.0833816	0.17004	-0.954165	212.377	261.095
43	0	0.174089	-0.938476	217.333	260.329
44	0	0.178138	-0.923014	217.333	259.574
45	0	0.182186	-0.907769	217.333	258.829
46	0	0.186235	-0.892733	217.333	258.095
47	0	0.190283	-0.877897	217.333	257.371
48	0	0.194332	-0.863249	217.333	256.655

49	0	0.198381	-0.848786	217.333	255.949
50	0	0.202429	-0.834498	217.333	255.251
51	0	0.206478	-0.820379	217.333	254.562
52	0	0.210526	-0.806422	217.333	253.88
53	0	0.214575	-0.792618	217.333	253.206
54	0	0.218623	-0.778966	217.333	252.54
55	0	0.222672	-0.765456	217.333	251.88
56	0	0.226721	-0.752084	217.333	251.227
57	0	0.230769	-0.738846	217.333	250.58
58	0	0.234818	-0.725736	217.333	249.94
59	0	0.238866	-0.712751	217.333	249.306
60	0	0.242915	-0.699883	217.333	248.678
61	0	0.246964	-0.687131	217.333	248.055
62	0	0.251012	-0.671346	217.333	247.284
63	0	0.255061	-0.658838	217.333	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	0.0861777	0.595142	0.243007	222.456	202.633
148	0.0953102	0.59919	0.253347	222.999	202.128
149	0.0953102	0.603239	0.263715	222.999	201.622
150	0.182322	0.607287	0.27411	228.171	201.114
151	0.182322	0.611336	0.284535	228.171	200.605
152	0.198851	0.615385	0.294992	229.154	200.095
153	0.231112	0.619433	0.305481	231.072	199.582
154	0.262364	0.623482	0.316004	232.929	199.068
155	0.336472	0.62753	0.326561	237.335	198.553
156	0.470004	0.631579	0.337155	245.272	198.036
157	0.530628	0.635628	0.347787	248.876	197.516
158	0.530628	0.639676	0.358459	248.876	196.995
159	0.536493	0.643725	0.369171	249.225	196.472
160	0.576613	0.647773	0.379927	251.61	195.947
161	0.582216	0.651822	0.390726	251.943	195.42
162	0.587787	0.65587	0.401571	252.274	194.89
163	0.693147	0.659919	0.412463	258.537	194.358
164	0.832909	0.663968	0.423405	266.845	193.824
165	0.832909	0.668016	0.437153	266.845	193.152
166	1.05779	0.672065	0.448213	280.213	192.612
167	1.06471	0.676113	0.459327	280.624	192.07
168	1.09861	0.680162	0.470498	282.64	191.524
169	1.16002	0.684211	0.481728	286.29	190.976
170	1.17557	0.688259	0.493018	287.215	190.424
171	1.38629	0.692308	0.504372	299.741	189.87
172	1.51732	0.696356	0.515791	307.53	189.312

173	1.64866	0.700405		0.52728	315.337	188.751
174	1.6864	0.704453		0.538836		317.58 188.187
175	1.74047	0.708502		0.550465		320.794 187.619
176	1.75786	0.712551		0.56217	321.828	187.047
177	1.96009	0.716599		0.573953		333.85 186.472
178	2.02815	0.720648		0.585815		337.895 185.893
179	2.14007	0.724696		0.597761		344.548 185.309
180	2.15176	0.728745		0.609791		345.244 184.722
181	2.19277	0.732794		0.621911		347.681 184.13
182	2.19722	0.736842		0.634124		347.946 183.534
183	2.20827	0.740891		0.646431		348.603 182.933
184	2.24071	0.744939		0.658838		350.531 182.327
185	2.24813	0.748988		0.671346		350.972 181.716
186	2.30259	0.753036		0.687131		354.209 180.945
187	2.30259	0.757085		0.699883		354.209 180.322
188	2.30259	0.761134		0.712751		354.209 179.694
189	2.30259	0.765182		0.725736		354.209 179.06
190	2.30259	0.769231		0.738846		354.209 178.42
191	2.30259	0.773279		0.752084		354.209 177.773
192	2.37024	0.777328		0.765456		358.231 177.12
193	2.3979	0.781377		0.778966		359.875 176.46
194	2.3979	0.785425		0.792618		359.875 175.794
195	2.3979	0.789474		0.806422		359.875 175.12
196	2.3979	0.793522		0.820379		359.875 174.438
197	2.40695	0.797571		0.834498		360.413 173.749
198	2.48491	0.801619		0.848786		365.047 173.051
199	2.48491	0.805668		0.863249		365.047 172.345
200	2.48491	0.809717		0.877897		365.047 171.629
201	2.56495	0.813765		0.892733		369.805 170.905
202	2.59525	0.817814		0.907769		371.607 170.171
203	2.60269	0.821862		0.923014		372.049 169.426
204	2.61007	0.825911		0.938476		372.487 168.671
205	2.63906	0.82996	0.954165		374.211	167.905
206	2.69463	0.834008		0.974114		377.514 166.931
207	2.70805	0.838057		0.990356		378.312 166.138
208	2.70805	0.842105		1.00687	378.312	165.331
209	2.76001	0.846154		1.02365	381.401	164.512
210	2.77259	0.850202		1.04073	382.148	163.678
211	2.83321	0.854251		1.05812	385.752	162.828
212	2.99573	0.8583	1.07584	395.413	161.963	
213	3.21487	0.862348		1.0939	408.439	161.081
214	3.21888	0.866397		1.11232	408.678	160.182
215	3.2581	0.870445		1.13113	411.009	159.263
216	3.2581	0.874494		1.15035	411.009	158.325
217	3.46574	0.878543		1.17	423.352	157.365
218	3.46574	0.882591		1.19012	423.352	156.383
219	3.55535	0.88664	1.21073	428.679	155.376	
220	3.55535	0.890688		1.23187	428.679	154.344
221	3.63759	0.894737		1.25357	433.568	153.284
222	3.66356	0.898785		1.27588	435.112	152.195
223	3.68888	0.902834		1.29884	436.617	151.074
224	3.74715	0.906883		1.32251	440.08	149.918
225	3.7495	0.910931		1.34694	440.221	148.724
226	3.7542	0.91498	1.3722	440.5	147.491	
227	3.7612	0.919028		1.40507	440.916	145.886
228	4.02356	0.923077		1.4325	456.512	144.546
229	4.04305	0.927126		1.46106	457.67	143.152
230	4.06044	0.931174		1.49085	458.704	141.697
231	4.10923	0.935223		1.52203	461.604	140.174
232	4.15888	0.939271		1.55477	464.556	138.575
233	4.17439	0.94332	1.58927	465.477	136.891	
234	4.17439	0.947368		1.62576	465.477	135.109

235	4.41884	0.951417		1.66456	480.009	133.214
236	4.65396	0.955466		1.70604	493.985	131.188
237	4.86753	0.959514		1.75069	506.681	129.008
238	4.86753	0.963563		1.79912	506.681	126.643
239	4.93447	0.967611		1.85218	510.66	124.052
240	4.94164	0.97166	1.91103	511.087	121.178	
241	5.0689	0.975709		1.97737	518.652	117.938
242	5.07517	0.979757		2.05375	519.024	114.209
243	5.19296	0.983806		2.14441	526.026	109.781
244	5.63479	0.987854		2.25713	552.29	104.277
245	5.79909	0.991903		2.40892	562.057	96.8642
246	5.8861	0.995951		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	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<-2.59027	68
	6/30/2010	ND<-2.59027	68
	11/12/2010	ND<-2.59027 U	68
	7/5/2011	ND<-2.59027 U	68

Rank Sum = 1224
Rank Mean = 68

Background Rank Sum = 1224
Background Rank Mean = 68

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	1.38629	171
	8/24/1995	2.70805	207
	9/28/1995	3.46574	217
	10/26/1995	3.2581	215
	11/19/1996	ND<0	68
	12/19/1996	3.68888	223
	3/24/1997	3.2581	216
	9/24/1997	3.63759	221
	4/7/1998	2.02815	178
	9/23/1998	3.46574	218
	3/16/1999	3.7542	226
	9/23/1999	3.21487	213
	3/15/2000	2.3979	193
	9/24/2003	2.3979	194
	3/11/2004	1.96009	177
	10/12/2004	ND<0	68
	4/1/2005	ND<0	68
	10/25/2005	2.59525	202
	4/29/2006	2.76001	209
	11/18/2006	2.19277	181
	5/23/2007	2.20827	183
	11/28/2007	2.61007	204

	6/5/2008	2.60269		203
	11/20/2008	ND<0		68
	6/11/2009	2.19722		182
	6/30/2010	1.75786		176
	11/12/2010	2.15176		180
	7/5/2011	2.48491		198
	11/22/2011	2.30259		186
	11/22/2011	2.30259		187
	6/5/2012	2.14007		179

Rank Sum = 5611
Rank Mean = 181

MW-11R	7/20/1995	1.6864		174
	8/24/1995	2.3979		195
	9/28/1995	2.30259		188
	10/26/1995	2.70805		208
	11/19/1996	ND<0		68
	12/19/1996	2.77259		210
	3/24/1997	2.48491		199
	9/24/1997	ND<0		68
	4/7/1998	1.64866		173
	9/23/1998	2.56495		201
	3/16/1999	2.40695		197
	9/23/1999	ND<0		68
	3/15/2000	2.48491		200
	9/24/2003	2.30259		189
	3/11/2004	2.3979		196
	10/12/2004	ND<0		68
	4/1/2005	2.24813		185
	10/25/2005	1.51732		172
	4/29/2006	1.05779		166
	11/18/2006	0.536493	J	159
	5/23/2007	1.74047		175
	11/28/2007	1.17557		170
	6/5/2008	ND<0		68
	11/20/2008	ND<0		68
	6/11/2009	0.262364		154
	6/30/2010	0.470004		156
	11/12/2010	ND<-2.59027	U	68
	7/5/2011	ND<-2.59027	U	68
	11/22/2011	-1.51413	J Q	138
	11/22/2011	-1.51413	J Q	139
	6/5/2012	ND<-2.59027	U	68

Rank Sum = 4556
Rank Mean = 146.968

MW-9	7/20/1995	0.182322	J	150
	8/24/1995	0.0953102	J	148
	9/28/1995	0	J	145
	10/26/1995	0	J	146
	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	4.15888		232
	10/12/2004	ND<0		68

	4/1/2005	0.576613	J	160
	10/25/2005	0.231112	J	153
	4/29/2006	-0.127833	J	143
	11/18/2006	-0.34249	J	141
	5/23/2007	1.09861		168
	11/28/2007	ND<0	J	68
	6/5/2008	-0.693147	J	140
	11/20/2008	0.582216	J	161
	6/11/2009	0.832909		164
	6/30/2010	0.832909		165
	11/12/2010	0.587787		162
	7/5/2011	0.182322		151
	11/22/2011	0.530628	Q	157
	11/22/2011	0.530628	Q	158
	6/5/2012	0.336472		155

Rank Sum = 3815
Rank Mean = 123.065

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<-2.59027		68
	6/30/2010	ND<-2.59027		68
	11/12/2010	ND<-2.59027	U	68
	7/5/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	6/5/2012	ND<-2.59027	U	68

Rank Sum = 2108
Rank Mean = 68

MW-7	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	-1.56065 J	137	
	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<-2.59027	68	
	6/30/2010	ND<-2.59027	68	
	11/12/2010	ND<-2.59027 U	68	
	7/5/2011	ND<-2.59027 U	68	
	11/22/2011	ND<-2.59027 U	68	
	11/22/2011	ND<-2.59027 U	68	
	6/5/2012	-1.77196 J	136	

Rank Sum = 2245
Rank Mean = 72.4194

MW-8	7/20/1995	0.0953102 J		149
	8/24/1995	2.99573		212
	9/28/1995	2.83321		211
	10/26/1995	0.693147		163
	11/19/1996	ND<0	68	
	12/19/1996	4.86753		237
	3/24/1997	5.07517		242
	9/24/1997	5.63479		244
	4/7/1998	5.19296	243	
	9/23/1998	5.8861	246	
	3/16/1999	5.0689	241	
	9/23/1999	4.93447		239
	3/15/2000	5.79909		245
	9/24/2003	3.55535		219
	3/11/2004	4.86753		238
	10/12/2004	4.94164		240
	4/1/2005	4.02356	228	
	10/25/2005	4.65396		236
	4/29/2006	3.7495	225	
	11/18/2006	3.74715		224
	5/23/2007	3.21888		214
	11/28/2007	4.10923		231
	6/5/2008	ND<0	68	
	11/20/2008	3.55535		220
	6/11/2009	3.66356		222
	6/30/2010	3.7612	227	
	11/12/2010	4.06044		230
	7/5/2011	4.41884	235	
	11/22/2011	4.17439		233
	11/22/2011	4.17439		234
	6/5/2012	4.04305	229	

Rank Sum = 6693
Rank Mean = 215.903

MW-12AR	3/16/1999	ND<0	68	
	9/23/1999	ND<0	68	
	3/15/2000	2.63906		205
	9/24/2003	2.30259		190

	3/11/2004	2.30259		191
	10/12/2004	2.24071		184
	4/1/2005	ND<0	68	
	10/25/2005	1.06471		167
	4/29/2006	1.16002		169
	11/18/2006	0.0861777	J	147
	5/23/2007	ND<0	68	
	11/28/2007	0.198851	J	152
	6/5/2008	ND<0	68	
	11/20/2008	-0.18633	J	142
	6/11/2009	ND<-2.59027		68
	6/30/2010	ND<-2.59027		68
	11/12/2010	-0.0833816	J	144
	7/5/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	6/5/2012	ND<-2.59027	U	68

Rank Sum = 2439
Rank Mean = 116.143

MW-12BR	3/16/1999	2.69463		206
	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	2.37024		192
	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<-2.59027		68
	6/30/2010	ND<-2.59027		68
	11/12/2010	ND<-2.59027	U	68
	7/5/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	11/22/2011	ND<-2.59027	U	68
	6/5/2012	ND<-2.59027	U	68

Rank Sum = 1690
Rank Mean = 80.4762

Calculation Results:

Kruskal-Wallis H Statistic = 129.572
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 155.225
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
129.572 > 15.5073 indicating a significant group difference at 5% significance level
155.225 > 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-10	**181**	**113**	**49.0546**	
MW-11R	**146.968**	**78.9677**	**49.0546**	
MW-9	**123.065**	**55.0645**	**49.0546**	
MW-6	**68**	**0**	**49.0546**	

MW-7	72.4194	4.41935	49.0546	
MW-8	215.903	147.903	49.0546	
MW-12AR		116.143	48.1429	53.1723
MW-12BR		80.4762	12.4762	53.1723

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-10	181	113	52.9723	
MW-11R	146.968	78.9677	52.9723	
MW-9	123.065	55.0645	52.9723	
MW-6	68	0	52.9723	
MW-7	72.4194	4.41935	52.9723	
MW-8	215.903	147.903	52.9723	
MW-12AR		116.143	48.1429	57.4189
MW-12BR		80.4762	12.4762	57.4189

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
6/5/2012	2.14007	0	-0.192475
6/5/2012	2.14007	0	-0.192475

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	-2.590270	0	-4.37813
11/12/2010	-2.590270	0	-4.37813
7/5/2011	-2.590270	0	-4.37813
7/5/2011	-2.590270	0	-4.37813
11/22/2011	-1.514130	0	-4.73304

11/22/2011	-1.514130		-4.73304
6/5/2012	-2.590270	-4.37813	
6/5/2012	-2.590270	-4.37813	

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	-0.342494	8.9421	-5.06309
11/18/2006	-0.342494	8.9421	-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
6/5/2012	0.336472	91.4092	3.77946
6/5/2012	0.336472	91.4092	3.77946

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
6/5/2012	4.04305	5.15487	1.0864
6/5/2012	4.04305	5.15487	1.0864

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
2.14007	(6/5/2012)	1.38629	(7/20/1995)	(2.14007 - 1.38629)/(30 - 1)	0.0259921
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					
2.14007	(6/5/2012)	2.70805	(8/24/1995)	(2.14007 - 2.70805)/(30 - 2)		
	-0.0202851					
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					
2.14007	(6/5/2012)	3.46574	(9/28/1995)	(2.14007 - 3.46574)/(30 - 3)		
	-0.0490989					
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					
2.14007	(6/5/2012)	3.2581	(10/26/1995)	(2.14007 - 3.2581)/(30 - 4)	
-0.0430012					

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					
2.14007	(6/5/2012)	ND<0	(11/19/1996)	(2.14007 - 0)/(30 - 5)		
	0.0856026					
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					
2.14007	(6/5/2012)	3.68888	(12/19/1996)	(2.14007 - 3.68888)/(30 - 6)		
	-0.0645339					
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					
2.14007	(6/5/2012)	3.2581	(3/24/1997)	(2.14007 - 3.2581)/(30 - 7)		-0.04861
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					
2.14007	(6/5/2012)	3.63759	(9/24/1997)	(2.14007 - 3.63759)/(30 - 8)		
	-0.0680691					
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					
2.14007	(6/5/2012)	2.02815	(4/7/1998)	(2.14007 - 2.02815)/(30 - 9)		
	0.00532942					
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					
2.14007	(6/5/2012)	3.46574	(9/23/1998)	(2.14007 - 3.46574)/(30 - 10)		
	-0.0662835					
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					
2.14007	(6/5/2012)	3.7542	(3/16/1999)	(2.14007 - 3.7542)/(30 - 11)		
	-0.0849544					
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					
2.14007	(6/5/2012)	3.21487	(9/23/1999)	(2.14007 - 3.21487)/(30 - 12)	
-0.0597112					
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					
2.14007	(6/5/2012)	2.3979	(3/15/2000)	(2.14007 - 2.3979)/(30 - 13)		
	-0.0151664					
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					
2.14007	(6/5/2012)	2.3979	(9/24/2003)	(2.14007 - 2.3979)/(30 - 14)		
	-0.0161143					
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						
2.14007	(6/5/2012)	1.96009	(3/11/2004)	(2.14007 - 1.96009)/(30 - 15)		
0.0119981						
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						
2.14007	(6/5/2012)	ND<0	(10/12/2004)	(2.14007 - 0)/(30 - 16)		
0.152862						
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						
2.14007	(6/5/2012)	ND<0	(4/1/2005)	(2.14007 - 0)/(30 - 17)		0.16462

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
2.14007	(6/5/2012)	2.59525	(10/25/2005)	(2.14007 - 2.59525)/(30 - 18)	-0.0379324
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
2.14007	(6/5/2012)	2.76001	(4/29/2006)	(2.14007 - 2.76001)/(30 - 19)	-0.0563585
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					
2.14007	(6/5/2012)	2.19277	(11/18/2006)	(2.14007 - 2.19277)/(30 - 20)		
	-0.00527041					
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					
2.14007	(6/5/2012)	2.20827	(5/23/2007)	(2.14007 - 2.20827)/(30 - 21)		
	-0.00757869					
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					
2.14007	(6/5/2012)	2.61007	(11/28/2007)	(2.14007 - 2.61007)/(30 - 22)		
	-0.0587505					
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						
2.14007	(6/5/2012)	2.60269	(6/5/2008)	(2.14007 - 2.60269)/(30 - 23)		
-0.0660891						
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						
2.14007	(6/5/2012)	ND<0	(11/20/2008)	(2.14007 - 0)/(30 - 24)		
0.356678						
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						
2.14007	(6/5/2012)	2.19722	(6/11/2009)	(2.14007 - 2.19722)/(30 - 25)		
-0.0114317						
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						
2.14007	(6/5/2012)	1.75786	(6/30/2010)	(2.14007 - 1.75786)/(30 - 26)		
0.0955521						
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						
2.14007	(6/5/2012)	2.15176	(11/12/2010)	(2.14007 - 2.15176)/(30 - 27)		
-0.00389868						
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						
2.14007	(6/5/2012)	2.48491	(7/5/2011)	(2.14007 - 2.48491)/(30 - 28)		
-0.17242						

2.30259	(11/22/2011)	2.30259	(11/22/2011)	(2.30259 - 2.30259)/(29 - 29)
	Same Date			
2.14007	(6/5/2012)	2.30259	(11/22/2011)	(2.14007 - 2.30259)/(30 - 29)
	-0.162519			
2.14007	(6/5/2012)	2.30259	(11/22/2011)	(2.14007 - 2.30259)/(30 - 29)
	-0.162519			

Number of Q values = 464

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	-0.17242
81	-0.165563
82	-0.165035
83	-0.162905
84	-0.162519
85	-0.162519
86	-0.16225
87	-0.161373
88	-0.154592
89	-0.143367
90	-0.143165
91	-0.137615
92	-0.13521
93	-0.133089
94	-0.128993
95	-0.127762
96	-0.127297
97	-0.12547
98	-0.125434
99	-0.124274
100	-0.123093
101	-0.122886
102	-0.120401
103	-0.118
104	-0.114315
105	-0.112732
106	-0.111844
107	-0.111212
108	-0.109947
109	-0.10881
110	-0.106865

111	-0.106784
112	-0.106742
113	-0.10568
114	-0.104675
115	-0.104429
116	-0.104233
117	-0.104072
118	-0.104012
119	-0.103269
120	-0.100152
121	-0.098707
122	-0.0971289
123	-0.0970764
124	-0.0965511
125	-0.0959591
126	-0.0955779
127	-0.0937976
128	-0.0924196
129	-0.0916615
130	-0.0911354
131	-0.0900833
132	-0.0866434
133	-0.0860201
134	-0.0859251
135	-0.0849544
136	-0.0847272
137	-0.0845674
138	-0.0819482
139	-0.0806452
140	-0.0806452
141	-0.0797797
142	-0.0790019
143	-0.0789599
144	-0.0785082
145	-0.078414
146	-0.0782802
147	-0.0782013
148	-0.0772926
149	-0.076031
150	-0.0749873
151	-0.0748803
152	-0.0746643
153	-0.0742556
154	-0.073394
155	-0.0731961
156	-0.0724854
157	-0.0714515
158	-0.0713055
159	-0.0708737
160	-0.069859
161	-0.0689931
162	-0.0681927
163	-0.0680691
164	-0.0674256
165	-0.0665829
166	-0.0663882
167	-0.0662835
168	-0.0660891
169	-0.0649797
170	-0.0645339
171	-0.0638935
172	-0.0635715

173	-0.0635715
174	-0.0617542
175	-0.0612185
176	-0.0612185
177	-0.0604798
178	-0.0602737
179	-0.0602737
180	-0.0602737
181	-0.0602583
182	-0.0597112
183	-0.0589373
184	-0.0587505
185	-0.0580321
186	-0.0576596
187	-0.057634
188	-0.057535
189	-0.0568614
190	-0.0563585
191	-0.0557859
192	-0.0556526
193	-0.0553167
194	-0.0547489
195	-0.054726
196	-0.0544905
197	-0.0536637
198	-0.0536637
199	-0.0533364
200	-0.0519098
201	-0.0505177
202	-0.0500174
203	-0.0500174
204	-0.04998
205	-0.0492769
206	-0.0492336
207	-0.0490989
208	-0.04861
209	-0.0481015
210	-0.0473458
211	-0.0457425
212	-0.0457425
213	-0.0456226
214	-0.0450351
215	-0.0447366
216	-0.0447366
217	-0.0441079
218	-0.0439264
219	-0.0439264
220	-0.0434323
221	-0.0434323
222	-0.0432018
223	-0.0431523
224	-0.0430012
225	-0.0415072
226	-0.0409629
227	-0.0395913
228	-0.0393301
229	-0.0392332
230	-0.0382205
231	-0.0382205
232	-0.0379324
233	-0.0368186
234	-0.0360015

235	-0.0344951
236	-0.0341875
237	-0.0332058
238	-0.0322162
239	-0.030567
240	-0.0293036
241	-0.0286267
242	-0.0281959
243	-0.0278742
244	-0.0270887
245	-0.0266063
246	-0.0266063
247	-0.026304
248	-0.0258462
249	-0.0256466
250	-0.0237026
251	-0.0235566
252	-0.0227312
253	-0.0222515
254	-0.0222098
255	-0.0208605
256	-0.0202851
257	-0.0189333
258	-0.0183852
259	-0.0182428
260	-0.0175809
261	-0.0167226
262	-0.0161143
263	-0.0158994
264	-0.0151664
265	-0.0150172
266	-0.0150172
267	-0.0114317
268	-0.0113422
269	-0.0110348
270	-0.0094187
271	-0.00864575
272	-0.00858244
273	-0.00757869
274	-0.00738011
275	-0.00704972
276	-0.00635401
277	-0.00635401
278	-0.00595689
279	-0.00595689
280	-0.00585829
281	-0.00540359
282	-0.00527041
283	-0.00501717
284	-0.00489902
285	-0.00389868
286	-0.00276246
287	0
288	0
289	0
290	0
291	0
292	0
293	0
294	0
295	0
296	0.00089087

297	0.001487
298	0.00305646
299	0.00370377
300	0.00532942
301	0.00580076
302	0.0062151
303	0.00686744
304	0.0105673
305	0.0117888
306	0.0117888
307	0.0119981
308	0.0122017
309	0.0122017
310	0.0130639
311	0.0137218
312	0.0137218
313	0.0148625
314	0.0149656
315	0.0150105
316	0.0155042
317	0.0159723
318	0.0204794
319	0.0227549
320	0.0235749
321	0.023713
322	0.0240399
323	0.0244636
324	0.0244636
325	0.0259921
326	0.0263401
327	0.0263401
328	0.0265218
329	0.0294411
330	0.0327247
331	0.0327247
332	0.0337888
333	0.0343701
334	0.0346066
335	0.0360579
336	0.0365171
337	0.0388709
338	0.0394719
339	0.0395189
340	0.0403701
341	0.0406893
342	0.0409857
343	0.0410387
344	0.041099
345	0.0413633
346	0.0424461
347	0.0447632
348	0.0465351
349	0.0493399
350	0.0506818
351	0.0552907
352	0.058275
353	0.0603524
354	0.0630118
355	0.0692131
356	0.0708718
357	0.0711153
358	0.0724229

359	0.0731862
360	0.0739494
361	0.0743812
362	0.0754114
363	0.0754114
364	0.0763175
365	0.0778155
366	0.0802317
367	0.0803244
368	0.0837075
369	0.0843001
370	0.0856026
371	0.0924368
372	0.0928536
373	0.0947107
374	0.0948724
375	0.0955521
376	0.095894
377	0.095941
378	0.095941
379	0.0978074
380	0.108039
381	0.109861
382	0.110009
383	0.116239
384	0.124026
385	0.13664
386	0.138017
387	0.144594
388	0.146185
389	0.152862
390	0.153534
391	0.154923
392	0.16462
393	0.164755
394	0.166234
395	0.175786
396	0.177122
397	0.177122
398	0.181576
399	0.181576
400	0.191882
401	0.191882
402	0.195318
403	0.195615
404	0.196009
405	0.197144
406	0.197208
407	0.199635
408	0.199979
409	0.207076
410	0.20865
411	0.21172
412	0.215176
413	0.215391
414	0.225901
415	0.231049
416	0.23679
417	0.244136
418	0.245207
419	0.266433
420	0.274653

421	0.275023
422	0.288463
423	0.299737
424	0.311967
425	0.321613
426	0.333144
427	0.356678
428	0.363524
429	0.371813
430	0.37949
431	0.393904
432	0.395573
433	0.401795
434	0.433782
435	0.435012
436	0.441655
437	0.459267
438	0.460517
439	0.460517
440	0.460517
441	0.507037
442	0.522014
443	0.548193
444	0.552069
445	0.621227
446	0.623934
447	0.6257
448	0.693147
449	0.717254
450	0.730923
451	0.757686
452	0.863025
453	0.878929
454	0.920003
455	1.03972
456	1.21253
457	1.29763
458	1.32176
459	1.38
460	1.43759
461	1.62905
462	2.19722
463	2.59525
464	3.68888

Sen's Estimator (Median Q) is -0.0373755

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 228
B = 18
C = 24
D = 0
E = 20
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3448.02
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.5855
M1 = (464 - 96.5855)/2.0 = 183.707
M2 = (464 + 96.5855)/2.0 + 1 = 281.293
Lower limit is -0.0587505 = Q(184)
Upper limit is -0.00540359 = Q(281)
-0.00540359 < 0 indicating a downward 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				
ND<-2.59027 U (6/5/2012)	1.6864	(7/20/1995)	(-2.59027 - 1.6864)/(30 - 1)	
-0.147471				
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
ND<-2.59027 U (6/5/2012) 2.3979 (8/24/1995) (-2.59027 - 2.3979)/(30 - 2)
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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)
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2.40695 (3/16/1999) 2.30259 (9/28/1995) (2.40695 - 2.30259)/(11 - 3)
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ND<0 (9/23/1999) 2.30259 (9/28/1995) (0 - 2.30259)/(12 - 3)
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2.48491 (3/15/2000) 2.30259 (9/28/1995) (2.48491 - 2.30259)/(13 - 3)
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2.30259 (9/24/2003) 2.30259 (9/28/1995) (2.30259 - 2.30259)/(14 - 3)
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2.24813 (4/1/2005) 2.30259 (9/28/1995) (2.24813 - 2.30259)/(17 - 3)
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1.51732 (10/25/2005) 2.30259 (9/28/1995) (1.51732 - 2.30259)/(18 - 3)
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1.05779 (4/29/2006) 2.30259 (9/28/1995) (1.05779 - 2.30259)/(19 - 3)
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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)
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-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)
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ND<-2.59027 U (6/5/2012) 2.30259 (9/28/1995) (-2.59027 - 2.30259)/(30 - 3)
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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)
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2.48491 (3/24/1997) 2.70805 (10/26/1995) (2.48491 - 2.70805)/(7 - 4)
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ND<0 (9/24/1997) 2.70805 (10/26/1995) (0 - 2.70805)/(8 - 4)
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-0.211878
2.56495 (9/23/1998) 2.70805 (10/26/1995) (2.56495 - 2.70805)/(10 - 4)
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2.40695 (3/16/1999) 2.70805 (10/26/1995) (2.40695 - 2.70805)/(11 - 4)
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ND<0 (9/23/1999) 2.70805 (10/26/1995) (0 - 2.70805)/(12 - 4)
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ND<0 (10/12/2004) 2.70805 (10/26/1995) (0 - 2.70805)/(16 - 4)
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-0.085052
1.05779 (4/29/2006) 2.70805 (10/26/1995) (1.05779 - 2.70805)/(19 - 4)
-0.110017
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-0.135722
1.74047 (5/23/2007) 2.70805 (10/26/1995) (1.74047 - 2.70805)/(21 - 4)
-0.0569167
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ND<0 (6/5/2008) 2.70805 (10/26/1995) (0 - 2.70805)/(23 - 4)
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ND<-2.59027 U (7/5/2011) 2.70805 (10/26/1995) (-2.59027 - 2.70805)/(28 - 4)
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-1.51413 J Q (11/22/2011) 2.70805 (10/26/1995) (-1.51413 - 2.70805)/(29 - 4)
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-1.51413 J Q (11/22/2011) 2.70805 (10/26/1995) (-1.51413 - 2.70805)/(29 - 4)
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ND<-2.59027 U (6/5/2012) 2.70805 (10/26/1995) (-2.59027 - 2.70805)/(30 - 4)
-0.203781

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
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0.401158
ND<0 (9/23/1999) ND<0 (11/19/1996) (0 - 0)/(12 - 5) 0

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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)
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1.51732 (10/25/2005) ND<0 (11/19/1996) (1.51732 - 0)/(18 - 5)
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1.05779 (4/29/2006) ND<0 (11/19/1996) (1.05779 - 0)/(19 - 5)
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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)
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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)
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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)
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ND<-2.59027 U (7/5/2011) ND<0 (11/19/1996) (-2.59027 - 0)/(28 - 5) -0.11262
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ND<-2.59027 U (6/5/2012) ND<0 (11/19/1996) (-2.59027 - 0)/(30 - 5)
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ND<0 (9/24/1997) 2.77259 (12/19/1996) (0 - 2.77259)/(8 - 6) -1.38629
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2.56495 (9/23/1998) 2.77259 (12/19/1996) (2.56495 - 2.77259)/(10 - 6)
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2.40695 (3/16/1999) 2.77259 (12/19/1996) (2.40695 - 2.77259)/(11 - 6)
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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)
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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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1.17557 (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)
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ND<0 (11/20/2008) 2.77259 (12/19/1996) (0 - 2.77259)/(24 - 6)
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0.470004 (6/30/2010) 2.77259 (12/19/1996) (0.470004 - 2.77259)/(26 - 6)
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ND<-2.59027 U (11/12/2010) 2.77259 (12/19/1996) (-2.59027 - 2.77259)/(27 - 6)
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ND<-2.59027 U (7/5/2011) 2.77259 (12/19/1996) (-2.59027 - 2.77259)/(28 - 6)
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ND<-2.59027 U (6/5/2012) 2.77259 (12/19/1996) (-2.59027 - 2.77259)/(30 - 6)
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ND<0 (9/24/1997) 2.48491 (3/24/1997) (0 - 2.48491)/(8 - 7) -2.48491
1.64866 (4/7/1998) 2.48491 (3/24/1997) (1.64866 - 2.48491)/(9 - 7)
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ND<0 (9/23/1999) 2.48491 (3/24/1997) (0 - 2.48491)/(12 - 7)
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2.48491 (3/15/2000) 2.48491 (3/24/1997) (2.48491 - 2.48491)/(13 - 7)
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ND<0 (10/12/2004) 2.48491 (3/24/1997) (0 - 2.48491)/(16 - 7)
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2.24813 (4/1/2005) 2.48491 (3/24/1997) (2.24813 - 2.48491)/(17 - 7)
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1.51732 (10/25/2005) 2.48491 (3/24/1997) (1.51732 - 2.48491)/(18 - 7)
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1.05779 (4/29/2006) 2.48491 (3/24/1997) (1.05779 - 2.48491)/(19 - 7)
-0.118926
0.536493 J (11/18/2006) 2.48491 (3/24/1997) (0.536493 - 2.48491)/(20 - 7)
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1.74047 (5/23/2007) 2.48491 (3/24/1997) (1.74047 - 2.48491)/(21 - 7)
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1.17557 (11/28/2007) 2.48491 (3/24/1997) (1.17557 - 2.48491)/(22 - 7)
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ND<0 (6/5/2008) 2.48491 (3/24/1997) (0 - 2.48491)/(23 - 7)
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0.470004 (6/30/2010) 2.48491 (3/24/1997) (0.470004 - 2.48491)/(26 - 7)
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-0.253759

ND<-2.59027 U (7/5/2011)	2.48491 (3/24/1997)	(-2.59027 - 2.48491)/(28 - 7)		-0.241675
-1.51413 J Q (11/22/2011)	2.48491 (3/24/1997)	(-1.51413 - 2.48491)/(29 - 7)		-0.181774
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ND<-2.59027 U (6/5/2012)	2.48491 (3/24/1997)	(-2.59027 - 2.48491)/(30 - 7)		-0.22066
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	
2.40695 (3/16/1999)	ND<0 (9/24/1997)	(2.40695 - 0)/(11 - 8)		0.802315
ND<0 (9/23/1999)	ND<0 (9/24/1997)	(0 - 0)/(12 - 8)	0	
2.48491 (3/15/2000)	ND<0 (9/24/1997)	(2.48491 - 0)/(13 - 8)		0.496981
2.30259 (9/24/2003)	ND<0 (9/24/1997)	(2.30259 - 0)/(14 - 8)		0.383764
2.3979 (3/11/2004)	ND<0 (9/24/1997)	(2.3979 - 0)/(15 - 8)		0.342556
ND<0 (10/12/2004)	ND<0 (9/24/1997)	(0 - 0)/(16 - 8)	0	
2.24813 (4/1/2005)	ND<0 (9/24/1997)	(2.24813 - 0)/(17 - 8)		0.249792
1.51732 (10/25/2005)	ND<0 (9/24/1997)	(1.51732 - 0)/(18 - 8)		0.151732
1.05779 (4/29/2006)	ND<0 (9/24/1997)	(1.05779 - 0)/(19 - 8)		0.0961628
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1.74047 (5/23/2007)	ND<0 (9/24/1997)	(1.74047 - 0)/(21 - 8)		0.133882
1.17557 (11/28/2007)	ND<0 (9/24/1997)	(1.17557 - 0)/(22 - 8)		0.0839695
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	
0.262364 (6/11/2009)	ND<0 (9/24/1997)	(0.262364 - 0)/(25 - 8)		0.0154332
0.470004 (6/30/2010)	ND<0 (9/24/1997)	(0.470004 - 0)/(26 - 8)		0.0261113
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ND<-2.59027 U (7/5/2011)	ND<0 (9/24/1997)	(-2.59027 - 0)/(28 - 8)		-0.129513
-1.51413 J Q (11/22/2011)	ND<0 (9/24/1997)	(-1.51413 - 0)/(29 - 8)		-0.0721013
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2.3979 (3/11/2004)	1.64866 (4/7/1998)	(2.3979 - 1.64866)/(15 - 9)		0.124873

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ND<0 (11/20/2008) 2.24813 (4/1/2005) (0 - 2.24813)/(24 - 17)
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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
ND<-2.59027 U (6/5/2012) 2.24813 (4/1/2005) (-2.59027 - 2.24813)/(30 - 17)
-0.372184

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
ND<-2.59027 U (6/5/2012) 1.51732 (10/25/2005) (-2.59027 - 1.51732)/(30 - 18)
-0.342299

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
ND<-2.59027 U (6/5/2012) 1.05779 (4/29/2006) (-2.59027 - 1.05779)/(30 - 19)
-0.331642

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
ND<-2.59027 U (6/5/2012) 0.536493 J (11/18/2006) (-2.59027 - 0.536493)/(30 - 20)
-0.312676

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<-2.59027 U (6/5/2012) 1.74047 (5/23/2007) (-2.59027 - 1.74047)/(30 - 21)
-0.481193

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<-2.59027 U (6/5/2012) 1.17557 (11/28/2007) (-2.59027 - 1.17557)/(30 - 22)
-0.47073

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
ND<-2.59027 U (6/5/2012) ND<0 (6/5/2008) (-2.59027 - 0)/(30 - 23)
-0.370038

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
ND<-2.59027 U (6/5/2012) ND<0 (11/20/2008) (-2.59027 - 0)/(30 - 24)
-0.431711

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 (6/5/2012) 0.262364 (6/11/2009) (-2.59027 - 0.262364)/(30 - 25)
-0.570526

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 (6/5/2012) 0.470004 (6/30/2010) (-2.59027 - 0.470004)/(30 - 26)
-0.765068

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
ND<-2.59027 U (6/5/2012) ND<-2.59027 U (11/12/2010) (-2.59027 - -2.59027)/(30 - 27)
0

-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
ND<-2.59027 U (6/5/2012) ND<-2.59027 U (7/5/2011) (-2.59027 - -2.59027)/(30 - 28)
0

-1.51413 J Q (11/22/2011) Same Date	-1.51413 J Q (11/22/2011)	(-1.51413 - -1.51413)/(29 - 29)
ND<-2.59027 U (6/5/2012) -1.07614	-1.51413 J Q (11/22/2011)	(-2.59027 - -1.51413)/(30 - 29)
ND<-2.59027 U (6/5/2012) -1.07614	-1.51413 J Q (11/22/2011)	(-2.59027 - -1.51413)/(30 - 29)

Number of Q values = 464

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	-1.07614
14	-1.07614
15	-0.950877
16	-0.870233
17	-0.863422
18	-0.828302
19	-0.799298
20	-0.765068
21	-0.753168
22	-0.730806
23	-0.721789
24	-0.677013
25	-0.661377
26	-0.661377
27	-0.647567
28	-0.647567
29	-0.62764
30	-0.618676
31	-0.595169
32	-0.587787
33	-0.580155
34	-0.570545
35	-0.570526
36	-0.564893
37	-0.549553
38	-0.521297
39	-0.518053
40	-0.496981
41	-0.490415
42	-0.48384
43	-0.481389
44	-0.481193
45	-0.47073
46	-0.462098
47	-0.460517

48	-0.459532
49	-0.456399
50	-0.456007
51	-0.44668
52	-0.444123
53	-0.444123
54	-0.439854
55	-0.431711
56	-0.427492
57	-0.4216
58	-0.418124
59	-0.41568
60	-0.410759
61	-0.406824
62	-0.406824
63	-0.40534
64	-0.399649
65	-0.390845
66	-0.384243
67	-0.384243
68	-0.383705
69	-0.376373
70	-0.374688
71	-0.374643
72	-0.37228
73	-0.372184
74	-0.370038
75	-0.369525
76	-0.362512
77	-0.349489
78	-0.342299
79	-0.338506
80	-0.338345
81	-0.335026
82	-0.332544
83	-0.331642
84	-0.321161
85	-0.313521
86	-0.313521
87	-0.312676
88	-0.312326
89	-0.305803
90	-0.304403
91	-0.303465
92	-0.303248
93	-0.302826
94	-0.302826
95	-0.299737
96	-0.29854
97	-0.294349
98	-0.293954
99	-0.293524
100	-0.287682
101	-0.286401
102	-0.27943
103	-0.27943
104	-0.278345
105	-0.277259
106	-0.276101
107	-0.275586
108	-0.275586
109	-0.266433

110	-0.264448
111	-0.263011
112	-0.257761
113	-0.257192
114	-0.257192
115	-0.255843
116	-0.255843
117	-0.255374
118	-0.254448
119	-0.254448
120	-0.254093
121	-0.253759
122	-0.252887
123	-0.252355
124	-0.252355
125	-0.24994
126	-0.24994
127	-0.248959
128	-0.248491
129	-0.248221
130	-0.243766
131	-0.241675
132	-0.240914
133	-0.23979
134	-0.237853
135	-0.235523
136	-0.235496
137	-0.235479
138	-0.230362
139	-0.230259
140	-0.227847
141	-0.227847
142	-0.225901
143	-0.225671
144	-0.223452
145	-0.223101
146	-0.220763
147	-0.22066
148	-0.217837
149	-0.217837
150	-0.215856
151	-0.214688
152	-0.214688
153	-0.214511
154	-0.213553
155	-0.211878
156	-0.211558
157	-0.207828
158	-0.203869
159	-0.203781
160	-0.202846
161	-0.201854
162	-0.200579
163	-0.199526
164	-0.197569
165	-0.197304
166	-0.196316
167	-0.195714
168	-0.193517
169	-0.191852
170	-0.186379
171	-0.186379

172	-0.185475
173	-0.185212
174	-0.18515
175	-0.185019
176	-0.183211
177	-0.182322
178	-0.181774
179	-0.181774
180	-0.181217
181	-0.17928
182	-0.178831
183	-0.178149
184	-0.177122
185	-0.176392
186	-0.175263
187	-0.174617
188	-0.172684
189	-0.171278
190	-0.168887
191	-0.168887
192	-0.168644
193	-0.167462
194	-0.164487
195	-0.163093
196	-0.161892
197	-0.159721
198	-0.158395
199	-0.158139
200	-0.158139
201	-0.158004
202	-0.155307
203	-0.154993
204	-0.154033
205	-0.153506
206	-0.153309
207	-0.153184
208	-0.152715
209	-0.149878
210	-0.147471
211	-0.146797
212	-0.146797
213	-0.146171
214	-0.145481
215	-0.14489
216	-0.14489
217	-0.143904
218	-0.142529
219	-0.140876
220	-0.13633
221	-0.135722
222	-0.135403
223	-0.134123
224	-0.132571
225	-0.132117
226	-0.131908
227	-0.130953
228	-0.130934
229	-0.130915
230	-0.129513
231	-0.129129
232	-0.127089
233	-0.126916

234	-0.123475
235	-0.118926
236	-0.117761
237	-0.117739
238	-0.117739
239	-0.116471
240	-0.116471
241	-0.116461
242	-0.115781
243	-0.115129
244	-0.115129
245	-0.114305
246	-0.114305
247	-0.114185
248	-0.11262
249	-0.112427
250	-0.111943
251	-0.110017
252	-0.109911
253	-0.109647
254	-0.109572
255	-0.108995
256	-0.108988
257	-0.107034
258	-0.106048
259	-0.104606
260	-0.103888
261	-0.103611
262	-0.103411
263	-0.101729
264	-0.101106
265	-0.0998135
266	-0.0953102
267	-0.0930551
268	-0.0928492
269	-0.0927373
270	-0.0890663
271	-0.0890663
272	-0.0879622
273	-0.0872889
274	-0.0866434
275	-0.0854373
276	-0.0851376
277	-0.085052
278	-0.0839695
279	-0.0803288
280	-0.0803027
281	-0.0796775
282	-0.0788297
283	-0.0777997
284	-0.0766545
285	-0.074953
286	-0.0748832
287	-0.0743812
288	-0.0733217
289	-0.0731287
290	-0.0721013
291	-0.0721013
292	-0.0693326
293	-0.0688082
294	-0.0666479
295	-0.0655911

296	-0.0630887
297	-0.0630887
298	-0.0611161
299	-0.0605213
300	-0.0593348
301	-0.0593164
302	-0.0591944
303	-0.0590868
304	-0.0587505
305	-0.0569167
306	-0.0550358
307	-0.0548258
308	-0.0531743
309	-0.0523508
310	-0.0519098
311	-0.0486558
312	-0.0476782
313	-0.0452601
314	-0.0435057
315	-0.043015
316	-0.0416326
317	-0.0410974
318	-0.0405465
319	-0.0363912
320	-0.0353786
321	-0.0349227
322	-0.0347867
323	-0.0346015
324	-0.0334108
325	-0.0312288
326	-0.0281959
327	-0.0266809
328	-0.0264694
329	-0.0260459
330	-0.0247937
331	-0.024325
332	-0.0238501
333	-0.0236778
334	-0.0194904
335	-0.0181521
336	-0.0145929
337	-0.0110816
338	-0.0108764
339	-0.00998442
340	-0.00994567
341	-0.00794251
342	-0.00471754
343	-0.00388973
344	-0.00226246
345	0
346	0
347	0
348	0
349	0
350	0
351	0
352	0
353	0
354	0
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359	0
360	0
361	0
362	0
363	0
364	0
365	0
366	0.00100554
367	0.00270336
368	0.00765063
369	0.00791013
370	0.00794251
371	0.013045
372	0.0131182
373	0.0154332
374	0.0174023
375	0.0182322
376	0.0201819
377	0.0208818
378	0.0223811
379	0.0261113
380	0.0266809
381	0.0291516
382	0.0322693
383	0.0335717
384	0.0351081
385	0.0357662
386	0.0374806
387	0.0389808
388	0.039261
389	0.0447078
390	0.0455804
391	0.0470004
392	0.0473989
393	0.0508212
394	0.0665423
395	0.0670617
396	0.0691514
397	0.0720546
398	0.0743812
399	0.0749338
400	0.0755564
401	0.0839695
402	0.0936734
403	0.0953102
404	0.0961628
405	0.0976167
406	0.108779
407	0.116717
408	0.117557
409	0.124873
410	0.130785
411	0.131182
412	0.133085
413	0.133882
414	0.134123
415	0.151113
416	0.151732
417	0.155077
418	0.156668
419	0.156668

420	0.187344
421	0.193385
422	0.195929
423	0.207639
424	0.209062
425	0.217238
426	0.235002
427	0.23979
428	0.249792
429	0.252887
430	0.255843
431	0.262364
432	0.308093
433	0.310613
434	0.31954
435	0.34055
436	0.341338
437	0.342556
438	0.348093
439	0.352597
440	0.379143
441	0.383764
442	0.401158
443	0.405465
444	0.412165
445	0.449626
446	0.496981
447	0.51299
448	0.53807
449	0.53807
450	0.711496
451	0.758661
452	0.799298
453	0.802315
454	0.916291
455	1.07614
456	1.07614
457	1.15129
458	1.20397
459	1.24245
460	1.28247
461	1.64866
462	2.24813
463	2.48491
464	2.77259

Sen's Estimator (Median Q) is -0.127002

Tied Group	Value	Members
1	2.3979	2
2	2.30259	2
3	0	6
4	2.48491	2
5	-2.59027	3
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
6/5/2012	1	

There are 1 time periods with multiple data

A = 648
B = 18
C = 126
D = 0
E = 44
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3424.71
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.2585
M1 = (464 - 96.2585)/2.0 = 183.871
M2 = (464 + 96.2585)/2.0 + 1 = 281.129
Lower limit is -0.177122 = Q(184)
Upper limit is -0.0796775 = Q(281)
-0.0796775 < 0 indicating a downward 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
0.336472 (6/5/2012)	0.182322 J (7/20/1995)	(0.336472 - 0.182322)/(30 - 1)	0.00531554

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	

0.336472 (6/5/2012)	0.0953102 J (8/24/1995)	(0.336472 - 0.0953102)/(30 - 2)	0.00861293

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
0.336472 (6/5/2012)	0 J (9/28/1995)	(0.336472 - 0)/(30 - 3)		0.0124619

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
0.336472 (6/5/2012)	0 J (10/26/1995)	(0.336472 - 0)/(30 - 4)		0.0129412

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			
0.336472 (6/5/2012)	ND<0 (11/19/1996)	(0.336472 - 0)/(30 - 5)	
0.0134589			
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				
0.336472 (6/5/2012)	ND<0 (12/19/1996)	(0.336472 - 0)/(30 - 6)		
0.0140197				
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				
0.336472 (6/5/2012)	ND<0 (3/24/1997)	(0.336472 - 0)/(30 - 7)		
0.0146292				
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			
0.336472 (6/5/2012)	ND<0 (9/24/1997)	(0.336472 - 0)/(30 - 8)	
0.0152942			

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				
0.336472 (6/5/2012)	ND<0 (4/7/1998)	(0.336472 - 0)/(30 - 9)		
0.0160225				
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				
0.336472 (6/5/2012)	ND<0 (9/23/1998)	(0.336472 - 0)/(30 - 10)		
0.0168236				
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				
0.336472 (6/5/2012)	ND<0 (3/16/1999)	(0.336472 - 0)/(30 - 11)		
0.0177091				
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				
0.336472 (6/5/2012)	ND<0 (9/23/1999)	(0.336472 - 0)/(30 - 12)		
0.0186929				
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				
0.336472 (6/5/2012)	ND<0 (3/15/2000)	(0.336472 - 0)/(30 - 13)		
0.0197925				
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				
0.336472 (6/5/2012)	ND<0 (9/24/2003)	(0.336472 - 0)/(30 - 14)		
0.0210295				
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				
0.336472 (6/5/2012)	4.15888	(3/11/2004)	(0.336472 - 4.15888)/(30 - 15)	
-0.254827				
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				
0.336472 (6/5/2012)	ND<0	(10/12/2004)	(0.336472 - 0)/(30 - 16)	
0.0240337				

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
0.336472 (6/5/2012)	0.576613 J (4/1/2005)	(0.336472 - 0.576613)/(30 - 17)	-0.0184724
-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
0.336472 (6/5/2012)	0.231112 J (10/25/2005)	(0.336472 - 0.231112)/(30 - 18)	0.00878004
-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			
0.336472 (6/5/2012)	-0.127833 J (4/29/2006)	(0.336472 - -0.127833)/(30 - 19)	
0.0422096			
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			
0.336472 (6/5/2012)	-0.34249 J (11/18/2006)	(0.336472 - -0.34249)/(30 - 20)	
0.0678963			
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			
0.336472 (6/5/2012)	1.09861 (5/23/2007)	(0.336472 - 1.09861)/(30 - 21)	
-0.0846822			

-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
0.336472 (6/5/2012)	ND<0 J (11/28/2007)	(0.336472 - 0)/(30 - 22)	0.042059
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
0.336472 (6/5/2012)	-0.693147 J (6/5/2008)	(0.336472 - -0.693147)/(30 - 23)	0.147088
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
0.336472 (6/5/2012)	0.582216 J (11/20/2008)	(0.336472 - 0.582216)/(30 - 24)	-0.0409572
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

0.336472	(6/5/2012)	0.832909	(6/11/2009)	(0.336472 - 0.832909)/(30 - 25)	-0.0992874
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
0.336472	(6/5/2012)	0.832909	(6/30/2010)	(0.336472 - 0.832909)/(30 - 26)	-0.124109
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
0.336472	(6/5/2012)	0.587787	(11/12/2010)	(0.336472 - 0.587787)/(30 - 27)	-0.0837715
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
0.336472	(6/5/2012)	0.182322	(7/5/2011)	(0.336472 - 0.182322)/(30 - 28)	0.0770753
0.530628 Q	(11/22/2011)	0.530628 Q	(11/22/2011)	(0.530628 - 0.530628)/(29 - 29)	Same Date
0.336472	(6/5/2012)	0.530628 Q	(11/22/2011)	(0.336472 - 0.530628)/(30 - 29)	-0.194156
0.336472	(6/5/2012)	0.530628 Q	(11/22/2011)	(0.336472 - 0.530628)/(30 - 29)	-0.194156

Number of Q values = 464

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	-0.254827
27	-0.245122
28	-0.216863
29	-0.214657
30	-0.211627
31	-0.194156
32	-0.194156
33	-0.184852
34	-0.172132
35	-0.141328
36	-0.130899
37	-0.124109
38	-0.122561
39	-0.116886
40	-0.115323
41	-0.10076
42	-0.10076
43	-0.0999735
44	-0.0992874
45	-0.099021
46	-0.0953102
47	-0.0911608
48	-0.0870114
49	-0.0856226
50	-0.0851376
51	-0.0846822
52	-0.0837715
53	-0.0770164
54	-0.0755702
55	-0.0755702
56	-0.070998
57	-0.070998
58	-0.0693147
59	-0.0664258
60	-0.0630134
61	-0.0607739
62	-0.0577779
63	-0.0577623
64	-0.0570817
65	-0.053319
66	-0.0531406
67	-0.0495105
68	-0.0489272
69	-0.0476551
70	-0.0462098
71	-0.0455804
72	-0.0433217
73	-0.0428113
74	-0.0426111
75	-0.0409572
76	-0.0407734
77	-0.039794
78	-0.0385082
79	-0.0380545
80	-0.0375456

81	-0.0364814
82	-0.0364643
83	-0.0358447
84	-0.0346574
85	-0.034249
86	-0.0317701
87	-0.0311355
88	-0.0303869
89	-0.0285792
90	-0.0285792
91	-0.0285409
92	-0.0276217
93	-0.0263454
94	-0.0260459
95	-0.0255667
96	-0.0244636
97	-0.0243222
98	-0.0238275
99	-0.0228327
100	-0.0227902
101	-0.0214056
102	-0.0213056
103	-0.020258
104	-0.0201465
105	-0.019062
106	-0.0184724
107	-0.0182619
108	-0.0182322
109	-0.0172308
110	-0.0165747
111	-0.0159792
112	-0.015885
113	-0.0151935
114	-0.0142037
115	-0.0140247
116	-0.0136157
117	-0.0131261
118	-0.0127833
119	-0.0121548
120	-0.0119138
121	-0.0116212
122	-0.0106528
123	-0.01059
124	-0.0103175
125	-0.0103175
126	-0.00983334
127	-0.00953102
128	-0.00913096
129	-0.00868198
130	-0.00866456
131	-0.00852222
132	-0.00798959
133	-0.00794251
134	-0.00680787
135	-0.00487902
136	-0.00476551
137	-0.00383209
138	-0.00383209
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
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	0.000800322
233	0.00111733
234	0.00185702
235	0.00287001
236	0.00334659
237	0.00531554
238	0.00729286
239	0.00759673
240	0.00792702
241	0.00828734
242	0.0084876
243	0.00861293
244	0.00868198
245	0.00878004
246	0.00911608
247	0.00959587
248	0.010129
249	0.0107248
250	0.0113951
251	0.0121548
252	0.0124395
253	0.0124395
254	0.0124619
255	0.0129412
256	0.013023
257	0.0134589
258	0.0140197
259	0.0146292
260	0.0151935
261	0.0152942
262	0.0154074
263	0.0155948
264	0.0160225
265	0.0161229
266	0.0161229

267	0.016508
268	0.0168236
269	0.0173867
270	0.0177091
271	0.0177778
272	0.0186929
273	0.0192593
274	0.0196991
275	0.0197925
276	0.0204088
277	0.0204088
278	0.0210102
279	0.0210295
280	0.0212251
281	0.0212251
282	0.0221095
283	0.0221095
284	0.0221321
285	0.0230708
286	0.0230708
287	0.0231112
288	0.0240337
289	0.0241195
290	0.0241195
291	0.0244911
292	0.0246432
293	0.025268
294	0.025268
295	0.0255559
296	0.0256791
297	0.0260235
298	0.0265314
299	0.0265314
300	0.0267176
301	0.0271078
302	0.0272288
303	0.0272288
304	0.0277246
305	0.0279278
306	0.0279278
307	0.0279898
308	0.0284773
309	0.028889
310	0.0291108
311	0.0293893
312	0.0294793
313	0.0294793
314	0.0303869
315	0.0306429
316	0.0307333
317	0.0309361
318	0.0312134
319	0.0312134
320	0.032037
321	0.0320695
322	0.0320869
323	0.0323453
324	0.0326548
325	0.033016
326	0.0331643
327	0.0331643
328	0.034248

329	0.0344617
330	0.0345757
331	0.0353752
332	0.0353752
333	0.0362134
334	0.0363885
335	0.0367367
336	0.0378595
337	0.0378595
338	0.0385186
339	0.0388144
340	0.0391858
341	0.0396305
342	0.0396623
343	0.0396623
344	0.0408176
345	0.0408176
346	0.0411867
347	0.0415868
348	0.0416455
349	0.0416455
350	0.0419848
351	0.042059
352	0.0422096
353	0.0426111
354	0.0438373
355	0.0438373
356	0.0443549
357	0.0447858
358	0.0452144
359	0.0458145
360	0.0462223
361	0.0462727
362	0.0462727
363	0.0480511
364	0.048518
365	0.0489947
366	0.0489947
367	0.0520568
368	0.0520568
369	0.0524194
370	0.0528054
371	0.0529287
372	0.0534352
373	0.0555273
374	0.0555273
375	0.0576613
376	0.0577779
377	0.0582216
378	0.0585173
379	0.0594935
380	0.0594935
381	0.061034
382	0.0640682
383	0.0640699
384	0.0640699
385	0.0646243
386	0.0656015
387	0.0658462
388	0.0658462
389	0.0678963
390	0.0686633

391	0.0694091
392	0.0694091
393	0.0720767
394	0.072777
395	0.0732408
396	0.0752247
397	0.075719
398	0.075804
399	0.075804
400	0.0770753
401	0.0784723
402	0.0823733
403	0.0832909
404	0.0845086
405	0.0859711
406	0.0894525
407	0.091551
408	0.0925455
409	0.0961022
410	0.0970132
411	0.0970132
412	0.0998738
413	0.109861
414	0.115323
415	0.115556
416	0.117557
417	0.122068
418	0.125347
419	0.1305
420	0.132897
421	0.137249
422	0.137327
423	0.14201
424	0.144153
425	0.147088
426	0.156945
427	0.160124
428	0.171245
429	0.175094
430	0.192204
431	0.1959
432	0.203963
433	0.203963
434	0.208227
435	0.219722
436	0.231176
437	0.23508
438	0.250694
439	0.277636
440	0.28404
441	0.289167
442	0.291108
443	0.312583
444	0.320233
445	0.346574
446	0.348307
447	0.348307
448	0.37808
449	0.415888
450	0.462098
451	0.508685
452	0.51986

453	0.576613
454	0.594126
455	0.613223
456	0.693147
457	0.763028
458	0.831777
459	1.03972
460	1.27536
461	1.38629
462	1.4411
463	2.07944
464	4.15888

Sen's Estimator (Median Q) is 0.000958826

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
6/5/2012	1

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 = Q(186)
Upper limit is 0.0210295 = Q(279)
0 < 0 < 0.0210295 indicating no trend in data.

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
4.04305 (6/5/2012)	0.0953102 J (7/20/1995)	(4.04305 - 0.0953102)/(30 - 1)	0.136129
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					
4.04305	(6/5/2012)	2.99573	(8/24/1995)	(4.04305 - 2.99573)/(30 - 2)		
	0.0374042					
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					

4.04305	(6/5/2012)	2.83321	(9/28/1995)	(4.04305 - 2.83321)/(30 - 3)	
0.0448088					
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					
4.04305	(6/5/2012)	0.693147	(10/26/1995)	(4.04305 - 0.693147)/(30 - 4)	
0.128842					

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					
4.04305	(6/5/2012)	ND<0	(11/19/1996)	(4.04305 - 0)/(30 - 5)		
	0.161722					

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					
4.04305	(6/5/2012)	4.86753	(12/19/1996)	(4.04305 - 4.86753)/(30 - 6)		
	-0.0343535					
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				
4.04305	(6/5/2012)	5.07517	(3/24/1997)	(4.04305 - 5.07517)/(30 - 7)	
	-0.0448749				
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				
4.04305	(6/5/2012)	5.63479	(9/24/1997)	(4.04305 - 5.63479)/(30 - 8)	
	-0.0723517				

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					
4.04305	(6/5/2012)	5.19296	(4/7/1998)	(4.04305 - 5.19296)/(30 - 9)		
	-0.0547574					
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
4.04305	(6/5/2012)	5.8861	(9/23/1998)	(4.04305 - 5.8861)/(30 - 10)	-0.0921526
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				
4.04305	(6/5/2012)	5.0689	(3/16/1999)	(4.04305 - 5.0689)/(30 - 11)
-0.0539923				
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				
4.04305	(6/5/2012)	4.93447	(9/23/1999)	(4.04305 - 4.93447)/(30 - 12)
-0.0495235				
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
4.04305	(6/5/2012)	5.79909	(3/15/2000)	(4.04305 - 5.79909)/(30 - 13)	-0.103297
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
4.04305	(6/5/2012)	3.55535	(9/24/2003)	(4.04305 - 3.55535)/(30 - 14)	0.0304815
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
4.04305	(6/5/2012)	4.86753	(3/11/2004)	(4.04305 - 4.86753)/(30 - 15)	-0.0549655
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
4.04305	(6/5/2012)	4.94164	(10/12/2004)	(4.04305 - 4.94164)/(30 - 16)	-0.0641851
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
4.04305	(6/5/2012)	4.02356	(4/1/2005)	(4.04305 - 4.02356)/(30 - 17)	0.00149899
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
4.04305	(6/5/2012)	4.65396	(10/25/2005)	(4.04305 - 4.65396)/(30 - 18)	-0.0509091
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					
4.04305	(6/5/2012)	3.7495	(4/29/2006)	(4.04305 - 3.7495)/(30 - 19)		
	0.0266861					
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					
4.04305	(6/5/2012)	3.74715	(11/18/2006)	(4.04305 - 3.74715)/(30 - 20)		
	0.0295903					
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					
4.04305	(6/5/2012)	3.21888	(5/23/2007)	(4.04305 - 3.21888)/(30 - 21)		
	0.091575					
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					
4.04305	(6/5/2012)	4.10923	(11/28/2007)	(4.04305 - 4.10923)/(30 - 22)	
-0.00827274					
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					
4.04305	(6/5/2012)	ND<0	(6/5/2008)	(4.04305 - 0)/(30 - 23)	
0.577579					
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					
4.04305	(6/5/2012)	3.55535	(11/20/2008)	(4.04305 - 3.55535)/(30 - 24)	
0.0812839					
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					
4.04305	(6/5/2012)	3.66356	(6/11/2009)	(4.04305 - 3.66356)/(30 - 25)	
0.0758979					
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					
4.04305	(6/5/2012)	3.7612	(6/30/2010)	(4.04305 - 3.7612)/(30 - 26)	
0.0704628					

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
4.04305	(6/5/2012)	4.06044	(11/12/2010)	(4.04305 - 4.06044)/(30 - 27)	-0.00579725
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
4.04305	(6/5/2012)	4.41884	(7/5/2011)	(4.04305 - 4.41884)/(30 - 28)	-0.187895
4.17439	(11/22/2011)	4.17439	(11/22/2011)	(4.17439 - 4.17439)/(29 - 29)	Same Date
4.04305	(6/5/2012)	4.17439	(11/22/2011)	(4.04305 - 4.17439)/(30 - 29)	-0.131336
4.04305	(6/5/2012)	4.17439	(11/22/2011)	(4.04305 - 4.17439)/(30 - 29)	-0.131336

Number of Q values = 464

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	-0.187895
66	-0.187762
67	-0.18584
68	-0.185003
69	-0.183102
70	-0.182182
71	-0.179025
72	-0.177961
73	-0.175079
74	-0.174223
75	-0.173287
76	-0.17139
77	-0.169281
78	-0.166483
79	-0.164925
80	-0.164507
81	-0.164023
82	-0.162519
83	-0.15741
84	-0.157303
85	-0.156761
86	-0.154018
87	-0.148557
88	-0.148416
89	-0.148169
90	-0.148073
91	-0.146862
92	-0.146174
93	-0.145798

94	-0.144345
95	-0.143841
96	-0.142654
97	-0.142009
98	-0.141661
99	-0.141486
100	-0.138735
101	-0.13703
102	-0.136182
103	-0.13443
104	-0.132806
105	-0.132593
106	-0.131437
107	-0.131336
108	-0.131336
109	-0.129965
110	-0.124189
111	-0.120397
112	-0.118044
113	-0.116427
114	-0.115955
115	-0.114927
116	-0.111595
117	-0.110472
118	-0.109911
119	-0.109608
120	-0.109174
121	-0.108968
122	-0.108329
123	-0.107392
124	-0.105161
125	-0.104088
126	-0.103297
127	-0.102156
128	-0.101544
129	-0.101544
130	-0.100576
131	-0.100382
132	-0.0980829
133	-0.0977625
134	-0.0955872
135	-0.0921526
136	-0.0921387
137	-0.0920168
138	-0.0900904
139	-0.0900904
140	-0.0894015
141	-0.0872428
142	-0.0871803
143	-0.0870083
144	-0.0866434
145	-0.086161
146	-0.0860023
147	-0.084221
148	-0.0838053
149	-0.0833634
150	-0.0828603
151	-0.0825241
152	-0.0815146
153	-0.080109
154	-0.0800276
155	-0.0784229

156	-0.0767246
157	-0.0728992
158	-0.0723517
159	-0.0711914
160	-0.069543
161	-0.069543
162	-0.0691565
163	-0.0672576
164	-0.066888
165	-0.0659464
166	-0.064396
167	-0.0641851
168	-0.063367
169	-0.0630288
170	-0.0629174
171	-0.0620263
172	-0.0607974
173	-0.0598885
174	-0.0592777
175	-0.0590196
176	-0.0590196
177	-0.0582687
178	-0.0553167
179	-0.0549655
180	-0.0547574
181	-0.0542371
182	-0.0539923
183	-0.0509285
184	-0.0509285
185	-0.0509091
186	-0.0507365
187	-0.0503424
188	-0.0496954
189	-0.0496954
190	-0.0495235
191	-0.0495105
192	-0.0495105
193	-0.0480675
194	-0.0479501
195	-0.0473938
196	-0.0467523
197	-0.0450003
198	-0.0448749
199	-0.044711
200	-0.044711
201	-0.0435976
202	-0.0435976
203	-0.0435668
204	-0.0409448
205	-0.0409448
206	-0.040743
207	-0.0388312
208	-0.0384329
209	-0.0382921
210	-0.038239
211	-0.0364814
212	-0.0359021
213	-0.0345149
214	-0.0343535
215	-0.0322271
216	-0.031254
217	-0.0301368

218	-0.0301368
219	-0.0291516
220	-0.0290038
221	-0.02814
222	-0.0259549
223	-0.0254524
224	-0.0238275
225	-0.023512
226	-0.0223132
227	-0.0203952
228	-0.0177978
229	-0.0167173
230	-0.0148368
231	-0.0143237
232	-0.00975803
233	-0.00827274
234	-0.00579725
235	-0.00433228
236	-0.00235571
237	-0.0015674
238	0
239	0
240	0
241	0.00149899
242	0.00167086
243	0.00179212
244	0.00234196
245	0.00368786
246	0.0074108
247	0.00930773
248	0.00930773
249	0.0098376
250	0.0111566
251	0.0117444
252	0.0125686
253	0.0125686
254	0.0171338
255	0.0171543
256	0.0214257
257	0.0254371
258	0.0266861
259	0.0290361
260	0.0295903
261	0.0304815
262	0.0318945
263	0.0319667
264	0.0328606
265	0.0343874
266	0.0359342
267	0.0374042
268	0.0377431
269	0.0388312
270	0.0388535
271	0.0388674
272	0.040274
273	0.0403473
274	0.0412693
275	0.0412693
276	0.0417453
277	0.0424883
278	0.0424883
279	0.0425884

280	0.0436539
281	0.0436539
282	0.0443395
283	0.0447564
284	0.0448088
285	0.0466346
286	0.047471
287	0.047471
288	0.0511346
289	0.0515836
290	0.0515836
291	0.0516012
292	0.0537609
293	0.0547349
294	0.055675
295	0.0569721
296	0.0569721
297	0.0572682
298	0.0588915
299	0.061678
300	0.0634251
301	0.0656486
302	0.0671589
303	0.0685221
304	0.0692356
305	0.0704628
306	0.074108
307	0.0743707
308	0.0758979
309	0.0812839
310	0.0839615
311	0.0850251
312	0.091575
313	0.0976385
314	0.102926
315	0.103639
316	0.108214
317	0.108465
318	0.108474
319	0.111171
320	0.112157
321	0.119439
322	0.119439
323	0.11991
324	0.120653
325	0.121383
326	0.123808
327	0.123808
328	0.125657
329	0.127706
330	0.127706
331	0.128842
332	0.13308
333	0.136129
334	0.137729
335	0.137729
336	0.138994
337	0.13925
338	0.13925
339	0.139457
340	0.140261
341	0.141448

342	0.14311
343	0.143985
344	0.145681
345	0.145681
346	0.146404
347	0.146636
348	0.148572
349	0.148677
350	0.150436
351	0.151534
352	0.152505
353	0.155237
354	0.156072
355	0.156178
356	0.160131
357	0.161722
358	0.162187
359	0.168365
360	0.169527
361	0.171424
362	0.173933
363	0.173933
364	0.179105
365	0.181042
366	0.183178
367	0.184566
368	0.187124
369	0.189783
370	0.190875
371	0.191139
372	0.192124
373	0.192202
374	0.193874
375	0.198441
376	0.199279
377	0.20118
378	0.203011
379	0.203757
380	0.207639
381	0.215873
382	0.230352
383	0.233473
384	0.24172
385	0.245516
386	0.24981
387	0.25176
388	0.254642
389	0.254851
390	0.256186
391	0.266157
392	0.267822
393	0.268156
394	0.27031
395	0.274653
396	0.279461
397	0.282915
398	0.28622
399	0.296588
400	0.299243
401	0.313889
402	0.323089
403	0.32882

404	0.335297
405	0.340873
406	0.354041
407	0.357997
408	0.358398
409	0.361296
410	0.365094
411	0.37949
412	0.383628
413	0.393291
414	0.395039
415	0.415888
416	0.436127
417	0.439843
418	0.439924
419	0.44924
420	0.467951
421	0.475315
422	0.486753
423	0.497359
424	0.530166
425	0.559616
426	0.560315
427	0.56049
428	0.567327
429	0.577579
430	0.625108
431	0.630396
432	0.637206
433	0.643422
434	0.678107
435	0.693147
436	0.693147
437	0.695731
438	0.695731
439	0.704925
440	0.724887
441	0.791354
442	0.829977
443	0.844817
444	0.864619
445	0.865493
446	0.883768
447	0.890357
448	0.899962
449	0.954445
450	1.01511
451	1.17722
452	1.23541
453	1.25373
454	1.29824
455	1.31219
456	1.36895
457	1.46068
458	1.83178
459	1.87826
460	2.08719
461	2.53759
462	2.90042
463	3.55535
464	4.86753

Sen's Estimator (Median Q) is -0.00901539

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 72
B = 18
C = 0
D = 0
E = 8
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3456.68
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.7067
M1 = (464 - 96.7067)/2.0 = 183.647
M2 = (464 + 96.7067)/2.0 + 1 = 281.353
Lower limit is -0.0509285 = Q(184)
Upper limit is 0.0436539 = Q(281)
-0.0509285 < 0 < 0.0436539 indicating no trend in data.

Concentrations (ppb)

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 167
Percent Non-Detects: 67.3387%
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-10	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	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	
			6/5/2012	14	14	
MW-6	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	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	
			6/5/2012	0.26	0.26	
MW-7	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	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
			6/5/2012	0.81	0.81	
MW-9	32	21 (65.625%)	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
			6/5/2012	1.7	1.7	
MW-11R	32	22 (68.75%)	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	
			6/5/2012	0.18 J	0.18 J	
MW-8	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	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	
			6/5/2012	0.22	0.22	
MW-12AR	21	12 (57.1429%)	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		
		6/5/2012	0.71	0.71		
MW-12BR	21	12 (57.1429%)	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		
		6/5/2012	1.2	1.2		

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 = 248

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	-1.91103	34.3095	-1.71766
8	0.15	-1.85218	37.7401	-1.99549
9	0.18	-1.79912	40.9769	-2.31933
10	0.18	-1.75069	44.0418	-2.63445
11	0.18	-1.70604	46.9524	-2.94154
12	0.19	-1.66456	49.7231	-3.25781
13	0.19	-1.62576	52.3662	-3.5667
14	0.2	-1.58927	54.892	-3.88456
15	0.2	-1.55477	57.3093	-4.19551
16	0.21	-1.52203	59.6259	-4.51514
17	0.22	-1.49085	61.8486	-4.84313
18	0.23	-1.46106	63.9833	-5.17917
19	0.23	-1.4325	66.0353	-5.50865
20	0.25	-1.40507	68.0096	-5.85992
21	0.26	-1.37866	69.9102	-6.21837
22	0.34	-1.35317	71.7413	-6.67845
23	0.37	-1.32854	73.5063	-7.17
24	0.4	-1.30469	75.2086	-7.69188
25	0.41	-1.28155	76.8509	-8.21732
26	0.48	-1.25908	78.4362	-8.82168
27	0.51	-1.23724	79.967	-9.45267
28	0.52	-1.21596	81.4455	-10.085
29	0.52	-1.19522	82.8741	-10.7065
30	0.53	-1.17499	84.2547	-11.3292
31	0.58	-1.15522	85.5892	-11.9993
32	0.586	-1.1359	86.8795	-12.6649
33	0.609	-1.11699	88.1271	-13.3451
34	0.62	-1.09847	89.3338	-14.0262
35	0.65	-1.08032	90.5009	-14.7284
36	0.68	-1.06252	91.6298	-15.4509
37	0.69	-1.04505	92.7219	-16.172
38	0.69	-1.02789	93.7785	-16.8812
39	0.698	-1.01104	94.8007	-17.5869
40	0.71	-0.994457	95.7896	-18.293
41	0.71	-0.97815	96.7464	-18.9875
42	0.73	-0.9621	97.6721	-19.6898
43	0.8	-0.946291	98.5675	-20.4469
44	0.81	-0.930718	99.4338	-21.2007
45	0.89	-0.915365	100.272	-22.0154
46	0.93	-0.900227	101.082	-22.8526
47	0.989	-0.885291	101.866	-23.7282
48	1	-0.87055	102.624	-24.5987
49	1	-0.855996	103.356	-25.4547
50	1	-0.841621	104.065	-26.2963
51	1.02	-0.827417	104.749	-27.1403

52	1.02	-0.813379	105.411	-27.97
53	1.1	-0.7995	106.05	-28.8494
54	1.1	-0.785774	106.668	-29.7138
55	1.1	-0.772193	107.264	-30.5632
56	1.1	-0.758753	107.84	-31.3978
57	1.1	-0.745449	108.395	-32.2178
58	1.1	-0.732275	108.931	-33.0233
59	1.2	-0.719228	109.449	-33.8864
60	1.2	-0.706302	109.948	-34.7339
61	1.25	-0.693493	110.429	-35.6008
62	1.45	-0.680797	110.892	-36.588
63	1.46	-0.665079	111.334	-37.559
64	1.48	-0.652622	111.76	-38.5248
65	1.48	-0.640266	112.17	-39.4724
66	1.7	-0.628006	112.565	-40.5401
67	2	-0.615839	112.944	-41.7717
68	2.13	-0.603765	113.308	-43.0577
69	2.4	-0.591776	113.659	-44.478
70	2.7	-0.579873	113.995	-46.0437
71	2.72	-0.568052	114.318	-47.5888
72	2.8	-0.556308	114.627	-49.1464
73	3	-0.544642	114.924	-50.7804
74	3	-0.533048	115.208	-52.3795
75	3.3	-0.521527	115.48	-54.1005
76	3.3	-0.510074	115.74	-55.7838
77	4.2	-0.498687	115.989	-57.8783
78	5	-0.487364	116.226	-60.3151
79	6	-0.476105	116.453	-63.1717
80	10	-0.464904	116.669	-67.8208
81	10	-0.453763	116.875	-72.3584
82	10	-0.442676	117.071	-76.7852
83	10	-0.431644	117.257	-81.1016
84	10	-0.420664	117.434	-85.3082
85	10	-0.409735	117.602	-89.4056
86	10	-0.398855	117.761	-93.3941
87	10	-0.388022	117.912	-97.2744
88	10	-0.377233	118.054	-101.047
89	10	-0.36649	118.188	-104.712
90	10	-0.355788	118.315	-108.269
91	10	-0.345126	118.434	-111.721
92	10	-0.334503	118.546	-115.066
93	10	-0.323919	118.651	-118.305
94	10	-0.31337	118.749	-121.439
95	10	-0.302855	118.841	-124.467
96	10	-0.292375	118.926	-127.391
97	10	-0.281926	119.006	-130.21
98	10	-0.271509	119.079	-132.925
99	10	-0.26112	119.148	-135.537
100	10	-0.250759	119.21	-138.044
101	10	-0.240426	119.268	-140.448
102	10	-0.230118	119.321	-142.75
103	10	-0.219834	119.37	-144.948
104	10	-0.209575	119.413	-147.044
105	10	-0.199336	119.453	-149.037
106	10	-0.189118	119.489	-150.928
107	10	-0.17892	119.521	-152.717
108	10	-0.168741	119.549	-154.405
109	10	-0.158579	119.575	-155.991
110	10	-0.148434	119.597	-157.475
111	10	-0.138305	119.616	-158.858
112	10	-0.128189	119.632	-160.14
113	10	-0.118085	119.646	-161.321

114	10	-0.107995	119.658	-162.401
115	10	-0.0979139	119.667	-163.38
116	10	-0.0878447	119.675	-164.258
117	10	-0.0777834	119.681	-165.036
118	10	-0.0677301	119.686	-165.713
119	10	-0.0576847	119.689	-166.29
120	10	-0.0476439	119.691	-166.767
121	10	-0.0376076	119.693	-167.143
122	10	-0.0275759	119.694	-167.418
123	10	-0.0175476	119.694	-167.594
124	10	-0.00751925	119.694	-167.669
125	10	0.00751925	119.694	-167.594
126	10	0.0175476	119.694	-167.418
127	10	0.0275759	119.695	-167.143
128	10	0.0376076	119.696	-166.767
129	10	0.0476439	119.699	-166.29
130	10	0.0576847	119.702	-165.713
131	10	0.0677301	119.707	-165.036
132	10	0.0777834	119.713	-164.258
133	10	0.0878447	119.72	-163.38
134	10	0.0979139	119.73	-162.401
135	10	0.107995	119.742	-161.321
136	10	0.118085	119.756	-160.14
137	10	0.128189	119.772	-158.858
138	10	0.138305	119.791	-157.475
139	10	0.148434	119.813	-155.991
140	10	0.158579	119.838	-154.405
141	10	0.168741	119.867	-152.717
142	10	0.17892	119.899	-150.928
143	10	0.189118	119.935	-149.037
144	10	0.199336	119.974	-147.044
145	10	0.209575	120.018	-144.948
146	10	0.219834	120.067	-142.75
147	10	0.230118	120.119	-140.448
148	10	0.240426	120.177	-138.044
149	10	0.250759	120.24	-135.537
150	10	0.26112	120.308	-132.925
151	10	0.271509	120.382	-130.21
152	10	0.281926	120.462	-127.391
153	10	0.292375	120.547	-124.467
154	10	0.302855	120.639	-121.439
155	10	0.31337	120.737	-118.305
156	10	0.323919	120.842	-115.066
157	10	0.334503	120.954	-111.721
158	10	0.345126	121.073	-108.269
159	10	0.355788	121.199	-104.712
160	10	0.36649	121.334	-101.047
161	10	0.377233	121.476	-97.2744
162	10	0.388022	121.627	-93.3941
163	10	0.398855	121.786	-89.4056
164	10	0.409735	121.954	-85.3082
165	10	0.420664	122.131	-81.1016
166	10	0.431644	122.317	-76.7852
167	10	0.442676	122.513	-72.3584
168	10	0.453763	122.719	-67.8208
169	10	0.464904	122.935	-63.1717
170	10	0.476105	123.162	-58.4107
171	10	0.487364	123.399	-53.537
172	10	0.498687	123.648	-48.5502
173	10	0.510074	123.908	-43.4494
174	10	0.521527	124.18	-38.2342
175	10	0.533048	124.464	-32.9037

176	10	0.544642		124.761	-27.4573
177	10	0.556308		125.07	-21.8942
178	10	0.568052		125.393	-16.2136
179	10	0.579873		125.729	-10.4149
180	10	0.591776		126.079	-4.49715
181	10	0.603765		126.444	1.5405
182	10	0.615839		126.823	7.69889
183	10	0.628006		127.218	13.9789
184	10	0.640266		127.627	20.3816
185	10	0.652622		128.053	26.9078
186	10	0.665079		128.496	33.5586
187	10	0.680797		128.959	40.3666
188	10	0.693493		129.44	47.3015
189	10	0.706302		129.939	54.3645
190	10	0.719228		130.456	61.5568
191	10	0.732275		130.993	68.8796
192	10	0.745449		131.548	76.3341
193	10	0.758753		132.124	83.9216
194	10	0.772193		132.72	91.6435
195	10	0.785774		133.338	99.5013
196	10	0.7995	133.977	107.496	
197	10	0.813379		134.638	115.63
198	10	0.827417		135.323	123.904
199	10	0.841621		136.031	132.32
200	10	0.855996		136.764	140.88
201	10	0.87055	137.522	149.586	
202	10	0.885291		138.306	158.439
203	10	0.900227		139.116	167.441
204	10	0.915365		139.954	176.595
205	10	0.930718		140.82	185.902
206	10	0.946291		141.716	195.365
207	10	0.9621	142.641	204.986	
208	10	0.97815	143.598	214.767	
209	10	0.994457		144.587	224.712
210	10	1.01104	145.609	234.822	
211	10	1.02789	146.666	245.101	
212	10	1.04505	147.758	255.552	
213	10	1.06252	148.887	266.177	
214	10	1.08032	150.054	276.98	
215	10	1.09847	151.261	287.965	
216	10	1.11699	152.508	299.135	
217	10	1.1359	153.799	310.494	
218	10	1.15522	155.133	322.046	
219	10	1.17499	156.514	333.796	
220	10	1.19522	157.942	345.748	
221	10	1.21596	159.421	357.908	
222	10	1.23724	160.952	370.28	
223	10	1.25908	162.537	382.871	
224	10	1.28155	164.179	395.686	
225	10	1.30469	165.881	408.733	
226	10	1.32854	167.646	422.018	
227	10	1.35317	169.477	435.55	
228	10	1.37866	171.378	449.337	
229	10	1.40507	173.352	463.388	
230	10	1.4325	175.404	477.713	
231	10	1.46106	177.539	492.323	
232	10	1.49085	179.762	507.232	
233	10	1.52203	182.078	522.452	
234	10	1.55477	184.496	538	
235	10	1.58927	187.022	553.892	
236	10	1.62576	189.665	570.15	
237	10	1.66456	192.435	586.796	

238	10	1.70604	195.346	603.856
239	10	1.75069	198.411	621.363
240	10	1.79912	201.648	639.354
241	10	1.85218	205.078	657.876
242	10	1.91103	208.73	676.986
243	10	1.97737	212.64	696.76
244	10	2.05375	216.858	717.297
245	10	2.14441	221.457	738.741
246	10	2.25713	226.551	761.313
247	14	2.40892	232.354	795.038
248	25	2.65209	239.388	861.34

Data Set Standard Deviation = 4.3766
Numerator = 741906
Denominator = 1.13259e+006
W Statistic = 0.655054 = 741906 / 1.13259e+006

5% Critical value of 0.976 exceeds 0.655054
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.655054
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 = 0.808848
0.808848 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.083	0.00401606	-2.65209	40.4802	344.01	
2	0.1	0.00803213	-2.40892	40.7833	332.136	
3	0.11	0.0120482	-2.25713	40.9617	324.723	
4	0.11	0.0160643	-2.14441	40.9617	319.219	
5	0.13	0.0200803	-2.05375	41.3183	314.791	
6	0.13	0.0240964	-1.97737	41.3183	311.062	
7	0.13	0.0281124	-1.91103	41.3183	307.822	
8	0.15	0.0321285	-1.85218	41.675	304.948	
9	0.18	0.0361446	-1.79912	42.21	302.357	
10	0.18	0.0401606	-1.75069	42.21	299.992	
11	0.18	0.0441767	-1.70604	42.21	297.812	
12	0.19	0.0481928	-1.66456	42.3883	295.786	
13	0.19	0.0522088	-1.62576	42.3883	293.891	
14	0.2	0.0562249	-1.58927	42.5667	292.109	
15	0.2	0.060241	-1.55477	42.5667	290.425	
16	0.21	0.064257	-1.52203	42.745	288.826	
17	0.22	0.0682731	-1.49085	42.9233	287.303	
18	0.23	0.0722892	-1.46106	43.1017	285.848	
19	0.23	0.0763052	-1.4325	43.1017	284.454	
20	0.25	0.0803213	-1.40507	43.4583	283.114	
21	0.26	0.0843373	-1.37866	43.6367	281.824	
22	0.34	0.0883534	-1.35317	45.0633	280.58	
23	0.37	0.0923695	-1.32854	45.5983	279.377	
24	0.4	0.0963855	-1.30469	46.1333	278.212	
25	0.41	0.100402	-1.28155	46.3117	277.082	
26	0.48	0.104418	-1.25908	47.56	275.985	
27	0.51	0.108434	-1.23724	48.095	274.918	
28	0.52	0.11245	-1.21596	48.2733	273.879	
29	0.52	0.116466	-1.19522	48.2733	272.867	
30	0.53	0.120482	-1.17499	48.4517	271.879	
31	0.58	0.124498	-1.15522	49.3433	270.913	
32	0.586	0.128514	-1.1359	49.4503	269.97	
33	0.609	0.13253	-1.11699	49.8605	269.046	
34	0.62	0.136546	-1.09847	50.0567	268.142	
35	0.65	0.140562	-1.08032	50.5917	267.256	
36	0.68	0.144578	-1.06252	51.1267	266.386	
37	0.69	0.148594	-1.04505	51.305	265.533	
38	0.69	0.15261	-1.02789	51.305	264.695	
39	0.698	0.156627	-1.01104	51.4477	263.872	
40	0.71	0.160643	-0.994457	51.6617	263.063	
41	0.71	0.164659	-0.97815	51.6617	262.266	
42	0.73	0.168675	-0.9621	52.0183	261.483	
43	0.8	0.172691	-0.946291	53.2667	260.711	
44	0.81	0.176707	-0.930718	53.445	259.95	
45	0.89	0.180723	-0.915365	54.8717	259.2	
46	0.93	0.184739	-0.900227	55.585	258.461	
47	0.989	0.188755	-0.885291	56.6372	257.732	
48	1	0.192771	-0.87055	56.8333	257.012	

49	1	0.196787	-0.855996	56.8333	256.301
50	1	0.200803	-0.841621	56.8333	255.599
51	1.02	0.204819	-0.827417	57.19	254.906
52	1.02	0.208835	-0.813379	57.19	254.22
53	1.1	0.212851	-0.7995	58.6167	253.542
54	1.1	0.216867	-0.785774	58.6167	252.872
55	1.1	0.220884	-0.772193	58.6167	252.209
56	1.1	0.2249	-0.758753	58.6167	251.552
57	1.1	0.228916	-0.745449	58.6167	250.903
58	1.1	0.232932	-0.732275	58.6167	250.259
59	1.2	0.236948	-0.719228	60.4	249.622
60	1.2	0.240964	-0.706302	60.4	248.991
61	1.25	0.24498	-0.693493	61.2917	248.366
62	1.45	0.248996	-0.680797	64.8583	247.746
63	1.46	0.253012	-0.665079	65.0367	246.978
64	1.48	0.257028	-0.652622	65.3933	246.37
65	1.48	0.261044	-0.640266	65.3933	245.766
66	1.7	0.26506	-0.628006	69.3167	245.168
67	2	0.269076	-0.615839	74.6667	244.573
68	2.13	0.273092	-0.603765	76.985	243.984
69	2.4	0.277108	-0.591776	81.8	243.398
70	2.7	0.281124	-0.579873	87.15	242.817
71	2.72	0.285141	-0.568052	87.5067	242.24
72	2.8	0.289157	-0.556308	88.9333	241.666
73	3	0.293173	-0.544642	92.5	241.097
74	3	0.297189	-0.533048	92.5	240.531
75	3.3	0.301205	-0.521527	97.85	239.968
76	3.3	0.305221	-0.510074	97.85	239.409
77	4.2	0.309237	-0.498687	113.9	238.853
78	5	0.313253	-0.487364	128.167	238.3
79	6	0.317269	-0.476105	146	237.75
80	10	0.321285	-0.464904	217.333	237.203
81	10	0.325301	-0.453763	217.333	236.659
82	10	0.329317	-0.442676	217.333	236.117
83	10	0.333333	-0.431644	217.333	235.579
84	10	0.337349	-0.420664	217.333	235.042
85	10	0.341365	-0.409735	217.333	234.509
86	10	0.345382	-0.398855	217.333	233.977
87	10	0.349398	-0.388022	217.333	233.448
88	10	0.353414	-0.377233	217.333	232.922
89	10	0.35743	-0.36649	217.333	232.397
90	10	0.361446	-0.355788	217.333	231.874
91	10	0.365462	-0.345126	217.333	231.354
92	10	0.369478	-0.334503	217.333	230.835
93	10	0.373494	-0.323919	217.333	230.318
94	10	0.37751	-0.31337	217.333	229.803
95	10	0.381526	-0.302855	217.333	229.289
96	10	0.385542	-0.292375	217.333	228.778
97	10	0.389558	-0.281926	217.333	228.267
98	10	0.393574	-0.271509	217.333	227.759
99	10	0.39759	-0.26112	217.333	227.251
100	10	0.401606	-0.250759	217.333	226.745
101	10	0.405622	-0.240426	217.333	226.241
102	10	0.409639	-0.230118	217.333	225.737
103	10	0.413655	-0.219834	217.333	225.235
104	10	0.417671	-0.209575	217.333	224.734
105	10	0.421687	-0.199336	217.333	224.234
106	10	0.425703	-0.189118	217.333	223.735
107	10	0.429719	-0.17892	217.333	223.237
108	10	0.433735	-0.168741	217.333	222.74
109	10	0.437751	-0.158579	217.333	222.244
110	10	0.441767	-0.148434	217.333	221.749

111	10	0.445783	-0.138305	217.333	221.254
112	10	0.449799	-0.128189	217.333	220.76
113	10	0.453815	-0.118085	217.333	220.267
114	10	0.457831	-0.107995	217.333	219.774
115	10	0.461847	-0.0979139	217.333	219.281
116	10	0.465863	-0.0878447	217.333	218.79
117	10	0.46988	-0.0777834	217.333	218.298
118	10	0.473896	-0.0677301	217.333	217.807
119	10	0.477912	-0.0576847	217.333	217.317
120	10	0.481928	-0.0476439	217.333	216.827
121	10	0.485944	-0.0376076	217.333	216.337
122	10	0.48996	-0.0275759	217.333	215.847
123	10	0.493976	-0.0175476	217.333	215.357
124	10	0.497992	-0.00751925	217.333	214.867
125	10	0.502008	0.00751925	217.333	214.133
126	10	0.506024	0.0175476	217.333	213.643
127	10	0.51004	0.0275759	217.333	213.153
128	10	0.514056	0.0376076	217.333	212.663
129	10	0.518072	0.0476439	217.333	212.173
130	10	0.522088	0.0576847	217.333	211.683
131	10	0.526104	0.0677301	217.333	211.193
132	10	0.53012	0.0777834	217.333	210.702
133	10	0.534137	0.0878447	217.333	210.21
134	10	0.538153	0.0979139	217.333	209.719
135	10	0.542169	0.107995	217.333	209.226
136	10	0.546185	0.118085	217.333	208.733
137	10	0.550201	0.128189	217.333	208.24
138	10	0.554217	0.138305	217.333	207.746
139	10	0.558233	0.148434	217.333	207.251
140	10	0.562249	0.158579	217.333	206.756
141	10	0.566265	0.168741	217.333	206.26
142	10	0.570281	0.17892	217.333	205.763
143	10	0.574297	0.189118	217.333	205.265
144	10	0.578313	0.199336	217.333	204.766
145	10	0.582329	0.209575	217.333	204.266
146	10	0.586345	0.219834	217.333	203.765
147	10	0.590361	0.230118	217.333	203.263
148	10	0.594378	0.240426	217.333	202.759
149	10	0.598394	0.250759	217.333	202.255
150	10	0.60241	0.26112	217.333	201.749
151	10	0.606426	0.271509	217.333	201.241
152	10	0.610442	0.281926	217.333	200.733
153	10	0.614458	0.292375	217.333	200.222
154	10	0.618474	0.302855	217.333	199.711
155	10	0.62249	0.31337	217.333	199.197
156	10	0.626506	0.323919	217.333	198.682
157	10	0.630522	0.334503	217.333	198.165
158	10	0.634538	0.345126	217.333	197.646
159	10	0.638554	0.355788	217.333	197.126
160	10	0.64257	0.36649	217.333	196.603
161	10	0.646586	0.377233	217.333	196.078
162	10	0.650602	0.388022	217.333	195.552
163	10	0.654618	0.398855	217.333	195.023
164	10	0.658635	0.409735	217.333	194.491
165	10	0.662651	0.420664	217.333	193.958
166	10	0.666667	0.431644	217.333	193.421
167	10	0.670683	0.442676	217.333	192.883
168	10	0.674699	0.453763	217.333	192.341
169	10	0.678715	0.464904	217.333	191.797
170	10	0.682731	0.476105	217.333	191.25
171	10	0.686747	0.487364	217.333	190.7
172	10	0.690763	0.498687	217.333	190.147

173	10	0.694779	0.510074	217.333	189.591
174	10	0.698795	0.521527	217.333	189.032
175	10	0.702811	0.533048	217.333	188.469
176	10	0.706827	0.544642	217.333	187.903
177	10	0.710843	0.556308	217.333	187.334
178	10	0.714859	0.568052	217.333	186.76
179	10	0.718876	0.579873	217.333	186.183
180	10	0.722892	0.591776	217.333	185.602
181	10	0.726908	0.603765	217.333	185.016
182	10	0.730924	0.615839	217.333	184.427
183	10	0.73494	0.628006	217.333	183.832
184	10	0.738956	0.640266	217.333	183.234
185	10	0.742972	0.652622	217.333	182.63
186	10	0.746988	0.665079	217.333	182.022
187	10	0.751004	0.680797	217.333	181.254
188	10	0.75502	0.693493	217.333	180.634
189	10	0.759036	0.706302	217.333	180.009
190	10	0.763052	0.719228	217.333	179.378
191	10	0.767068	0.732275	217.333	178.741
192	10	0.771084	0.745449	217.333	178.097
193	10	0.7751	0.758753	217.333	177.448
194	10	0.779116	0.772193	217.333	176.791
195	10	0.783133	0.785774	217.333	176.128
196	10	0.787149	0.7995	217.333	175.458
197	10	0.791165	0.813379	217.333	174.78
198	10	0.795181	0.827417	217.333	174.094
199	10	0.799197	0.841621	217.333	173.401
200	10	0.803213	0.855996	217.333	172.699
201	10	0.807229	0.87055	217.333	171.988
202	10	0.811245	0.885291	217.333	171.268
203	10	0.815261	0.900227	217.333	170.539
204	10	0.819277	0.915365	217.333	169.8
205	10	0.823293	0.930718	217.333	169.05
206	10	0.827309	0.946291	217.333	168.289
207	10	0.831325	0.9621	217.333	167.517
208	10	0.835341	0.97815	217.333	166.734
209	10	0.839357	0.994457	217.333	165.937
210	10	0.843373	1.01104	217.333	165.128
211	10	0.84739	1.02789	217.333	164.305
212	10	0.851406	1.04505	217.333	163.467
213	10	0.855422	1.06252	217.333	162.614
214	10	0.859438	1.08032	217.333	161.744
215	10	0.863454	1.09847	217.333	160.858
216	10	0.86747	1.11699	217.333	159.954
217	10	0.871486	1.1359	217.333	159.03
218	10	0.875502	1.15522	217.333	158.087
219	10	0.879518	1.17499	217.333	157.121
220	10	0.883534	1.19522	217.333	156.133
221	10	0.88755	1.21596	217.333	155.121
222	10	0.891566	1.23724	217.333	154.082
223	10	0.895582	1.25908	217.333	153.015
224	10	0.899598	1.28155	217.333	151.918
225	10	0.903614	1.30469	217.333	150.788
226	10	0.907631	1.32854	217.333	149.623
227	10	0.911647	1.35317	217.333	148.42
228	10	0.915663	1.37866	217.333	147.176
229	10	0.919679	1.40507	217.333	145.886
230	10	0.923695	1.4325	217.333	144.546
231	10	0.927711	1.46106	217.333	143.152
232	10	0.931727	1.49085	217.333	141.697
233	10	0.935743	1.52203	217.333	140.174
234	10	0.939759	1.55477	217.333	138.575

235	10	0.943775	1.58927	217.333	136.891
236	10	0.947791	1.62576	217.333	135.109
237	10	0.951807	1.66456	217.333	133.214
238	10	0.955823	1.70604	217.333	131.188
239	10	0.959839	1.75069	217.333	129.008
240	10	0.963855	1.79912	217.333	126.643
241	10	0.967871	1.85218	217.333	124.052
242	10	0.971888	1.91103	217.333	121.178
243	10	0.975904	1.97737	217.333	117.938
244	10	0.97992	2.05375	217.333	114.209
245	10	0.983936	2.14441	217.333	109.781
246	10	0.987952	2.25713	217.333	104.277
247	14	0.991968	2.40892	288.667	96.8642
248	25	0.995984	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 = 248

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	-1.91103	34.3095	33.9863
8	-1.89712	-1.85218	37.7401	37.5001
9	-1.7148	-1.79912	40.9769	40.5852
10	-1.7148	-1.75069	44.0418	43.5873
11	-1.7148	-1.70604	46.9524	46.5128
12	-1.66073	-1.66456	49.7231	49.2772
13	-1.66073	-1.62576	52.3662	51.9771
14	-1.60944	-1.58927	54.892	54.535
15	-1.60944	-1.55477	57.3093	57.0373
16	-1.56065	-1.52203	59.6259	59.4126
17	-1.51413	-1.49085	61.8486	61.67
18	-1.46968	-1.46106	63.9833	63.8172
19	-1.46968	-1.4325	66.0353	65.9226
20	-1.38629	-1.40507	68.0096	67.8704
21	-1.34707	-1.37866	69.9102	69.7276
22	-1.07881	-1.35317	71.7413	71.1874
23	-0.994252	-1.32854	73.5063	72.5083
24	-0.916291	-1.30469	75.2086	73.7038
25	-0.891598	-1.28155	76.8509	74.8464
26	-0.733969	-1.25908	78.4362	75.7705
27	-0.673345	-1.23724	79.967	76.6036
28	-0.653926	-1.21596	81.4455	77.3987
29	-0.653926	-1.19522	82.8741	78.1803
30	-0.634878	-1.17499	84.2547	78.9263
31	-0.544727	-1.15522	85.5892	79.5556
32	-0.534435	-1.1359	86.8795	80.1627
33	-0.495937	-1.11699	88.1271	80.7166
34	-0.478036	-1.09847	89.3338	81.2417
35	-0.430783	-1.08032	90.5009	81.7071
36	-0.385662	-1.06252	91.6298	82.1169
37	-0.371064	-1.04505	92.7219	82.5047
38	-0.371064	-1.02789	93.7785	82.8861
39	-0.359536	-1.01104	94.8007	83.2496
40	-0.34249	-0.994457	95.7896	83.5902
41	-0.34249	-0.97815	96.7464	83.9252
42	-0.314711	-0.9621	97.6721	84.228
43	-0.223144	-0.946291	98.5675	84.4391
44	-0.210721	-0.930718	99.4338	84.6352
45	-0.116534	-0.915365	100.272	84.7419
46	-0.0725707	-0.900227	101.082	84.8072
47	-0.0110609	-0.885291	101.866	84.817
48	0	-0.87055	102.624	84.817
49	0	-0.855996	103.356	84.817
50	0	-0.841621	104.065	84.817
51	0.0198026	-0.827417	104.749	84.8006

52	0.0198026	-0.813379	105.411	84.7845
53	0.0953102	-0.7995	106.05	84.7083
54	0.0953102	-0.785774	106.668	84.6334
55	0.0953102	-0.772193	107.264	84.5598
56	0.0953102	-0.758753	107.84	84.4875
57	0.0953102	-0.745449	108.395	84.4165
58	0.0953102	-0.732275	108.931	84.3467
59	0.182322	-0.719228	109.449	84.2156
60	0.182322	-0.706302	109.948	84.0868
61	0.223144	-0.693493	110.429	83.932
62	0.371564	-0.680797	110.892	83.6791
63	0.378436	-0.665079	111.334	83.4274
64	0.392042	-0.652622	111.76	83.1715
65	0.392042	-0.640266	112.17	82.9205
66	0.530628	-0.628006	112.565	82.5873
67	0.693147	-0.615839	112.944	82.1604
68	0.756122	-0.603765	113.308	81.7039
69	0.875469	-0.591776	113.659	81.1858
70	0.993252	-0.579873	113.995	80.6099
71	1.00063	-0.568052	114.318	80.0414
72	1.02962	-0.556308	114.627	79.4687
73	1.09861	-0.544642	114.924	78.8703
74	1.09861	-0.533048	115.208	78.2847
75	1.19392	-0.521527	115.48	77.662
76	1.19392	-0.510074	115.74	77.053
77	1.43508	-0.498687	115.989	76.3374
78	1.60944	-0.487364	116.226	75.553
79	1.79176	-0.476105	116.453	74.6999
80	2.30259	-0.464904	116.669	73.6295
81	2.30259	-0.453763	116.875	72.5846
82	2.30259	-0.442676	117.071	71.5653
83	2.30259	-0.431644	117.257	70.5714
84	2.30259	-0.420664	117.434	69.6028
85	2.30259	-0.409735	117.602	68.6594
86	2.30259	-0.398855	117.761	67.741
87	2.30259	-0.388022	117.912	66.8475
88	2.30259	-0.377233	118.054	65.9789
89	2.30259	-0.36649	118.188	65.135
90	2.30259	-0.355788	118.315	64.3158
91	2.30259	-0.345126	118.434	63.5211
92	2.30259	-0.334503	118.546	62.7509
93	2.30259	-0.323919	118.651	62.005
94	2.30259	-0.31337	118.749	61.2835
95	2.30259	-0.302855	118.841	60.5861
96	2.30259	-0.292375	118.926	59.9129
97	2.30259	-0.281926	119.006	59.2637
98	2.30259	-0.271509	119.079	58.6386
99	2.30259	-0.26112	119.148	58.0373
100	2.30259	-0.250759	119.21	57.4599
101	2.30259	-0.240426	119.268	56.9063
102	2.30259	-0.230118	119.321	56.3765
103	2.30259	-0.219834	119.37	55.8703
104	2.30259	-0.209575	119.413	55.3877
105	2.30259	-0.199336	119.453	54.9287
106	2.30259	-0.189118	119.489	54.4933
107	2.30259	-0.17892	119.521	54.0813
108	2.30259	-0.168741	119.549	53.6927
109	2.30259	-0.158579	119.575	53.3276
110	2.30259	-0.148434	119.597	52.9858
111	2.30259	-0.138305	119.616	52.6674
112	2.30259	-0.128189	119.632	52.3722
113	2.30259	-0.118085	119.646	52.1003

114	2.30259	-0.107995	119.658	51.8516
115	2.30259	-0.0979139	119.667	51.6262
116	2.30259	-0.0878447	119.675	51.4239
117	2.30259	-0.0777834	119.681	51.2448
118	2.30259	-0.0677301	119.686	51.0888
119	2.30259	-0.0576847	119.689	50.956
120	2.30259	-0.0476439	119.691	50.8463
121	2.30259	-0.0376076	119.693	50.7597
122	2.30259	-0.0275759	119.694	50.6962
123	2.30259	-0.0175476	119.694	50.6558
124	2.30259	-0.00751925	119.694	50.6385
125	2.30259	0.00751925	119.694	50.6558
126	2.30259	0.0175476	119.694	50.6962
127	2.30259	0.0275759	119.695	50.7597
128	2.30259	0.0376076	119.696	50.8463
129	2.30259	0.0476439	119.699	50.956
130	2.30259	0.0576847	119.702	51.0888
131	2.30259	0.0677301	119.707	51.2448
132	2.30259	0.0777834	119.713	51.4239
133	2.30259	0.0878447	119.72	51.6262
134	2.30259	0.0979139	119.73	51.8516
135	2.30259	0.107995	119.742	52.1003
136	2.30259	0.118085	119.756	52.3722
137	2.30259	0.128189	119.772	52.6674
138	2.30259	0.138305	119.791	52.9858
139	2.30259	0.148434	119.813	53.3276
140	2.30259	0.158579	119.838	53.6927
141	2.30259	0.168741	119.867	54.0813
142	2.30259	0.17892	119.899	54.4933
143	2.30259	0.189118	119.935	54.9287
144	2.30259	0.199336	119.974	55.3877
145	2.30259	0.209575	120.018	55.8703
146	2.30259	0.219834	120.067	56.3765
147	2.30259	0.230118	120.119	56.9063
148	2.30259	0.240426	120.177	57.4599
149	2.30259	0.250759	120.24	58.0373
150	2.30259	0.26112	120.308	58.6386
151	2.30259	0.271509	120.382	59.2637
152	2.30259	0.281926	120.462	59.9129
153	2.30259	0.292375	120.547	60.5861
154	2.30259	0.302855	120.639	61.2835
155	2.30259	0.31337	120.737	62.005
156	2.30259	0.323919	120.842	62.7509
157	2.30259	0.334503	120.954	63.5211
158	2.30259	0.345126	121.073	64.3158
159	2.30259	0.355788	121.199	65.135
160	2.30259	0.36649	121.334	65.9789
161	2.30259	0.377233	121.476	66.8475
162	2.30259	0.388022	121.627	67.741
163	2.30259	0.398855	121.786	68.6594
164	2.30259	0.409735	121.954	69.6028
165	2.30259	0.420664	122.131	70.5714
166	2.30259	0.431644	122.317	71.5653
167	2.30259	0.442676	122.513	72.5846
168	2.30259	0.453763	122.719	73.6295
169	2.30259	0.464904	122.935	74.6999
170	2.30259	0.476105	123.162	75.7962
171	2.30259	0.487364	123.399	76.9184
172	2.30259	0.498687	123.648	78.0667
173	2.30259	0.510074	123.908	79.2412
174	2.30259	0.521527	124.18	80.442
175	2.30259	0.533048	124.464	81.6694

176	2.30259	0.544642		124.761	82.9235
177	2.30259	0.556308		125.07	84.2044
178	2.30259	0.568052		125.393	85.5124
179	2.30259	0.579873		125.729	86.8476
180	2.30259	0.591776		126.079	88.2103
181	2.30259	0.603765		126.444	89.6005
182	2.30259	0.615839		126.823	91.0185
183	2.30259	0.628006		127.218	92.4645
184	2.30259	0.640266		127.627	93.9388
185	2.30259	0.652622		128.053	95.4415
186	2.30259	0.665079		128.496	96.9729
187	2.30259	0.680797		128.959	98.5405
188	2.30259	0.693493		129.44	100.137
189	2.30259	0.706302		129.939	101.764
190	2.30259	0.719228		130.456	103.42
191	2.30259	0.732275		130.993	105.106
192	2.30259	0.745449		131.548	106.822
193	2.30259	0.758753		132.124	108.569
194	2.30259	0.772193		132.72	110.347
195	2.30259	0.785774		133.338	112.157
196	2.30259	0.7995	133.977	113.998	
197	2.30259	0.813379		134.638	115.871
198	2.30259	0.827417		135.323	117.776
199	2.30259	0.841621		136.031	119.714
200	2.30259	0.855996		136.764	121.685
201	2.30259	0.87055	137.522	123.689	
202	2.30259	0.885291		138.306	125.728
203	2.30259	0.900227		139.116	127.8
204	2.30259	0.915365		139.954	129.908
205	2.30259	0.930718		140.82	132.051
206	2.30259	0.946291		141.716	134.23
207	2.30259	0.9621	142.641	136.445	
208	2.30259	0.97815	143.598	138.698	
209	2.30259	0.994457		144.587	140.988
210	2.30259	1.01104	145.609	143.316	
211	2.30259	1.02789	146.666	145.682	
212	2.30259	1.04505	147.758	148.089	
213	2.30259	1.06252	148.887	150.535	
214	2.30259	1.08032	150.054	153.023	
215	2.30259	1.09847	151.261	155.552	
216	2.30259	1.11699	152.508	158.124	
217	2.30259	1.1359	153.799	160.74	
218	2.30259	1.15522	155.133	163.4	
219	2.30259	1.17499	156.514	166.105	
220	2.30259	1.19522	157.942	168.857	
221	2.30259	1.21596	159.421	171.657	
222	2.30259	1.23724	160.952	174.506	
223	2.30259	1.25908	162.537	177.405	
224	2.30259	1.28155	164.179	180.356	
225	2.30259	1.30469	165.881	183.36	
226	2.30259	1.32854	167.646	186.419	
227	2.30259	1.35317	169.477	189.535	
228	2.30259	1.37866	171.378	192.709	
229	2.30259	1.40507	173.352	195.945	
230	2.30259	1.4325	175.404	199.243	
231	2.30259	1.46106	177.539	202.607	
232	2.30259	1.49085	179.762	206.04	
233	2.30259	1.52203	182.078	209.545	
234	2.30259	1.55477	184.496	213.125	
235	2.30259	1.58927	187.022	216.784	
236	2.30259	1.62576	189.665	220.528	
237	2.30259	1.66456	192.435	224.36	

238	2.30259	1.70604	195.346	228.289
239	2.30259	1.75069	198.411	232.32
240	2.30259	1.79912	201.648	236.462
241	2.30259	1.85218	205.078	240.727
242	2.30259	1.91103	208.73	245.128
243	2.30259	1.97737	212.64	249.681
244	2.30259	2.05375	216.858	254.41
245	2.30259	2.14441	221.457	259.347
246	2.30259	2.25713	226.551	264.544
247	2.63906	2.40892	232.354	270.902
248	3.21888	2.65209	239.388	279.439

Data Set Standard Deviation = 1.39852
Numerator = 78085.9
Denominator = 115647
W Statistic = 0.67521 = 78085.9 / 115647

5% Critical value of 0.976 exceeds 0.67521
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.67521
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 = 0.820764
0.820764 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.48891	0.00401606	-2.65209	78.0615	344.01
2	-2.30259	0.00803213	-2.40892	92.3024	332.136
3	-2.20727	0.0120482	-2.25713	99.5868	324.723
4	-2.20727	0.0160643	-2.14441	99.5868	319.219
5	-2.04022	0.0200803	-2.05375	112.355	314.791
6	-2.04022	0.0240964	-1.97737	112.355	311.062
7	-2.04022	0.0281124	-1.91103	112.355	307.822
8	-1.89712	0.0321285	-1.85218	123.292	304.948
9	-1.7148	0.0361446	-1.79912	137.226	302.357
10	-1.7148	0.0401606	-1.75069	137.226	299.992
11	-1.7148	0.0441767	-1.70604	137.226	297.812
12	-1.66073	0.0481928	-1.66456	141.358	295.786
13	-1.66073	0.0522088	-1.62576	141.358	293.891
14	-1.60944	0.0562249	-1.58927	145.279	292.109
15	-1.60944	0.060241	-1.55477	145.279	290.425
16	-1.56065	0.064257	-1.52203	149.008	288.826
17	-1.51413	0.0682731	-1.49085	152.563	287.303
18	-1.46968	0.0722892	-1.46106	155.96	285.848
19	-1.46968	0.0763052	-1.4325	155.96	284.454
20	-1.38629	0.0803213	-1.40507	162.333	283.114
21	-1.34707	0.0843373	-1.37866	165.331	281.824
22	-1.07881	0.0883534	-1.35317	185.834	280.58
23	-0.994252	0.0923695	-1.32854	192.296	279.377
24	-0.916291	0.0963855	-1.30469	198.255	278.212
25	-0.891598	0.100402	-1.28155	200.142	277.082
26	-0.733969	0.104418	-1.25908	212.189	275.985
27	-0.673345	0.108434	-1.23724	216.823	274.918
28	-0.653926	0.11245	-1.21596	218.307	273.879
29	-0.653926	0.116466	-1.19522	218.307	272.867
30	-0.634878	0.120482	-1.17499	219.763	271.879
31	-0.544727	0.124498	-1.15522	226.653	270.913
32	-0.534435	0.128514	-1.1359	227.44	269.97
33	-0.495937	0.13253	-1.11699	230.382	269.046
34	-0.478036	0.136546	-1.09847	231.75	268.142
35	-0.430783	0.140562	-1.08032	235.362	267.256
36	-0.385662	0.144578	-1.06252	238.81	266.386
37	-0.371064	0.148594	-1.04505	239.926	265.533
38	-0.371064	0.15261	-1.02789	239.926	264.695
39	-0.359536	0.156627	-1.01104	240.807	263.872
40	-0.34249	0.160643	-0.994457	242.11	263.063
41	-0.34249	0.164659	-0.97815	242.11	262.266
42	-0.314711	0.168675	-0.9621	244.233	261.483
43	-0.223144	0.172691	-0.946291	251.231	260.711
44	-0.210721	0.176707	-0.930718	252.181	259.95
45	-0.116534	0.180723	-0.915365	259.379	259.2
46	-0.0725707	0.184739	-0.900227	262.739	258.461
47	-0.0110609	0.188755	-0.885291	267.44	257.732
48	0	0.192771	-0.87055	268.286	257.012

49	0	0.196787	-0.855996	268.286	256.301
50	0	0.200803	-0.841621	268.286	255.599
51	0.0198026	0.204819	-0.827417	269.799	254.906
52	0.0198026	0.208835	-0.813379	269.799	254.22
53	0.0953102	0.212851	-0.7995	275.57	253.542
54	0.0953102	0.216867	-0.785774	275.57	252.872
55	0.0953102	0.220884	-0.772193	275.57	252.209
56	0.0953102	0.2249	-0.758753	275.57	251.552
57	0.0953102	0.228916	-0.745449	275.57	250.903
58	0.0953102	0.232932	-0.732275	275.57	250.259
59	0.182322	0.236948	-0.719228	282.22	249.622
60	0.182322	0.240964	-0.706302	282.22	248.991
61	0.223144	0.24498	-0.693493	285.34	248.366
62	0.371564	0.248996	-0.680797	296.684	247.746
63	0.378436	0.253012	-0.665079	297.209	246.978
64	0.392042	0.257028	-0.652622	298.249	246.37
65	0.392042	0.261044	-0.640266	298.249	245.766
66	0.530628	0.26506	-0.628006	308.841	245.168
67	0.693147	0.269076	-0.615839	321.262	244.573
68	0.756122	0.273092	-0.603765	326.075	243.984
69	0.875469	0.277108	-0.591776	335.197	243.398
70	0.993252	0.281124	-0.579873	344.199	242.817
71	1.00063	0.285141	-0.568052	344.763	242.24
72	1.02962	0.289157	-0.556308	346.978	241.666
73	1.09861	0.293173	-0.544642	352.251	241.097
74	1.09861	0.297189	-0.533048	352.251	240.531
75	1.19392	0.301205	-0.521527	359.536	239.968
76	1.19392	0.305221	-0.510074	359.536	239.409
77	1.43508	0.309237	-0.498687	377.967	238.853
78	1.60944	0.313253	-0.487364	391.293	238.3
79	1.79176	0.317269	-0.476105	405.227	237.75
80	2.30259	0.321285	-0.464904	444.269	237.203
81	2.30259	0.325301	-0.453763	444.269	236.659
82	2.30259	0.329317	-0.442676	444.269	236.117
83	2.30259	0.333333	-0.431644	444.269	235.579
84	2.30259	0.337349	-0.420664	444.269	235.042
85	2.30259	0.341365	-0.409735	444.269	234.509
86	2.30259	0.345382	-0.398855	444.269	233.977
87	2.30259	0.349398	-0.388022	444.269	233.448
88	2.30259	0.353414	-0.377233	444.269	232.922
89	2.30259	0.35743	-0.36649	444.269	232.397
90	2.30259	0.361446	-0.355788	444.269	231.874
91	2.30259	0.365462	-0.345126	444.269	231.354
92	2.30259	0.369478	-0.334503	444.269	230.835
93	2.30259	0.373494	-0.323919	444.269	230.318
94	2.30259	0.37751	-0.31337	444.269	229.803
95	2.30259	0.381526	-0.302855	444.269	229.289
96	2.30259	0.385542	-0.292375	444.269	228.778
97	2.30259	0.389558	-0.281926	444.269	228.267
98	2.30259	0.393574	-0.271509	444.269	227.759
99	2.30259	0.39759	-0.26112	444.269	227.251
100	2.30259	0.401606	-0.250759	444.269	226.745
101	2.30259	0.405622	-0.240426	444.269	226.241
102	2.30259	0.409639	-0.230118	444.269	225.737
103	2.30259	0.413655	-0.219834	444.269	225.235
104	2.30259	0.417671	-0.209575	444.269	224.734
105	2.30259	0.421687	-0.199336	444.269	224.234
106	2.30259	0.425703	-0.189118	444.269	223.735
107	2.30259	0.429719	-0.17892	444.269	223.237
108	2.30259	0.433735	-0.168741	444.269	222.74
109	2.30259	0.437751	-0.158579	444.269	222.244
110	2.30259	0.441767	-0.148434	444.269	221.749

111	2.30259	0.445783	-0.138305	444.269	221.254
112	2.30259	0.449799	-0.128189	444.269	220.76
113	2.30259	0.453815	-0.118085	444.269	220.267
114	2.30259	0.457831	-0.107995	444.269	219.774
115	2.30259	0.461847	-0.0979139	444.269	219.281
116	2.30259	0.465863	-0.0878447	444.269	218.79
117	2.30259	0.46988	-0.0777834	444.269	218.298
118	2.30259	0.473896	-0.0677301	444.269	217.807
119	2.30259	0.477912	-0.0576847	444.269	217.317
120	2.30259	0.481928	-0.0476439	444.269	216.827
121	2.30259	0.485944	-0.0376076	444.269	216.337
122	2.30259	0.48996	-0.0275759	444.269	215.847
123	2.30259	0.493976	-0.0175476	444.269	215.357
124	2.30259	0.497992	-0.00751925	444.269	214.867
125	2.30259	0.502008	0.00751925	444.269	214.133
126	2.30259	0.506024	0.0175476	444.269	213.643
127	2.30259	0.51004	0.0275759	444.269	213.153
128	2.30259	0.514056	0.0376076	444.269	212.663
129	2.30259	0.518072	0.0476439	444.269	212.173
130	2.30259	0.522088	0.0576847	444.269	211.683
131	2.30259	0.526104	0.0677301	444.269	211.193
132	2.30259	0.53012	0.0777834	444.269	210.702
133	2.30259	0.534137	0.0878447	444.269	210.21
134	2.30259	0.538153	0.0979139	444.269	209.719
135	2.30259	0.542169	0.107995	444.269	209.226
136	2.30259	0.546185	0.118085	444.269	208.733
137	2.30259	0.550201	0.128189	444.269	208.24
138	2.30259	0.554217	0.138305	444.269	207.746
139	2.30259	0.558233	0.148434	444.269	207.251
140	2.30259	0.562249	0.158579	444.269	206.756
141	2.30259	0.566265	0.168741	444.269	206.26
142	2.30259	0.570281	0.17892	444.269	205.763
143	2.30259	0.574297	0.189118	444.269	205.265
144	2.30259	0.578313	0.199336	444.269	204.766
145	2.30259	0.582329	0.209575	444.269	204.266
146	2.30259	0.586345	0.219834	444.269	203.765
147	2.30259	0.590361	0.230118	444.269	203.263
148	2.30259	0.594378	0.240426	444.269	202.759
149	2.30259	0.598394	0.250759	444.269	202.255
150	2.30259	0.60241	0.26112	444.269	201.749
151	2.30259	0.606426	0.271509	444.269	201.241
152	2.30259	0.610442	0.281926	444.269	200.733
153	2.30259	0.614458	0.292375	444.269	200.222
154	2.30259	0.618474	0.302855	444.269	199.711
155	2.30259	0.62249	0.31337	444.269	199.197
156	2.30259	0.626506	0.323919	444.269	198.682
157	2.30259	0.630522	0.334503	444.269	198.165
158	2.30259	0.634538	0.345126	444.269	197.646
159	2.30259	0.638554	0.355788	444.269	197.126
160	2.30259	0.64257	0.36649	444.269	196.603
161	2.30259	0.646586	0.377233	444.269	196.078
162	2.30259	0.650602	0.388022	444.269	195.552
163	2.30259	0.654618	0.398855	444.269	195.023
164	2.30259	0.658635	0.409735	444.269	194.491
165	2.30259	0.662651	0.420664	444.269	193.958
166	2.30259	0.666667	0.431644	444.269	193.421
167	2.30259	0.670683	0.442676	444.269	192.883
168	2.30259	0.674699	0.453763	444.269	192.341
169	2.30259	0.678715	0.464904	444.269	191.797
170	2.30259	0.682731	0.476105	444.269	191.25
171	2.30259	0.686747	0.487364	444.269	190.7
172	2.30259	0.690763	0.498687	444.269	190.147

173	2.30259	0.694779	0.510074	444.269	189.591
174	2.30259	0.698795	0.521527	444.269	189.032
175	2.30259	0.702811	0.533048	444.269	188.469
176	2.30259	0.706827	0.544642	444.269	187.903
177	2.30259	0.710843	0.556308	444.269	187.334
178	2.30259	0.714859	0.568052	444.269	186.76
179	2.30259	0.718876	0.579873	444.269	186.183
180	2.30259	0.722892	0.591776	444.269	185.602
181	2.30259	0.726908	0.603765	444.269	185.016
182	2.30259	0.730924	0.615839	444.269	184.427
183	2.30259	0.73494	0.628006	444.269	183.832
184	2.30259	0.738956	0.640266	444.269	183.234
185	2.30259	0.742972	0.652622	444.269	182.63
186	2.30259	0.746988	0.665079	444.269	182.022
187	2.30259	0.751004	0.680797	444.269	181.254
188	2.30259	0.75502	0.693493	444.269	180.634
189	2.30259	0.759036	0.706302	444.269	180.009
190	2.30259	0.763052	0.719228	444.269	179.378
191	2.30259	0.767068	0.732275	444.269	178.741
192	2.30259	0.771084	0.745449	444.269	178.097
193	2.30259	0.7751	0.758753	444.269	177.448
194	2.30259	0.779116	0.772193	444.269	176.791
195	2.30259	0.783133	0.785774	444.269	176.128
196	2.30259	0.787149	0.7995	444.269	175.458
197	2.30259	0.791165	0.813379	444.269	174.78
198	2.30259	0.795181	0.827417	444.269	174.094
199	2.30259	0.799197	0.841621	444.269	173.401
200	2.30259	0.803213	0.855996	444.269	172.699
201	2.30259	0.807229	0.87055	444.269	171.988
202	2.30259	0.811245	0.885291	444.269	171.268
203	2.30259	0.815261	0.900227	444.269	170.539
204	2.30259	0.819277	0.915365	444.269	169.8
205	2.30259	0.823293	0.930718	444.269	169.05
206	2.30259	0.827309	0.946291	444.269	168.289
207	2.30259	0.831325	0.9621	444.269	167.517
208	2.30259	0.835341	0.97815	444.269	166.734
209	2.30259	0.839357	0.994457	444.269	165.937
210	2.30259	0.843373	1.01104	444.269	165.128
211	2.30259	0.84739	1.02789	444.269	164.305
212	2.30259	0.851406	1.04505	444.269	163.467
213	2.30259	0.855422	1.06252	444.269	162.614
214	2.30259	0.859438	1.08032	444.269	161.744
215	2.30259	0.863454	1.09847	444.269	160.858
216	2.30259	0.86747	1.11699	444.269	159.954
217	2.30259	0.871486	1.1359	444.269	159.03
218	2.30259	0.875502	1.15522	444.269	158.087
219	2.30259	0.879518	1.17499	444.269	157.121
220	2.30259	0.883534	1.19522	444.269	156.133
221	2.30259	0.88755	1.21596	444.269	155.121
222	2.30259	0.891566	1.23724	444.269	154.082
223	2.30259	0.895582	1.25908	444.269	153.015
224	2.30259	0.899598	1.28155	444.269	151.918
225	2.30259	0.903614	1.30469	444.269	150.788
226	2.30259	0.907631	1.32854	444.269	149.623
227	2.30259	0.911647	1.35317	444.269	148.42
228	2.30259	0.915663	1.37866	444.269	147.176
229	2.30259	0.919679	1.40507	444.269	145.886
230	2.30259	0.923695	1.4325	444.269	144.546
231	2.30259	0.927711	1.46106	444.269	143.152
232	2.30259	0.931727	1.49085	444.269	141.697
233	2.30259	0.935743	1.52203	444.269	140.174
234	2.30259	0.939759	1.55477	444.269	138.575

235	2.30259	0.943775	1.58927	444.269	136.891
236	2.30259	0.947791	1.62576	444.269	135.109
237	2.30259	0.951807	1.66456	444.269	133.214
238	2.30259	0.955823	1.70604	444.269	131.188
239	2.30259	0.959839	1.75069	444.269	129.008
240	2.30259	0.963855	1.79912	444.269	126.643
241	2.30259	0.967871	1.85218	444.269	124.052
242	2.30259	0.971888	1.91103	444.269	121.178
243	2.30259	0.975904	1.97737	444.269	117.938
244	2.30259	0.97992	2.05375	444.269	114.209
245	2.30259	0.983936	2.14441	444.269	109.781
246	2.30259	0.987952	2.25713	444.269	104.277
247	2.63906	0.991968	2.40892	469.985	96.8642
248	3.21888	0.995984	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-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	245
	9/23/1999	3.21888	248
	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	229
	5/23/2007	ND<2.30259	84

	11/28/2007	1.09861	J	240
	6/5/2008	1.00063	J	238
	11/20/2008	1.79176	J	246
	6/11/2009	0.693147		234
	11/16/2009	1.02962		239
	6/30/2010	0.993252	H	237
	11/12/2010	1.19392		242
	7/5/2011	1.19392	J	243
	11/22/2011	1.43508		244
	6/5/2012	2.63906		247

Rank Sum = 4644
Rank Mean = 149.806

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	ND<2.30259		84
	6/5/2008	ND<2.30259		84
	11/20/2008	ND<2.30259		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		183
	7/5/2011	-1.66073	J	179
	11/22/2011	-1.46968		185
	6/5/2012	-1.34707		188

Rank Sum = 3270
Rank Mean = 105.484

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	199
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	-0.0110609 J	214
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.733969	193
	11/16/2009	-0.891598	192
	6/30/2010	-0.994252 H	190
	11/12/2010	-1.07881	189
	7/5/2011	-0.478036	201
	11/22/2011	-0.34249	207
	6/5/2012	-0.210721	211

Rank Sum = 3644
Rank Mean = 117.548

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	228
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	0.0198026 J	218
	11/20/2008	1.09861 J	241
	6/11/2009	0	215
	11/16/2009	-0.0725707	213
	6/30/2010	-0.314711 H	209
	11/12/2010	-0.653926	195
	7/5/2011	-0.653926	196
	11/22/2011	0.0953102	220
	11/22/2011	0.0953102	221
	6/5/2012	0.530628	233

Rank Sum = 4153
Rank Mean = 129.781

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	235
	5/23/2007	0.0198026 J	219
	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	187
	11/16/2009	-1.89712 J	175
	6/30/2010	-0.544727 H	198
	11/12/2010	-1.7148 J	177
	7/5/2011	-1.66073 J	180
	11/22/2011	-1.60944	181
	11/22/2011	-1.60944	182
	6/5/2012	-1.7148 J	178

Rank Sum = 3760
Rank Mean = 117.5

MW-8	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 J	216
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	-0.495937 J	200
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.916291	191
	6/30/2010	-0.673345 H	194
	11/12/2010	0.875469	236
	7/5/2011	-0.634878	197
	11/22/2011	-1.46968	186
	6/5/2012	-1.51413	184

Rank Sum = 3452
Rank Mean = 115.067

MW-12AR	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	206
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	0.392042 J	231
	11/20/2008	ND<2.30259	84
	6/11/2009	-0.371064	204
	11/16/2009	-0.223144	210
	6/30/2010	-0.430783	202
	11/12/2010	-0.116534	212
	7/5/2011	-0.385662	203
	11/22/2011	-0.371064	205
	6/5/2012	-0.34249	208

Rank Sum = 2889
Rank Mean = 137.571

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	230
	5/23/2007	ND<2.30259	84
	11/28/2007	ND<2.30259	84
	6/5/2008	0.392042 J	232
	11/20/2008	ND<2.30259	84
	6/11/2009	0.0953102	222
	11/16/2009	0	217
	6/30/2010	0.0953102	223
	11/12/2010	0.0953102	224
	7/5/2011	0.182322	226
	11/22/2011	0.0953102	225
	6/5/2012	0.182322	227

Rank Sum = 3034
Rank Mean = 144.476

Calculation Results:

Kruskal-Wallis H Statistic = 10.8013
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 15.5491
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
10.8013 < 15.5073 indicating no significant group difference at 5% significance level
15.5491 > 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 106.842

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**149.806**	**42.9643**	**48.6223**
MW-6	**105.484**	**-1.35823**	**48.6223**

MW-7	**117.548**	**10.7063**	**48.6223**
MW-9	**129.781**	**22.9391**	**48.3328**
MW-11R	**117.5**	**10.6579**	**48.3328**
MW-8	**115.067**	**8.22456**	**48.9293**
MW-12AR		**137.571**	**30.7293**	**52.8387**
MW-12BR		**144.476**	**37.6341**	**52.8387**

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 106.842

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**149.806**	**42.9643**	**52.5055**
MW-6	**105.484**	**-1.35823**	**52.5055**
MW-7	**117.548**	**10.7063**	**52.5055**
MW-9	**129.781**	**22.9391**	**52.1928**
MW-11R	**117.5**	**10.6579**	**52.1928**
MW-8	**115.067**	**8.22456**	**52.837**
MW-12AR		**137.571**	**30.7293**	**57.0586**
MW-12BR		**144.476**	**37.6341**	**57.0586**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cobalt

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 67.3387%
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-10	6/5/2012	1	2.63906	TRUE
MW-6	6/5/2012	1	-1.34707	FALSE
MW-7	6/5/2012	1	-0.210721	FALSE
MW-9	6/5/2012	1	0.530628	FALSE
MW-11R	6/5/2012	1	-1.7148	FALSE
MW-8	6/5/2012	1	-1.51413	FALSE
MW-12AR	6/5/2012	1	-0.34249	FALSE
MW-12BR	6/5/2012	1	0.182322	FALSE

Shewhart-CUSUM Control Chart

Parameter: Cobalt

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Intra-Well Comparison
Compliance-to-Background Comparison

Baseline mean = 2.30259
Baseline Std Dev = 4.86475e-016
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/24/1997	2.30259	0	0	
3/24/1997	2.30259	0	0	
9/24/1997	2.30259	0	0	
9/24/1997	2.30259	0	0	
4/7/1998	2.30259	0	0	
4/7/1998	2.30259	0	0	
9/23/1998	2.30259	0	0	
9/23/1998	2.30259	0	0	
3/16/1999	1.60944	0	0	
3/16/1999	1.60944	0	0	
9/23/1999	3.21888	0	0	
9/23/1999	3.21888	0	0	
3/15/2000	2.30259	0	0	
3/15/2000	2.30259	0	0	
9/24/2003	2.30259	0	0	
9/24/2003	2.30259	0	0	
3/11/2004	2.30259	0	0	
3/11/2004	2.30259	0	0	
10/12/2004	2.30259	0	0	
10/12/2004	2.30259	0	0	
4/1/2005	2.30259	0	0	
4/1/2005	2.30259	0	0	
10/25/2005	2.30259	0	0	
10/25/2005	2.30259	0	0	
4/29/2006	2.30259	0	0	
4/29/2006	2.30259	0	0	
11/18/2006	0.371564	0	0	
11/18/2006	0.371564	0	0	
5/23/2007	2.30259	0	0	
5/23/2007	2.30259	0	0	
11/28/2007	1.09861	0	0	
11/28/2007	1.09861	0	0	
6/5/2008	1.00063	0	0	
6/5/2008	1.00063	0	0	
11/20/2008	1.79176	0	0	
11/20/2008	1.79176	0	0	
6/11/2009	0.693147	0	0	
6/11/2009	0.693147	0	0	
11/16/2009	1.02962	0	0	
11/16/2009	1.02962	0	0	
6/30/2010	0.993252	0	0	
6/30/2010	0.993252	0	0	
11/12/2010	1.19392	0	0	
11/12/2010	1.19392	0	0	
7/5/2011	1.19392	0	0	

7/5/2011	1.19392	0	0	
11/22/2011	1.43508	0	0	
11/22/2011	1.43508	0	0	
6/5/2012	2.63906	0	0	
6/5/2012	2.63906	0	0	

Sen's Slope Analysis
Parameter: Cobalt
Location: MW-10
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)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(2 - 1) 0
ND<2.30259	(9/28/1995)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(3 - 1) 0
ND<2.30259	(10/26/1995)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(4 - 1) 0
ND<2.30259	(11/19/1996)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(5 - 1) 0
ND<2.30259	(12/19/1996)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(6 - 1) 0
ND<2.30259	(3/24/1997)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(7 - 1) 0
ND<2.30259	(9/24/1997)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(8 - 1) 0
ND<2.30259	(4/7/1998)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(9 - 1) 0
ND<2.30259	(9/23/1998)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(10 - 1) 0
1.60944	(3/16/1999)	ND<2.30259 (7/20/1995)	(1.60944 - 2.30259)/(11 - 1) -0.0693147
3.21888	(9/23/1999)	ND<2.30259 (7/20/1995)	(3.21888 - 2.30259)/(12 - 1) 0.0832992
ND<2.30259	(3/15/2000)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(13 - 1) 0
ND<2.30259	(9/24/2003)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(14 - 1) 0
ND<2.30259	(3/11/2004)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(15 - 1) 0
ND<2.30259	(10/12/2004)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(16 - 1) 0
ND<2.30259	(4/1/2005)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(17 - 1) 0
ND<2.30259	(10/25/2005)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(18 - 1) 0
ND<2.30259	(4/29/2006)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(19 - 1) 0
0.371564 J	(11/18/2006)	ND<2.30259 (7/20/1995)	(0.371564 - 2.30259)/(20 - 1) -0.101633
ND<2.30259	(5/23/2007)	ND<2.30259 (7/20/1995)	(2.30259 - 2.30259)/(21 - 1) 0
1.09861 J	(11/28/2007)	ND<2.30259 (7/20/1995)	(1.09861 - 2.30259)/(22 - 1) -0.057332
1.00063 J	(6/5/2008)	ND<2.30259 (7/20/1995)	(1.00063 - 2.30259)/(23 - 1) -0.0591797
1.79176 J	(11/20/2008)	ND<2.30259 (7/20/1995)	(1.79176 - 2.30259)/(24 - 1) -0.0222098
0.693147	(6/11/2009)	ND<2.30259 (7/20/1995)	(0.693147 - 2.30259)/(25 - 1) -0.0670599
1.02962	(11/16/2009)	ND<2.30259 (7/20/1995)	(1.02962 - 2.30259)/(26 - 1) -0.0509186
0.993252 H	(6/30/2010)	ND<2.30259 (7/20/1995)	(0.993252 - 2.30259)/(27 - 1) -0.050359
1.19392	(11/12/2010)	ND<2.30259 (7/20/1995)	(1.19392 - 2.30259)/(28 - 1) -0.0410616
1.19392 J	(7/5/2011)	ND<2.30259 (7/20/1995)	(1.19392 - 2.30259)/(29 - 1) -0.0395951

1.43508 (11/22/2011) ND<2.30259 (7/20/1995) (1.43508 - 2.30259)/(30 - 1)
-0.0299138
2.63906 (6/5/2012) ND<2.30259 (7/20/1995) (2.63906 - 2.30259)/(31 - 1)
0.0112157

ND<2.30259 (9/28/1995) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(3 - 2) 0
ND<2.30259 (10/26/1995) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(4 - 2)
0
ND<2.30259 (11/19/1996) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(5 - 2)
0
ND<2.30259 (12/19/1996) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(6 - 2)
0
ND<2.30259 (3/24/1997) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(7 - 2) 0
ND<2.30259 (9/24/1997) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(8 - 2) 0
ND<2.30259 (4/7/1998) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(9 - 2) 0
ND<2.30259 (9/23/1998) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(10 - 2)
0
1.60944 (3/16/1999) ND<2.30259 (8/24/1995) (1.60944 - 2.30259)/(11 - 2)
-0.0770164
3.21888 (9/23/1999) ND<2.30259 (8/24/1995) (3.21888 - 2.30259)/(12 - 2)
0.0916291
ND<2.30259 (3/15/2000) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(13 - 2)
0
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
0.371564 J (11/18/2006) ND<2.30259 (8/24/1995) (0.371564 - 2.30259)/(20 - 2)
-0.107279
ND<2.30259 (5/23/2007) ND<2.30259 (8/24/1995) (2.30259 - 2.30259)/(21 - 2)
0
1.09861 J (11/28/2007) ND<2.30259 (8/24/1995) (1.09861 - 2.30259)/(22 - 2)
-0.0601986
1.00063 J (6/5/2008) ND<2.30259 (8/24/1995) (1.00063 - 2.30259)/(23 - 2)
-0.0619978
1.79176 J (11/20/2008) ND<2.30259 (8/24/1995) (1.79176 - 2.30259)/(24 - 2)
-0.0232193
0.693147 (6/11/2009) ND<2.30259 (8/24/1995) (0.693147 - 2.30259)/(25 - 2)
-0.0699756
1.02962 (11/16/2009) ND<2.30259 (8/24/1995) (1.02962 - 2.30259)/(26 - 2)
-0.0530402
0.993252 H (6/30/2010) ND<2.30259 (8/24/1995) (0.993252 - 2.30259)/(27 - 2)
-0.0523733
1.19392 (11/12/2010) ND<2.30259 (8/24/1995) (1.19392 - 2.30259)/(28 - 2)
-0.0426409
1.19392 J (7/5/2011) ND<2.30259 (8/24/1995) (1.19392 - 2.30259)/(29 - 2)
-0.0410616
1.43508 (11/22/2011) ND<2.30259 (8/24/1995) (1.43508 - 2.30259)/(30 - 2)
-0.0309822
2.63906 (6/5/2012) ND<2.30259 (8/24/1995) (2.63906 - 2.30259)/(31 - 2)
0.0116025

ND<2.30259 (10/26/1995) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(4 - 3)
0

ND<2.30259 (11/19/1996) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(5 - 3)
0
ND<2.30259 (12/19/1996) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(6 - 3)
0
ND<2.30259 (3/24/1997) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(7 - 3) 0
ND<2.30259 (9/24/1997) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(8 - 3) 0
ND<2.30259 (4/7/1998) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(9 - 3) 0
ND<2.30259 (9/23/1998) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(10 - 3)
0
1.60944 (3/16/1999) ND<2.30259 (9/28/1995) (1.60944 - 2.30259)/(11 - 3)
-0.0866434
3.21888 (9/23/1999) ND<2.30259 (9/28/1995) (3.21888 - 2.30259)/(12 - 3)
0.10181
ND<2.30259 (3/15/2000) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(13 - 3)
0
ND<2.30259 (9/24/2003) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(14 - 3)
0
ND<2.30259 (3/11/2004) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(15 - 3)
0
ND<2.30259 (10/12/2004) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(16 - 3)
0
ND<2.30259 (4/1/2005) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(17 - 3)
0
ND<2.30259 (10/25/2005) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(18 - 3)
0
ND<2.30259 (4/29/2006) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(19 - 3)
0
0.371564 J (11/18/2006) ND<2.30259 (9/28/1995) (0.371564 - 2.30259)/(20 - 3)
-0.11359
ND<2.30259 (5/23/2007) ND<2.30259 (9/28/1995) (2.30259 - 2.30259)/(21 - 3)
0
1.09861 J (11/28/2007) ND<2.30259 (9/28/1995) (1.09861 - 2.30259)/(22 - 3)
-0.063367
1.00063 J (6/5/2008) ND<2.30259 (9/28/1995) (1.00063 - 2.30259)/(23 - 3)
-0.0650977
1.79176 J (11/20/2008) ND<2.30259 (9/28/1995) (1.79176 - 2.30259)/(24 - 3)
-0.024325
0.693147 (6/11/2009) ND<2.30259 (9/28/1995) (0.693147 - 2.30259)/(25 - 3)
-0.0731563
1.02962 (11/16/2009) ND<2.30259 (9/28/1995) (1.02962 - 2.30259)/(26 - 3)
-0.0553463
0.993252 H (6/30/2010) ND<2.30259 (9/28/1995) (0.993252 - 2.30259)/(27 - 3)
-0.0545556
1.19392 (11/12/2010) ND<2.30259 (9/28/1995) (1.19392 - 2.30259)/(28 - 3)
-0.0443465
1.19392 J (7/5/2011) ND<2.30259 (9/28/1995) (1.19392 - 2.30259)/(29 - 3)
-0.0426409
1.43508 (11/22/2011) ND<2.30259 (9/28/1995) (1.43508 - 2.30259)/(30 - 3)
-0.0321297
2.63906 (6/5/2012) ND<2.30259 (9/28/1995) (2.63906 - 2.30259)/(31 - 3)
0.0120169

ND<2.30259 (11/19/1996) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(5 - 4)
0
ND<2.30259 (12/19/1996) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(6 - 4)
0
ND<2.30259 (3/24/1997) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(7 - 4)
0
ND<2.30259 (9/24/1997) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(8 - 4)
0
ND<2.30259 (4/7/1998) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(9 - 4)
0

ND<2.30259 (9/23/1998) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(10 - 4)
0
1.60944 (3/16/1999) ND<2.30259 (10/26/1995) (1.60944 - 2.30259)/(11 - 4)
-0.099021
3.21888 (9/23/1999) ND<2.30259 (10/26/1995) (3.21888 - 2.30259)/(12 - 4)
0.114536
ND<2.30259 (3/15/2000) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(13 - 4)
0
ND<2.30259 (9/24/2003) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(14 - 4)
0
ND<2.30259 (3/11/2004) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(15 - 4)
0
ND<2.30259 (10/12/2004) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(16 -
4) 0
ND<2.30259 (4/1/2005) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(17 - 4)
0
ND<2.30259 (10/25/2005) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(18 -
4) 0
ND<2.30259 (4/29/2006) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(19 - 4)
0
0.371564 J (11/18/2006) ND<2.30259 (10/26/1995) (0.371564 - 2.30259)/(20 - 4)
-0.120689
ND<2.30259 (5/23/2007) ND<2.30259 (10/26/1995) (2.30259 - 2.30259)/(21 - 4)
0
1.09861 J (11/28/2007) ND<2.30259 (10/26/1995) (1.09861 - 2.30259)/(22 - 4)
-0.0668874
1.00063 J (6/5/2008) ND<2.30259 (10/26/1995) (1.00063 - 2.30259)/(23 - 4)
-0.0685239
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ND<2.30259 (4/1/2005) 3.21888 (9/23/1999) (2.30259 - 3.21888)/(17 - 12)
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1.19392 (11/12/2010) 3.21888 (9/23/1999) (1.19392 - 3.21888)/(28 - 12)
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1.19392 J (7/5/2011) 3.21888 (9/23/1999) (1.19392 - 3.21888)/(29 - 12)
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2.63906 (6/5/2012) 3.21888 (9/23/1999) (2.63906 - 3.21888)/(31 - 12)
-0.0305168

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ND<2.30259 (4/29/2006) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(19 - 14)
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ND<2.30259 (5/23/2007) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(21 - 14)
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0
ND<2.30259 (4/29/2006) ND<2.30259 (3/11/2004) (2.30259 - 2.30259)/(19 - 15)
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ND<2.30259 (10/25/2005) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(18 -
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ND<2.30259 (5/23/2007) ND<2.30259 (10/12/2004) (2.30259 - 2.30259)/(21 - 16)
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ND<2.30259 (10/25/2005) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(18 - 17)
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ND<2.30259 (4/29/2006) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(19 - 17)
0
0.371564 J (11/18/2006) ND<2.30259 (4/1/2005) (0.371564 - 2.30259)/(20 - 17)
-0.643674

ND<2.30259	(5/23/2007)	ND<2.30259 (4/1/2005)	(2.30259 - 2.30259)/(21 - 17)
0			
1.09861 J	(11/28/2007)	ND<2.30259 (4/1/2005)	(1.09861 - 2.30259)/(22 - 17)
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1.00063 J	(6/5/2008)	ND<2.30259 (4/1/2005)	(1.00063 - 2.30259)/(23 - 17)
-0.216992			
1.79176 J	(11/20/2008)	ND<2.30259 (4/1/2005)	(1.79176 - 2.30259)/(24 - 17)
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0.693147	(6/11/2009)	ND<2.30259 (4/1/2005)	(0.693147 - 2.30259)/(25 - 17)
-0.20118			
1.02962	(11/16/2009)	ND<2.30259 (4/1/2005)	(1.02962 - 2.30259)/(26 - 17)
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0.993252 H	(6/30/2010)	ND<2.30259 (4/1/2005)	(0.993252 - 2.30259)/(27 - 17)
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1.19392	(11/12/2010)	ND<2.30259 (4/1/2005)	(1.19392 - 2.30259)/(28 - 17)
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1.19392 J	(7/5/2011)	ND<2.30259 (4/1/2005)	(1.19392 - 2.30259)/(29 - 17)
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1.43508	(11/22/2011)	ND<2.30259 (4/1/2005)	(1.43508 - 2.30259)/(30 - 17)
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2.63906	(6/5/2012)	ND<2.30259 (4/1/2005)	(2.63906 - 2.30259)/(31 - 17)
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ND<2.30259	(4/29/2006)	ND<2.30259 (10/25/2005)	(2.30259 - 2.30259)/(19 - 18)
0			
0.371564 J	(11/18/2006)	ND<2.30259 (10/25/2005)	(0.371564 - 2.30259)/(20 - 18)
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ND<2.30259	(5/23/2007)	ND<2.30259 (10/25/2005)	(2.30259 - 2.30259)/(21 - 18)
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1.09861 J	(11/28/2007)	ND<2.30259 (10/25/2005)	(1.09861 - 2.30259)/(22 - 18)
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1.00063 J	(6/5/2008)	ND<2.30259 (10/25/2005)	(1.00063 - 2.30259)/(23 - 18)
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1.79176 J	(11/20/2008)	ND<2.30259 (10/25/2005)	(1.79176 - 2.30259)/(24 - 18)
-0.0851376			
0.693147	(6/11/2009)	ND<2.30259 (10/25/2005)	(0.693147 - 2.30259)/(25 - 18)
-0.22992			
1.02962	(11/16/2009)	ND<2.30259 (10/25/2005)	(1.02962 - 2.30259)/(26 - 18)
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0.993252 H	(6/30/2010)	ND<2.30259 (10/25/2005)	(0.993252 - 2.30259)/(27 - 18)
-0.145481			
1.19392	(11/12/2010)	ND<2.30259 (10/25/2005)	(1.19392 - 2.30259)/(28 - 18)
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1.19392 J	(7/5/2011)	ND<2.30259 (10/25/2005)	(1.19392 - 2.30259)/(29 - 18)
-0.100788			
1.43508	(11/22/2011)	ND<2.30259 (10/25/2005)	(1.43508 - 2.30259)/(30 - 18)
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2.63906	(6/5/2012)	ND<2.30259 (10/25/2005)	(2.63906 - 2.30259)/(31 - 18)
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0.371564 J	(11/18/2006)	ND<2.30259 (4/29/2006)	(0.371564 - 2.30259)/(20 - 19)
-1.93102			
ND<2.30259	(5/23/2007)	ND<2.30259 (4/29/2006)	(2.30259 - 2.30259)/(21 - 19)
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1.09861 J	(11/28/2007)	ND<2.30259 (4/29/2006)	(1.09861 - 2.30259)/(22 - 19)
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1.00063 J	(6/5/2008)	ND<2.30259 (4/29/2006)	(1.00063 - 2.30259)/(23 - 19)
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1.79176 J	(11/20/2008)	ND<2.30259 (4/29/2006)	(1.79176 - 2.30259)/(24 - 19)
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0.693147	(6/11/2009)	ND<2.30259 (4/29/2006)	(0.693147 - 2.30259)/(25 - 19)
-0.26824			

1.02962 (11/16/2009)	ND<2.30259 (4/29/2006)	(1.02962 - 2.30259)/(26 - 19)	-0.181852
0.993252 H (6/30/2010)	ND<2.30259 (4/29/2006)	(0.993252 - 2.30259)/(27 - 19)	-0.163667
1.19392 (11/12/2010)	ND<2.30259 (4/29/2006)	(1.19392 - 2.30259)/(28 - 19)	-0.123185
1.19392 J (7/5/2011)	ND<2.30259 (4/29/2006)	(1.19392 - 2.30259)/(29 - 19)	-0.110866
1.43508 (11/22/2011)	ND<2.30259 (4/29/2006)	(1.43508 - 2.30259)/(30 - 19)	-0.0788637
2.63906 (6/5/2012)	ND<2.30259 (4/29/2006)	(2.63906 - 2.30259)/(31 - 19)	0.0280394
ND<2.30259 (5/23/2007)	0.371564 J (11/18/2006)	(2.30259 - 0.371564)/(21 - 20)	1.93102
1.09861 J (11/28/2007)	0.371564 J (11/18/2006)	(1.09861 - 0.371564)/(22 - 20)	0.363524
1.00063 J (6/5/2008)	0.371564 J (11/18/2006)	(1.00063 - 0.371564)/(23 - 20)	0.209689
1.79176 J (11/20/2008)	0.371564 J (11/18/2006)	(1.79176 - 0.371564)/(24 - 20)	0.355049
0.693147 (6/11/2009)	0.371564 J (11/18/2006)	(0.693147 - 0.371564)/(25 - 20)	0.0643167
1.02962 (11/16/2009)	0.371564 J (11/18/2006)	(1.02962 - 0.371564)/(26 - 20)	0.109676
0.993252 H (6/30/2010)	0.371564 J (11/18/2006)	(0.993252 - 0.371564)/(27 - 20)	0.0888126
1.19392 (11/12/2010)	0.371564 J (11/18/2006)	(1.19392 - 0.371564)/(28 - 20)	0.102795
1.19392 J (7/5/2011)	0.371564 J (11/18/2006)	(1.19392 - 0.371564)/(29 - 20)	0.0913732
1.43508 (11/22/2011)	0.371564 J (11/18/2006)	(1.43508 - 0.371564)/(30 - 20)	0.106352
2.63906 (6/5/2012)	0.371564 J (11/18/2006)	(2.63906 - 0.371564)/(31 - 20)	0.206136
1.09861 J (11/28/2007)	ND<2.30259 (5/23/2007)	(1.09861 - 2.30259)/(22 - 21)	-1.20397
1.00063 J (6/5/2008)	ND<2.30259 (5/23/2007)	(1.00063 - 2.30259)/(23 - 21)	-0.650977
1.79176 J (11/20/2008)	ND<2.30259 (5/23/2007)	(1.79176 - 2.30259)/(24 - 21)	-0.170275
0.693147 (6/11/2009)	ND<2.30259 (5/23/2007)	(0.693147 - 2.30259)/(25 - 21)	-0.402359
1.02962 (11/16/2009)	ND<2.30259 (5/23/2007)	(1.02962 - 2.30259)/(26 - 21)	-0.254593
0.993252 H (6/30/2010)	ND<2.30259 (5/23/2007)	(0.993252 - 2.30259)/(27 - 21)	-0.218222
1.19392 (11/12/2010)	ND<2.30259 (5/23/2007)	(1.19392 - 2.30259)/(28 - 21)	-0.15838
1.19392 J (7/5/2011)	ND<2.30259 (5/23/2007)	(1.19392 - 2.30259)/(29 - 21)	-0.138583
1.43508 (11/22/2011)	ND<2.30259 (5/23/2007)	(1.43508 - 2.30259)/(30 - 21)	-0.096389
2.63906 (6/5/2012)	ND<2.30259 (5/23/2007)	(2.63906 - 2.30259)/(31 - 21)	0.0336472
1.00063 J (6/5/2008)	1.09861 J (11/28/2007)	(1.00063 - 1.09861)/(23 - 22)	-0.0979804
1.79176 J (11/20/2008)	1.09861 J (11/28/2007)	(1.79176 - 1.09861)/(24 - 22)	0.346574

0.693147 (6/11/2009)	1.09861 J (11/28/2007)	(0.693147 - 1.09861)/(25 - 22)	-0.135155
1.02962 (11/16/2009)	1.09861 J (11/28/2007)	(1.02962 - 1.09861)/(26 - 22)	-0.0172482
0.993252 H (6/30/2010)	1.09861 J (11/28/2007)	(0.993252 - 1.09861)/(27 - 22)	-0.0210721
1.19392 (11/12/2010)	1.09861 J (11/28/2007)	(1.19392 - 1.09861)/(28 - 22)	0.015885
1.19392 J (7/5/2011)	1.09861 J (11/28/2007)	(1.19392 - 1.09861)/(29 - 22)	0.0136157
1.43508 (11/22/2011)	1.09861 J (11/28/2007)	(1.43508 - 1.09861)/(30 - 22)	0.042059
2.63906 (6/5/2012)	1.09861 J (11/28/2007)	(2.63906 - 1.09861)/(31 - 22)	0.171161
1.79176 J (11/20/2008)	1.00063 J (6/5/2008)	(1.79176 - 1.00063)/(24 - 23)	0.791128
0.693147 (6/11/2009)	1.00063 J (6/5/2008)	(0.693147 - 1.00063)/(25 - 23)	-0.153742
1.02962 (11/16/2009)	1.00063 J (6/5/2008)	(1.02962 - 1.00063)/(26 - 23)	0.00966251
0.993252 H (6/30/2010)	1.00063 J (6/5/2008)	(0.993252 - 1.00063)/(27 - 23)	-0.00184503
1.19392 (11/12/2010)	1.00063 J (6/5/2008)	(1.19392 - 1.00063)/(28 - 23)	0.0386581
1.19392 J (7/5/2011)	1.00063 J (6/5/2008)	(1.19392 - 1.00063)/(29 - 23)	0.0322151
1.43508 (11/22/2011)	1.00063 J (6/5/2008)	(1.43508 - 1.00063)/(30 - 23)	0.0620647
2.63906 (6/5/2012)	1.00063 J (6/5/2008)	(2.63906 - 1.00063)/(31 - 23)	0.204803
0.693147 (6/11/2009)	1.79176 J (11/20/2008)	(0.693147 - 1.79176)/(25 - 24)	-1.09861
1.02962 (11/16/2009)	1.79176 J (11/20/2008)	(1.02962 - 1.79176)/(26 - 24)	-0.38107
0.993252 H (6/30/2010)	1.79176 J (11/20/2008)	(0.993252 - 1.79176)/(27 - 24)	-0.266169
1.19392 (11/12/2010)	1.79176 J (11/20/2008)	(1.19392 - 1.79176)/(28 - 24)	-0.149459
1.19392 J (7/5/2011)	1.79176 J (11/20/2008)	(1.19392 - 1.79176)/(29 - 24)	-0.119567
1.43508 (11/22/2011)	1.79176 J (11/20/2008)	(1.43508 - 1.79176)/(30 - 24)	-0.0594458
2.63906 (6/5/2012)	1.79176 J (11/20/2008)	(2.63906 - 1.79176)/(31 - 24)	0.121043
1.02962 (11/16/2009)	0.693147 (6/11/2009)	(1.02962 - 0.693147)/(26 - 25)	0.336472
0.993252 H (6/30/2010)	0.693147 (6/11/2009)	(0.993252 - 0.693147)/(27 - 25)	0.150052
1.19392 (11/12/2010)	0.693147 (6/11/2009)	(1.19392 - 0.693147)/(28 - 25)	0.166925
1.19392 J (7/5/2011)	0.693147 (6/11/2009)	(1.19392 - 0.693147)/(29 - 25)	0.125194
1.43508 (11/22/2011)	0.693147 (6/11/2009)	(1.43508 - 0.693147)/(30 - 25)	0.148387
2.63906 (6/5/2012)	0.693147 (6/11/2009)	(2.63906 - 0.693147)/(31 - 25)	0.324318
0.993252 H (6/30/2010)	1.02962 (11/16/2009)	(0.993252 - 1.02962)/(27 - 26)	-0.0363676

1.19392 (11/12/2010)	1.02962 (11/16/2009)	(1.19392 - 1.02962)/(28 - 26)
0.0821515		
1.19392 J (7/5/2011)	1.02962 (11/16/2009)	(1.19392 - 1.02962)/(29 - 26)
0.0547677		
1.43508 (11/22/2011)	1.02962 (11/16/2009)	(1.43508 - 1.02962)/(30 - 26)
0.101366		
2.63906 (6/5/2012)	1.02962 (11/16/2009)	(2.63906 - 1.02962)/(31 - 26)
0.321888		
1.19392 (11/12/2010)	0.993252 H (6/30/2010)	(1.19392 - 0.993252)/(28 - 27)
0.200671		
1.19392 J (7/5/2011)	0.993252 H (6/30/2010)	(1.19392 - 0.993252)/(29 - 27)
0.100335		
1.43508 (11/22/2011)	0.993252 H (6/30/2010)	(1.43508 - 0.993252)/(30 - 27)
0.147278		
2.63906 (6/5/2012)	0.993252 H (6/30/2010)	(2.63906 - 0.993252)/(31 - 27)
0.411451		
1.19392 J (7/5/2011)	1.19392 (11/12/2010)	(1.19392 - 1.19392)/(29 - 28)
0		
1.43508 (11/22/2011)	1.19392 (11/12/2010)	(1.43508 - 1.19392)/(30 - 28)
0.120581		
2.63906 (6/5/2012)	1.19392 (11/12/2010)	(2.63906 - 1.19392)/(31 - 28)
0.481712		
1.43508 (11/22/2011)	1.19392 J (7/5/2011)	(1.43508 - 1.19392)/(30 - 29)
0.241162		
2.63906 (6/5/2012)	1.19392 J (7/5/2011)	(2.63906 - 1.19392)/(31 - 29)
0.722567		
2.63906 (6/5/2012)	1.43508 (11/22/2011)	(2.63906 - 1.43508)/(31 - 30)
1.20397		

Number of Q values = 465

Ordered Q Values

n	Q
1	-1.93102
2	-1.20397
3	-1.09861
4	-0.965511
5	-0.916291
6	-0.693147
7	-0.650977
8	-0.643674
9	-0.482755
10	-0.458145
11	-0.402359
12	-0.401324
13	-0.386204
14	-0.38107
15	-0.355914
16	-0.346574
17	-0.325488
18	-0.321837
19	-0.30543
20	-0.300993
21	-0.27586
22	-0.26824
23	-0.266169

24	-0.260391
25	-0.254593
26	-0.240795
27	-0.231049
28	-0.22992
29	-0.229073
30	-0.218222
31	-0.216992
32	-0.212026
33	-0.201659
34	-0.20118
35	-0.200662
36	-0.194287
37	-0.193102
38	-0.185993
39	-0.183258
40	-0.181852
41	-0.178826
42	-0.175547
43	-0.173287
44	-0.171996
45	-0.170275
46	-0.163667
47	-0.162744
48	-0.160944
49	-0.160918
50	-0.159121
51	-0.15838
52	-0.156375
53	-0.153742
54	-0.152715
55	-0.150497
56	-0.149459
57	-0.14854
58	-0.148375
59	-0.146313
60	-0.145481
61	-0.144661
62	-0.141441
63	-0.138629
64	-0.138583
65	-0.13793
66	-0.137542
67	-0.135155
68	-0.13412
69	-0.133775
70	-0.130933
71	-0.130899
72	-0.130195
73	-0.128735
74	-0.127297
75	-0.12656
76	-0.123185
77	-0.120689
78	-0.119567
79	-0.119115
80	-0.11903
81	-0.118926
82	-0.115724
83	-0.115525
84	-0.11359
85	-0.110866

86	-0.110866
87	-0.109111
88	-0.107296
89	-0.107279
90	-0.10608
91	-0.102165
92	-0.10181
93	-0.101633
94	-0.100788
95	-0.100788
96	-0.100718
97	-0.10059
98	-0.100331
99	-0.10015
100	-0.0990995
101	-0.099021
102	-0.0979804
103	-0.0979204
104	-0.096389
105	-0.0946728
106	-0.0935238
107	-0.0929967
108	-0.0926133
109	-0.0923886
110	-0.0923886
111	-0.0894132
112	-0.0867969
113	-0.0866434
114	-0.0859981
115	-0.0852817
116	-0.0852817
117	-0.0851376
118	-0.0847073
119	-0.0813721
120	-0.0804719
121	-0.0802649
122	-0.0795604
123	-0.0791902
124	-0.0791902
125	-0.0788637
126	-0.0770196
127	-0.0770164
128	-0.0766399
129	-0.0765855
130	-0.0752483
131	-0.0748803
132	-0.0739108
133	-0.0739108
134	-0.0731563
135	-0.0729751
136	-0.0727407
137	-0.0723307
138	-0.0722917
139	-0.0708219
140	-0.0707203
141	-0.0699756
142	-0.0693147
143	-0.0692914
144	-0.0689123
145	-0.0685239
146	-0.0670599
147	-0.0669982

148	-0.0668874
149	-0.0667308
150	-0.0654667
151	-0.0654493
152	-0.0650977
153	-0.0638532
154	-0.0636483
155	-0.063367
156	-0.0623492
157	-0.0619978
158	-0.0619643
159	-0.0615924
160	-0.0606174
161	-0.0601986
162	-0.0595152
163	-0.0594458
164	-0.0591797
165	-0.0583507
166	-0.0583507
167	-0.0578621
168	-0.0578334
169	-0.057332
170	-0.0569275
171	-0.0567584
172	-0.0554331
173	-0.0554331
174	-0.0553463
175	-0.0545556
176	-0.0542188
177	-0.0530402
178	-0.0527935
179	-0.0527935
180	-0.0523733
181	-0.0510826
182	-0.0510294
183	-0.0509186
184	-0.0507338
185	-0.0503938
186	-0.0503938
187	-0.050359
188	-0.0482027
189	-0.0482027
190	-0.0464387
191	-0.0464387
192	-0.0461943
193	-0.0461943
194	-0.0443465
195	-0.0443465
196	-0.043375
197	-0.0426409
198	-0.0426409
199	-0.0413096
200	-0.0410616
201	-0.0410616
202	-0.0395951
203	-0.0394318
204	-0.0386546
205	-0.0385116
206	-0.0377174
207	-0.0364875
208	-0.0363676
209	-0.0361459

210	-0.0347
211	-0.034055
212	-0.0333654
213	-0.0321297
214	-0.0319266
215	-0.0309822
216	-0.0305168
217	-0.0300486
218	-0.0299138
219	-0.0283792
220	-0.0268856
221	-0.0255413
222	-0.0244421
223	-0.024325
224	-0.0232193
225	-0.0230842
226	-0.0222098
227	-0.0210721
228	-0.0172482
229	-0.00917649
230	-0.00184503
231	0
232	0
233	0
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236	0
237	0
238	0
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377	0
378	0
379	0
380	0
381	0
382	0
383	0
384	0
385	0.00966251
386	0.0112157
387	0.0116025
388	0.0120169
389	0.0124619
390	0.0129412
391	0.0134589
392	0.0136157
393	0.0140197
394	0.0140247
395	0.0146292

396	0.0152942
397	0.015885
398	0.0160225
399	0.0186929
400	0.0197925
401	0.0210295
402	0.0224315
403	0.0240337
404	0.0258825
405	0.0280394
406	0.0322151
407	0.0336472
408	0.0386581
409	0.042059
410	0.051481
411	0.0547677
412	0.0620647
413	0.0643167
414	0.0693147
415	0.0821515
416	0.0832992
417	0.0866434
418	0.0888126
419	0.0913732
420	0.0916291
421	0.099021
422	0.100335
423	0.101366
424	0.10181
425	0.102795
426	0.106352
427	0.109676
428	0.114536
429	0.115525
430	0.120581
431	0.121043
432	0.125194
433	0.130899
434	0.138629
435	0.147278
436	0.148387
437	0.150052
438	0.152715
439	0.166925
440	0.171161
441	0.173287
442	0.183258
443	0.200671
444	0.204803
445	0.206136
446	0.209689
447	0.229073
448	0.231049
449	0.241162
450	0.30543
451	0.321888
452	0.324318
453	0.336472
454	0.346574
455	0.346574
456	0.355049
457	0.363524

458	0.411451
459	0.458145
460	0.481712
461	0.722567
462	0.791128
463	1.20397
464	1.60944
465	1.93102

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	2.30259	18
2	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		1
7/5/2011	1	
11/22/2011		1
6/5/2012	1	

There are 0 time periods with multiple data

A = 12564
B = 0
C = 4896
D = 0
E = 308
F = 0
a = 62310
b = 242730
c = 1860
Group Variance = 2763.67
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 86.4709
M1 = (465 - 86.4709)/2.0 = 189.265

M2 = (465 + 86.4709)/2.0 + 1 = 276.735
Lower limit is -0.0482027 = Q(189)
Upper limit is 0 = Q(277)
-0.0482027 < 0 < 0 indicating no trend in data.

Concentrations (ppb)

Parameter: Copper

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 171
Percent Non-Detects: 68.9516%
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-9	32	21 (65.625%)	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	
			6/5/2012	ND<0.21 U	ND<0.21 U	
MW-11R	32	21 (65.625%)	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	
			6/5/2012	0.46 J	0.46 J	
MW-7	31	16 (51.6129%)	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	
			6/5/2012	0.99 J	0.99 J	
MW-10	31	25 (80.6452%)	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	
			6/5/2012	ND<0.21 U	ND<0.21 U	
MW-8	30	22 (73.3333%)	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	
			6/5/2012	0.52 J	0.52 J	
MW-6	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	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	
			6/5/2012	ND<0.21 U	ND<0.21 U	
MW-12BR	21	13 (61.9048%)	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		
		6/5/2012	0.88 J	0.88 J		
MW-12AR	21	16 (76.1905%)	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		
		6/5/2012	ND<0.21 U	ND<0.21 U		

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 = 248

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.01	-2.65209	7.03356	-0.0265209
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	0.105	-2.05375	26.7475	-0.957263
6	0.105	-1.97737	30.6575	-1.16489
7	0.105	-1.91103	34.3095	-1.36554
8	0.105	-1.85218	37.7401	-1.56002
9	0.21	-1.79912	40.9769	-1.93784
10	0.3	-1.75069	44.0418	-2.46304
11	0.31	-1.70604	46.9524	-2.99192
12	0.33	-1.66456	49.7231	-3.54122
13	0.35	-1.62576	52.3662	-4.11024
14	0.35	-1.58927	54.892	-4.66648
15	0.35	-1.55477	57.3093	-5.21065
16	0.35	-1.52203	59.6259	-5.74337
17	0.37	-1.49085	61.8486	-6.29498
18	0.37	-1.46106	63.9833	-6.83557
19	0.39	-1.4325	66.0353	-7.39425
20	0.45	-1.40507	68.0096	-8.02653
21	0.46	-1.37866	69.9102	-8.66072
22	0.48	-1.35317	71.7413	-9.31024
23	0.5	-1.32854	73.5063	-9.97451
24	0.52	-1.30469	75.2086	-10.6529
25	0.52	-1.28155	76.8509	-11.3194
26	0.53	-1.25908	78.4362	-11.9867
27	0.56	-1.23724	79.967	-12.6795
28	0.59	-1.21596	81.4455	-13.3969
29	0.6	-1.19522	82.8741	-14.1141
30	0.6	-1.17499	84.2547	-14.8191
31	0.6	-1.15522	85.5892	-15.5122
32	0.62	-1.1359	86.8795	-16.2164
33	0.62	-1.11699	88.1271	-16.909
34	0.64	-1.09847	89.3338	-17.612
35	0.64	-1.08032	90.5009	-18.3034
36	0.64	-1.06252	91.6298	-18.9834
37	0.65	-1.04505	92.7219	-19.6627
38	0.73	-1.02789	93.7785	-20.4131
39	0.76	-1.01104	94.8007	-21.1814
40	0.8	-0.994457	95.7896	-21.977
41	0.88	-0.97815	96.7464	-22.8378
42	0.93	-0.9621	97.6721	-23.7325
43	0.93	-0.946291	98.5675	-24.6126
44	0.99	-0.930718	99.4338	-25.534
45	1	-0.915365	100.272	-26.4494
46	1.1	-0.900227	101.082	-27.4396
47	1.1	-0.885291	101.866	-28.4134
48	1.1	-0.87055	102.624	-29.371
49	1.2	-0.855996	103.356	-30.3982
50	1.2	-0.841621	104.065	-31.4082
51	1.2	-0.827417	104.749	-32.4011

52	1.3	-0.813379	105.411	-33.4585
53	1.3	-0.7995	106.05	-34.4978
54	1.4	-0.785774	106.668	-35.5979
55	1.6	-0.772193	107.264	-36.8334
56	1.6	-0.758753	107.84	-38.0474
57	1.6	-0.745449	108.395	-39.2401
58	1.8	-0.732275	108.931	-40.5582
59	2	-0.719228	109.449	-41.9967
60	2.1	-0.706302	109.948	-43.4799
61	2.2	-0.693493	110.429	-45.0056
62	2.3	-0.680797	110.892	-46.5714
63	3.4	-0.665079	111.334	-48.8327
64	5.16	-0.652622	111.76	-52.2002
65	5.59	-0.640266	112.17	-55.7793
66	6	-0.628006	112.565	-59.5474
67	6	-0.615839	112.944	-63.2424
68	6.64	-0.603765	113.308	-67.2514
69	7.06	-0.591776	113.659	-71.4293
70	7.55	-0.579873	113.995	-75.8074
71	8	-0.568052	114.318	-80.3518
72	9	-0.556308	114.627	-85.3586
73	10	-0.544642	114.924	-90.805
74	10	-0.533048	115.208	-96.1355
75	10	-0.521527	115.48	-101.351
76	10	-0.510074	115.74	-106.451
77	10	-0.498687	115.989	-111.438
78	10	-0.487364	116.226	-116.312
79	10	-0.476105	116.453	-121.073
80	10	-0.464904	116.669	-125.722
81	10	-0.453763	116.875	-130.26
82	10	-0.442676	117.071	-134.686
83	10	-0.431644	117.257	-139.003
84	10	-0.420664	117.434	-143.21
85	10	-0.409735	117.602	-147.307
86	10	-0.398855	117.761	-151.295
87	10	-0.388022	117.912	-155.176
88	10	-0.377233	118.054	-158.948
89	10	-0.36649	118.188	-162.613
90	10	-0.355788	118.315	-166.171
91	10	-0.345126	118.434	-169.622
92	10	-0.334503	118.546	-172.967
93	10	-0.323919	118.651	-176.206
94	10	-0.31337	118.749	-179.34
95	10	-0.302855	118.841	-182.369
96	10	-0.292375	118.926	-185.292
97	10	-0.281926	119.006	-188.112
98	10	-0.271509	119.079	-190.827
99	10	-0.26112	119.148	-193.438
100	10	-0.250759	119.21	-195.945
101	10	-0.240426	119.268	-198.35
102	10	-0.230118	119.321	-200.651
103	10	-0.219834	119.37	-202.849
104	10	-0.209575	119.413	-204.945
105	10	-0.199336	119.453	-206.938
106	10	-0.189118	119.489	-208.829
107	10	-0.17892	119.521	-210.619
108	10	-0.168741	119.549	-212.306
109	10	-0.158579	119.575	-213.892
110	10	-0.148434	119.597	-215.376
111	10	-0.138305	119.616	-216.759
112	10	-0.128189	119.632	-218.041
113	10	-0.118085	119.646	-219.222

114	10	-0.107995	119.658	-220.302
115	10	-0.0979139	119.667	-221.281
116	10	-0.0878447	119.675	-222.16
117	10	-0.0777834	119.681	-222.937
118	10	-0.0677301	119.686	-223.615
119	10	-0.0576847	119.689	-224.192
120	10	-0.0476439	119.691	-224.668
121	10	-0.0376076	119.693	-225.044
122	10	-0.0275759	119.694	-225.32
123	10	-0.0175476	119.694	-225.495
124	10	-0.00751925	119.694	-225.57
125	10	0.00751925	119.694	-225.495
126	10	0.0175476	119.694	-225.32
127	10	0.0275759	119.695	-225.044
128	10	0.0376076	119.696	-224.668
129	10	0.0476439	119.699	-224.192
130	10	0.0576847	119.702	-223.615
131	10	0.0677301	119.707	-222.937
132	10	0.0777834	119.713	-222.16
133	10	0.0878447	119.72	-221.281
134	10	0.0979139	119.73	-220.302
135	10	0.107995	119.742	-219.222
136	10	0.118085	119.756	-218.041
137	10	0.128189	119.772	-216.759
138	10	0.138305	119.791	-215.376
139	10	0.148434	119.813	-213.892
140	10	0.158579	119.838	-212.306
141	10	0.168741	119.867	-210.619
142	10	0.17892	119.899	-208.829
143	10	0.189118	119.935	-206.938
144	10	0.199336	119.974	-204.945
145	10	0.209575	120.018	-202.849
146	10	0.219834	120.067	-200.651
147	10	0.230118	120.119	-198.35
148	10	0.240426	120.177	-195.945
149	10	0.250759	120.24	-193.438
150	10	0.26112	120.308	-190.827
151	10	0.271509	120.382	-188.112
152	10	0.281926	120.462	-185.292
153	10	0.292375	120.547	-182.369
154	10	0.302855	120.639	-179.34
155	10	0.31337	120.737	-176.206
156	10	0.323919	120.842	-172.967
157	10	0.334503	120.954	-169.622
158	10	0.345126	121.073	-166.171
159	10	0.355788	121.199	-162.613
160	10	0.36649	121.334	-158.948
161	10	0.377233	121.476	-155.176
162	10	0.388022	121.627	-151.295
163	10	0.398855	121.786	-147.307
164	10	0.409735	121.954	-143.21
165	10	0.420664	122.131	-139.003
166	10	0.431644	122.317	-134.686
167	10	0.442676	122.513	-130.26
168	10	0.453763	122.719	-125.722
169	10	0.464904	122.935	-121.073
170	10	0.476105	123.162	-116.312
171	10	0.487364	123.399	-111.438
172	10	0.498687	123.648	-106.451
173	10	0.510074	123.908	-101.351
174	10	0.521527	124.18	-96.1355
175	10	0.533048	124.464	-90.805

176	10	0.544642		124.761	-85.3586
177	10	0.556308		125.07	-79.7955
178	10	0.568052		125.393	-74.115
179	10	0.579873		125.729	-68.3162
180	10	0.591776		126.079	-62.3985
181	10	0.603765		126.444	-56.3608
182	10	0.615839		126.823	-50.2024
183	10	0.628006		127.218	-43.9224
184	10	0.640266		127.627	-37.5197
185	10	0.652622		128.053	-30.9935
186	10	0.665079		128.496	-24.3427
187	10	0.680797		128.959	-17.5347
188	10	0.693493		129.44	-10.5998
189	10	0.706302		129.939	-3.53678
190	10	0.719228		130.456	3.6555
191	10	0.732275		130.993	10.9783
192	10	0.745449		131.548	18.4327
193	10	0.758753		132.124	26.0203
194	10	0.772193		132.72	33.7422
195	10	0.785774		133.338	41.5999
196	10	0.7995	133.977	49.5949	
197	10	0.813379		134.638	57.7287
198	10	0.827417		135.323	66.0029
199	10	0.841621		136.031	74.4191
200	10	0.855996		136.764	82.9791
201	10	0.87055	137.522	91.6846	
202	10	0.885291		138.306	100.537
203	10	0.900227		139.116	109.54
204	10	0.915365		139.954	118.693
205	10	0.930718		140.82	128.001
206	10	0.946291		141.716	137.463
207	10	0.9621	142.641	147.084	
208	10	0.97815	143.598	156.866	
209	10	0.994457		144.587	166.811
210	10	1.01104	145.609	176.921	
211	10	1.02789	146.666	187.2	
212	10	1.04505	147.758	197.65	
213	10	1.06252	148.887	208.276	
214	10	1.08032	150.054	219.079	
215	10	1.09847	151.261	230.063	
216	10	1.11699	152.508	241.233	
217	10	1.1359	153.799	252.592	
218	10	1.15522	155.133	264.144	
219	10	1.17499	156.514	275.894	
220	10	1.19522	157.942	287.847	
221	10	1.21596	159.421	300.006	
222	10	1.23724	160.952	312.379	
223	10	1.25908	162.537	324.969	
224	10	1.28155	164.179	337.785	
225	10	1.30469	165.881	350.832	
226	10	1.32854	167.646	364.117	
227	10	1.35317	169.477	377.649	
228	10	1.37866	171.378	391.435	
229	10	1.40507	173.352	405.486	
230	10	1.4325	175.404	419.811	
231	10	1.46106	177.539	434.422	
232	10	1.49085	179.762	449.33	
233	10	1.52203	182.078	464.551	
234	10	1.55477	184.496	480.098	
235	10	1.58927	187.022	495.991	
236	10	1.62576	189.665	512.249	
237	10	1.66456	192.435	528.894	

238	10	1.70604	195.346	545.955
239	10	1.75069	198.411	563.462
240	10.8	1.79912	201.648	582.892
241	13.8	1.85218	205.078	608.452
242	20	1.91103	208.73	646.673
243	26.1	1.97737	212.64	698.282
244	30	2.05375	216.858	759.895
245	32	2.14441	221.457	828.516
246	50	2.25713	226.551	941.372
247	51.1	2.40892	232.354	1064.47
248	78.2	2.65209	239.388	1271.86

Data Set Standard Deviation = 7.54171
Numerator = 1.61763e+006
Denominator = 3.36309e+006
W Statistic = 0.480995 = 1.61763e+006 / 3.36309e+006

5% Critical value of 0.976 exceeds 0.480995
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.480995
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 = 0.701396
0.701396 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.01	0.00401606	-2.65209	39.0669	344.01	
2	0.105	0.00803213	-2.40892	39.7022	332.136	
3	0.105	0.0120482	-2.25713	39.7022	324.723	
4	0.105	0.0160643	-2.14441	39.7022	319.219	
5	0.105	0.0200803	-2.05375	39.7022	314.791	
6	0.105	0.0240964	-1.97737	39.7022	311.062	
7	0.105	0.0281124	-1.91103	39.7022	307.822	
8	0.105	0.0321285	-1.85218	39.7022	304.948	
9	0.21	0.0361446	-1.79912	40.4044	302.357	
10	0.3	0.0401606	-1.75069	41.0063	299.992	
11	0.31	0.0441767	-1.70604	41.0731	297.812	
12	0.33	0.0481928	-1.66456	41.2069	295.786	
13	0.35	0.0522088	-1.62576	41.3406	293.891	
14	0.35	0.0562249	-1.58927	41.3406	292.109	
15	0.35	0.060241	-1.55477	41.3406	290.425	
16	0.35	0.064257	-1.52203	41.3406	288.826	
17	0.37	0.0682731	-1.49085	41.4744	287.303	
18	0.37	0.0722892	-1.46106	41.4744	285.848	
19	0.39	0.0763052	-1.4325	41.6081	284.454	
20	0.45	0.0803213	-1.40507	42.0094	283.114	
21	0.46	0.0843373	-1.37866	42.0763	281.824	
22	0.48	0.0883534	-1.35317	42.21	280.58	
23	0.5	0.0923695	-1.32854	42.3438	279.377	
24	0.52	0.0963855	-1.30469	42.4775	278.212	
25	0.52	0.100402	-1.28155	42.4775	277.082	
26	0.53	0.104418	-1.25908	42.5444	275.985	
27	0.56	0.108434	-1.23724	42.745	274.918	
28	0.59	0.11245	-1.21596	42.9456	273.879	
29	0.6	0.116466	-1.19522	43.0125	272.867	
30	0.6	0.120482	-1.17499	43.0125	271.879	
31	0.6	0.124498	-1.15522	43.0125	270.913	
32	0.62	0.128514	-1.1359	43.1463	269.97	
33	0.62	0.13253	-1.11699	43.1463	269.046	
34	0.64	0.136546	-1.09847	43.28	268.142	
35	0.64	0.140562	-1.08032	43.28	267.256	
36	0.64	0.144578	-1.06252	43.28	266.386	
37	0.65	0.148594	-1.04505	43.3469	265.533	
38	0.73	0.15261	-1.02789	43.8819	264.695	
39	0.76	0.156627	-1.01104	44.0825	263.872	
40	0.8	0.160643	-0.994457	44.35	263.063	
41	0.88	0.164659	-0.97815	44.885	262.266	
42	0.93	0.168675	-0.9621	45.2194	261.483	
43	0.93	0.172691	-0.946291	45.2194	260.711	
44	0.99	0.176707	-0.930718	45.6206	259.95	
45	1	0.180723	-0.915365	45.6875	259.2	
46	1.1	0.184739	-0.900227	46.3563	258.461	
47	1.1	0.188755	-0.885291	46.3563	257.732	
48	1.1	0.192771	-0.87055	46.3563	257.012	

49	1.2	0.196787	-0.855996	47.025	256.301
50	1.2	0.200803	-0.841621	47.025	255.599
51	1.2	0.204819	-0.827417	47.025	254.906
52	1.3	0.208835	-0.813379	47.6938	254.22
53	1.3	0.212851	-0.7995	47.6938	253.542
54	1.4	0.216867	-0.785774	48.3625	252.872
55	1.6	0.220884	-0.772193	49.7	252.209
56	1.6	0.2249	-0.758753	49.7	251.552
57	1.6	0.228916	-0.745449	49.7	250.903
58	1.8	0.232932	-0.732275	51.0375	250.259
59	2	0.236948	-0.719228	52.375	249.622
60	2.1	0.240964	-0.706302	53.0438	248.991
61	2.2	0.24498	-0.693493	53.7125	248.366
62	2.3	0.248996	-0.680797	54.3813	247.746
63	3.4	0.253012	-0.665079	61.7375	246.978
64	5.16	0.257028	-0.652622	73.5075	246.37
65	5.59	0.261044	-0.640266	76.3831	245.766
66	6	0.26506	-0.628006	79.125	245.168
67	6	0.269076	-0.615839	79.125	244.573
68	6.64	0.273092	-0.603765	83.405	243.984
69	7.06	0.277108	-0.591776	86.2138	243.398
70	7.55	0.281124	-0.579873	89.4906	242.817
71	8	0.285141	-0.568052	92.5	242.24
72	9	0.289157	-0.556308	99.1875	241.666
73	10	0.293173	-0.544642	105.875	241.097
74	10	0.297189	-0.533048	105.875	240.531
75	10	0.301205	-0.521527	105.875	239.968
76	10	0.305221	-0.510074	105.875	239.409
77	10	0.309237	-0.498687	105.875	238.853
78	10	0.313253	-0.487364	105.875	238.3
79	10	0.317269	-0.476105	105.875	237.75
80	10	0.321285	-0.464904	105.875	237.203
81	10	0.325301	-0.453763	105.875	236.659
82	10	0.329317	-0.442676	105.875	236.117
83	10	0.333333	-0.431644	105.875	235.579
84	10	0.337349	-0.420664	105.875	235.042
85	10	0.341365	-0.409735	105.875	234.509
86	10	0.345382	-0.398855	105.875	233.977
87	10	0.349398	-0.388022	105.875	233.448
88	10	0.353414	-0.377233	105.875	232.922
89	10	0.35743	-0.36649	105.875	232.397
90	10	0.361446	-0.355788	105.875	231.874
91	10	0.365462	-0.345126	105.875	231.354
92	10	0.369478	-0.334503	105.875	230.835
93	10	0.373494	-0.323919	105.875	230.318
94	10	0.37751	-0.31337	105.875	229.803
95	10	0.381526	-0.302855	105.875	229.289
96	10	0.385542	-0.292375	105.875	228.778
97	10	0.389558	-0.281926	105.875	228.267
98	10	0.393574	-0.271509	105.875	227.759
99	10	0.39759	-0.26112	105.875	227.251
100	10	0.401606	-0.250759	105.875	226.745
101	10	0.405622	-0.240426	105.875	226.241
102	10	0.409639	-0.230118	105.875	225.737
103	10	0.413655	-0.219834	105.875	225.235
104	10	0.417671	-0.209575	105.875	224.734
105	10	0.421687	-0.199336	105.875	224.234
106	10	0.425703	-0.189118	105.875	223.735
107	10	0.429719	-0.17892	105.875	223.237
108	10	0.433735	-0.168741	105.875	222.74
109	10	0.437751	-0.158579	105.875	222.244
110	10	0.441767	-0.148434	105.875	221.749

111	10	0.445783	-0.138305	105.875	221.254
112	10	0.449799	-0.128189	105.875	220.76
113	10	0.453815	-0.118085	105.875	220.267
114	10	0.457831	-0.107995	105.875	219.774
115	10	0.461847	-0.0979139	105.875	219.281
116	10	0.465863	-0.0878447	105.875	218.79
117	10	0.46988	-0.0777834	105.875	218.298
118	10	0.473896	-0.0677301	105.875	217.807
119	10	0.477912	-0.0576847	105.875	217.317
120	10	0.481928	-0.0476439	105.875	216.827
121	10	0.485944	-0.0376076	105.875	216.337
122	10	0.48996	-0.0275759	105.875	215.847
123	10	0.493976	-0.0175476	105.875	215.357
124	10	0.497992	-0.00751925	105.875	214.867
125	10	0.502008	0.00751925	105.875	214.133
126	10	0.506024	0.0175476	105.875	213.643
127	10	0.51004	0.0275759	105.875	213.153
128	10	0.514056	0.0376076	105.875	212.663
129	10	0.518072	0.0476439	105.875	212.173
130	10	0.522088	0.0576847	105.875	211.683
131	10	0.526104	0.0677301	105.875	211.193
132	10	0.53012	0.0777834	105.875	210.702
133	10	0.534137	0.0878447	105.875	210.21
134	10	0.538153	0.0979139	105.875	209.719
135	10	0.542169	0.107995	105.875	209.226
136	10	0.546185	0.118085	105.875	208.733
137	10	0.550201	0.128189	105.875	208.24
138	10	0.554217	0.138305	105.875	207.746
139	10	0.558233	0.148434	105.875	207.251
140	10	0.562249	0.158579	105.875	206.756
141	10	0.566265	0.168741	105.875	206.26
142	10	0.570281	0.17892	105.875	205.763
143	10	0.574297	0.189118	105.875	205.265
144	10	0.578313	0.199336	105.875	204.766
145	10	0.582329	0.209575	105.875	204.266
146	10	0.586345	0.219834	105.875	203.765
147	10	0.590361	0.230118	105.875	203.263
148	10	0.594378	0.240426	105.875	202.759
149	10	0.598394	0.250759	105.875	202.255
150	10	0.60241	0.26112	105.875	201.749
151	10	0.606426	0.271509	105.875	201.241
152	10	0.610442	0.281926	105.875	200.733
153	10	0.614458	0.292375	105.875	200.222
154	10	0.618474	0.302855	105.875	199.711
155	10	0.62249	0.31337	105.875	199.197
156	10	0.626506	0.323919	105.875	198.682
157	10	0.630522	0.334503	105.875	198.165
158	10	0.634538	0.345126	105.875	197.646
159	10	0.638554	0.355788	105.875	197.126
160	10	0.64257	0.36649	105.875	196.603
161	10	0.646586	0.377233	105.875	196.078
162	10	0.650602	0.388022	105.875	195.552
163	10	0.654618	0.398855	105.875	195.023
164	10	0.658635	0.409735	105.875	194.491
165	10	0.662651	0.420664	105.875	193.958
166	10	0.666667	0.431644	105.875	193.421
167	10	0.670683	0.442676	105.875	192.883
168	10	0.674699	0.453763	105.875	192.341
169	10	0.678715	0.464904	105.875	191.797
170	10	0.682731	0.476105	105.875	191.25
171	10	0.686747	0.487364	105.875	190.7
172	10	0.690763	0.498687	105.875	190.147

173	10	0.694779	0.510074	105.875	189.591
174	10	0.698795	0.521527	105.875	189.032
175	10	0.702811	0.533048	105.875	188.469
176	10	0.706827	0.544642	105.875	187.903
177	10	0.710843	0.556308	105.875	187.334
178	10	0.714859	0.568052	105.875	186.76
179	10	0.718876	0.579873	105.875	186.183
180	10	0.722892	0.591776	105.875	185.602
181	10	0.726908	0.603765	105.875	185.016
182	10	0.730924	0.615839	105.875	184.427
183	10	0.73494	0.628006	105.875	183.832
184	10	0.738956	0.640266	105.875	183.234
185	10	0.742972	0.652622	105.875	182.63
186	10	0.746988	0.665079	105.875	182.022
187	10	0.751004	0.680797	105.875	181.254
188	10	0.75502	0.693493	105.875	180.634
189	10	0.759036	0.706302	105.875	180.009
190	10	0.763052	0.719228	105.875	179.378
191	10	0.767068	0.732275	105.875	178.741
192	10	0.771084	0.745449	105.875	178.097
193	10	0.7751	0.758753	105.875	177.448
194	10	0.779116	0.772193	105.875	176.791
195	10	0.783133	0.785774	105.875	176.128
196	10	0.787149	0.7995	105.875	175.458
197	10	0.791165	0.813379	105.875	174.78
198	10	0.795181	0.827417	105.875	174.094
199	10	0.799197	0.841621	105.875	173.401
200	10	0.803213	0.855996	105.875	172.699
201	10	0.807229	0.87055	105.875	171.988
202	10	0.811245	0.885291	105.875	171.268
203	10	0.815261	0.900227	105.875	170.539
204	10	0.819277	0.915365	105.875	169.8
205	10	0.823293	0.930718	105.875	169.05
206	10	0.827309	0.946291	105.875	168.289
207	10	0.831325	0.9621	105.875	167.517
208	10	0.835341	0.97815	105.875	166.734
209	10	0.839357	0.994457	105.875	165.937
210	10	0.843373	1.01104	105.875	165.128
211	10	0.84739	1.02789	105.875	164.305
212	10	0.851406	1.04505	105.875	163.467
213	10	0.855422	1.06252	105.875	162.614
214	10	0.859438	1.08032	105.875	161.744
215	10	0.863454	1.09847	105.875	160.858
216	10	0.86747	1.11699	105.875	159.954
217	10	0.871486	1.1359	105.875	159.03
218	10	0.875502	1.15522	105.875	158.087
219	10	0.879518	1.17499	105.875	157.121
220	10	0.883534	1.19522	105.875	156.133
221	10	0.88755	1.21596	105.875	155.121
222	10	0.891566	1.23724	105.875	154.082
223	10	0.895582	1.25908	105.875	153.015
224	10	0.899598	1.28155	105.875	151.918
225	10	0.903614	1.30469	105.875	150.788
226	10	0.907631	1.32854	105.875	149.623
227	10	0.911647	1.35317	105.875	148.42
228	10	0.915663	1.37866	105.875	147.176
229	10	0.919679	1.40507	105.875	145.886
230	10	0.923695	1.4325	105.875	144.546
231	10	0.927711	1.46106	105.875	143.152
232	10	0.931727	1.49085	105.875	141.697
233	10	0.935743	1.52203	105.875	140.174
234	10	0.939759	1.55477	105.875	138.575

235	10	0.943775		1.58927	105.875	136.891
236	10	0.947791		1.62576	105.875	135.109
237	10	0.951807		1.66456	105.875	133.214
238	10	0.955823		1.70604	105.875	131.188
239	10	0.959839		1.75069	105.875	129.008
240	10.8	0.963855		1.79912	111.225	126.643
241	13.8	0.967871		1.85218	131.288	124.052
242	20	0.971888		1.91103	172.75	121.178
243	26.1	0.975904		1.97737	213.544	117.938
244	30	0.97992	2.05375	239.625	114.209	
245	32	0.983936		2.14441	253	109.781
246	50	0.987952		2.25713	373.375	104.277
247	51.1	0.991968		2.40892	380.731	96.8642
248	78.2	0.995984		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 = 248

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	-2.25379	-2.05375	26.7475	32.1914	
6	-2.25379	-1.97737	30.6575	36.648	
7	-2.25379	-1.91103	34.3095	40.9551	
8	-2.25379	-1.85218	37.7401	45.1295	
9	-1.56065	-1.79912	40.9769	47.9373	
10	-1.20397	-1.75069	44.0418	50.0451	
11	-1.17118	-1.70604	46.9524	52.0432	
12	-1.10866	-1.66456	49.7231	53.8886	
13	-1.04982	-1.62576	52.3662	55.5954	
14	-1.04982	-1.58927	54.892	57.2638	
15	-1.04982	-1.55477	57.3093	58.896	
16	-1.04982	-1.52203	59.6259	60.4939	
17	-0.994252	-1.49085	61.8486	61.9762	
18	-0.994252	-1.46106	63.9833	63.4288	
19	-0.941609	-1.4325	66.0353	64.7777	
20	-0.798508	-1.40507	68.0096	65.8997	
21	-0.776529	-1.37866	69.9102	66.9702	
22	-0.733969	-1.35317	71.7413	67.9634	
23	-0.693147	-1.32854	73.5063	68.8843	
24	-0.653926	-1.30469	75.2086	69.7375	
25	-0.653926	-1.28155	76.8509	70.5755	
26	-0.634878	-1.25908	78.4362	71.3749	
27	-0.579818	-1.23724	79.967	72.0922	
28	-0.527633	-1.21596	81.4455	72.7338	
29	-0.510826	-1.19522	82.8741	73.3444	
30	-0.510826	-1.17499	84.2547	73.9446	
31	-0.510826	-1.15522	85.5892	74.5347	
32	-0.478036	-1.1359	86.8795	75.0777	
33	-0.478036	-1.11699	88.1271	75.6117	
34	-0.446287	-1.09847	89.3338	76.1019	
35	-0.446287	-1.08032	90.5009	76.584	
36	-0.446287	-1.06252	91.6298	77.0582	
37	-0.430783	-1.04505	92.7219	77.5084	
38	-0.314711	-1.02789	93.7785	77.8319	
39	-0.274437	-1.01104	94.8007	78.1094	
40	-0.223144	-0.994457	95.7896	78.3313	
41	-0.127833	-0.97815	96.7464	78.4563	
42	-0.0725707	-0.9621	97.6721	78.5261	
43	-0.0725707	-0.946291	98.5675	78.5948	
44	-0.0100503	-0.930718	99.4338	78.6042	
45	0	-0.915365	100.272	78.6042	
46	0.0953102	-0.900227	101.082	78.5184	
47	0.0953102	-0.885291	101.866	78.434	
48	0.0953102	-0.87055	102.624	78.351	
49	0.182322	-0.855996	103.356	78.1949	
50	0.182322	-0.841621	104.065	78.0415	
51	0.182322	-0.827417	104.749	77.8906	

52	0.262364	-0.813379	105.411	77.6772
53	0.262364	-0.7995	106.05	77.4675
54	0.336472	-0.785774	106.668	77.2031
55	0.470004	-0.772193	107.264	76.8401
56	0.470004	-0.758753	107.84	76.4835
57	0.470004	-0.745449	108.395	76.1332
58	0.587787	-0.732275	108.931	75.7027
59	0.693147	-0.719228	109.449	75.2042
60	0.741937	-0.706302	109.948	74.6802
61	0.788457	-0.693493	110.429	74.1334
62	0.832909	-0.680797	110.892	73.5664
63	1.22378	-0.665079	111.334	72.7524
64	1.64094	-0.652622	111.76	71.6815
65	1.72098	-0.640266	112.17	70.5796
66	1.79176	-0.628006	112.565	69.4544
67	1.79176	-0.615839	112.944	68.351
68	1.89311	-0.603765	113.308	67.208
69	1.95445	-0.591776	113.659	66.0514
70	2.02155	-0.579873	113.995	64.8791
71	2.07944	-0.568052	114.318	63.6979
72	2.19722	-0.556308	114.627	62.4756
73	2.30259	-0.544642	114.924	61.2215
74	2.30259	-0.533048	115.208	59.9941
75	2.30259	-0.521527	115.48	58.7932
76	2.30259	-0.510074	115.74	57.6188
77	2.30259	-0.498687	115.989	56.4705
78	2.30259	-0.487364	116.226	55.3483
79	2.30259	-0.476105	116.453	54.252
80	2.30259	-0.464904	116.669	53.1815
81	2.30259	-0.453763	116.875	52.1367
82	2.30259	-0.442676	117.071	51.1174
83	2.30259	-0.431644	117.257	50.1235
84	2.30259	-0.420664	117.434	49.1549
85	2.30259	-0.409735	117.602	48.2115
86	2.30259	-0.398855	117.761	47.2931
87	2.30259	-0.388022	117.912	46.3996
88	2.30259	-0.377233	118.054	45.531
89	2.30259	-0.36649	118.188	44.6871
90	2.30259	-0.355788	118.315	43.8679
91	2.30259	-0.345126	118.434	43.0732
92	2.30259	-0.334503	118.546	42.303
93	2.30259	-0.323919	118.651	41.5571
94	2.30259	-0.31337	118.749	40.8356
95	2.30259	-0.302855	118.841	40.1382
96	2.30259	-0.292375	118.926	39.465
97	2.30259	-0.281926	119.006	38.8158
98	2.30259	-0.271509	119.079	38.1907
99	2.30259	-0.26112	119.148	37.5894
100	2.30259	-0.250759	119.21	37.012
101	2.30259	-0.240426	119.268	36.4584
102	2.30259	-0.230118	119.321	35.9286
103	2.30259	-0.219834	119.37	35.4224
104	2.30259	-0.209575	119.413	34.9398
105	2.30259	-0.199336	119.453	34.4808
106	2.30259	-0.189118	119.489	34.0454
107	2.30259	-0.17892	119.521	33.6334
108	2.30259	-0.168741	119.549	33.2448
109	2.30259	-0.158579	119.575	32.8797
110	2.30259	-0.148434	119.597	32.5379
111	2.30259	-0.138305	119.616	32.2194
112	2.30259	-0.128189	119.632	31.9243
113	2.30259	-0.118085	119.646	31.6524

114	2.30259	-0.107995	119.658	31.4037
115	2.30259	-0.0979139	119.667	31.1783
116	2.30259	-0.0878447	119.675	30.976
117	2.30259	-0.0777834	119.681	30.7969
118	2.30259	-0.0677301	119.686	30.6409
119	2.30259	-0.0576847	119.689	30.5081
120	2.30259	-0.0476439	119.691	30.3984
121	2.30259	-0.0376076	119.693	30.3118
122	2.30259	-0.0275759	119.694	30.2483
123	2.30259	-0.0175476	119.694	30.2079
124	2.30259	-0.00751925	119.694	30.1906
125	2.30259	0.00751925	119.694	30.2079
126	2.30259	0.0175476	119.694	30.2483
127	2.30259	0.0275759	119.695	30.3118
128	2.30259	0.0376076	119.696	30.3984
129	2.30259	0.0476439	119.699	30.5081
130	2.30259	0.0576847	119.702	30.6409
131	2.30259	0.0677301	119.707	30.7969
132	2.30259	0.0777834	119.713	30.976
133	2.30259	0.0878447	119.72	31.1783
134	2.30259	0.0979139	119.73	31.4037
135	2.30259	0.107995	119.742	31.6524
136	2.30259	0.118085	119.756	31.9243
137	2.30259	0.128189	119.772	32.2194
138	2.30259	0.138305	119.791	32.5379
139	2.30259	0.148434	119.813	32.8797
140	2.30259	0.158579	119.838	33.2448
141	2.30259	0.168741	119.867	33.6334
142	2.30259	0.17892	119.899	34.0454
143	2.30259	0.189118	119.935	34.4808
144	2.30259	0.199336	119.974	34.9398
145	2.30259	0.209575	120.018	35.4224
146	2.30259	0.219834	120.067	35.9286
147	2.30259	0.230118	120.119	36.4584
148	2.30259	0.240426	120.177	37.012
149	2.30259	0.250759	120.24	37.5894
150	2.30259	0.26112	120.308	38.1907
151	2.30259	0.271509	120.382	38.8158
152	2.30259	0.281926	120.462	39.465
153	2.30259	0.292375	120.547	40.1382
154	2.30259	0.302855	120.639	40.8356
155	2.30259	0.31337	120.737	41.5571
156	2.30259	0.323919	120.842	42.303
157	2.30259	0.334503	120.954	43.0732
158	2.30259	0.345126	121.073	43.8679
159	2.30259	0.355788	121.199	44.6871
160	2.30259	0.36649	121.334	45.531
161	2.30259	0.377233	121.476	46.3996
162	2.30259	0.388022	121.627	47.2931
163	2.30259	0.398855	121.786	48.2115
164	2.30259	0.409735	121.954	49.1549
165	2.30259	0.420664	122.131	50.1235
166	2.30259	0.431644	122.317	51.1174
167	2.30259	0.442676	122.513	52.1367
168	2.30259	0.453763	122.719	53.1815
169	2.30259	0.464904	122.935	54.252
170	2.30259	0.476105	123.162	55.3483
171	2.30259	0.487364	123.399	56.4705
172	2.30259	0.498687	123.648	57.6188
173	2.30259	0.510074	123.908	58.7932
174	2.30259	0.521527	124.18	59.9941
175	2.30259	0.533048	124.464	61.2215

176	2.30259	0.544642		124.761	62.4756
177	2.30259	0.556308		125.07	63.7565
178	2.30259	0.568052		125.393	65.0645
179	2.30259	0.579873		125.729	66.3997
180	2.30259	0.591776		126.079	67.7623
181	2.30259	0.603765		126.444	69.1526
182	2.30259	0.615839		126.823	70.5706
183	2.30259	0.628006		127.218	72.0166
184	2.30259	0.640266		127.627	73.4909
185	2.30259	0.652622		128.053	74.9936
186	2.30259	0.665079		128.496	76.525
187	2.30259	0.680797		128.959	78.0926
188	2.30259	0.693493		129.44	79.6894
189	2.30259	0.706302		129.939	81.3157
190	2.30259	0.719228		130.456	82.9718
191	2.30259	0.732275		130.993	84.658
192	2.30259	0.745449		131.548	86.3744
193	2.30259	0.758753		132.124	88.1215
194	2.30259	0.772193		132.72	89.8995
195	2.30259	0.785774		133.338	91.7089
196	2.30259	0.7995	133.977	93.5498	
197	2.30259	0.813379		134.638	95.4227
198	2.30259	0.827417		135.323	97.3279
199	2.30259	0.841621		136.031	99.2658
200	2.30259	0.855996		136.764	101.237
201	2.30259	0.87055	137.522	103.241	
202	2.30259	0.885291		138.306	105.28
203	2.30259	0.900227		139.116	107.353
204	2.30259	0.915365		139.954	109.46
205	2.30259	0.930718		140.82	111.603
206	2.30259	0.946291		141.716	113.782
207	2.30259	0.9621	142.641	115.998	
208	2.30259	0.97815	143.598	118.25	
209	2.30259	0.994457		144.587	120.54
210	2.30259	1.01104	145.609	122.868	
211	2.30259	1.02789	146.666	125.234	
212	2.30259	1.04505	147.758	127.641	
213	2.30259	1.06252	148.887	130.087	
214	2.30259	1.08032	150.054	132.575	
215	2.30259	1.09847	151.261	135.104	
216	2.30259	1.11699	152.508	137.676	
217	2.30259	1.1359	153.799	140.292	
218	2.30259	1.15522	155.133	142.952	
219	2.30259	1.17499	156.514	145.657	
220	2.30259	1.19522	157.942	148.409	
221	2.30259	1.21596	159.421	151.209	
222	2.30259	1.23724	160.952	154.058	
223	2.30259	1.25908	162.537	156.957	
224	2.30259	1.28155	164.179	159.908	
225	2.30259	1.30469	165.881	162.912	
226	2.30259	1.32854	167.646	165.971	
227	2.30259	1.35317	169.477	169.087	
228	2.30259	1.37866	171.378	172.261	
229	2.30259	1.40507	173.352	175.497	
230	2.30259	1.4325	175.404	178.795	
231	2.30259	1.46106	177.539	182.159	
232	2.30259	1.49085	179.762	185.592	
233	2.30259	1.52203	182.078	189.097	
234	2.30259	1.55477	184.496	192.677	
235	2.30259	1.58927	187.022	196.336	
236	2.30259	1.62576	189.665	200.08	
237	2.30259	1.66456	192.435	203.913	

238	2.30259	1.70604	195.346	207.841
239	2.30259	1.75069	198.411	211.872
240	2.37955	1.79912	201.648	216.153
241	2.62467	1.85218	205.078	221.014
242	2.99573	1.91103	208.73	226.739
243	3.26194	1.97737	212.64	233.189
244	3.4012	2.05375	216.858	240.175
245	3.46574	2.14441	221.457	247.607
246	3.91202	2.25713	226.551	256.436
247	3.93378	2.40892	232.354	265.913
248	4.35927	2.65209	239.388	277.474

Data Set Standard Deviation = 1.38471
Numerator = 76991.7
Denominator = 113375
W Statistic = 0.679091 = 76991.7 / 113375

5% Critical value of 0.976 exceeds 0.679091
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.679091
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 = 0.826296
0.826296 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-4.60517	0.00401606	-2.65209	60.1234	344.01
2	-2.25379	0.00803213	-2.40892	185.922	332.136
3	-2.25379	0.0120482	-2.25713	185.922	324.723
4	-2.25379	0.0160643	-2.14441	185.922	319.219
5	-2.25379	0.0200803	-2.05375	185.922	314.791
6	-2.25379	0.0240964	-1.97737	185.922	311.062
7	-2.25379	0.0281124	-1.91103	185.922	307.822
8	-2.25379	0.0321285	-1.85218	185.922	304.948
9	-1.56065	0.0361446	-1.79912	223.005	302.357
10	-1.20397	0.0401606	-1.75069	242.087	299.992
11	-1.17118	0.0441767	-1.70604	243.842	297.812
12	-1.10866	0.0481928	-1.66456	247.187	295.786
13	-1.04982	0.0522088	-1.62576	250.335	293.891
14	-1.04982	0.0562249	-1.58927	250.335	292.109
15	-1.04982	0.060241	-1.55477	250.335	290.425
16	-1.04982	0.064257	-1.52203	250.335	288.826
17	-0.994252	0.0682731	-1.49085	253.308	287.303
18	-0.994252	0.0722892	-1.46106	253.308	285.848
19	-0.941609	0.0763052	-1.4325	256.124	284.454
20	-0.798508	0.0803213	-1.40507	263.78	283.114
21	-0.776529	0.0843373	-1.37866	264.956	281.824
22	-0.733969	0.0883534	-1.35317	267.233	280.58
23	-0.693147	0.0923695	-1.32854	269.417	279.377
24	-0.653926	0.0963855	-1.30469	271.515	278.212
25	-0.653926	0.100402	-1.28155	271.515	277.082
26	-0.634878	0.104418	-1.25908	272.534	275.985
27	-0.579818	0.108434	-1.23724	275.48	274.918
28	-0.527633	0.11245	-1.21596	278.272	273.879
29	-0.510826	0.116466	-1.19522	279.171	272.867
30	-0.510826	0.120482	-1.17499	279.171	271.879
31	-0.510826	0.124498	-1.15522	279.171	270.913
32	-0.478036	0.128514	-1.1359	280.925	269.97
33	-0.478036	0.13253	-1.11699	280.925	269.046
34	-0.446287	0.136546	-1.09847	282.624	268.142
35	-0.446287	0.140562	-1.08032	282.624	267.256
36	-0.446287	0.144578	-1.06252	282.624	266.386
37	-0.430783	0.148594	-1.04505	283.453	265.533
38	-0.314711	0.15261	-1.02789	289.663	264.695
39	-0.274437	0.156627	-1.01104	291.818	263.872
40	-0.223144	0.160643	-0.994457	294.562	263.063
41	-0.127833	0.164659	-0.97815	299.661	262.266
42	-0.0725707	0.168675	-0.9621	302.617	261.483
43	-0.0725707	0.172691	-0.946291	302.617	260.711
44	-0.0100503	0.176707	-0.930718	305.962	259.95
45	0	0.180723	-0.915365	306.5	259.2
46	0.0953102	0.184739	-0.900227	311.599	258.461
47	0.0953102	0.188755	-0.885291	311.599	257.732
48	0.0953102	0.192771	-0.87055	311.599	257.012

49	0.182322	0.196787	-0.855996	316.254	256.301
50	0.182322	0.200803	-0.841621	316.254	255.599
51	0.182322	0.204819	-0.827417	316.254	254.906
52	0.262364	0.208835	-0.813379	320.536	254.22
53	0.262364	0.212851	-0.7995	320.536	253.542
54	0.336472	0.216867	-0.785774	324.501	252.872
55	0.470004	0.220884	-0.772193	331.645	252.209
56	0.470004	0.2249	-0.758753	331.645	251.552
57	0.470004	0.228916	-0.745449	331.645	250.903
58	0.587787	0.232932	-0.732275	337.947	250.259
59	0.693147	0.236948	-0.719228	343.583	249.622
60	0.741937	0.240964	-0.706302	346.194	248.991
61	0.788457	0.24498	-0.693493	348.682	248.366
62	0.832909	0.248996	-0.680797	351.061	247.746
63	1.22378	0.253012	-0.665079	371.972	246.978
64	1.64094	0.257028	-0.652622	394.29	246.37
65	1.72098	0.261044	-0.640266	398.572	245.766
66	1.79176	0.26506	-0.628006	402.359	245.168
67	1.79176	0.269076	-0.615839	402.359	244.573
68	1.89311	0.273092	-0.603765	407.781	243.984
69	1.95445	0.277108	-0.591776	411.063	243.398
70	2.02155	0.281124	-0.579873	414.653	242.817
71	2.07944	0.285141	-0.568052	417.75	242.24
72	2.19722	0.289157	-0.556308	424.052	241.666
73	2.30259	0.293173	-0.544642	429.688	241.097
74	2.30259	0.297189	-0.533048	429.688	240.531
75	2.30259	0.301205	-0.521527	429.688	239.968
76	2.30259	0.305221	-0.510074	429.688	239.409
77	2.30259	0.309237	-0.498687	429.688	238.853
78	2.30259	0.313253	-0.487364	429.688	238.3
79	2.30259	0.317269	-0.476105	429.688	237.75
80	2.30259	0.321285	-0.464904	429.688	237.203
81	2.30259	0.325301	-0.453763	429.688	236.659
82	2.30259	0.329317	-0.442676	429.688	236.117
83	2.30259	0.333333	-0.431644	429.688	235.579
84	2.30259	0.337349	-0.420664	429.688	235.042
85	2.30259	0.341365	-0.409735	429.688	234.509
86	2.30259	0.345382	-0.398855	429.688	233.977
87	2.30259	0.349398	-0.388022	429.688	233.448
88	2.30259	0.353414	-0.377233	429.688	232.922
89	2.30259	0.35743	-0.36649	429.688	232.397
90	2.30259	0.361446	-0.355788	429.688	231.874
91	2.30259	0.365462	-0.345126	429.688	231.354
92	2.30259	0.369478	-0.334503	429.688	230.835
93	2.30259	0.373494	-0.323919	429.688	230.318
94	2.30259	0.37751	-0.31337	429.688	229.803
95	2.30259	0.381526	-0.302855	429.688	229.289
96	2.30259	0.385542	-0.292375	429.688	228.778
97	2.30259	0.389558	-0.281926	429.688	228.267
98	2.30259	0.393574	-0.271509	429.688	227.759
99	2.30259	0.39759	-0.26112	429.688	227.251
100	2.30259	0.401606	-0.250759	429.688	226.745
101	2.30259	0.405622	-0.240426	429.688	226.241
102	2.30259	0.409639	-0.230118	429.688	225.737
103	2.30259	0.413655	-0.219834	429.688	225.235
104	2.30259	0.417671	-0.209575	429.688	224.734
105	2.30259	0.421687	-0.199336	429.688	224.234
106	2.30259	0.425703	-0.189118	429.688	223.735
107	2.30259	0.429719	-0.17892	429.688	223.237
108	2.30259	0.433735	-0.168741	429.688	222.74
109	2.30259	0.437751	-0.158579	429.688	222.244
110	2.30259	0.441767	-0.148434	429.688	221.749

111	2.30259	0.445783	-0.138305	429.688	221.254
112	2.30259	0.449799	-0.128189	429.688	220.76
113	2.30259	0.453815	-0.118085	429.688	220.267
114	2.30259	0.457831	-0.107995	429.688	219.774
115	2.30259	0.461847	-0.0979139	429.688	219.281
116	2.30259	0.465863	-0.0878447	429.688	218.79
117	2.30259	0.46988	-0.0777834	429.688	218.298
118	2.30259	0.473896	-0.0677301	429.688	217.807
119	2.30259	0.477912	-0.0576847	429.688	217.317
120	2.30259	0.481928	-0.0476439	429.688	216.827
121	2.30259	0.485944	-0.0376076	429.688	216.337
122	2.30259	0.48996	-0.0275759	429.688	215.847
123	2.30259	0.493976	-0.0175476	429.688	215.357
124	2.30259	0.497992	-0.00751925	429.688	214.867
125	2.30259	0.502008	0.00751925	429.688	214.133
126	2.30259	0.506024	0.0175476	429.688	213.643
127	2.30259	0.51004	0.0275759	429.688	213.153
128	2.30259	0.514056	0.0376076	429.688	212.663
129	2.30259	0.518072	0.0476439	429.688	212.173
130	2.30259	0.522088	0.0576847	429.688	211.683
131	2.30259	0.526104	0.0677301	429.688	211.193
132	2.30259	0.53012	0.0777834	429.688	210.702
133	2.30259	0.534137	0.0878447	429.688	210.21
134	2.30259	0.538153	0.0979139	429.688	209.719
135	2.30259	0.542169	0.107995	429.688	209.226
136	2.30259	0.546185	0.118085	429.688	208.733
137	2.30259	0.550201	0.128189	429.688	208.24
138	2.30259	0.554217	0.138305	429.688	207.746
139	2.30259	0.558233	0.148434	429.688	207.251
140	2.30259	0.562249	0.158579	429.688	206.756
141	2.30259	0.566265	0.168741	429.688	206.26
142	2.30259	0.570281	0.17892	429.688	205.763
143	2.30259	0.574297	0.189118	429.688	205.265
144	2.30259	0.578313	0.199336	429.688	204.766
145	2.30259	0.582329	0.209575	429.688	204.266
146	2.30259	0.586345	0.219834	429.688	203.765
147	2.30259	0.590361	0.230118	429.688	203.263
148	2.30259	0.594378	0.240426	429.688	202.759
149	2.30259	0.598394	0.250759	429.688	202.255
150	2.30259	0.60241	0.26112	429.688	201.749
151	2.30259	0.606426	0.271509	429.688	201.241
152	2.30259	0.610442	0.281926	429.688	200.733
153	2.30259	0.614458	0.292375	429.688	200.222
154	2.30259	0.618474	0.302855	429.688	199.711
155	2.30259	0.62249	0.31337	429.688	199.197
156	2.30259	0.626506	0.323919	429.688	198.682
157	2.30259	0.630522	0.334503	429.688	198.165
158	2.30259	0.634538	0.345126	429.688	197.646
159	2.30259	0.638554	0.355788	429.688	197.126
160	2.30259	0.64257	0.36649	429.688	196.603
161	2.30259	0.646586	0.377233	429.688	196.078
162	2.30259	0.650602	0.388022	429.688	195.552
163	2.30259	0.654618	0.398855	429.688	195.023
164	2.30259	0.658635	0.409735	429.688	194.491
165	2.30259	0.662651	0.420664	429.688	193.958
166	2.30259	0.666667	0.431644	429.688	193.421
167	2.30259	0.670683	0.442676	429.688	192.883
168	2.30259	0.674699	0.453763	429.688	192.341
169	2.30259	0.678715	0.464904	429.688	191.797
170	2.30259	0.682731	0.476105	429.688	191.25
171	2.30259	0.686747	0.487364	429.688	190.7
172	2.30259	0.690763	0.498687	429.688	190.147

173	2.30259	0.694779	0.510074	429.688	189.591
174	2.30259	0.698795	0.521527	429.688	189.032
175	2.30259	0.702811	0.533048	429.688	188.469
176	2.30259	0.706827	0.544642	429.688	187.903
177	2.30259	0.710843	0.556308	429.688	187.334
178	2.30259	0.714859	0.568052	429.688	186.76
179	2.30259	0.718876	0.579873	429.688	186.183
180	2.30259	0.722892	0.591776	429.688	185.602
181	2.30259	0.726908	0.603765	429.688	185.016
182	2.30259	0.730924	0.615839	429.688	184.427
183	2.30259	0.73494	0.628006	429.688	183.832
184	2.30259	0.738956	0.640266	429.688	183.234
185	2.30259	0.742972	0.652622	429.688	182.63
186	2.30259	0.746988	0.665079	429.688	182.022
187	2.30259	0.751004	0.680797	429.688	181.254
188	2.30259	0.75502	0.693493	429.688	180.634
189	2.30259	0.759036	0.706302	429.688	180.009
190	2.30259	0.763052	0.719228	429.688	179.378
191	2.30259	0.767068	0.732275	429.688	178.741
192	2.30259	0.771084	0.745449	429.688	178.097
193	2.30259	0.7751	0.758753	429.688	177.448
194	2.30259	0.779116	0.772193	429.688	176.791
195	2.30259	0.783133	0.785774	429.688	176.128
196	2.30259	0.787149	0.7995	429.688	175.458
197	2.30259	0.791165	0.813379	429.688	174.78
198	2.30259	0.795181	0.827417	429.688	174.094
199	2.30259	0.799197	0.841621	429.688	173.401
200	2.30259	0.803213	0.855996	429.688	172.699
201	2.30259	0.807229	0.87055	429.688	171.988
202	2.30259	0.811245	0.885291	429.688	171.268
203	2.30259	0.815261	0.900227	429.688	170.539
204	2.30259	0.819277	0.915365	429.688	169.8
205	2.30259	0.823293	0.930718	429.688	169.05
206	2.30259	0.827309	0.946291	429.688	168.289
207	2.30259	0.831325	0.9621	429.688	167.517
208	2.30259	0.835341	0.97815	429.688	166.734
209	2.30259	0.839357	0.994457	429.688	165.937
210	2.30259	0.843373	1.01104	429.688	165.128
211	2.30259	0.84739	1.02789	429.688	164.305
212	2.30259	0.851406	1.04505	429.688	163.467
213	2.30259	0.855422	1.06252	429.688	162.614
214	2.30259	0.859438	1.08032	429.688	161.744
215	2.30259	0.863454	1.09847	429.688	160.858
216	2.30259	0.86747	1.11699	429.688	159.954
217	2.30259	0.871486	1.1359	429.688	159.03
218	2.30259	0.875502	1.15522	429.688	158.087
219	2.30259	0.879518	1.17499	429.688	157.121
220	2.30259	0.883534	1.19522	429.688	156.133
221	2.30259	0.88755	1.21596	429.688	155.121
222	2.30259	0.891566	1.23724	429.688	154.082
223	2.30259	0.895582	1.25908	429.688	153.015
224	2.30259	0.899598	1.28155	429.688	151.918
225	2.30259	0.903614	1.30469	429.688	150.788
226	2.30259	0.907631	1.32854	429.688	149.623
227	2.30259	0.911647	1.35317	429.688	148.42
228	2.30259	0.915663	1.37866	429.688	147.176
229	2.30259	0.919679	1.40507	429.688	145.886
230	2.30259	0.923695	1.4325	429.688	144.546
231	2.30259	0.927711	1.46106	429.688	143.152
232	2.30259	0.931727	1.49085	429.688	141.697
233	2.30259	0.935743	1.52203	429.688	140.174
234	2.30259	0.939759	1.55477	429.688	138.575

235	2.30259	0.943775	1.58927	429.688	136.891
236	2.30259	0.947791	1.62576	429.688	135.109
237	2.30259	0.951807	1.66456	429.688	133.214
238	2.30259	0.955823	1.70604	429.688	131.188
239	2.30259	0.959839	1.75069	429.688	129.008
240	2.37955	0.963855	1.79912	433.806	126.643
241	2.62467	0.967871	1.85218	446.92	124.052
242	2.99573	0.971888	1.91103	466.772	121.178
243	3.26194	0.975904	1.97737	481.014	117.938
244	3.4012	0.97992	2.05375	488.464	114.209
245	3.46574	0.983936	2.14441	491.917	109.781
246	3.91202	0.987952	2.25713	515.793	104.277
247	3.93378	0.991968	2.40892	516.957	96.8642
248	4.35927	0.995984	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	237
	9/23/1999	2.19722 J	236
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	ND<2.30259	86
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-0.693147 J	187
	11/16/2009	-1.20397 J	174
	6/30/2010	-1.04982 J H	177
	11/12/2010	ND<-2.25379 U	86
	7/5/2011	-0.733969 J	186

Rank Sum = 2315
Rank Mean = 121.842

Background Rank Sum = 2315
Background Rank Mean = 121.842

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	ND<2.30259	86
	10/26/1995	ND<2.30259	86
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86
	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	2.99573	242
	9/23/1999	ND<2.30259	86
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	-4.60517 J	172
	11/18/2006	2.62467	241
	5/23/2007	1.72098 J	229

	11/28/2007	ND<2.30259	86
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-0.274437 J	203
	11/16/2009	-1.10866 J	176
	6/30/2010	0 H	209
	11/12/2010	-0.430783 J	201
	7/5/2011	-0.0725707 J	206
	11/22/2011	-1.04982 J	178
	11/22/2011	-1.04982 J	179
	6/5/2012	ND<-2.25379 U	86

Rank Sum = 4042
Rank Mean = 126.313

MW-11R	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	ND<2.30259	86
	10/26/1995	ND<2.30259	86
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86
	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	ND<2.30259	86
	9/23/1999	3.46574	245
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	2.30259 J	238
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	2.07944 J	235
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-0.527633 J	192
	11/16/2009	-0.314711 J	202
	6/30/2010	-0.510826 J H	193
	11/12/2010	-0.510826 J	194
	7/5/2011	-0.446287 J	198
	11/22/2011	-0.446287 J	199
	11/22/2011	-0.446287 J	200
	6/5/2012	-0.776529 J	185

Rank Sum = 4087
Rank Mean = 127.719

MW-7	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	4.35927	248
	10/26/1995	3.26194	243
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86
	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	3.91202	246
	9/23/1999	2.30259 J	239
	3/15/2000	ND<2.30259	86

	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	2.37955	240
	11/28/2007	1.95445 J	233
	6/5/2008	2.02155 J	234
	11/20/2008	1.79176 J	230
	6/11/2009	0.832909	226
	11/16/2009	0.336472	218
	6/30/2010	0.741937 H	224
	11/12/2010	0.587787	222
	7/5/2011	0.0953102	210
	11/22/2011	0.262364	216
	6/5/2012	-0.0100503 J	208

Rank Sum = 4813
Rank Mean = 155.258

MW-10	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	ND<2.30259	86
	10/26/1995	ND<2.30259	86
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86
	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	ND<2.30259	86
	9/23/1999	ND<2.30259	86
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	1.89311 J	232
	11/28/2007	ND<2.30259	86
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-0.941609 J	183
	11/16/2009	-0.994252 J	181
	6/30/2010	-0.0725707 J H	207
	11/12/2010	ND<-2.25379 U	86
	7/5/2011	-1.56065 U J	173
	11/22/2011	-0.223144 J	204
	6/5/2012	ND<-2.25379 U	86

Rank Sum = 3330
Rank Mean = 107.419

MW-8	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	3.93378	247
	10/26/1995	ND<2.30259	86
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86

	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	3.4012	244
	9/23/1999	ND<2.30259	86
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	ND<2.30259	86
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-1.17118 J	175
	6/30/2010	-0.478036 J H	196
	11/12/2010	0.0953102	211
	7/5/2011	-0.798508 J	184
	11/22/2011	-0.579818 J	191
	6/5/2012	-0.653926 J	188

Rank Sum = 3528
Rank Mean = 117.6

MW-6	7/20/1995	ND<2.30259	86
	8/24/1995	ND<2.30259	86
	9/28/1995	ND<2.30259	86
	10/26/1995	ND<2.30259	86
	11/19/1996	ND<2.30259	86
	12/19/1996	ND<2.30259	86
	3/24/1997	ND<2.30259	86
	9/24/1997	ND<2.30259	86
	4/7/1998	ND<2.30259	86
	9/23/1998	ND<2.30259	86
	3/16/1999	ND<2.30259	86
	9/23/1999	ND<2.30259	86
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	1.64094 J	228
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	0.182322	213
	11/16/2009	0.262364	217
	6/30/2010	0.470004 H	219
	11/12/2010	-1.04982 J	180
	7/5/2011	0.470004	220
	11/22/2011	-0.510826 J	195
	6/5/2012	ND<-2.25379 U	86

Rank Sum = 3536
Rank Mean = 114.065

MW-12BR	3/16/1999	ND<2.30259	86
	9/23/1999	ND<2.30259	86

	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	1.79176 J	231
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	0.470004	221
	11/16/2009	0.182322	214
	6/30/2010	1.22378	227
	11/12/2010	0.788457	225
	7/5/2011	0.0953102	212
	11/22/2011	0.182322	215
	6/5/2012	-0.127833 J	205

Rank Sum = 2868
Rank Mean = 136.571

MW-12AR	3/16/1999	ND<2.30259	86
	9/23/1999	ND<2.30259	86
	3/15/2000	ND<2.30259	86
	9/24/2003	ND<2.30259	86
	3/11/2004	ND<2.30259	86
	10/12/2004	ND<2.30259	86
	4/1/2005	ND<2.30259	86
	10/25/2005	ND<2.30259	86
	4/29/2006	ND<2.30259	86
	11/18/2006	ND<2.30259	86
	5/23/2007	ND<2.30259	86
	11/28/2007	ND<2.30259	86
	6/5/2008	ND<2.30259	86
	11/20/2008	ND<2.30259	86
	6/11/2009	-0.994252 J	182
	11/16/2009	-0.634878 J	190
	6/30/2010	0.693147	223
	11/12/2010	ND<-2.25379 U	86
	7/5/2011	-0.653926 J	189
	11/22/2011	-0.478036 J	197
	6/5/2012	ND<-2.25379 U	86

Rank Sum = 2357
Rank Mean = 112.238

Calculation Results:

Kruskal-Wallis H Statistic = 9.70941
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 14.4445
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
9.70941 < 15.5073 indicating no significant group difference at 5% significance level
14.4445 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties

Concentrations (ppb)

Parameter: Cumene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 194
Total Non-Detect: 190
Percent Non-Detects: 97.9381%
Total Background Measurements: 14
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	14	14 (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

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	25	24 (96%)	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
			6/5/2012	0.13 J	0.13 J
MW-8	25	25 (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	
			6/5/2012	ND<0.1 U	ND<0.1 U	
MW-9	25	23 (92%)	7/20/1995	0.36 J	0.36 J	
			8/24/1995	0.37 J	0.37 J	
			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	
			6/5/2012	ND<0.1 U	ND<0.1 U	
MW-7	25	25 (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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-11R	25	25 (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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-6	25	25 (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		
		6/5/2012	ND<0.1 U	ND<0.1 U		
MW-12AR	15	15 (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		
		6/5/2012	ND<0.1 U	ND<0.1 U		
MW-12BR	15	14 (93.3333%)	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	0.5 J	0.5 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		
		6/5/2012	ND<0.1 U	ND<0.1 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Cumene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.05	-2.57583	6.63492	-0.128792
2	0.05	-2.32634	12.0468	-0.245109
3	0.05	-2.17009	16.7561	-0.353613
4	0.05	-2.05375	20.974	-0.456301
5	0.05	-1.95996	24.8154	-0.554299
6	0.05	-1.88079	28.3528	-0.648338
7	0.05	-1.81191	31.6358	-0.738934
8	0.13	-1.7392	34.6606	-0.96503
9	0.36	-1.68494	37.4996	-1.57161
10	0.37	-1.63524	40.1736	-2.17664
11	0.5	-1.58927	42.6994	-2.97128
12	1	-1.54643	45.0909	-4.51771
13	1	-1.50626	47.3597	-6.02397
14	1	-1.46838	49.5158	-7.49235
15	1	-1.4325	51.5679	-8.92486
16	1	-1.39175	53.5049	-10.3166
17	1	-1.35946	55.353	-11.6761
18	1	-1.32854	57.118	-13.0046
19	1	-1.29884	58.805	-14.3034
20	1	-1.27024	60.4185	-15.5737
21	1	-1.24264	61.9627	-16.8163
22	1	-1.21596	63.4412	-18.0323
23	1	-1.19012	64.8576	-19.2224
24	1	-1.16012	66.2035	-20.3825
25	1	-1.1359	67.4937	-21.5184
26	1	-1.11232	68.731	-22.6307
27	1	-1.08935	69.9177	-23.7201
28	1	-1.06694	71.056	-24.787
29	1	-1.04505	72.1482	-25.8321
30	1	-1.02365	73.196	-26.8557
31	1	-1.00271	74.2015	-27.8584
32	1	-0.97815	75.1582	-28.8366
33	1	-0.958125	76.0762	-29.7947
34	1	-0.938476	76.957	-30.7332
35	1	-0.919183	77.8019	-31.6524
36	1	-0.900227	78.6123	-32.5526
37	1	-0.881587	79.3895	-33.4342
38	1	-0.863249	80.1347	-34.2974
39	1	-0.841621	80.843	-35.1391
40	1	-0.823893	81.5218	-35.9629
41	1	-0.806422	82.1721	-36.7694
42	1	-0.789191	82.7949	-37.5586
43	1	-0.772193	83.3912	-38.3308
44	1	-0.755415	83.9619	-39.0862
45	1	-0.738846	84.5078	-39.825
46	1	-0.722479	85.0297	-40.5475
47	1	-0.703089	85.5241	-41.2506
48	1	-0.687131	85.9962	-41.9377
49	1	-0.671346	86.4469	-42.6091
50	1	-0.655726	86.8769	-43.2648
51	1	-0.640266	87.2868	-43.9051

52	1	-0.624956	87.6774	-44.53
53	1	-0.609791	88.0493	-45.1398
54	1	-0.594766	88.403	-45.7346
55	1	-0.576911	88.7358	-46.3115
56	1	-0.5621789.0519	-46.8736	
57	1	-0.547551	89.3517	-47.4212
58	1	-0.533048	89.6358	-47.9542
59	1	-0.518658	89.9048	-48.4729
60	1	-0.504372	90.1592	-48.9773
61	1	-0.490189	90.3995	-49.4675
62	1	-0.476105	90.6262	-49.9436
63	1	-0.459327	90.8372	-50.4029
64	1	-0.445443	91.0356	-50.8483
65	1	-0.431644	91.2219	-51.28
66	1	-0.417928	91.3966	-51.6979
67	1	-0.4042991.56	-52.1022	
68	1	-0.390726	91.7127	-52.4929
69	1	-0.377233	91.855	-52.8702
70	1	-0.363809	91.9873	-53.234
71	1	-0.347787	92.1083	-53.5818
72	1	-0.334503	92.2202	-53.9163
73	1	-0.321278	92.3234	-54.2375
74	1	-0.308108	92.4183	-54.5456
75	1	-0.294992	92.5054	-54.8406
76	1	-0.281926	92.5848	-55.1226
77	1	-0.268908	92.6572	-55.3915
78	1	-0.253347	92.7213	-55.6448
79	1	-0.240426	92.7791	-55.8852
80	1	-0.227545	92.8309	-56.1128
81	1	-0.214702	92.877	-56.3275
82	1	-0.201894	92.9178	-56.5294
83	1	-0.189118	92.9535	-56.7185
84	1	-0.176374	92.9847	-56.8949
85	1	-0.163659	93.0114	-57.0585
86	1	-0.148434	93.0335	-57.207
87	1	-0.135774	93.0519	-57.3427
88	1	-0.123135	93.0671	-57.4659
89	1	-0.110516	93.0793	-57.5764
90	1	-0.0979139	93.0889	-57.6743
91	1	-0.0853288	93.0961	-57.7596
92	1	-0.0727562	93.1014	-57.8324
93	1	-0.0601949	93.1051	-57.8926
94	1	-0.0451348	93.1071	-57.9377
95	1	-0.0325917	93.1082	-57.9703
96	1	-0.0200544	93.1086	-57.9904
97	1	-0.00751925	93.1086	-57.9979
98	1	0.00751925	93.1087	-57.9904
99	1	0.0200544	93.1091	-57.9703
100	1	0.0325917	93.1101	-57.9377
101	1	0.0451348	93.1122	-57.8926
102	1	0.0601949	93.1158	-57.8324
103	1	0.0727562	93.1211	-57.7596
104	1	0.0853288	93.1284	-57.6743
105	1	0.0979139	93.138	-57.5764
106	1	0.110516	93.1502	-57.4659
107	1	0.123135	93.1653	-57.3427
108	1	0.135774	93.1838	-57.207
109	1	0.148434	93.2058	-57.0585
110	1	0.163659	93.2326	-56.8949
111	1	0.176374	93.2637	-56.7185
112	1	0.189118	93.2995	-56.5294
113	1	0.201894	93.3402	-56.3275

114	1	0.214702	93.3863	-56.1128
115	1	0.227545	93.4381	-55.8852
116	1	0.240426	93.4959	-55.6448
117	1	0.253347	93.5601	-55.3915
118	1	0.268908	93.6324	-55.1226
119	1	0.281926	93.7119	-54.8406
120	1	0.294992	93.7989	-54.5456
121	1	0.308108	93.8938	-54.2375
122	1	0.321278	93.9971	-53.9163
123	1	0.334503	94.1089	-53.5818
124	1	0.347787	94.2299	-53.234
125	1	0.363809	94.3623	-52.8702
126	1	0.377233	94.5046	-52.4929
127	1	0.390726	94.6572	-52.1022
128	1	0.40429	94.8207	-51.6979
129	1	0.417928	94.9953	-51.28
130	1	0.431644	95.1817	-50.8483
131	1	0.445443	95.3801	-50.4029
132	1	0.459327	95.5911	-49.9436
133	1	0.476105	95.8177	-49.4675
134	1	0.490189	96.058	-48.9773
135	1	0.504372	96.3124	-48.4729
136	1	0.518658	96.5814	-47.9542
137	1	0.533048	96.8656	-47.4212
138	1	0.547551	97.1654	-46.8736
139	1	0.56217	97.4814	-46.3115
140	1	0.576911	97.8142	-45.7346
141	1	0.594766	98.168	-45.1398
142	1	0.609791	98.5398	-44.53
143	1	0.624956	98.9304	-43.9051
144	1	0.640266	99.3403	-43.2648
145	1	0.655726	99.7703	-42.6091
146	1	0.671346	100.221	-41.9377
147	1	0.687131	100.693	-41.2506
148	1	0.703089	101.188	-40.5475
149	1	0.722479	101.709	-39.825
150	1	0.738846	102.255	-39.0862
151	1	0.755415	102.826	-38.3308
152	1	0.772193	103.422	-37.5586
153	1	0.789191	104.045	-36.7694
154	1	0.806422	104.695	-35.9629
155	1	0.823893	105.374	-35.1391
156	1	0.841621	106.083	-34.2974
157	1	0.863249	106.828	-33.4342
158	1	0.881587	107.605	-32.5526
159	1	0.900227	108.415	-31.6524
160	1	0.919183	109.26	-30.7332
161	1	0.938476	110.141	-29.7947
162	1	0.958125	111.059	-28.8366
163	1	0.97815	112.016	-27.8584
164	1	1.00271	113.021	-26.8557
165	1	1.02365	114.069	-25.8321
166	1	1.04505	115.161	-24.787
167	1	1.06694	116.3	-23.7201
168	1	1.08935	117.486	-22.6307
169	1	1.11232	118.724	-21.5184
170	1	1.1359	120.014	-20.3825
171	1	1.16012	121.36	-19.2224
172	1	1.19012	122.776	-18.0323
173	1	1.21596	124.255	-16.8163
174	1	1.24264	125.799	-15.5737
175	1	1.27024	127.412	-14.3034

176	1	1.29884	129.099	-13.0046
177	1	1.32854	130.864	-11.6761
178	1	1.35946	132.712	-10.3166
179	1	1.39175	134.649	-8.92486
180	1	1.4325	136.701	-7.49235
181	1	1.46838	138.858	-6.02397
182	1	1.50626	141.126	-4.51771
183	1	1.54643	143.518	-2.97128
184	1	1.58927	146.044	-1.38201
185	1	1.63524	148.718	0.253225
186	1	1.68494	151.557	1.93816
187	1	1.7392	154.581	3.67736
188	1	1.81191	157.864	5.48928
189	1	1.88079	161.402	7.37007
190	1	1.95996	165.243	9.33003
191	1	2.05375	169.461	11.3838
192	1	2.17009	174.17	13.5539
193	1	2.32634	179.582	15.8802
194	1	2.57583	186.217	18.456

Data Set Standard Deviation = 0.19956
Numerator = 340.626
Denominator = 1431.27
W Statistic = 0.237988 = 340.626 / 1431.27

5% Critical value of 0.976 exceeds 0.237988
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.237988
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cumene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.492247
0.492247 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.05	0.00512821	-2.5758	365.75	340.287	
2	0.05	0.0102564	-2.3263	465.75	328.103	
3	0.05	0.0153846	-2.1700	965.75	320.473	
4	0.05	0.0205128	-2.0537	565.75	314.791	
5	0.05	0.025641	-1.9599	665.75	310.211	
6	0.05	0.0307692	-1.8807	965.75	306.345	
7	0.05	0.0358974	-1.8119	165.75	302.982	
8	0.13	0.0410256	-1.7392	108.55	299.431	
9	0.36	0.0461538	-1.68494	231.6	296.781	
10	0.37	0.0512821	-1.63524	236.95	294.354	
11	0.5	0.0564103	-1.58927	306.5	292.109	
12	1	0.0615385	-1.54643	574	290.017	
13	1	0.0666667	-1.50626	574	288.056	
14	1	0.0717949	-1.46838	574	286.206	
15	1	0.0769231	-1.4325	574	284.454	
16	1	0.0820513	-1.39175	574	282.464	
17	1	0.0871795	-1.35946	574	280.887	
18	1	0.0923077	-1.32854	574	279.377	
19	1	0.0974359	-1.29884	574	277.926	
20	1	0.102564	-1.27024	574	276.53	
21	1	0.107692	-1.24264	574	275.182	
22	1	0.112821	-1.21596	574	273.879	
23	1	0.117949	-1.19012	574	272.617	
24	1	0.123077	-1.16012	574	271.153	
25	1	0.128205	-1.1359	574	269.97	
26	1	0.133333	-1.11232	574	268.818	
27	1	0.138462	-1.08935	574	267.697	
28	1	0.14359	-1.06694	574	266.602	
29	1	0.148718	-1.04505	574	265.533	
30	1	0.153846	-1.02365	574	264.488	
31	1	0.158974	-1.00271	574	263.466	
32	1	0.164103	-0.97815	574	262.266	
33	1	0.169231	-0.958125	574	261.288	
34	1	0.174359	-0.938476	574	260.329	
35	1	0.179487	-0.919183	574	259.387	
36	1	0.184615	-0.900227	574	258.461	
37	1	0.189744	-0.881587	574	257.551	
38	1	0.194872	-0.863249	574	256.655	
39	1	0.2	-0.841621	574	255.599	
40	1	0.205128	-0.823893	574	254.733	
41	1	0.210256	-0.806422	574	253.88	
42	1	0.215385	-0.789191	574	253.039	
43	1	0.220513	-0.772193	574	252.209	
44	1	0.225641	-0.755415	574	251.389	
45	1	0.230769	-0.738846	574	250.58	
46	1	0.235897	-0.722479	574	249.781	
47	1	0.241026	-0.703089	574	248.834	
48	1	0.246154	-0.687131	574	248.055	

49	1	0.251282	-0.671346	574	247.284
50	1	0.25641	-0.655726	574	246.521
51	1	0.261538	-0.640266	574	245.766
52	1	0.266667	-0.624956	574	245.019
53	1	0.271795	-0.609791	574	244.278
54	1	0.276923	-0.594766	574	243.544
55	1	0.282051	-0.576911	574	242.672
56	1	0.287179	-0.56217	574	241.953
57	1	0.292308	-0.547551	574	241.239
58	1	0.297436	-0.533048	574	240.531
59	1	0.302564	-0.518658	574	239.828
60	1	0.307692	-0.504372	574	239.13
61	1	0.312821	-0.490189	574	238.438
62	1	0.317949	-0.476105	574	237.75
63	1	0.323077	-0.459327	574	236.93
64	1	0.328205	-0.445443	574	236.252
65	1	0.333333	-0.431644	574	235.579
66	1	0.338462	-0.417928	574	234.909
67	1	0.34359	-0.40429	574	234.243
68	1	0.348718	-0.390726	574	233.58
69	1	0.353846	-0.377233	574	232.922
70	1	0.358974	-0.363809	574	232.266
71	1	0.364103	-0.347787	574	231.484
72	1	0.369231	-0.334503	574	230.835
73	1	0.374359	-0.321278	574	230.189
74	1	0.379487	-0.308108	574	229.546
75	1	0.384615	-0.294992	574	228.905
76	1	0.389744	-0.281926	574	228.267
77	1	0.394872	-0.268908	574	227.632
78	1	0.4	-0.253347	574	226.872
79	1	0.405128	-0.240426	574	226.241
80	1	0.410256	-0.227545	574	225.612
81	1	0.415385	-0.214702	574	224.985
82	1	0.420513	-0.201894	574	224.359
83	1	0.425641	-0.189118	574	223.735
84	1	0.430769	-0.176374	574	223.113
85	1	0.435897	-0.163659	574	222.492
86	1	0.441026	-0.148434	574	221.749
87	1	0.446154	-0.135774	574	221.13
88	1	0.451282	-0.123135	574	220.513
89	1	0.45641	-0.110516	574	219.897
90	1	0.461538	-0.0979139	574	219.281
91	1	0.466667	-0.0853288	574	218.667
92	1	0.471795	-0.0727562	574	218.053
93	1	0.476923	-0.0601949	574	217.44
94	1	0.482051	-0.0451348	574	216.704
95	1	0.487179	-0.0325917	574	216.092
96	1	0.492308	-0.0200544	574	215.479
97	1	0.497436	-0.00751925	574	214.867
98	1	0.502564	0.00751925	574	214.133
99	1	0.507692	0.0200544	574	213.521
100	1	0.512821	0.0325917	574	212.908
101	1	0.517949	0.0451348	574	212.296
102	1	0.523077	0.0601949	574	211.56
103	1	0.528205	0.0727562	574	210.947
104	1	0.533333	0.0853288	574	210.333
105	1	0.538462	0.0979139	574	209.719
106	1	0.54359	0.110516	574	209.103
107	1	0.548718	0.123135	574	208.487
108	1	0.553846	0.135774	574	207.87
109	1	0.558974	0.148434	574	207.251
110	1	0.564103	0.163659	574	206.508

111	1	0.569231	0.176374	574	205.887
112	1	0.574359	0.189118	574	205.265
113	1	0.579487	0.201894	574	204.641
114	1	0.584615	0.214702	574	204.015
115	1	0.589744	0.227545	574	203.388
116	1	0.594872	0.240426	574	202.759
117	1	0.6	0.253347	574	202.128
118	1	0.605128	0.268908	574	201.368
119	1	0.610256	0.281926	574	200.733
120	1	0.615385	0.294992	574	200.095
121	1	0.620513	0.308108	574	199.454
122	1	0.625641	0.321278	574	198.811
123	1	0.630769	0.334503	574	198.165
124	1	0.635897	0.347787	574	197.516
125	1	0.641026	0.363809	574	196.734
126	1	0.646154	0.377233	574	196.078
127	1	0.651282	0.390726	574	195.42
128	1	0.65641	0.40429	574	194.757
129	1	0.661538	0.417928	574	194.091
130	1	0.666667	0.431644	574	193.421
131	1	0.671795	0.445443	574	192.748
132	1	0.676923	0.459327	574	192.07
133	1	0.682051	0.476105	574	191.25
134	1	0.687179	0.490189	574	190.562
135	1	0.692308	0.504372	574	189.87
136	1	0.697436	0.518658	574	189.172
137	1	0.702564	0.533048	574	188.469
138	1	0.707692	0.547551	574	187.761
139	1	0.712821	0.56217	574	187.047
140	1	0.717949	0.576911	574	186.328
141	1	0.723077	0.594766	574	185.456
142	1	0.728205	0.609791	574	184.722
143	1	0.733333	0.624956	574	183.981
144	1	0.738462	0.640266	574	183.234
145	1	0.74359	0.655726	574	182.479
146	1	0.748718	0.671346	574	181.716
147	1	0.753846	0.687131	574	180.945
148	1	0.758974	0.703089	574	180.166
149	1	0.764103	0.722479	574	179.219
150	1	0.769231	0.738846	574	178.42
151	1	0.774359	0.755415	574	177.611
152	1	0.779487	0.772193	574	176.791
153	1	0.784615	0.789191	574	175.961
154	1	0.789744	0.806422	574	175.12
155	1	0.794872	0.823893	574	174.267
156	1	0.8	0.841621	574	173.401
157	1	0.805128	0.863249	574	172.345
158	1	0.810256	0.881587	574	171.449
159	1	0.815385	0.900227	574	170.539
160	1	0.820513	0.919183	574	169.613
161	1	0.825641	0.938476	574	168.671
162	1	0.830769	0.958125	574	167.712
163	1	0.835897	0.97815	574	166.734
164	1	0.841026	1.00271	574	165.534
165	1	0.846154	1.02365	574	164.512
166	1	0.851282	1.04505	574	163.467
167	1	0.85641	1.06694	574	162.398
168	1	0.861538	1.08935	574	161.303
169	1	0.866667	1.11232	574	160.182
170	1	0.871795	1.1359	574	159.03
171	1	0.876923	1.16012	574	157.847
172	1	0.882051	1.19012	574	156.383

173	1	0.887179	1.21596	574	155.121
174	1	0.892308	1.24264	574	153.818
175	1	0.897436	1.27024	574	152.47
176	1	0.902564	1.29884	574	151.074
177	1	0.907692	1.32854	574	149.623
178	1	0.912821	1.35946	574	148.113
179	1	0.917949	1.39175	574	146.536
180	1	0.923077	1.4325	574	144.546
181	1	0.928205	1.46838	574	142.794
182	1	0.933333	1.50626	574	140.944
183	1	0.938462	1.54643	574	138.983
184	1	0.94359	1.58927	574	136.891
185	1	0.948718	1.63524	574	134.646
186	1	0.953846	1.68494	574	132.219
187	1	0.958974	1.7392	574	129.569
188	1	0.964103	1.81191	574	126.018
189	1	0.969231	1.88079	574	122.655
190	1	0.974359	1.95996	574	118.789
191	1	0.979487	2.05375	574	114.209
192	1	0.984615	2.17009	574	108.527
193	1	0.989744	2.32634	574	100.897
194	1	0.994872	2.57583	574	88.7134

Shapiro-Francia Test of Normality

Parameter: Cumene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.99573	-2.57583	6.63492	7.71651
2	-2.99573	-2.32634	12.0468	14.6856
3	-2.99573	-2.17009	16.7561	21.1866
4	-2.99573	-2.05375	20.974	27.3391
5	-2.99573	-1.95996	24.8154	33.2106
6	-2.99573	-1.88079	28.3528	38.845
7	-2.99573	-1.81191	31.6358	44.273
8	-2.04022	-1.7392	34.6606	47.8213
9	-1.02165	-1.68494	37.4996	49.5427
10	-0.994252	-1.63524	40.1736	51.1686
11	-0.693147	-1.58927	42.6994	52.2702
12	0	-1.54643	45.0909	52.2702
13	0	-1.50626	47.3597	52.2702
14	0	-1.46838	49.5158	52.2702
15	0	-1.4325	51.5679	52.2702
16	0	-1.39175	53.5049	52.2702
17	0	-1.35946	55.353	52.2702
18	0	-1.32854	57.118	52.2702
19	0	-1.29884	58.805	52.2702
20	0	-1.27024	60.4185	52.2702
21	0	-1.24264	61.9627	52.2702
22	0	-1.21596	63.4412	52.2702
23	0	-1.19012	64.8576	52.2702
24	0	-1.16012	66.2035	52.2702
25	0	-1.1359	67.4937	52.2702
26	0	-1.11232	68.731	52.2702
27	0	-1.08935	69.9177	52.2702
28	0	-1.06694	71.056	52.2702
29	0	-1.04505	72.1482	52.2702
30	0	-1.02365	73.196	52.2702
31	0	-1.00271	74.2015	52.2702
32	0	-0.97815	75.1582	52.2702
33	0	-0.958125	76.0762	52.2702
34	0	-0.938476	76.957	52.2702
35	0	-0.919183	77.8019	52.2702
36	0	-0.900227	78.6123	52.2702
37	0	-0.881587	79.3895	52.2702
38	0	-0.863249	80.1347	52.2702
39	0	-0.841621	80.843	52.2702
40	0	-0.823893	81.5218	52.2702
41	0	-0.806422	82.1721	52.2702
42	0	-0.789191	82.7949	52.2702
43	0	-0.772193	83.3912	52.2702
44	0	-0.755415	83.9619	52.2702
45	0	-0.738846	84.5078	52.2702
46	0	-0.722479	85.0297	52.2702
47	0	-0.703089	85.5241	52.2702
48	0	-0.687131	85.9962	52.2702
49	0	-0.671346	86.4469	52.2702
50	0	-0.655726	86.8769	52.2702
51	0	-0.640266	87.2868	52.2702

52	0	-0.624956	87.6774	52.2702
53	0	-0.609791	88.0493	52.2702
54	0	-0.594766	88.403	52.2702
55	0	-0.576911	88.7358	52.2702
56	0	-0.5621789.0519	52.2702	
57	0	-0.547551	89.3517	52.2702
58	0	-0.533048	89.6358	52.2702
59	0	-0.518658	89.9048	52.2702
60	0	-0.504372	90.1592	52.2702
61	0	-0.490189	90.3995	52.2702
62	0	-0.476105	90.6262	52.2702
63	0	-0.459327	90.8372	52.2702
64	0	-0.445443	91.0356	52.2702
65	0	-0.431644	91.2219	52.2702
66	0	-0.417928	91.3966	52.2702
67	0	-0.4042991.56	52.2702	
68	0	-0.390726	91.7127	52.2702
69	0	-0.377233	91.855	52.2702
70	0	-0.363809	91.9873	52.2702
71	0	-0.347787	92.1083	52.2702
72	0	-0.334503	92.2202	52.2702
73	0	-0.321278	92.3234	52.2702
74	0	-0.308108	92.4183	52.2702
75	0	-0.294992	92.5054	52.2702
76	0	-0.281926	92.5848	52.2702
77	0	-0.268908	92.6572	52.2702
78	0	-0.253347	92.7213	52.2702
79	0	-0.240426	92.7791	52.2702
80	0	-0.227545	92.8309	52.2702
81	0	-0.214702	92.877	52.2702
82	0	-0.201894	92.9178	52.2702
83	0	-0.189118	92.9535	52.2702
84	0	-0.176374	92.9847	52.2702
85	0	-0.163659	93.0114	52.2702
86	0	-0.148434	93.0335	52.2702
87	0	-0.135774	93.0519	52.2702
88	0	-0.123135	93.0671	52.2702
89	0	-0.110516	93.0793	52.2702
90	0	-0.0979139	93.0889	52.2702
91	0	-0.0853288	93.0961	52.2702
92	0	-0.0727562	93.1014	52.2702
93	0	-0.0601949	93.1051	52.2702
94	0	-0.0451348	93.1071	52.2702
95	0	-0.0325917	93.1082	52.2702
96	0	-0.0200544	93.1086	52.2702
97	0	-0.00751925	93.1086	52.2702
98	0	0.00751925	93.1087	52.2702
99	0	0.0200544	93.1091	52.2702
100	0	0.0325917	93.1101	52.2702
101	0	0.0451348	93.1122	52.2702
102	0	0.0601949	93.1158	52.2702
103	0	0.0727562	93.1211	52.2702
104	0	0.0853288	93.1284	52.2702
105	0	0.0979139	93.138	52.2702
106	0	0.110516	93.1502	52.2702
107	0	0.123135	93.1653	52.2702
108	0	0.135774	93.1838	52.2702
109	0	0.148434	93.2058	52.2702
110	0	0.163659	93.2326	52.2702
111	0	0.176374	93.2637	52.2702
112	0	0.189118	93.2995	52.2702
113	0	0.201894	93.3402	52.2702

114	0	0.214702	93.3863	52.2702
115	0	0.227545	93.4381	52.2702
116	0	0.240426	93.4959	52.2702
117	0	0.253347	93.5601	52.2702
118	0	0.268908	93.6324	52.2702
119	0	0.281926	93.7119	52.2702
120	0	0.294992	93.7989	52.2702
121	0	0.308108	93.8938	52.2702
122	0	0.321278	93.9971	52.2702
123	0	0.334503	94.1089	52.2702
124	0	0.347787	94.2299	52.2702
125	0	0.363809	94.3623	52.2702
126	0	0.377233	94.5046	52.2702
127	0	0.390726	94.6572	52.2702
128	0	0.40429	94.8207	52.2702
129	0	0.417928	94.9953	52.2702
130	0	0.431644	95.1817	52.2702
131	0	0.445443	95.3801	52.2702
132	0	0.459327	95.5911	52.2702
133	0	0.476105	95.8177	52.2702
134	0	0.490189	96.058	52.2702
135	0	0.504372	96.3124	52.2702
136	0	0.518658	96.5814	52.2702
137	0	0.533048	96.8656	52.2702
138	0	0.547551	97.1654	52.2702
139	0	0.56217	97.4814	52.2702
140	0	0.576911	97.8142	52.2702
141	0	0.594766	98.168	52.2702
142	0	0.609791	98.5398	52.2702
143	0	0.624956	98.9304	52.2702
144	0	0.640266	99.3403	52.2702
145	0	0.655726	99.7703	52.2702
146	0	0.671346	100.221	52.2702
147	0	0.687131	100.693	52.2702
148	0	0.703089	101.188	52.2702
149	0	0.722479	101.709	52.2702
150	0	0.738846	102.255	52.2702
151	0	0.755415	102.826	52.2702
152	0	0.772193	103.422	52.2702
153	0	0.789191	104.045	52.2702
154	0	0.806422	104.695	52.2702
155	0	0.823893	105.374	52.2702
156	0	0.841621	106.083	52.2702
157	0	0.863249	106.828	52.2702
158	0	0.881587	107.605	52.2702
159	0	0.900227	108.415	52.2702
160	0	0.919183	109.26	52.2702
161	0	0.938476	110.141	52.2702
162	0	0.958125	111.059	52.2702
163	0	0.97815	112.016	52.2702
164	0	1.00271	113.021	52.2702
165	0	1.02365	114.069	52.2702
166	0	1.04505	115.161	52.2702
167	0	1.06694	116.3	52.2702
168	0	1.08935	117.486	52.2702
169	0	1.11232	118.724	52.2702
170	0	1.1359	120.014	52.2702
171	0	1.16012	121.36	52.2702
172	0	1.19012	122.776	52.2702
173	0	1.21596	124.255	52.2702
174	0	1.24264	125.799	52.2702
175	0	1.27024	127.412	52.2702

176	0	1.29884	129.099	52.2702
177	0	1.32854	130.864	52.2702
178	0	1.35946	132.712	52.2702
179	0	1.39175	134.649	52.2702
180	0	1.4325	136.701	52.2702
181	0	1.46838	138.858	52.2702
182	0	1.50626	141.126	52.2702
183	0	1.54643	143.518	52.2702
184	0	1.58927	146.044	52.2702
185	0	1.63524	148.718	52.2702
186	0	1.68494	151.557	52.2702
187	0	1.7392	154.581	52.2702
188	0	1.81191	157.864	52.2702
189	0	1.88079	161.402	52.2702
190	0	1.95996	165.243	52.2702
191	0	2.05375	169.461	52.2702
192	0	2.17009	174.17	52.2702
193	0	2.32634	179.582	52.2702
194	0	2.57583	186.217	52.2702

Data Set Standard Deviation = 0.585164
Numerator = 2732.17
Denominator = 12306.4
W Statistic = 0.222012 = 2732.17 / 12306.4

5% Critical value of 0.976 exceeds 0.222012
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.222012
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cumene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.476033
0.476033 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.99573	0.00512821	-2.57583	39.7611	340.287
2	-2.99573	0.0102564	-2.32634	39.7611	328.103
3	-2.99573	0.0153846	-2.17009	39.7611	320.473
4	-2.99573	0.0205128	-2.05375	39.7611	314.791
5	-2.99573	0.025641	-1.95996	39.7611	310.211
6	-2.99573	0.0307692	-1.88079	39.7611	306.345
7	-2.99573	0.0358974	-1.81191	39.7611	302.982
8	-2.04022	0.0410256	-1.7392	210.161	299.431
9	-1.02165	0.0461538	-1.68494	391.806	296.781
10	-0.994252	0.0512821	-1.63524	396.692	294.354
11	-0.693147	0.0564103	-1.58927	450.389	292.109
12	0	0.0615385	-1.54643	574	290.017
13	0	0.0666667	-1.50626	574	288.056
14	0	0.0717949	-1.46838	574	286.206
15	0	0.0769231	-1.4325	574	284.454
16	0	0.0820513	-1.39175	574	282.464
17	0	0.0871795	-1.35946	574	280.887
18	0	0.0923077	-1.32854	574	279.377
19	0	0.0974359	-1.29884	574	277.926
20	0	0.102564	-1.27024	574	276.53
21	0	0.107692	-1.24264	574	275.182
22	0	0.112821	-1.21596	574	273.879
23	0	0.117949	-1.19012	574	272.617
24	0	0.123077	-1.16012	574	271.153
25	0	0.128205	-1.1359	574	269.97
26	0	0.133333	-1.11232	574	268.818
27	0	0.138462	-1.08935	574	267.697
28	0	0.14359	-1.06694	574	266.602
29	0	0.148718	-1.04505	574	265.533
30	0	0.153846	-1.02365	574	264.488
31	0	0.158974	-1.00271	574	263.466
32	0	0.164103	-0.97815	574	262.266
33	0	0.169231	-0.958125	574	261.288
34	0	0.174359	-0.938476	574	260.329
35	0	0.179487	-0.919183	574	259.387
36	0	0.184615	-0.900227	574	258.461
37	0	0.189744	-0.881587	574	257.551
38	0	0.194872	-0.863249	574	256.655
39	0	0.2	-0.841621	574	255.599
40	0	0.205128	-0.823893	574	254.733
41	0	0.210256	-0.806422	574	253.88
42	0	0.215385	-0.789191	574	253.039
43	0	0.220513	-0.772193	574	252.209
44	0	0.225641	-0.755415	574	251.389
45	0	0.230769	-0.738846	574	250.58
46	0	0.235897	-0.722479	574	249.781
47	0	0.241026	-0.703089	574	248.834
48	0	0.246154	-0.687131	574	248.055

49	0	0.251282	-0.671346	574	247.284
50	0	0.25641	-0.655726	574	246.521
51	0	0.261538	-0.640266	574	245.766
52	0	0.266667	-0.624956	574	245.019
53	0	0.271795	-0.609791	574	244.278
54	0	0.276923	-0.594766	574	243.544
55	0	0.282051	-0.576911	574	242.672
56	0	0.287179	-0.56217	574	241.953
57	0	0.292308	-0.547551	574	241.239
58	0	0.297436	-0.533048	574	240.531
59	0	0.302564	-0.518658	574	239.828
60	0	0.307692	-0.504372	574	239.13
61	0	0.312821	-0.490189	574	238.438
62	0	0.317949	-0.476105	574	237.75
63	0	0.323077	-0.459327	574	236.93
64	0	0.328205	-0.445443	574	236.252
65	0	0.333333	-0.431644	574	235.579
66	0	0.338462	-0.417928	574	234.909
67	0	0.34359	-0.40429	574	234.243
68	0	0.348718	-0.390726	574	233.58
69	0	0.353846	-0.377233	574	232.922
70	0	0.358974	-0.363809	574	232.266
71	0	0.364103	-0.347787	574	231.484
72	0	0.369231	-0.334503	574	230.835
73	0	0.374359	-0.321278	574	230.189
74	0	0.379487	-0.308108	574	229.546
75	0	0.384615	-0.294992	574	228.905
76	0	0.389744	-0.281926	574	228.267
77	0	0.394872	-0.268908	574	227.632
78	0	0.4	-0.253347	574	226.872
79	0	0.405128	-0.240426	574	226.241
80	0	0.410256	-0.227545	574	225.612
81	0	0.415385	-0.214702	574	224.985
82	0	0.420513	-0.201894	574	224.359
83	0	0.425641	-0.189118	574	223.735
84	0	0.430769	-0.176374	574	223.113
85	0	0.435897	-0.163659	574	222.492
86	0	0.441026	-0.148434	574	221.749
87	0	0.446154	-0.135774	574	221.13
88	0	0.451282	-0.123135	574	220.513
89	0	0.45641	-0.110516	574	219.897
90	0	0.461538	-0.0979139	574	219.281
91	0	0.466667	-0.0853288	574	218.667
92	0	0.471795	-0.0727562	574	218.053
93	0	0.476923	-0.0601949	574	217.44
94	0	0.482051	-0.0451348	574	216.704
95	0	0.487179	-0.0325917	574	216.092
96	0	0.492308	-0.0200544	574	215.479
97	0	0.497436	-0.00751925	574	214.867
98	0	0.502564	0.00751925	574	214.133
99	0	0.507692	0.0200544	574	213.521
100	0	0.512821	0.0325917	574	212.908
101	0	0.517949	0.0451348	574	212.296
102	0	0.523077	0.0601949	574	211.56
103	0	0.528205	0.0727562	574	210.947
104	0	0.533333	0.0853288	574	210.333
105	0	0.538462	0.0979139	574	209.719
106	0	0.54359	0.110516	574	209.103
107	0	0.548718	0.123135	574	208.487
108	0	0.553846	0.135774	574	207.87
109	0	0.558974	0.148434	574	207.251
110	0	0.564103	0.163659	574	206.508

111	0	0.569231	0.176374	574	205.887
112	0	0.574359	0.189118	574	205.265
113	0	0.579487	0.201894	574	204.641
114	0	0.584615	0.214702	574	204.015
115	0	0.589744	0.227545	574	203.388
116	0	0.594872	0.240426	574	202.759
117	0	0.6	0.253347	574	202.128
118	0	0.605128	0.268908	574	201.368
119	0	0.610256	0.281926	574	200.733
120	0	0.615385	0.294992	574	200.095
121	0	0.620513	0.308108	574	199.454
122	0	0.625641	0.321278	574	198.811
123	0	0.630769	0.334503	574	198.165
124	0	0.635897	0.347787	574	197.516
125	0	0.641026	0.363809	574	196.734
126	0	0.646154	0.377233	574	196.078
127	0	0.651282	0.390726	574	195.42
128	0	0.65641	0.40429	574	194.757
129	0	0.661538	0.417928	574	194.091
130	0	0.666667	0.431644	574	193.421
131	0	0.671795	0.445443	574	192.748
132	0	0.676923	0.459327	574	192.07
133	0	0.682051	0.476105	574	191.25
134	0	0.687179	0.490189	574	190.562
135	0	0.692308	0.504372	574	189.87
136	0	0.697436	0.518658	574	189.172
137	0	0.702564	0.533048	574	188.469
138	0	0.707692	0.547551	574	187.761
139	0	0.712821	0.56217	574	187.047
140	0	0.717949	0.576911	574	186.328
141	0	0.723077	0.594766	574	185.456
142	0	0.728205	0.609791	574	184.722
143	0	0.733333	0.624956	574	183.981
144	0	0.738462	0.640266	574	183.234
145	0	0.74359	0.655726	574	182.479
146	0	0.748718	0.671346	574	181.716
147	0	0.753846	0.687131	574	180.945
148	0	0.758974	0.703089	574	180.166
149	0	0.764103	0.722479	574	179.219
150	0	0.769231	0.738846	574	178.42
151	0	0.774359	0.755415	574	177.611
152	0	0.779487	0.772193	574	176.791
153	0	0.784615	0.789191	574	175.961
154	0	0.789744	0.806422	574	175.12
155	0	0.794872	0.823893	574	174.267
156	0	0.8	0.841621	574	173.401
157	0	0.805128	0.863249	574	172.345
158	0	0.810256	0.881587	574	171.449
159	0	0.815385	0.900227	574	170.539
160	0	0.820513	0.919183	574	169.613
161	0	0.825641	0.938476	574	168.671
162	0	0.830769	0.958125	574	167.712
163	0	0.835897	0.97815	574	166.734
164	0	0.841026	1.00271	574	165.534
165	0	0.846154	1.02365	574	164.512
166	0	0.851282	1.04505	574	163.467
167	0	0.85641	1.06694	574	162.398
168	0	0.861538	1.08935	574	161.303
169	0	0.866667	1.11232	574	160.182
170	0	0.871795	1.1359	574	159.03
171	0	0.876923	1.16012	574	157.847
172	0	0.882051	1.19012	574	156.383

173	0	0.887179	1.21596	574	155.121
174	0	0.892308	1.24264	574	153.818
175	0	0.897436	1.27024	574	152.47
176	0	0.902564	1.29884	574	151.074
177	0	0.907692	1.32854	574	149.623
178	0	0.912821	1.35946	574	148.113
179	0	0.917949	1.39175	574	146.536
180	0	0.923077	1.4325	574	144.546
181	0	0.928205	1.46838	574	142.794
182	0	0.933333	1.50626	574	140.944
183	0	0.938462	1.54643	574	138.983
184	0	0.94359	1.58927	574	136.891
185	0	0.948718	1.63524	574	134.646
186	0	0.953846	1.68494	574	132.219
187	0	0.958974	1.7392	574	129.569
188	0	0.964103	1.81191	574	126.018
189	0	0.969231	1.88079	574	122.655
190	0	0.974359	1.95996	574	118.789
191	0	0.979487	2.05375	574	114.209
192	0	0.984615	2.17009	574	108.527
193	0	0.989744	2.32634	574	100.897
194	0	0.994872	2.57583	574	88.7134

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Cumene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 97.9381%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 14
Maximum Background Value = 0
Confidence Level = 63.6%
False Positive Rate = 36.4%

Location	Date	Count	Mean	Significant
MW-10	6/5/2012	1	-2.04022	FALSE
MW-8	6/5/2012	1	-2.99573	FALSE
MW-9	6/5/2012	1	-2.99573	FALSE
MW-7	6/5/2012	1	-2.99573	FALSE
MW-11R	6/5/2012	1	-2.99573	FALSE
MW-6	6/5/2012	1	-2.99573	FALSE
MW-12AR	6/5/2012	1	-2.99573	FALSE
MW-12BR	6/5/2012	1	-2.99573	FALSE

Concentrations (ppb)

Parameter: Dichlorodifluoromethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 272
Total Non-Detect: 208
Percent Non-Detects: 76.4706%
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-8	31	21 (67.7419%)	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
			6/5/2012	ND<0.25 U	ND<0.25 U
MW-11R	34	15 (44.1176%)	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<0.0086	ND<0.0086
			6/30/2010	ND<0.25	ND<0.25
			11/12/2010	ND<0.25 U	ND<0.25 U
			11/12/2010	ND<0.0087 U	ND<0.0087 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
			6/5/2012	0.85 J	0.85 J
MW-10	35	27 (77.1429%)	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<0.0086		ND<0.0086
			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
			6/5/2012	0.31 J	0.31 J	
MW-6	34	29 (85.2941%)	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<0.25 U		ND<0.25 U
			11/12/2010	ND<0.0087 U		ND<0.0087 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	
			6/5/2012	0.84 J	0.84 J	
MW-9	35	26 (74.2857%)	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<0.0087	ND<0.0087	
			6/30/2010	ND<0.0086	ND<0.0086	
			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	
			6/5/2012	ND<0.25 U	ND<0.25 U	
MW-7	34	29 (85.2941%)	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<0.0086	ND<0.0086	
			6/30/2010	ND<0.25	ND<0.25	
			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	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			6/5/2012	ND<0.25 U	ND<0.25 U	

MW-12BR	24	22 (91.6667%)	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<0.0091		ND<0.0091	
		6/30/2010	ND<0.25		ND<0.25	
		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	
		6/5/2012	ND<0.25 U	ND<0.25 U		
MW-12AR	24	18 (75%)	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<0.0086		ND<0.0086	
		6/30/2010	ND<0.25		ND<0.25	
		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	
		6/5/2012	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 = 272

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.0043	-2.74777	7.55021	-0.0118154
2	0.0043	-2.45727	13.5884	-0.0223817
3	0.0043	-2.32634	19.0003	-0.0323849
4	0.0043	-2.19728	23.8283	-0.0418333
5	0.0043	-2.09693	28.2255	-0.0508501
6	0.0043	-2.03352	32.3607	-0.0595942
7	0.0043	-1.95996	36.2021	-0.068022
8	0.0043	-1.8957	39.7958	-0.0761735
9	0.0043	-1.85218	43.2263	-0.0841379
10	0.0043	-1.79912	46.4632	-0.0918741
11	0.0043	-1.75069	49.5281	-0.099402
12	0.00435	-1.71688	52.4757	-0.10687
13	0.00435	-1.67466	55.2802	-0.114155
14	0.00435	-1.63524	57.9542	-0.121269
15	0.00455	-1.60725	60.5375	-0.128582
16	0.00455	-1.57179	63.008	-0.135733
17	0.00455	-1.5382	65.3741	-0.142732
18	0.00455	-1.5141	67.6666	-0.149621
19	0.125	-1.48328	69.8667	-0.335031
20	0.125	-1.4538	71.9802	-0.516757
21	0.125	-1.4325	74.0323	-0.69582
22	0.125	-1.40507	76.0066	-0.871454
23	0.125	-1.37866	77.9072	-1.04379
24	0.125	-1.35946	79.7554	-1.21372
25	0.125	-1.33462	81.5366	-1.38055
26	0.125	-1.31058	83.2542	-1.54437
27	0.125	-1.29303	84.9262	-1.706
28	0.125	-1.27024	86.5397	-1.86478
29	0.125	-1.24809	88.0974	-2.02079
30	0.125	-1.23187	89.6149	-2.17477
31	0.125	-1.21073	91.0807	-2.32611
32	0.125	-1.19012	92.4971	-2.47488
33	0.125	-1.17499	93.8777	-2.62175
34	0.125	-1.15522	95.2123	-2.76615
35	0.125	-1.1359	96.5025	-2.90814
36	0.125	-1.12168	97.7607	-3.04835
37	0.125	-1.10306	98.9774	-3.18623
38	0.125	-1.08482	100.154	-3.32184
39	0.125	-1.07138	101.302	-3.45576
40	0.125	-1.05375	102.412	-3.58748
41	0.125	-1.03643	103.487	-3.71703
42	0.125	-1.02365	104.535	-3.84499
43	0.125	-1.00687	105.548	-3.97085
44	0.125	-0.990356	106.529	-4.09464
45	0.125	-0.97815	107.486	-4.21691
46	0.125	-0.9621	108.412	-4.33717
47	0.125	-0.946291	109.307	-4.45546
48	0.125	-0.93459	110.18	-4.57228
49	0.125	-0.919183	111.025	-4.68718
50	0.125	-0.903992	111.843	-4.80018
51	0.125	-0.892733	112.64	-4.91177

52	0.125	-0.877897	113.41	-5.02151
53	0.125	-0.863249	114.155	-5.12941
54	0.125	-0.852385	114.882	-5.23596
55	0.125	-0.838054	115.584	-5.34072
56	0.125	-0.823893	116.263	-5.4437
57	0.125	-0.813379	116.925	-5.54538
58	0.125	-0.7995	117.564	-5.64531
59	0.125	-0.785774	118.181	-5.74354
60	0.125	-0.775574	118.783	-5.84048
61	0.125	-0.7621	119.364	-5.93575
62	0.125	-0.748762	119.924	-6.02934
63	0.125	-0.738846	120.47	-6.1217
64	0.125	-0.725736	120.997	-6.21241
65	0.125	-0.712751	121.505	-6.30151
66	0.125	-0.703089	121.999	-6.38939
67	0.125	-0.690309	122.476	-6.47568
68	0.125	-0.677639	122.935	-6.56039
69	0.125	-0.668209	123.381	-6.64391
70	0.125	-0.655726	123.811	-6.72588
71	0.125	-0.643345	124.225	-6.8063
72	0.125	-0.634124	124.627	-6.88556
73	0.125	-0.621911	125.014	-6.9633
74	0.125	-0.609791	125.386	-7.03953
75	0.125	-0.60076	125.747	-7.11462
76	0.125	-0.588793	126.094	-7.18822
77	0.31	-0.576911	126.426	-7.36706
78	0.41	-0.568052	126.749	-7.59996
79	0.48	-0.556308	127.059	-7.86699
80	0.58	-0.544642	127.355	-8.18288
81	0.6	-0.53594	127.643	-8.50445
82	0.61	-0.524401	127.918	-8.82433
83	0.62	-0.51293	128.181	-9.14235
84	0.68	-0.504372	128.435	-9.48532
85	0.71	-0.493018	128.678	-9.83536
86	0.71	-0.481728	128.91	-10.1774
87	0.8	-0.473299	129.134	-10.556
88	0.84	-0.462114	129.348	-10.9442
89	0.85	-0.450985	129.551	-11.3275
90	1	-0.442676	129.747	-11.7702
91	1	-0.431644	129.933	-12.2019
92	1	-0.423405	130.113	-12.6253
93	1	-0.412463	130.283	-13.0377
94	1	-0.401571	130.444	-13.4393
95	1	-0.393433	130.599	-13.8327
96	1	-0.382622	130.745	-14.2154
97	1	-0.371856	130.883	-14.5872
98	1	-0.363809	131.016	-14.951
99	1	-0.353118	131.141	-15.3041
100	1	-0.342466	131.258	-15.6466
101	1	-0.334503	131.37	-15.9811
102	1	-0.323919	131.475	-16.305
103	1	-0.31337	131.573	-16.6184
104	1	-0.305481	131.666	-16.9239
105	1	-0.294992	131.753	-17.2189
106	1	-0.284535	131.834	-17.5034
107	1	-0.276714	131.911	-17.7801
108	1	-0.266311	131.982	-18.0464
109	1	-0.255936	132.047	-18.3024
110	1	-0.248174	132.109	-18.5505
111	1	-0.237847	132.165	-18.7884
112	1	-0.227545	132.217	-19.0159
113	1	-0.219834	132.265	-19.2358

114	1	-0.209575	132.309	-19.4453
115	1	-0.199336	132.349	-19.6447
116	1	-0.191671	132.386	-19.8364
117	1	-0.181468	132.419	-20.0178
118	1	-0.171285	132.448	-20.1891
119	1	-0.163659	132.475	-20.3528
120	1	-0.153505	132.498	-20.5063
121	1	-0.143367	132.519	-20.6496
122	1	-0.135774	132.537	-20.7854
123	1	-0.125661	132.553	-20.9111
124	1	-0.115562	132.567	-21.0266
125	1	-0.107995	132.578	-21.1346
126	1	-0.0979139	132.588	-21.2325
127	1	-0.0878447	132.596	-21.3204
128	1	-0.0802981	132.602	-21.4007
129	1	-0.0702426	132.607	-21.4709
130	1	-0.0601949	132.611	-21.5311
131	1	-0.0526632	132.613	-21.5838
132	1	-0.0426257	132.615	-21.6264
133	1	-0.0325917	132.616	-21.659
134	1	-0.0250691	132.617	-21.6841
135	1	-0.0150408	132.617	-21.6991
136	1	-0.00501359	132.617	-21.7041
137	1	0.00501359	132.617	-21.6991
138	1	0.0150408	132.617	-21.6841
139	1	0.0250691	132.618	-21.659
140	1	0.0325917	132.619	-21.6264
141	1	0.0426257	132.621	-21.5838
142	1	0.0526632	132.624	-21.5311
143	1	0.0601949	132.627	-21.4709
144	1	0.0702426	132.632	-21.4007
145	1	0.0802981	132.639	-21.3204
146	1	0.0878447	132.646	-21.2325
147	1	0.0979139	132.656	-21.1346
148	1	0.107995	132.668	-21.0266
149	1	0.115562	132.681	-20.9111
150	1	0.125661	132.697	-20.7854
151	1	0.135774	132.715	-20.6496
152	1	0.143367	132.736	-20.5063
153	1	0.153505	132.759	-20.3528
154	1	0.163659	132.786	-20.1891
155	1	0.171285	132.815	-20.0178
156	1	0.181468	132.848	-19.8364
157	1	0.191671	132.885	-19.6447
158	1	0.199336	132.925	-19.4453
159	1	0.209575	132.969	-19.2358
160	1	0.219834	133.017	-19.0159
161	1	0.227545	133.069	-18.7884
162	1	0.237847	133.125	-18.5505
163	1	0.248174	133.187	-18.3024
164	1	0.255936	133.252	-18.0464
165	1	0.266311	133.323	-17.7801
166	1	0.276714	133.4	-17.5034
167	1	0.284535	133.481	-17.2189
168	1	0.294992	133.568	-16.9239
169	1	0.305481	133.661	-16.6184
170	1	0.31337	133.759	-16.305
171	1	0.323919	133.864	-15.9811
172	1	0.334503	133.976	-15.6466
173	1	0.342466	134.094	-15.3041
174	1	0.353118	134.218	-14.951
175	1	0.363809	134.351	-14.5872

176	1	0.371856		134.489	-14.2154
177	1	0.382622		134.635	-13.8327
178	1	0.393433		134.79	-13.4393
179	1	0.401571		134.951	-13.0377
180	1	0.412463		135.121	-12.6253
181	1	0.423405		135.301	-12.2019
182	1	0.431644		135.487	-11.7702
183	1	0.442676		135.683	-11.3275
184	1	0.450985		135.886	-10.8766
185	1	0.462114		136.1	-10.4144
186	1	0.473299		136.324	-9.94115
187	1	0.481728		136.556	-9.45942
188	1	0.493018		136.799	-8.9664
189	1	0.504372		137.053	-8.46203
190	1	0.51293	137.317	-7.9491	
191	1	0.524401		137.592	-7.4247
192	1	0.53594	137.879	-6.88876	
193	1	0.544642		138.175	-6.34412
194	1	0.556308		138.485	-5.78781
195	1	0.568052		138.808	-5.21975
196	1	0.576911		139.14	-4.64284
197	1	0.588793		139.487	-4.05405
198	1	0.60076	139.848	-3.45329	
199	1	0.609791		140.22	-2.8435
200	1	0.621911		140.607	-2.22159
201	1	0.634124		141.009	-1.58746
202	1	0.643345		141.423	-0.94412
203	1	0.655726		141.853	-0.288394
204	1	0.668209		142.299	0.379816
205	1	0.677639		142.758	1.05746
206	1	0.690309		143.235	1.74776
207	1	0.703089		143.729	2.45085
208	1	0.712751		144.237	3.1636
209	1	0.725736		144.764	3.88934
210	1	0.738846		145.31	4.62819
211	1	0.748762		145.87	5.37695
212	1	0.7621	146.451	6.13905	
213	1	0.775574		147.053	6.91462
214	1	0.785774		147.67	7.7004
215	1	0.7995	148.309	8.4999	
216	1	0.813379		148.971	9.31328
217	1	0.823893		149.65	10.1372
218	1	0.838054		150.352	10.9752
219	1	0.852385		151.079	11.8276
220	1	0.863249		151.824	12.6909
221	1	0.877897		152.595	13.5688
222	1.1	0.892733		153.392	14.5508
223	1.3	0.903992		154.209	15.7259
224	1.45	0.919183		155.054	17.0588
225	1.5	0.93459	155.927	18.4606	
226	1.64	0.946291		156.823	20.0126
227	1.66	0.9621	157.748	21.6097	
228	1.7	0.97815	158.705	23.2725	
229	1.7	0.990356		159.686	24.9561
230	1.81	1.00687	160.7	26.7785	
231	1.9	1.02365	161.747	28.7235	
232	2	1.03643	162.822	30.7963	
233	2.1	1.05375	163.932	33.0092	
234	2.13	1.07138	165.08	35.2912	
235	2.96	1.08482	166.257	38.5023	
236	3.61	1.10306	167.473	42.4844	
237	3.73	1.12168	168.732	46.6682	

238	4.41	1.1359	170.022	51.6775
239	4.85	1.15522	171.356	57.2804
240	5.11	1.17499	172.737	63.2845
241	5.7	1.19012	174.153	70.0682
242	5.7	1.21073	175.619	76.9694
243	5.7	1.23187	177.137	83.991
244	8	1.24809	178.694	93.9757
245	8	1.27024	180.308	104.138
246	8	1.29303	181.98	114.482
247	8.1	1.31058	183.697	125.098
248	8.8	1.33462	185.479	136.842
249	9.6	1.35946	187.327	149.893
250	10	1.37866	189.228	163.68
251	11	1.40507	191.202	179.135
252	12	1.4325	193.254	196.326
253	12	1.4538	195.367	213.771
254	13	1.48328	197.568	233.054
255	13	1.5141	199.86	252.737
256	15	1.5382	202.226	275.81
257	16	1.57179	204.697	300.959
258	18	1.60725	207.28	329.889
259	19	1.63524	209.954	360.959
260	20	1.67466	212.758	394.452
261	20	1.71688	215.706	428.79
262	20	1.75069	218.771	463.803
263	20	1.79912	222.008	499.786
264	27	1.85218	225.438	549.795
265	42	1.8957	229.032	629.414
266	49	1.95996	232.873	725.452
267	49	2.03352	237.009	825.094
268	49	2.09693	241.406	927.844
269	59	2.19728	246.234	1057.48
270	71	2.32634	251.646	1222.65
271	120	2.45727	257.684	1517.53
272	120	2.74777	265.234	1847.26

Data Set Standard Deviation = 13.2048
Numerator = 3.41236e+006
Denominator = 1.25332e+007
W Statistic = 0.272267 = 3.41236e+006 / 1.25332e+007

5% Critical value of 0.976 exceeds 0.272267
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.272267
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 = 0.526386
0.526386 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.0043	0.003663	-2.747773	9.0115	348.683
2	0.0043	0.00732601	-2.457273	9.0115	334.497
3	0.0043	0.010989	-2.326343	9.0115	328.103
4	0.0043	0.014652	-2.197283	9.0115	321.801
5	0.0043	0.018315	-2.096933	9.0115	316.9
6	0.0043	0.021978	-2.033523	9.0115	313.804
7	0.0043	0.025641	-1.959963	9.0115	310.211
8	0.0043	0.029304	-1.8957	39.0115	307.073
9	0.0043	0.032967	-1.852183	9.0115	304.948
10	0.0043	0.03663	-1.799123	9.0115	302.357
11	0.0043	0.040293	-1.750693	9.0115	299.992
12	0.00435	0.043956	-1.716883	9.0116	298.341
13	0.00435	0.047619	-1.674663	9.0116	296.279
14	0.00435	0.0512821	-1.635243	9.0116	294.354
15	0.00455	0.0549451	-1.607253	9.0122	292.987
16	0.00455	0.0586081	-1.571793	9.0122	291.256
17	0.00455	0.0622711	-1.5382	39.0122	289.615
18	0.00455	0.0659341	-1.5141	39.0122	288.439
19	0.125	0.0695971	-1.483283	9.3344	286.934
20	0.125	0.0732601	-1.4538	39.3344	285.494
21	0.125	0.0769231	-1.4325	39.3344	284.454
22	0.125	0.0805861	-1.405073	9.3344	283.114
23	0.125	0.0842491	-1.378663	9.3344	281.824
24	0.125	0.0879121	-1.359463	9.3344	280.887
25	0.125	0.0915751	-1.334623	9.3344	279.674
26	0.125	0.0952381	-1.310583	9.3344	278.5
27	0.125	0.0989011	-1.293033	9.3344	277.643
28	0.125	0.102564	-1.270243	9.3344	276.53
29	0.125	0.106227	-1.248093	9.3344	275.448
30	0.125	0.10989	-1.231873	9.3344	274.656
31	0.125	0.113553	-1.210733	9.3344	273.624
32	0.125	0.117216	-1.190123	9.3344	272.617
33	0.125	0.120879	-1.174993	9.3344	271.879
34	0.125	0.124542	-1.155223	9.3344	270.913
35	0.125	0.128205	-1.1359	39.3344	269.97
36	0.125	0.131868	-1.121683	9.3344	269.275
37	0.125	0.135531	-1.103063	9.3344	268.366
38	0.125	0.139194	-1.084823	9.3344	267.476
39	0.125	0.142857	-1.071383	9.3344	266.819
40	0.125	0.14652	-1.053753	9.3344	265.958
41	0.125	0.150183	-1.036433	9.3344	265.112
42	0.125	0.153846	-1.023653	9.3344	264.488
43	0.125	0.157509	-1.006873	9.3344	263.669
44	0.125	0.161172	-0.990356	39.3344	262.862
45	0.125	0.164835	-0.978153	9.3344	262.266
46	0.125	0.168498	-0.9621	39.3344	261.483
47	0.125	0.172161	-0.946291	39.3344	260.711
48	0.125	0.175824	-0.934593	9.3344	260.139

49	0.125	0.179487	-0.919183	39.3344	259.387
50	0.125	0.18315	-0.903992	39.3344	258.645
51	0.125	0.186813	-0.892733	39.3344	258.095
52	0.125	0.190476	-0.877897	39.3344	257.371
53	0.125	0.194139	-0.863249	39.3344	256.655
54	0.125	0.197802	-0.852385	39.3344	256.125
55	0.125	0.201465	-0.838054	39.3344	255.425
56	0.125	0.205128	-0.823893	39.3344	254.733
57	0.125	0.208791	-0.813379	39.3344	254.22
58	0.125	0.212454	-0.7995	39.3344	253.542
59	0.125	0.216117	-0.785774	39.3344	252.872
60	0.125	0.21978	-0.775574	39.3344	252.374
61	0.125	0.223443	-0.7621	39.3344	251.716
62	0.125	0.227106	-0.748762	39.3344	251.065
63	0.125	0.230769	-0.738846	39.3344	250.58
64	0.125	0.234432	-0.725736	39.3344	249.94
65	0.125	0.238095	-0.712751	39.3344	249.306
66	0.125	0.241758	-0.703089	39.3344	248.834
67	0.125	0.245421	-0.690309	39.3344	248.21
68	0.125	0.249084	-0.677639	39.3344	247.591
69	0.125	0.252747	-0.668209	39.3344	247.131
70	0.125	0.25641	-0.655726	39.3344	246.521
71	0.125	0.260073	-0.643345	39.3344	245.917
72	0.125	0.263736	-0.634124	39.3344	245.466
73	0.125	0.267399	-0.621911	39.3344	244.87
74	0.125	0.271062	-0.609791	39.3344	244.278
75	0.125	0.274725	-0.600763	39.3344	243.837
76	0.125	0.278388	-0.588793	39.3344	243.253
77	0.31	0.282051	-0.576911	39.8293	242.672
78	0.41	0.285714	-0.568052	40.0968	242.24
79	0.48	0.289377	-0.556308	40.284	241.666
80	0.58	0.29304	-0.544642	40.5515	241.097
81	0.6	0.296703	-0.535940	40.605	240.672
82	0.61	0.300366	-0.524401	40.6317	240.108
83	0.62	0.304029	-0.512934	40.6585	239.548
84	0.68	0.307692	-0.504372	40.819	239.13
85	0.71	0.311355	-0.493018	40.8993	238.576
86	0.71	0.315018	-0.481728	40.8993	238.024
87	0.8	0.318681	-0.473299	41.14	237.613
88	0.84	0.322344	-0.462114	41.247	237.067
89	0.85	0.326007	-0.450985	41.2738	236.523
90	1	0.32967	-0.442676	41.675	236.117
91	1	0.333333	-0.431644	41.675	235.579
92	1	0.336996	-0.423405	41.675	235.176
93	1	0.340659	-0.412463	41.675	234.642
94	1	0.344322	-0.401571	41.675	234.11
95	1	0.347985	-0.393433	41.675	233.713
96	1	0.351648	-0.382622	41.675	233.185
97	1	0.355311	-0.371856	41.675	232.659
98	1	0.358974	-0.363809	41.675	232.266
99	1	0.362637	-0.353118	41.675	231.744
100	1	0.3663	-0.342466	41.675	231.224
101	1	0.369963	-0.334503	41.675	230.835
102	1	0.373626	-0.323919	41.675	230.318
103	1	0.377289	-0.313374	41.675	229.803
104	1	0.380952	-0.305481	41.675	229.418
105	1	0.384615	-0.294992	41.675	228.905
106	1	0.388278	-0.284535	41.675	228.395
107	1	0.391941	-0.276714	41.675	228.013
108	1	0.395604	-0.266311	41.675	227.505
109	1	0.399267	-0.255936	41.675	226.998
110	1	0.40293	-0.248174	41.675	226.619

111	1	0.406593	-0.237847	41.675	226.115
112	1	0.410256	-0.227545	41.675	225.612
113	1	0.413919	-0.219834	41.675	225.235
114	1	0.417582	-0.209575	41.675	224.734
115	1	0.421245	-0.199336	41.675	224.234
116	1	0.424908	-0.191671	41.675	223.86
117	1	0.428571	-0.181468	41.675	223.362
118	1	0.432234	-0.171285	41.675	222.864
119	1	0.435897	-0.163659	41.675	222.492
120	1	0.43956	-0.153505	41.675	221.996
121	1	0.443223	-0.143367	41.675	221.501
122	1	0.446886	-0.135774	41.675	221.13
123	1	0.450549	-0.125661	41.675	220.636
124	1	0.454212	-0.115562	41.675	220.143
125	1	0.457875	-0.107995	41.675	219.774
126	1	0.461538	-0.0979139	41.675	219.281
127	1	0.465201	-0.0878447	41.675	218.79
128	1	0.468864	-0.0802981	41.675	218.421
129	1	0.472527	-0.0702426	41.675	217.93
130	1	0.47619	-0.0601949	41.675	217.44
131	1	0.479853	-0.0526632	41.675	217.072
132	1	0.483516	-0.0426257	41.675	216.582
133	1	0.487179	-0.0325917	41.675	216.092
134	1	0.490842	-0.0250691	41.675	215.724
135	1	0.494505	-0.0150408	41.675	215.234
136	1	0.498168	-0.00501359	41.675	214.745
137	1	0.501832	0.00501359	41.675	214.255
138	1	0.505495	0.0150408	41.675	213.766
139	1	0.509158	0.0250691	41.675	213.276
140	1	0.512821	0.0325917	41.675	212.908
141	1	0.516484	0.0426257	41.675	212.418
142	1	0.520147	0.0526632	41.675	211.928
143	1	0.52381	0.0601949	41.675	211.56
144	1	0.527473	0.0702426	41.675	211.07
145	1	0.531136	0.0802981	41.675	210.579
146	1	0.534799	0.0878447	41.675	210.21
147	1	0.538462	0.0979139	41.675	209.719
148	1	0.542125	0.107995	41.675	209.226
149	1	0.545788	0.115562	41.675	208.857
150	1	0.549451	0.125661	41.675	208.364
151	1	0.553114	0.135774	41.675	207.87
152	1	0.556777	0.143367	41.675	207.499
153	1	0.56044	0.153505	41.675	207.004
154	1	0.564103	0.163659	41.675	206.508
155	1	0.567766	0.171285	41.675	206.136
156	1	0.571429	0.181468	41.675	205.638
157	1	0.575092	0.191671	41.675	205.14
158	1	0.578755	0.199336	41.675	204.766
159	1	0.582418	0.209575	41.675	204.266
160	1	0.586081	0.219834	41.675	203.765
161	1	0.589744	0.227545	41.675	203.388
162	1	0.593407	0.237847	41.675	202.885
163	1	0.59707	0.248174	41.675	202.381
164	1	0.600733	0.255936	41.675	202.002
165	1	0.604396	0.266311	41.675	201.495
166	1	0.608059	0.276714	41.675	200.987
167	1	0.611722	0.284535	41.675	200.605
168	1	0.615385	0.294992	41.675	200.095
169	1	0.619048	0.305481	41.675	199.582
170	1	0.622711	0.31337	41.675	199.197
171	1	0.626374	0.323919	41.675	198.682
172	1	0.630037	0.334503	41.675	198.165

173	1	0.6337	0.342466	41.675	197.776
174	1	0.637363	0.353118	41.675	197.256
175	1	0.641026	0.363809	41.675	196.734
176	1	0.644689	0.371856	41.675	196.341
177	1	0.648352	0.382622	41.675	195.815
178	1	0.652015	0.393433	41.675	195.287
179	1	0.655678	0.401571	41.675	194.89
180	1	0.659341	0.412463	41.675	194.358
181	1	0.663004	0.423405	41.675	193.824
182	1	0.666667	0.431644	41.675	193.421
183	1	0.67033	0.442676	41.675	192.883
184	1	0.673993	0.450985	41.675	192.477
185	1	0.677656	0.462114	41.675	191.933
186	1	0.681319	0.473299	41.675	191.387
187	1	0.684982	0.481728	41.675	190.976
188	1	0.688645	0.493018	41.675	190.424
189	1	0.692308	0.504372	41.675	189.87
190	1	0.695971	0.51293	41.675	189.452
191	1	0.699634	0.524401	41.675	188.892
192	1	0.703297	0.53594	41.675	188.328
193	1	0.70696	0.544642	41.675	187.903
194	1	0.710623	0.556308	41.675	187.334
195	1	0.714286	0.568052	41.675	186.76
196	1	0.717949	0.576911	41.675	186.328
197	1	0.721612	0.588793	41.675	185.747
198	1	0.725275	0.60076	41.675	185.163
199	1	0.728938	0.609791	41.675	184.722
200	1	0.732601	0.621911	41.675	184.13
201	1	0.736264	0.634124	41.675	183.534
202	1	0.739927	0.643345	41.675	183.083
203	1	0.74359	0.655726	41.675	182.479
204	1	0.747253	0.668209	41.675	181.869
205	1	0.750916	0.677639	41.675	181.409
206	1	0.754579	0.690309	41.675	180.79
207	1	0.758242	0.703089	41.675	180.166
208	1	0.761905	0.712751	41.675	179.694
209	1	0.765568	0.725736	41.675	179.06
210	1	0.769231	0.738846	41.675	178.42
211	1	0.772894	0.748762	41.675	177.935
212	1	0.776557	0.7621	41.675	177.284
213	1	0.78022	0.775574	41.675	176.626
214	1	0.783883	0.785774	41.675	176.128
215	1	0.787546	0.7995	41.675	175.458
216	1	0.791209	0.813379	41.675	174.78
217	1	0.794872	0.823893	41.675	174.267
218	1	0.798535	0.838054	41.675	173.575
219	1	0.802198	0.852385	41.675	172.875
220	1	0.805861	0.863249	41.675	172.345
221	1	0.809524	0.877897	41.675	171.629
222	1.1	0.813187	0.892733	41.9425	170.905
223	1.3	0.81685	0.903992	42.4775	170.355
224	1.45	0.820513	0.919183	42.8787	169.613
225	1.5	0.824176	0.93459	43.0125	168.861
226	1.64	0.827839	0.946291	43.387	168.289
227	1.66	0.831502	0.9621	43.4405	167.517
228	1.7	0.835165	0.97815	43.5475	166.734
229	1.7	0.838828	0.990356	43.5475	166.138
230	1.81	0.842491	1.00687	43.8417	165.331
231	1.9	0.846154	1.02365	44.0825	164.512
232	2	0.849817	1.03643	44.35	163.888
233	2.1	0.85348	1.05375	44.6175	163.042
234	2.13	0.857143	1.07138	44.6977	162.181

235	2.96	0.860806	1.08482	46.918	161.524
236	3.61	0.864469	1.10306	48.6568	160.634
237	3.73	0.868132	1.12168	48.9778	159.725
238	4.41	0.871795	1.1359	50.7968	159.03
239	4.85	0.875458	1.15522	51.9737	158.087
240	5.11	0.879121	1.17499	52.6693	157.121
241	5.7	0.882784	1.19012	54.2475	156.383
242	5.7	0.886447	1.21073	54.2475	155.376
243	5.7	0.89011	1.23187	54.2475	154.344
244	8	0.893773	1.24809	60.4	153.552
245	8	0.897436	1.27024	60.4	152.47
246	8	0.901099	1.29303	60.4	151.357
247	8.1	0.904762	1.31058	60.6675	150.5
248	8.8	0.908425	1.33462	62.54	149.326
249	9.6	0.912088	1.35946	64.68	148.113
250	10	0.915751	1.37866	65.75	147.176
251	11	0.919414	1.40507	68.425	145.886
252	12	0.923077	1.4325	71.1	144.546
253	12	0.92674	1.4538	71.1	143.506
254	13	0.930403	1.48328	73.775	142.066
255	13	0.934066	1.5141	73.775	140.561
256	15	0.937729	1.5382	79.125	139.385
257	16	0.941392	1.57179	81.8	137.744
258	18	0.945055	1.60725	87.15	136.013
259	19	0.948718	1.63524	89.825	134.646
260	20	0.952381	1.67466	92.5	132.721
261	20	0.956044	1.71688	92.5	130.659
262	20	0.959707	1.75069	92.5	129.008
263	20	0.96337	1.79912	92.5	126.643
264	27	0.967033	1.85218	111.225	124.052
265	42	0.970696	1.8957	151.35	121.927
266	49	0.974359	1.95996	170.075	118.789
267	49	0.978022	2.03352	170.075	115.196
268	49	0.981685	2.09693	170.075	112.1
269	59	0.985348	2.19728	196.825	107.199
270	71	0.989011	2.32634	228.925	100.897
271	120	0.992674	2.45727	360	94.5032
272	120	0.996337	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 = 272

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-5.44914	-2.74777	7.55021	14.973
2	-5.44914	-2.45727	13.5884	28.363
3	-5.44914	-2.32634	19.0003	41.0395
4	-5.44914	-2.19728	23.8283	53.0129
5	-5.44914	-2.09693	28.2255	64.4393
6	-5.44914	-2.03352	32.3607	75.5203
7	-5.44914	-1.95996	36.2021	86.2004
8	-5.44914	-1.8957	39.7958	96.5303
9	-5.44914	-1.85218	43.2263	106.623
10	-5.44914	-1.79912	46.4632	116.427
11	-5.44914	-1.75069	49.5281	125.966
12	-5.43758	-1.71688	52.4757	135.302
13	-5.43758	-1.67466	55.2802	144.408
14	-5.43758	-1.63524	57.9542	153.3
15	-5.39263	-1.60725	60.5375	161.967
16	-5.39263	-1.57179	63.008	170.443
17	-5.39263	-1.5382	65.3741	178.738
18	-5.39263	-1.5141	67.6666	186.903
19	-2.07944	-1.48328	69.8667	189.988
20	-2.07944	-1.4538	71.9802	193.011
21	-2.07944	-1.4325	74.0323	195.99
22	-2.07944	-1.40507	76.0066	198.911
23	-2.07944	-1.37866	77.9072	201.778
24	-2.07944	-1.35946	79.7554	204.605
25	-2.07944	-1.33462	81.5366	207.38
26	-2.07944	-1.31058	83.2542	210.106
27	-2.07944	-1.29303	84.9262	212.794
28	-2.07944	-1.27024	86.5397	215.436
29	-2.07944	-1.24809	88.0974	218.031
30	-2.07944	-1.23187	89.6149	220.593
31	-2.07944	-1.21073	91.0807	223.11
32	-2.07944	-1.19012	92.4971	225.585
33	-2.07944	-1.17499	93.8777	228.028
34	-2.07944	-1.15522	95.2123	230.431
35	-2.07944	-1.1359	96.5025	232.793
36	-2.07944	-1.12168	97.7607	235.125
37	-2.07944	-1.10306	98.9774	237.419
38	-2.07944	-1.08482	100.154	239.675
39	-2.07944	-1.07138	101.302	241.903
40	-2.07944	-1.05375	102.412	244.094
41	-2.07944	-1.03643	103.487	246.249
42	-2.07944	-1.02365	104.535	248.378
43	-2.07944	-1.00687	105.548	250.471
44	-2.07944	-0.990356	106.529	252.531
45	-2.07944	-0.97815	107.486	254.565
46	-2.07944	-0.9621	108.412	256.565
47	-2.07944	-0.946291	109.307	258.533
48	-2.07944	-0.93459	110.18	260.477
49	-2.07944	-0.919183	111.025	262.388
50	-2.07944	-0.903992	111.843	264.268
51	-2.07944	-0.892733	112.64	266.124

52	-2.07944	-0.877897	113.41	267.95
53	-2.07944	-0.863249	114.155	269.745
54	-2.07944	-0.852385	114.882	271.517
55	-2.07944	-0.838054	115.584	273.26
56	-2.07944	-0.823893	116.263	274.973
57	-2.07944	-0.813379	116.925	276.665
58	-2.07944	-0.7995	117.564	278.327
59	-2.07944	-0.785774	118.181	279.961
60	-2.07944	-0.775574	118.783	281.574
61	-2.07944	-0.7621	119.364	283.159
62	-2.07944	-0.748762	119.924	284.716
63	-2.07944	-0.738846	120.47	286.252
64	-2.07944	-0.725736	120.997	287.761
65	-2.07944	-0.712751	121.505	289.243
66	-2.07944	-0.703089	121.999	290.705
67	-2.07944	-0.690309	122.476	292.141
68	-2.07944	-0.677639	122.935	293.55
69	-2.07944	-0.668209	123.381	294.939
70	-2.07944	-0.655726	123.811	296.303
71	-2.07944	-0.643345	124.225	297.641
72	-2.07944	-0.634124	124.627	298.959
73	-2.07944	-0.621911	125.014	300.252
74	-2.07944	-0.609791	125.386	301.521
75	-2.07944	-0.60076	125.747	302.77
76	-2.07944	-0.588793	126.094	303.994
77	-1.17118	-0.576911	126.426	304.67
78	-0.891598	-0.568052	126.749	305.176
79	-0.733969	-0.556308	127.059	305.585
80	-0.544727	-0.544642	127.355	305.881
81	-0.510826	-0.53594	127.643	306.155
82	-0.494296	-0.524401	127.918	306.414
83	-0.478036	-0.51293	128.181	306.659
84	-0.385662	-0.504372	128.435	306.854
85	-0.34249	-0.493018	128.678	307.023
86	-0.34249	-0.481728	128.91	307.188
87	-0.223144	-0.473299	129.134	307.293
88	-0.174353	-0.462114	129.348	307.374
89	-0.162519	-0.450985	129.551	307.447
90	0	-0.442676	129.747	307.447
91	0	-0.431644	129.933	307.447
92	0	-0.423405	130.113	307.447
93	0	-0.412463	130.283	307.447
94	0	-0.401571	130.444	307.447
95	0	-0.393433	130.599	307.447
96	0	-0.382622	130.745	307.447
97	0	-0.371856	130.883	307.447
98	0	-0.363809	131.016	307.447
99	0	-0.353118	131.141	307.447
100	0	-0.342466	131.258	307.447
101	0	-0.334503	131.37	307.447
102	0	-0.323919	131.475	307.447
103	0	-0.31337	131.573	307.447
104	0	-0.305481	131.666	307.447
105	0	-0.294992	131.753	307.447
106	0	-0.284535	131.834	307.447
107	0	-0.276714	131.911	307.447
108	0	-0.266311	131.982	307.447
109	0	-0.255936	132.047	307.447
110	0	-0.248174	132.109	307.447
111	0	-0.237847	132.165	307.447
112	0	-0.227545	132.217	307.447
113	0	-0.219834	132.265	307.447

114	0	-0.209575	132.309	307.447
115	0	-0.199336	132.349	307.447
116	0	-0.191671	132.386	307.447
117	0	-0.181468	132.419	307.447
118	0	-0.171285	132.448	307.447
119	0	-0.163659	132.475	307.447
120	0	-0.153505	132.498	307.447
121	0	-0.143367	132.519	307.447
122	0	-0.135774	132.537	307.447
123	0	-0.125661	132.553	307.447
124	0	-0.115562	132.567	307.447
125	0	-0.107995	132.578	307.447
126	0	-0.0979139	132.588	307.447
127	0	-0.0878447	132.596	307.447
128	0	-0.0802981	132.602	307.447
129	0	-0.0702426	132.607	307.447
130	0	-0.0601949	132.611	307.447
131	0	-0.0526632	132.613	307.447
132	0	-0.0426257	132.615	307.447
133	0	-0.0325917	132.616	307.447
134	0	-0.0250691	132.617	307.447
135	0	-0.0150408	132.617	307.447
136	0	-0.00501359	132.617	307.447
137	0	0.00501359	132.617	307.447
138	0	0.0150408	132.617	307.447
139	0	0.0250691	132.618	307.447
140	0	0.0325917	132.619	307.447
141	0	0.0426257	132.621	307.447
142	0	0.0526632	132.624	307.447
143	0	0.0601949	132.627	307.447
144	0	0.0702426	132.632	307.447
145	0	0.0802981	132.639	307.447
146	0	0.0878447	132.646	307.447
147	0	0.0979139	132.656	307.447
148	0	0.107995	132.668	307.447
149	0	0.115562	132.681	307.447
150	0	0.125661	132.697	307.447
151	0	0.135774	132.715	307.447
152	0	0.143367	132.736	307.447
153	0	0.153505	132.759	307.447
154	0	0.163659	132.786	307.447
155	0	0.171285	132.815	307.447
156	0	0.181468	132.848	307.447
157	0	0.191671	132.885	307.447
158	0	0.199336	132.925	307.447
159	0	0.209575	132.969	307.447
160	0	0.219834	133.017	307.447
161	0	0.227545	133.069	307.447
162	0	0.237847	133.125	307.447
163	0	0.248174	133.187	307.447
164	0	0.255936	133.252	307.447
165	0	0.266311	133.323	307.447
166	0	0.276714	133.4	307.447
167	0	0.284535	133.481	307.447
168	0	0.294992	133.568	307.447
169	0	0.305481	133.661	307.447
170	0	0.31337	133.759	307.447
171	0	0.323919	133.864	307.447
172	0	0.334503	133.976	307.447
173	0	0.342466	134.094	307.447
174	0	0.353118	134.218	307.447
175	0	0.363809	134.351	307.447

176	0	0.371856		134.489	307.447
177	0	0.382622		134.635	307.447
178	0	0.393433		134.79	307.447
179	0	0.401571		134.951	307.447
180	0	0.412463		135.121	307.447
181	0	0.423405		135.301	307.447
182	0	0.431644		135.487	307.447
183	0	0.442676		135.683	307.447
184	0	0.450985		135.886	307.447
185	0	0.462114		136.1	307.447
186	0	0.473299		136.324	307.447
187	0	0.481728		136.556	307.447
188	0	0.493018		136.799	307.447
189	0	0.504372		137.053	307.447
190	0	0.51293	137.317	307.447	
191	0	0.524401		137.592	307.447
192	0	0.53594	137.879	307.447	
193	0	0.544642		138.175	307.447
194	0	0.556308		138.485	307.447
195	0	0.568052		138.808	307.447
196	0	0.576911		139.14	307.447
197	0	0.588793		139.487	307.447
198	0	0.60076	139.848	307.447	
199	0	0.609791		140.22	307.447
200	0	0.621911		140.607	307.447
201	0	0.634124		141.009	307.447
202	0	0.643345		141.423	307.447
203	0	0.655726		141.853	307.447
204	0	0.668209		142.299	307.447
205	0	0.677639		142.758	307.447
206	0	0.690309		143.235	307.447
207	0	0.703089		143.729	307.447
208	0	0.712751		144.237	307.447
209	0	0.725736		144.764	307.447
210	0	0.738846		145.31	307.447
211	0	0.748762		145.87	307.447
212	0	0.7621	146.451	307.447	
213	0	0.775574		147.053	307.447
214	0	0.785774		147.67	307.447
215	0	0.7995	148.309	307.447	
216	0	0.813379		148.971	307.447
217	0	0.823893		149.65	307.447
218	0	0.838054		150.352	307.447
219	0	0.852385		151.079	307.447
220	0	0.863249		151.824	307.447
221	0	0.877897		152.595	307.447
222	0.0953102		0.892733	153.392	307.532
223	0.262364		0.903992	154.209	307.77
224	0.371564		0.919183	155.054	308.111
225	0.405465		0.93459	155.927	308.49
226	0.494696		0.946291	156.823	308.958
227	0.506818		0.9621	157.748	309.446
228	0.530628		0.97815	158.705	309.965
229	0.530628		0.990356	159.686	310.49
230	0.593327		1.00687	160.7	311.088
231	0.641854		1.02365	161.747	311.745
232	0.693147		1.03643	162.822	312.463
233	0.741937		1.05375	163.932	313.245
234	0.756122		1.07138	165.08	314.055
235	1.08519	1.08482	166.257	315.232	
236	1.28371	1.10306	167.473	316.648	
237	1.31641	1.12168	168.732	318.125	

238	1.48387	1.1359	170.022	319.81
239	1.57898	1.15522	171.356	321.634
240	1.6312	1.17499	172.737	323.551
241	1.74047	1.19012	174.153	325.622
242	1.74047	1.21073	175.619	327.73
243	1.74047	1.23187	177.137	329.874
244	2.07944	1.24809	178.694	332.469
245	2.07944	1.27024	180.308	335.11
246	2.07944	1.29303	181.98	337.799
247	2.09186	1.31058	183.697	340.541
248	2.17475	1.33462	185.479	343.443
249	2.26176	1.35946	187.327	346.518
250	2.30259	1.37866	189.228	349.692
251	2.3979	1.40507	191.202	353.062
252	2.48491	1.4325	193.254	356.621
253	2.48491	1.4538	195.367	360.234
254	2.56495	1.48328	197.568	364.038
255	2.56495	1.5141	199.86	367.922
256	2.70805	1.5382	202.226	372.088
257	2.77259	1.57179	204.697	376.446
258	2.89037	1.60725	207.28	381.091
259	2.94444	1.63524	209.954	385.906
260	2.99573	1.67466	212.758	390.923
261	2.99573	1.71688	215.706	396.066
262	2.99573	1.75069	218.771	401.311
263	2.99573	1.79912	222.008	406.7
264	3.29584	1.85218	225.438	412.805
265	3.73767	1.8957	229.032	419.89
266	3.89182	1.95996	232.873	427.518
267	3.89182	2.03352	237.009	435.432
268	3.89182	2.09693	241.406	443.593
269	4.07754	2.19728	246.234	452.553
270	4.26268	2.32634	251.646	462.469
271	4.78749	2.45727	257.684	474.233
272	4.78749	2.74777	265.234	487.388

Data Set Standard Deviation = 1.96239
Numerator = 237547
Denominator = 276801
W Statistic = 0.858187 = 237547 / 276801

5% Critical value of 0.976 exceeds 0.858187
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.858187
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 = 0.926998
0.926998 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-5.44914	0.003663	-2.74777	65.7918	348.683
2	-5.44914	0.00732601	-2.45727	65.7918	334.497
3	-5.44914	0.010989	-2.32634	65.7918	328.103
4	-5.44914	0.014652	-2.19728	65.7918	321.801
5	-5.44914	0.018315	-2.09693	65.7918	316.9
6	-5.44914	0.021978	-2.03352	65.7918	313.804
7	-5.44914	0.025641	-1.95996	65.7918	310.211
8	-5.44914	0.029304	-1.8957	65.7918	307.073
9	-5.44914	0.032967	-1.85218	65.7918	304.948
10	-5.44914	0.03663	-1.79912	65.7918	302.357
11	-5.44914	0.040293	-1.75069	65.7918	299.992
12	-5.43758	0.043956	-1.71688	66.3541	298.341
13	-5.43758	0.047619	-1.67466	66.3541	296.279
14	-5.43758	0.0512821	-1.63524	66.3541	294.354
15	-5.39263	0.0549451	-1.60725	68.5404	292.987
16	-5.39263	0.0586081	-1.57179	68.5404	291.256
17	-5.39263	0.0622711	-1.5382	68.5404	289.615
18	-5.39263	0.0659341	-1.5141	68.5404	288.439
19	-2.07944	0.0695971	-1.48328	229.682	286.934
20	-2.07944	0.0732601	-1.4538	229.682	285.494
21	-2.07944	0.0769231	-1.4325	229.682	284.454
22	-2.07944	0.0805861	-1.40507	229.682	283.114
23	-2.07944	0.0842491	-1.37866	229.682	281.824
24	-2.07944	0.0879121	-1.35946	229.682	280.887
25	-2.07944	0.0915751	-1.33462	229.682	279.674
26	-2.07944	0.0952381	-1.31058	229.682	278.5
27	-2.07944	0.0989011	-1.29303	229.682	277.643
28	-2.07944	0.102564	-1.27024	229.682	276.53
29	-2.07944	0.106227	-1.24809	229.682	275.448
30	-2.07944	0.10989	-1.23187	229.682	274.656
31	-2.07944	0.113553	-1.21073	229.682	273.624
32	-2.07944	0.117216	-1.19012	229.682	272.617
33	-2.07944	0.120879	-1.17499	229.682	271.879
34	-2.07944	0.124542	-1.15522	229.682	270.913
35	-2.07944	0.128205	-1.1359	229.682	269.97
36	-2.07944	0.131868	-1.12168	229.682	269.275
37	-2.07944	0.135531	-1.10306	229.682	268.366
38	-2.07944	0.139194	-1.08482	229.682	267.476
39	-2.07944	0.142857	-1.07138	229.682	266.819
40	-2.07944	0.14652	-1.05375	229.682	265.958
41	-2.07944	0.150183	-1.03643	229.682	265.112
42	-2.07944	0.153846	-1.02365	229.682	264.488
43	-2.07944	0.157509	-1.00687	229.682	263.669
44	-2.07944	0.161172	-0.990356	229.682	262.862
45	-2.07944	0.164835	-0.97815	229.682	262.266
46	-2.07944	0.168498	-0.9621	229.682	261.483
47	-2.07944	0.172161	-0.946291	229.682	260.711
48	-2.07944	0.175824	-0.93459	229.682	260.139

49	-2.07944	0.179487	-0.919183	229.682	259.387	
50	-2.07944	0.18315	-0.903992	229.682	258.645	
51	-2.07944	0.186813	-0.892733	229.682	258.095	
52	-2.07944	0.190476	-0.877897	229.682	257.371	
53	-2.07944	0.194139	-0.863249	229.682	256.655	
54	-2.07944	0.197802	-0.852385	229.682	256.125	
55	-2.07944	0.201465	-0.838054	229.682	255.425	
56	-2.07944	0.205128	-0.823893	229.682	254.733	
57	-2.07944	0.208791	-0.813379	229.682	254.22	
58	-2.07944	0.212454	-0.7995	229.682	253.542	
59	-2.07944	0.216117	-0.785774	229.682	252.872	
60	-2.07944	0.21978	-0.775574	229.682	252.374	
61	-2.07944	0.223443	-0.7621	229.682	251.716	
62	-2.07944	0.227106	-0.748762	229.682	251.065	
63	-2.07944	0.230769	-0.738846	229.682	250.58	
64	-2.07944	0.234432	-0.725736	229.682	249.94	
65	-2.07944	0.238095	-0.712751	229.682	249.306	
66	-2.07944	0.241758	-0.703089	229.682	248.834	
67	-2.07944	0.245421	-0.690309	229.682	248.21	
68	-2.07944	0.249084	-0.677639	229.682	247.591	
69	-2.07944	0.252747	-0.668209	229.682	247.131	
70	-2.07944	0.25641	-0.655726	229.682	246.521	
71	-2.07944	0.260073	-0.643345	229.682	245.917	
72	-2.07944	0.263736	-0.634124	229.682	245.466	
73	-2.07944	0.267399	-0.621911	229.682	244.87	
74	-2.07944	0.271062	-0.609791	229.682	244.278	
75	-2.07944	0.274725	-0.60076	229.682	243.837	
76	-2.07944	0.278388	-0.588793	229.682	243.253	
77	-1.17118	0.282051	-0.576911	273.856	242.672	
78	-0.891598	0.285714	-0.568052	287.454	242.24	
79	-0.733969	0.289377	-0.556308	295.121	241.666	
80	-0.544727	0.29304	-0.544642	304.325	241.097	
81	-0.510826	0.296703	-0.53594	305.973	240.672	
82	-0.494296	0.300366	-0.524401	306.777	240.108	
83	-0.478036	0.304029	-0.51293	307.568	239.548	
84	-0.385662	0.307692	-0.504372	312.061	239.13	
85	-0.34249	0.311355	-0.493018	314.161	238.576	
86	-0.34249	0.315018	-0.481728	314.161	238.024	
87	-0.223144	0.318681	-0.473299	319.965	237.613	
88	-0.174353	0.322344	-0.462114	322.338	237.067	
89	-0.162519	0.326007	-0.450985	322.914	236.523	
90	0	0.32967	-0.442676	330.818	236.117	
91	0	0.333333	-0.431644	330.818	235.579	
92	0	0.336996	-0.423405	330.818	235.176	
93	0	0.340659	-0.412463	330.818	234.642	
94	0	0.344322	-0.401571	330.818	234.11	
95	0	0.347985	-0.393433	330.818	233.713	
96	0	0.351648	-0.382622	330.818	233.185	
97	0	0.355311	-0.371856	330.818	232.659	
98	0	0.358974	-0.363809	330.818	232.266	
99	0	0.362637	-0.353118	330.818	231.744	
100	0	0.3663	-0.342466	330.818	231.224	
101	0	0.369963	-0.334503	330.818	230.835	
102	0	0.373626	-0.323919	330.818	230.318	
103	0	0.377289	-0.31337	330.818	229.803	
104	0	0.380952	-0.305481	330.818	229.418	
105	0	0.384615	-0.294992	330.818	228.905	
106	0	0.388278	-0.284535	330.818	228.395	
107	0	0.391941	-0.276714	330.818	228.013	
108	0	0.395604	-0.266311	330.818	227.505	
109	0	0.399267	-0.255936	330.818	226.998	
110	0	0.40293	-0.248174	330.818	226.619	

111	0	0.406593	-0.237847	330.818	226.115
112	0	0.410256	-0.227545	330.818	225.612
113	0	0.413919	-0.219834	330.818	225.235
114	0	0.417582	-0.209575	330.818	224.734
115	0	0.421245	-0.199336	330.818	224.234
116	0	0.424908	-0.191671	330.818	223.86
117	0	0.428571	-0.181468	330.818	223.362
118	0	0.432234	-0.171285	330.818	222.864
119	0	0.435897	-0.163659	330.818	222.492
120	0	0.43956	-0.153505	330.818	221.996
121	0	0.443223	-0.143367	330.818	221.501
122	0	0.446886	-0.135774	330.818	221.13
123	0	0.450549	-0.125661	330.818	220.636
124	0	0.454212	-0.115562	330.818	220.143
125	0	0.457875	-0.107995	330.818	219.774
126	0	0.461538	-0.0979139	330.818	219.281
127	0	0.465201	-0.0878447	330.818	218.79
128	0	0.468864	-0.0802981	330.818	218.421
129	0	0.472527	-0.0702426	330.818	217.93
130	0	0.47619	-0.0601949	330.818	217.44
131	0	0.479853	-0.0526632	330.818	217.072
132	0	0.483516	-0.0426257	330.818	216.582
133	0	0.487179	-0.0325917	330.818	216.092
134	0	0.490842	-0.0250691	330.818	215.724
135	0	0.494505	-0.0150408	330.818	215.234
136	0	0.498168	-0.00501359	330.818	214.745
137	0	0.501832	0.00501359	330.818	214.255
138	0	0.505495	0.0150408	330.818	213.766
139	0	0.509158	0.0250691	330.818	213.276
140	0	0.512821	0.0325917	330.818	212.908
141	0	0.516484	0.0426257	330.818	212.418
142	0	0.520147	0.0526632	330.818	211.928
143	0	0.52381	0.0601949	330.818	211.56
144	0	0.527473	0.0702426	330.818	211.07
145	0	0.531136	0.0802981	330.818	210.579
146	0	0.534799	0.0878447	330.818	210.21
147	0	0.538462	0.0979139	330.818	209.719
148	0	0.542125	0.107995	330.818	209.226
149	0	0.545788	0.115562	330.818	208.857
150	0	0.549451	0.125661	330.818	208.364
151	0	0.553114	0.135774	330.818	207.87
152	0	0.556777	0.143367	330.818	207.499
153	0	0.56044	0.153505	330.818	207.004
154	0	0.564103	0.163659	330.818	206.508
155	0	0.567766	0.171285	330.818	206.136
156	0	0.571429	0.181468	330.818	205.638
157	0	0.575092	0.191671	330.818	205.14
158	0	0.578755	0.199336	330.818	204.766
159	0	0.582418	0.209575	330.818	204.266
160	0	0.586081	0.219834	330.818	203.765
161	0	0.589744	0.227545	330.818	203.388
162	0	0.593407	0.237847	330.818	202.885
163	0	0.59707	0.248174	330.818	202.381
164	0	0.600733	0.255936	330.818	202.002
165	0	0.604396	0.266311	330.818	201.495
166	0	0.608059	0.276714	330.818	200.987
167	0	0.611722	0.284535	330.818	200.605
168	0	0.615385	0.294992	330.818	200.095
169	0	0.619048	0.305481	330.818	199.582
170	0	0.622711	0.31337	330.818	199.197
171	0	0.626374	0.323919	330.818	198.682
172	0	0.630037	0.334503	330.818	198.165

173	0	0.6337	0.342466	330.818	197.776	
174	0	0.637363	0.353118	330.818	197.256	
175	0	0.641026	0.363809	330.818	196.734	
176	0	0.644689	0.371856	330.818	196.341	
177	0	0.648352	0.382622	330.818	195.815	
178	0	0.652015	0.393433	330.818	195.287	
179	0	0.655678	0.401571	330.818	194.89	
180	0	0.659341	0.412463	330.818	194.358	
181	0	0.663004	0.423405	330.818	193.824	
182	0	0.666667	0.431644	330.818	193.421	
183	0	0.67033	0.442676	330.818	192.883	
184	0	0.673993	0.450985	330.818	192.477	
185	0	0.677656	0.462114	330.818	191.933	
186	0	0.681319	0.473299	330.818	191.387	
187	0	0.684982	0.481728	330.818	190.976	
188	0	0.688645	0.493018	330.818	190.424	
189	0	0.692308	0.504372	330.818	189.87	
190	0	0.695971	0.51293	330.818	189.452	
191	0	0.699634	0.524401	330.818	188.892	
192	0	0.703297	0.53594	330.818	188.328	
193	0	0.70696	0.544642	330.818	187.903	
194	0	0.710623	0.556308	330.818	187.334	
195	0	0.714286	0.568052	330.818	186.76	
196	0	0.717949	0.576911	330.818	186.328	
197	0	0.721612	0.588793	330.818	185.747	
198	0	0.725275	0.60076	330.818	185.163	
199	0	0.728938	0.609791	330.818	184.722	
200	0	0.732601	0.621911	330.818	184.13	
201	0	0.736264	0.634124	330.818	183.534	
202	0	0.739927	0.643345	330.818	183.083	
203	0	0.74359	0.655726	330.818	182.479	
204	0	0.747253	0.668209	330.818	181.869	
205	0	0.750916	0.677639	330.818	181.409	
206	0	0.754579	0.690309	330.818	180.79	
207	0	0.758242	0.703089	330.818	180.166	
208	0	0.761905	0.712751	330.818	179.694	
209	0	0.765568	0.725736	330.818	179.06	
210	0	0.769231	0.738846	330.818	178.42	
211	0	0.772894	0.748762	330.818	177.935	
212	0	0.776557	0.7621	330.818	177.284	
213	0	0.78022	0.775574	330.818	176.626	
214	0	0.783883	0.785774	330.818	176.128	
215	0	0.787546	0.7995	330.818	175.458	
216	0	0.791209	0.813379	330.818	174.78	
217	0	0.794872	0.823893	330.818	174.267	
218	0	0.798535	0.838054	330.818	173.575	
219	0	0.802198	0.852385	330.818	172.875	
220	0	0.805861	0.863249	330.818	172.345	
221	0	0.809524	0.877897	330.818	171.629	
222	0.0953102	0.813187	0.892733	335.454	170.905	
223	0.262364	0.81685	0.903992	343.579	170.355	
224	0.371564	0.820513	0.919183	348.89	169.613	
225	0.405465	0.824176	0.93459	350.539	168.861	
226	0.494696	0.827839	0.946291	354.878	168.289	
227	0.506818	0.831502	0.9621	355.468	167.517	
228	0.530628	0.835165	0.97815	356.626	166.734	
229	0.530628	0.838828	0.990356	356.626	166.138	
230	0.593327	0.842491	1.00687	359.675	165.331	
231	0.641854	0.846154	1.02365	362.036	164.512	
232	0.693147	0.849817	1.03643	364.53	163.888	
233	0.741937	0.85348	1.05375	366.903	163.042	
234	0.756122	0.857143	1.07138	367.593	162.181	

235	1.08519	0.860806		1.08482	383.598	161.524
236	1.28371	0.864469		1.10306	393.253	160.634
237	1.31641	0.868132		1.12168	394.843	159.725
238	1.48387	0.871795		1.1359	402.988	159.03
239	1.57898	0.875458		1.15522	407.614	158.087
240	1.6312	0.879121		1.17499	410.154	157.121
241	1.74047	0.882784		1.19012	415.468	156.383
242	1.74047	0.886447		1.21073	415.468	155.376
243	1.74047	0.89011	1.23187	415.468	154.344	
244	2.07944	0.893773		1.24809	431.955	153.552
245	2.07944	0.897436		1.27024	431.955	152.47
246	2.07944	0.901099		1.29303	431.955	151.357
247	2.09186	0.904762		1.31058	432.559	150.5
248	2.17475	0.908425		1.33462	436.59	149.326
249	2.26176	0.912088		1.35946	440.822	148.113
250	2.30259	0.915751		1.37866	442.808	147.176
251	2.3979	0.919414		1.40507	447.443	145.886
252	2.48491	0.923077		1.4325	451.675	144.546
253	2.48491	0.92674	1.4538	451.675	143.506	
254	2.56495	0.930403		1.48328	455.568	142.066
255	2.56495	0.934066		1.5141	455.568	140.561
256	2.70805	0.937729		1.5382	462.528	139.385
257	2.77259	0.941392		1.57179	465.667	137.744
258	2.89037	0.945055		1.60725	471.395	136.013
259	2.94444	0.948718		1.63524	474.025	134.646
260	2.99573	0.952381		1.67466	476.52	132.721
261	2.99573	0.956044		1.71688	476.52	130.659
262	2.99573	0.959707		1.75069	476.52	129.008
263	2.99573	0.96337	1.79912	476.52	126.643	
264	3.29584	0.967033		1.85218	491.116	124.052
265	3.73767	0.970696		1.8957	512.605	121.927
266	3.89182	0.974359		1.95996	520.102	118.789
267	3.89182	0.978022		2.03352	520.102	115.196
268	3.89182	0.981685		2.09693	520.102	112.1
269	4.07754	0.985348		2.19728	529.135	107.199
270	4.26268	0.989011		2.32634	538.139	100.897
271	4.78749	0.992674		2.45727	563.664	94.5032
272	4.78749	0.996337		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	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<-2.07944	104.5
	11/16/2009	ND<-2.07944	104.5
	6/30/2010	ND<-2.07944	104.5
	6/30/2010	ND<-5.39263	104.5
	11/12/2010	ND<-2.07944 U	104.5
	11/12/2010	ND<-5.44914 U	104.5
	7/5/2011	ND<-2.07944 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-8	7/20/1995	ND<0	104.5
	8/24/1995	2.17475	248
	9/28/1995	2.07944	244
	10/26/1995	ND<0	104.5
	11/19/1996	2.48491	252
	12/19/1996	2.56495	254
	3/24/1997	2.07944	245
	9/24/1997	ND<0	104.5
	4/7/1998	1.74047	241
	9/23/1998	ND<0	104.5
	3/16/1999	0.741937	233
	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	-0.494296 J	214

	11/18/2006	-0.544727	J	212	
	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	0.641854		231	
	6/30/2010	ND<-2.07944		104.5	
	11/12/2010	ND<-2.07944	U	104.5	
	7/5/2011	ND<-2.07944	U	104.5	
	11/22/2011	ND<-2.07944	U Q		104.5
	11/22/2011	ND<-2.07944	U Q		104.5
	6/5/2012	ND<-2.07944	U	104.5	

Rank Sum = 4568.5
Rank Mean = 147.371

MW-11R	7/20/1995	ND<0	104.5		
	8/24/1995	4.07754		269	
	9/28/1995	2.77259		257	
	10/26/1995	ND<0	104.5		
	11/19/1996	4.78749		271	
	12/19/1996	4.78749		272	
	3/24/1997	3.89182		266	
	9/24/1997	2.99573		260	
	4/7/1998	3.29584		264	
	9/23/1998	2.56495		255	
	3/16/1999	2.09186		247	
	9/23/1999	ND<0	104.5		
	3/15/2000	2.70805		256	
	9/24/2003	ND<0	104.5		
	3/11/2004	ND<0	104.5		
	10/12/2004	ND<0	104.5		
	4/1/2005	1.57898		239	
	10/25/2005	-0.223144	J	219	
	4/29/2006	ND<0	104.5		
	11/18/2006	-0.385662	J	216	
	5/23/2007	ND<0	104.5		
	11/28/2007	-0.891598	J	210	
	6/5/2008	ND<0	104.5		
	11/20/2008	0.494696	J	226	
	6/11/2009	0.262364		223	
	11/16/2009	0.0953102		222	
	6/30/2010	ND<-5.44914		104.5	
	6/30/2010	ND<-2.07944		104.5	
	11/12/2010	ND<-2.07944	U	104.5	
	11/12/2010	ND<-5.43758	U	104.5	
	7/5/2011	0.530628		228	
	11/22/2011	ND<-2.07944	U Q		104.5
	11/22/2011	ND<-2.07944	U Q		104.5
	6/5/2012	-0.162519	J	221	

Rank Sum = 6188.5
Rank Mean = 182.015

MW-10	7/20/1995	ND<0	104.5		
	8/24/1995	0.530628	J	229	
	9/28/1995	0.693147		232	
	10/26/1995	ND<0	104.5		
	11/19/1996	ND<0	104.5		
	12/19/1996	2.07944		246	
	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	1.08519	235	
	10/25/2005	0.756122		234
	4/29/2006	0.405465 J		225
	11/18/2006	-0.478036 J		215
	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<-2.07944		104.5
	11/16/2009	ND<-2.07944		104.5
	6/30/2010	ND<-5.44914		104.5
	6/30/2010	ND<-2.07944		104.5
	6/30/2010	ND<-5.44914		104.5
	11/12/2010	ND<-5.44914 U		104.5
	11/12/2010	ND<-2.07944 U		104.5
	7/5/2011	ND<-2.07944 U	104.5	
	11/22/2011	ND<-2.07944 U		104.5
	11/22/2011	ND<-2.07944 U		104.5
	6/5/2012	-1.17118 J	209	

Rank Sum = 4646.5
Rank Mean = 132.757

MW-6	7/20/1995	ND<0	104.5	
	8/24/1995	ND<0	104.5	
	9/28/1995	-0.510826 J		213
	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<-2.07944		104.5
	11/16/2009	ND<-2.07944		104.5
	6/30/2010	ND<-5.44914		104.5
	6/30/2010	ND<-2.07944		104.5
	11/12/2010	ND<-2.07944 U		104.5
	11/12/2010	ND<-5.43758 U		104.5
	7/5/2011	-0.733969 J	211	
	11/22/2011	-0.34249 J		217
	11/22/2011	-0.34249 J		218
	6/5/2012	-0.174353 J	220	

Rank Sum = 4109.5
Rank Mean = 120.868

MW-9	7/20/1995	ND<0	104.5		
	8/24/1995	3.89182		267	
	9/28/1995	3.73767		265	
	10/26/1995	ND<0	104.5		
	11/19/1996	3.89182		268	
	12/19/1996	4.26268		270	
	3/24/1997	2.89037		258	
	9/24/1997	2.99573		261	
	4/7/1998	1.74047		242	
	9/23/1998	ND<0	104.5		
	3/16/1999	2.3979	251		
	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	0.506818 J		227	
	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<-2.07944		104.5	
	11/16/2009	ND<-2.07944		104.5	
	6/30/2010	ND<-5.43758		104.5	
	6/30/2010	ND<-5.44914		104.5	
	6/30/2010	ND<-2.07944		104.5	
	11/12/2010	ND<-5.44914 U		104.5	
	11/12/2010	ND<-2.07944 U		104.5	
	7/5/2011	ND<-2.07944 U	104.5		
	11/22/2011	ND<-2.07944 U Q			104.5
	11/22/2011	ND<-2.07944 U Q			104.5
	6/5/2012	ND<-2.07944 U	104.5		

Rank Sum = 5026
Rank Mean = 143.6

MW-7	7/20/1995	ND<0	104.5	
	8/24/1995	2.94444		259
	9/28/1995	2.99573		262
	10/26/1995	ND<0	104.5	
	11/19/1996	2.99573		263
	12/19/1996	ND<0	104.5	
	3/24/1997	2.30259		250
	9/24/1997	ND<0	104.5	
	4/7/1998	1.74047	243	
	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<-2.07944	104.5
	11/16/2009	ND<-2.07944	104.5
	6/30/2010	ND<-5.44914	104.5
	6/30/2010	ND<-2.07944	104.5
	11/12/2010	ND<-2.07944 U	104.5
	11/12/2010	ND<-5.44914 U	104.5
	7/5/2011	ND<-2.07944 U	104.5
	11/22/2011	ND<-2.07944 U	104.5
	11/22/2011	ND<-2.07944 U	104.5
	6/5/2012	ND<-2.07944 U	104.5

Rank Sum = 4307.5
Rank Mean = 126.691

MW-12BR	3/16/1999	2.26176	249
	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	1.31641	237
	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<-2.07944	104.5
	11/16/2009	ND<-2.07944	104.5
	6/30/2010	ND<-5.39263	104.5
	6/30/2010	ND<-2.07944	104.5
	11/12/2010	ND<-2.07944 U	104.5
	11/12/2010	ND<-5.39263 U	104.5
	7/5/2011	ND<-2.07944 U	104.5
	11/22/2011	ND<-2.07944 U	104.5
	11/22/2011	ND<-2.07944 U	104.5
	6/5/2012	ND<-2.07944 U	104.5

Rank Sum = 2785
Rank Mean = 116.042

MW-12AR	3/16/1999	ND<0	104.5
	9/23/1999	ND<0	104.5
	3/15/2000	2.48491	253
	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	1.6312	240
	4/29/2006	1.48387	238
	11/18/2006	1.28371	236
	5/23/2007	ND<0	104.5
	11/28/2007	0.593327 J	230
	6/5/2008	0.371564 J	224
	11/20/2008	ND<0	104.5
	6/11/2009	ND<-2.07944	104.5
	11/16/2009	ND<-2.07944	104.5
	6/30/2010	ND<-5.44914	104.5
	6/30/2010	ND<-2.07944	104.5
	11/12/2010	ND<-5.39263 U	104.5

11/12/2010	ND<-2.07944 U	104.5	
7/5/2011	ND<-2.07944 U	104.5	
11/22/2011	ND<-2.07944 U	104.5	
11/22/2011	ND<-2.07944 U	104.5	
6/5/2012	ND<-2.07944 U	104.5	

Rank Sum = 3302
Rank Mean = 137.583

Calculation Results:

Kruskal-Wallis H Statistic = 19.3131
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 34.9353
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
19.3131 > 15.5073 indicating a significant group difference at 5% significance level
34.9353 > 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-8	**147.371**	**42.871**	**51.7202**
MW-11R	**182.015**	**77.5147**	**50.7903**
MW-10	**132.757**	**28.2571**	**50.5125**
MW-6	**120.868**	**16.3676**	**50.7903**
MW-9	**143.6**	**39.1**	**50.5125**
MW-7	**126.691**	**22.1912**	**50.7903**
MW-12BR	**116.042**	**11.5417**	**54.6814**
MW-12AR	**137.583**	**33.0833**	**54.6814**

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-8	**147.371**	**42.871**	**55.8508**
MW-11R	**182.015**	**77.5147**	**54.8467**
MW-10	**132.757**	**28.2571**	**54.5467**
MW-6	**120.868**	**16.3676**	**54.8467**
MW-9	**143.6**	**39.1**	**54.5467**
MW-7	**126.691**	**22.1912**	**54.8467**
MW-12BR	**116.042**	**11.5417**	**59.0485**
MW-12AR	**137.583**	**33.0833**	**59.0485**

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	-2.079441	0	-3.03502
11/22/2011	-2.079441	0	-3.03502
6/5/2012	-0.162519	0	-1.29204
6/5/2012	-0.162519	0	-1.29204

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<-5.44914	(6/30/2010)	ND<0 (7/20/1995)	(-5.44914 - 0)/(27 - 1)	-0.209582
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<-5.43758 U	(11/12/2010)	ND<0 (7/20/1995)	(-5.43758 - 0)/(28 - 1)	-0.201392
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
-0.162519 J (6/5/2012)	ND<0 (7/20/1995)	(-0.162519 - 0)/(31 - 1)	-0.0054173
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<-5.44914 (6/30/2010)	4.07754 (8/24/1995)	(-5.44914 - 4.07754)/(27 - 2)	-0.381067
ND<-2.07944 (6/30/2010)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(27 - 2)	-0.246279
ND<-2.07944 U (11/12/2010)	4.07754 (8/24/1995)	(-2.07944 - 4.07754)/(28 - 2)	-0.236807
ND<-5.43758 U (11/12/2010)	4.07754 (8/24/1995)	(-5.43758 - 4.07754)/(28 - 2)	-0.365966
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
-0.162519 J (6/5/2012) 4.07754 (8/24/1995) (-0.162519 - 4.07754)/(31 - 2)
-0.146209

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<-5.44914 (6/30/2010) 2.77259 (9/28/1995) (-5.44914 - 2.77259)/(27 - 3)
-0.342572
ND<-2.07944 (6/30/2010) 2.77259 (9/28/1995) (-2.07944 - 2.77259)/(27 - 3)
-0.202168
ND<-2.07944 U (11/12/2010) 2.77259 (9/28/1995) (-2.07944 - 2.77259)/(28 - 3)
-0.194081
ND<-5.43758 U (11/12/2010) 2.77259 (9/28/1995) (-5.43758 - 2.77259)/(28 - 3)
-0.328407
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
-0.162519 J (6/5/2012) 2.77259 (9/28/1995) (-0.162519 - 2.77259)/(31 - 3)
-0.104825

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
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0.530628 (7/5/2011) 2.56495 (9/23/1998) (0.530628 - 2.56495)/(29 - 10)
-0.10707

ND<-2.07944 U Q (11/22/2011) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(30 - 10)
-0.23222
ND<-2.07944 U Q (11/22/2011) 2.56495 (9/23/1998) (-2.07944 - 2.56495)/(30 - 10)
-0.23222
-0.162519 J (6/5/2012) 2.56495 (9/23/1998) (-0.162519 - 2.56495)/(31 - 10)
-0.129879

ND<0 (9/23/1999) 2.09186 (3/16/1999) (0 - 2.09186)/(12 - 11) -2.09186
2.70805 (3/15/2000) 2.09186 (3/16/1999) (2.70805 - 2.09186)/(13 - 11)
0.308093
ND<0 (9/24/2003) 2.09186 (3/16/1999) (0 - 2.09186)/(14 - 11)
-0.697288
ND<0 (3/11/2004) 2.09186 (3/16/1999) (0 - 2.09186)/(15 - 11)
-0.522966
ND<0 (10/12/2004) 2.09186 (3/16/1999) (0 - 2.09186)/(16 - 11)
-0.418373
1.57898 (4/1/2005) 2.09186 (3/16/1999) (1.57898 - 2.09186)/(17 - 11)
-0.0854809
-0.223144 J (10/25/2005) 2.09186 (3/16/1999) (-0.223144 - 2.09186)/(18 - 11)
-0.330715
ND<0 (4/29/2006) 2.09186 (3/16/1999) (0 - 2.09186)/(19 - 11)
-0.261483
-0.385662 J (11/18/2006) 2.09186 (3/16/1999) (-0.385662 - 2.09186)/(20 - 11)
-0.275281
ND<0 (5/23/2007) 2.09186 (3/16/1999) (0 - 2.09186)/(21 - 11)
-0.209186
-0.891598 J (11/28/2007) 2.09186 (3/16/1999) (-0.891598 - 2.09186)/(22 - 11)
-0.271224
ND<0 (6/5/2008) 2.09186 (3/16/1999) (0 - 2.09186)/(23 - 11)
-0.174322
0.494696 J (11/20/2008) 2.09186 (3/16/1999) (0.494696 - 2.09186)/(24 - 11)
-0.122859
0.262364 (6/11/2009) 2.09186 (3/16/1999) (0.262364 - 2.09186)/(25 - 11)
-0.130679
0.0953102 (11/16/2009) 2.09186 (3/16/1999) (0.0953102 - 2.09186)/(26 - 11)
-0.133104
ND<-5.44914 (6/30/2010) 2.09186 (3/16/1999) (-5.44914 - 2.09186)/(27 - 11)
-0.471313
ND<-2.07944 (6/30/2010) 2.09186 (3/16/1999) (-2.07944 - 2.09186)/(27 - 11)
-0.260707
ND<-2.07944 U (11/12/2010) 2.09186 (3/16/1999) (-2.07944 - 2.09186)/(28 - 11)
-0.245371
ND<-5.43758 U (11/12/2010) 2.09186 (3/16/1999) (-5.43758 - 2.09186)/(28 - 11)
-0.442908
0.530628 (7/5/2011) 2.09186 (3/16/1999) (0.530628 - 2.09186)/(29 - 11)
-0.0867353
ND<-2.07944 U Q (11/22/2011) 2.09186 (3/16/1999) (-2.07944 - 2.09186)/(30 - 11)
-0.219542
ND<-2.07944 U Q (11/22/2011) 2.09186 (3/16/1999) (-2.07944 - 2.09186)/(30 - 11)
-0.219542
-0.162519 J (6/5/2012) 2.09186 (3/16/1999) (-0.162519 - 2.09186)/(31 - 11)
-0.112719

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
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
1.57898 (4/1/2005) ND<0 (9/23/1999) (1.57898 - 0)/(17 - 12)
0.315796
-0.223144 J (10/25/2005) ND<0 (9/23/1999) (-0.223144 - 0)/(18 - 12)
-0.0371906
ND<0 (4/29/2006) ND<0 (9/23/1999) (0 - 0)/(19 - 12) 0

-0.385662 J (11/18/2006)	ND<0 (9/23/1999)	(-0.385662 - 0)/(20 - 12)	-0.0482078
ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0
-0.891598 J (11/28/2007)	ND<0 (9/23/1999)	(-0.891598 - 0)/(22 - 12)	-0.0891598
ND<0 (6/5/2008)	ND<0 (9/23/1999)	(0 - 0)/(23 - 12)	0
0.494696 J (11/20/2008)	ND<0 (9/23/1999)	(0.494696 - 0)/(24 - 12)	0.0412247
0.262364 (6/11/2009)	ND<0 (9/23/1999)	(0.262364 - 0)/(25 - 12)	0.0201819
0.0953102 (11/16/2009)	ND<0 (9/23/1999)	(0.0953102 - 0)/(26 - 12)	0.00680787
ND<-5.44914 (6/30/2010)	ND<0 (9/23/1999)	(-5.44914 - 0)/(27 - 12)	-0.363276
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<-5.43758 U (11/12/2010)	ND<0 (9/23/1999)	(-5.43758 - 0)/(28 - 12)	-0.339849
0.530628 (7/5/2011)	ND<0 (9/23/1999)	(0.530628 - 0)/(29 - 12)	0.0312134
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
-0.162519 J (6/5/2012)	ND<0 (9/23/1999)	(-0.162519 - 0)/(31 - 12)	-0.00855363

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<-5.44914 (6/30/2010)	2.70805 (3/15/2000)	(-5.44914 - 2.70805)/(27 - 13)	-0.582656
ND<-2.07944 (6/30/2010)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(27 - 13)	-0.341964
ND<-2.07944 U (11/12/2010)	2.70805 (3/15/2000)	(-2.07944 - 2.70805)/(28 - 13)	-0.319166
ND<-5.43758 U (11/12/2010)	2.70805 (3/15/2000)	(-5.43758 - 2.70805)/(28 - 13)	-0.543042

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
-0.162519 J (6/5/2012) 2.70805 (3/15/2000) (-0.162519 - 2.70805)/(31 - 13)
-0.159476

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<-5.44914 (6/30/2010) ND<0 (9/24/2003) (-5.44914 - 0)/(27 - 14)
-0.419165
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<-5.43758 U (11/12/2010) ND<0 (9/24/2003) (-5.43758 - 0)/(28 - 14)
-0.388399
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
-0.162519 J (6/5/2012) ND<0 (9/24/2003) (-0.162519 - 0)/(31 - 14)
-0.00955994

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<-5.44914 (6/30/2010)	ND<0 (3/11/2004)	(-5.44914 - 0)/(27 - 15)		-0.454095
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<-5.43758 U (11/12/2010)	ND<0 (3/11/2004)	(-5.43758 - 0)/(28 - 15)		-0.418275
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
-0.162519 J (6/5/2012)	ND<0 (3/11/2004)	(-0.162519 - 0)/(31 - 15)		-0.0101574
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<-5.44914 (6/30/2010)	ND<0 (10/12/2004)	(-5.44914 - 0)/(27 - 16)		-0.495376
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<-5.43758 U (11/12/2010)	ND<0 (10/12/2004)	(-5.43758 - 0)/(28 - 16)		-0.453132
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
-0.162519 J (6/5/2012)	ND<0 (10/12/2004)	(-0.162519 - 0)/(31 - 16)		-0.0108346
-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<-5.44914 (6/30/2010)	1.57898 (4/1/2005)	(-5.44914 - 1.57898)/(27 - 17)	-0.702812
ND<-2.07944 (6/30/2010)	1.57898 (4/1/2005)	(-2.07944 - 1.57898)/(27 - 17)	-0.365842
ND<-2.07944 U (11/12/2010)	1.57898 (4/1/2005)	(-2.07944 - 1.57898)/(28 - 17)	-0.332584
ND<-5.43758 U (11/12/2010)	1.57898 (4/1/2005)	(-5.43758 - 1.57898)/(28 - 17)	-0.637869
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
-0.162519 J (6/5/2012)	1.57898 (4/1/2005)	(-0.162519 - 1.57898)/(31 - 17)	-0.124393

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<-5.44914 (6/30/2010)	-0.223144 J (10/25/2005)	(-5.44914 - -0.223144)/(27 - 18)	-0.580666
ND<-2.07944 (6/30/2010)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(27 - 18)	-0.206255
ND<-2.07944 U (11/12/2010)	-0.223144 J (10/25/2005)	(-2.07944 - -0.223144)/(28 - 18)	-0.18563
ND<-5.43758 U (11/12/2010)	-0.223144 J (10/25/2005)	(-5.43758 - -0.223144)/(28 - 18)	-0.521444
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
-0.162519 J (6/5/2012)	-0.223144 J (10/25/2005)	(-0.162519 - -0.223144)/(31 - 18)	0.00466343

-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<-5.44914 (6/30/2010)	ND<0 (4/29/2006)	(-5.44914 - 0)/(27 - 19)	-0.681143
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<-5.43758 U (11/12/2010)	ND<0 (4/29/2006)	(-5.43758 - 0)/(28 - 19)	-0.604175
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
-0.162519 J (6/5/2012)	ND<0 (4/29/2006)	(-0.162519 - 0)/(31 - 19)	-0.0135432

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<-5.44914 (6/30/2010)	-0.385662 J (11/18/2006)	(-5.44914 - -0.385662)/(27 - 20)	-0.723354
ND<-2.07944 (6/30/2010)	-0.385662 J (11/18/2006)	(-2.07944 - -0.385662)/(27 - 20)	-0.241968
ND<-2.07944 U (11/12/2010)	-0.385662 J (11/18/2006)	(-2.07944 - -0.385662)/(28 - 20)	-0.211722
ND<-5.43758 U (11/12/2010)	-0.385662 J (11/18/2006)	(-5.43758 - -0.385662)/(28 - 20)	-0.63149
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
-0.162519 J (6/5/2012)	-0.385662 J (11/18/2006)	(-0.162519 - -0.385662)/(31 - 20)	0.0202858

-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<-5.44914 (6/30/2010)	ND<0 (5/23/2007)	(-5.44914 - 0)/(27 - 21)		-0.90819
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<-5.43758 U (11/12/2010) ND<0 (5/23/2007) (-5.43758 - 0)/(28 - 21)
-0.776797
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
-0.162519 J (6/5/2012) ND<0 (5/23/2007) (-0.162519 - 0)/(31 - 21)
-0.0162519

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<-5.44914 (6/30/2010) -0.891598 J (11/28/2007) (-5.44914 - -0.891598)/(27 - 22)
-0.911508
ND<-2.07944 (6/30/2010) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(27 - 22)
-0.237569
ND<-2.07944 U (11/12/2010) -0.891598 J (11/28/2007) (-2.07944 - -0.891598)/(28 - 22)
-0.197974
ND<-5.43758 U (11/12/2010) -0.891598 J (11/28/2007) (-5.43758 - -0.891598)/(28 - 22)
-0.757664
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
-0.162519 J (6/5/2012) -0.891598 J (11/28/2007) (-0.162519 - -0.891598)/(31 - 22)
0.0810088

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<-5.44914 (6/30/2010) ND<0 (6/5/2008) (-5.44914 - 0)/(27 - 23) -1.36229
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<-5.43758 U (11/12/2010) ND<0 (6/5/2008) (-5.43758 - 0)/(28 - 23)
-1.08752
0.530628 (7/5/2011) ND<0 (6/5/2008) (0.530628 - 0)/(29 - 23)
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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
-0.162519 J (6/5/2012) ND<0 (6/5/2008) (-0.162519 - 0)/(31 - 23)
-0.0203149

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<-5.44914 (6/30/2010) 0.494696 J (11/20/2008) (-5.44914 - 0.494696)/(27 - 24)
-1.98128
ND<-2.07944 (6/30/2010) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(27 - 24)
-0.858046
ND<-2.07944 U (11/12/2010) 0.494696 J (11/20/2008) (-2.07944 - 0.494696)/(28 - 24)
-0.643534
ND<-5.43758 U (11/12/2010) 0.494696 J (11/20/2008) (-5.43758 - 0.494696)/(28 - 24)
-1.48307
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
-0.162519 J (6/5/2012) 0.494696 J (11/20/2008) (-0.162519 - 0.494696)/(31 - 24)
-0.0938879

0.0953102 (11/16/2009) 0.262364 (6/11/2009) (0.0953102 - 0.262364)/(26 - 25)
-0.167054
ND<-5.44914 (6/30/2010) 0.262364 (6/11/2009) (-5.44914 - 0.262364)/(27 - 25)
-2.85575
ND<-2.07944 (6/30/2010) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(27 - 25)
-1.1709
ND<-2.07944 U (11/12/2010) 0.262364 (6/11/2009) (-2.07944 - 0.262364)/(28 - 25)
-0.780602
ND<-5.43758 U (11/12/2010) 0.262364 (6/11/2009) (-5.43758 - 0.262364)/(28 - 25)
-1.89998
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
-0.162519 J (6/5/2012) 0.262364 (6/11/2009) (-0.162519 - 0.262364)/(31 - 25)
-0.0708139

ND<-5.44914 (6/30/2010) 0.0953102 (11/16/2009) (-5.44914 - 0.0953102)/(27 - 26)
-5.54445
ND<-2.07944 (6/30/2010) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(27 - 26)
-2.17475
ND<-2.07944 U (11/12/2010) 0.0953102 (11/16/2009) (-2.07944 - 0.0953102)/(28 - 26)
-1.08738
ND<-5.43758 U (11/12/2010) 0.0953102 (11/16/2009) (-5.43758 - 0.0953102)/(28 - 26)
-2.76644
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
-0.162519 J (6/5/2012) 0.0953102 (11/16/2009) (-0.162519 - 0.0953102)/(31 - 26)
-0.0515658

ND<-2.07944 (6/30/2010) ND<-5.44914 (6/30/2010) (-2.07944 - -5.44914)/(27 - 27)
Same Date
ND<-2.07944 U (11/12/2010) ND<-5.44914 (6/30/2010) (-2.07944 - -5.44914)/(28 - 27)
3.3697
ND<-5.43758 U (11/12/2010) ND<-5.44914 (6/30/2010) (-5.43758 - -5.44914)/(28 - 27)
0.0115608

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
-0.162519 J (6/5/2012) ND<-5.44914 (6/30/2010) (-0.162519 - -5.44914)/(31 - 27)
1.32166

ND<-2.07944 U (11/12/2010) ND<-2.07944 (6/30/2010) (-2.07944 - -2.07944)/(28 - 27)
0
ND<-5.43758 U (11/12/2010) ND<-2.07944 (6/30/2010) (-5.43758 - -2.07944)/(28 - 27)
-3.35814
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
-0.162519 J (6/5/2012) ND<-2.07944 (6/30/2010) (-0.162519 - -2.07944)/(31 - 27)
0.479231

ND<-5.43758 U (11/12/2010) ND<-2.07944 U (11/12/2010) (-5.43758 - -2.07944)/(28 -
28) Same Date
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
-0.162519 J (6/5/2012) ND<-2.07944 U (11/12/2010) (-0.162519 - -2.07944)/(31 - 28)
0.638974

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
-0.162519 J (6/5/2012) ND<-5.43758 U (11/12/2010) (-0.162519 - -5.43758)/(31 - 28)
1.75835

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
-0.162519 J (6/5/2012) 0.530628 (7/5/2011) (-0.162519 - 0.530628)/(31 - 29)
-0.346574

ND<-2.07944 U Q (11/22/2011) ND<-2.07944 U Q (11/22/2011) (-2.07944 - -2.07944)/(30 -
30) Same Date
-0.162519 J (6/5/2012) ND<-2.07944 U Q (11/22/2011) (-0.162519 - -2.07944)/(31 - 30)
1.91692

-0.162519 J (6/5/2012) ND<-2.07944 U Q (11/22/2011) (-0.162519 - -2.07944)/(31 - 30)
1.91692

Number of Q values = 558

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	-0.346574
136	-0.344877
137	-0.342572
138	-0.341964
139	-0.341964
140	-0.339849
141	-0.339795
142	-0.338506
143	-0.334682
144	-0.334064
145	-0.332584
146	-0.330715
147	-0.329584
148	-0.329037
149	-0.328407
150	-0.326997
151	-0.324318
152	-0.32211
153	-0.321888
154	-0.319166
155	-0.319166
156	-0.318895
157	-0.313657
158	-0.312133
159	-0.312133
160	-0.308065
161	-0.301289
162	-0.299218
163	-0.298627
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165	-0.298562
166	-0.297992
167	-0.297199
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169	-0.297063
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171	-0.297063
172	-0.295061
173	-0.291683
174	-0.291253
175	-0.288046
176	-0.286122
177	-0.286122
178	-0.284994
179	-0.284346
180	-0.282909
181	-0.282268
182	-0.281783
183	-0.281617
184	-0.281617
185	-0.281617

186	-0.281417
187	-0.281417
188	-0.277987
189	-0.277666
190	-0.275281
191	-0.274677
192	-0.274677
193	-0.274653
194	-0.273199
195	-0.272339
196	-0.271224
197	-0.270805
198	-0.268793
199	-0.267376
200	-0.267114
201	-0.265972
202	-0.263163
203	-0.261483
204	-0.260707
205	-0.25993
206	-0.25993
207	-0.25962
208	-0.25962
209	-0.258022
210	-0.255966
211	-0.255966
212	-0.253759
213	-0.252968
214	-0.252054
215	-0.248457
216	-0.247956
217	-0.246279
218	-0.245371
219	-0.243239
220	-0.241968
221	-0.239855
222	-0.238489
223	-0.238165
224	-0.237569
225	-0.236919
226	-0.236807
227	-0.235417
228	-0.234609
229	-0.233177
230	-0.232332
231	-0.23222
232	-0.23222
233	-0.231284
234	-0.231049
235	-0.231049
236	-0.231049
237	-0.231049
238	-0.23069
239	-0.23069
240	-0.230441
241	-0.226566
242	-0.226256
243	-0.225937
244	-0.223437
245	-0.22063
246	-0.219892
247	-0.219892

248	-0.219542
249	-0.219542
250	-0.215391
251	-0.214607
252	-0.214607
253	-0.213276
254	-0.211722
255	-0.209582
256	-0.209186
257	-0.206255
258	-0.203807
259	-0.202168
260	-0.201636
261	-0.201392
262	-0.201214
263	-0.20098
264	-0.199831
265	-0.199816
266	-0.199715
267	-0.199715
268	-0.199693
269	-0.198
270	-0.197974
271	-0.197304
272	-0.197295
273	-0.194168
274	-0.194081
275	-0.192852
276	-0.190385
277	-0.189592
278	-0.189074
279	-0.18904
280	-0.18904
281	-0.18904
282	-0.188266
283	-0.186743
284	-0.185779
285	-0.18563
286	-0.185081
287	-0.180301
288	-0.179705
289	-0.179705
290	-0.177369
291	-0.174322
292	-0.173287
293	-0.173287
294	-0.173287
295	-0.169378
296	-0.169378
297	-0.168931
298	-0.167114
299	-0.167054
300	-0.166571
301	-0.165926
302	-0.165877
303	-0.164852
304	-0.164577
305	-0.162856
306	-0.161135
307	-0.160786
308	-0.159957
309	-0.159957

310	-0.159476
311	-0.157417
312	-0.157198
313	-0.156315
314	-0.154897
315	-0.154691
316	-0.154691
317	-0.154352
318	-0.154033
319	-0.153506
320	-0.152781
321	-0.1486
322	-0.148532
323	-0.148532
324	-0.148532
325	-0.14848
326	-0.14848
327	-0.147875
328	-0.146947
329	-0.146209
330	-0.140853
331	-0.138629
332	-0.138629
333	-0.138629
334	-0.138629
335	-0.13826
336	-0.137315
337	-0.136089
338	-0.133104
339	-0.131367
340	-0.130679
341	-0.129965
342	-0.129965
343	-0.129965
344	-0.129879
345	-0.127371
346	-0.124499
347	-0.124393
348	-0.122859
349	-0.117386
350	-0.116403
351	-0.115525
352	-0.115525
353	-0.114101
354	-0.112719
355	-0.111672
356	-0.111572
357	-0.11145
358	-0.108471
359	-0.10707
360	-0.104825
361	-0.0964156
362	-0.0938879
363	-0.0904105
364	-0.0891598
365	-0.0873625
366	-0.0867353
367	-0.0866434
368	-0.0862292
369	-0.0854809
370	-0.0852579
371	-0.0850906

372	-0.0812595
373	-0.0799785
374	-0.0799785
375	-0.0799785
376	-0.0771325
377	-0.0770164
378	-0.0743812
379	-0.0717049
380	-0.0717049
381	-0.0708139
382	-0.0642771
383	-0.0575364
384	-0.0557859
385	-0.0515658
386	-0.0495332
387	-0.0482078
388	-0.0424571
389	-0.0371906
390	-0.0371434
391	-0.0296628
392	-0.0241039
393	-0.0203149
394	-0.020298
395	-0.0162519
396	-0.0159388
397	-0.0135432
398	-0.0131261
399	-0.0108346
400	-0.0101574
401	-0.00955994
402	-0.00855363
403	-0.00645385
404	-0.00601922
405	-0.0054173
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
425	0
426	0
427	0
428	0
429	0
430	0
431	0
432	0
433	0

434	0
435	0
436	0
437	0
438	0
439	0
440	0
441	0
442	0
443	0
444	0
445	0
446	0
447	0
448	0.00381241
449	0.00433228
450	0.00466343
451	0.00680787
452	0.0071864
453	0.00794251
454	0.00866456
455	0.00953102
456	0.0109318
457	0.0115608
458	0.0124935
459	0.0136157
460	0.018951
461	0.019062
462	0.0201819
463	0.0202858
464	0.0212251
465	0.0215085
466	0.0238513
467	0.0247348
468	0.0262364
469	0.0291516
470	0.0312134
471	0.0317701
472	0.0353752
473	0.037902
474	0.0398067
475	0.0408176
476	0.0412247
477	0.0437274
478	0.0446287
479	0.0446287
480	0.0477003
481	0.0494696
482	0.0530628
483	0.0549662
484	0.061837
485	0.0655911
486	0.0663285
487	0.067066
488	0.0685247
489	0.0693583
490	0.0743812
491	0.0801621
492	0.0810088
493	0.087208
494	0.088438
495	0.0986862

496	0.0989392
497	0.10181
498	0.11964
499	0.12146
500	0.128554
501	0.129605
502	0.131182
503	0.145106
504	0.164899
505	0.177489
506	0.203175
507	0.209186
508	0.22009
509	0.223144
510	0.225671
511	0.236651
512	0.246727
513	0.279808
514	0.284994
515	0.298838
516	0.300105
517	0.300894
518	0.308093
519	0.315796
520	0.384654
521	0.385662
522	0.41198
523	0.427492
524	0.427962
525	0.479231
526	0.494696
527	0.526326
528	0.638974
529	0.648637
530	0.659167
531	0.671634
532	0.693147
533	0.748933
534	0.789489
535	0.891598
536	0.957498
537	1.00745
538	1.12323
539	1.12323
540	1.19687
541	1.29727
542	1.30503
543	1.32166
544	1.38629
545	1.57898
546	1.67907
547	1.67907
548	1.75835
549	1.91692
550	1.91692
551	2.39375
552	2.61007
553	2.70805
554	2.98988
555	3.3697
556	4.07754
557	4.78749

558 5.96821
Sen's Estimator (Median Q) is -0.18904

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
6/5/2012	1	

There are 3 time periods with multiple data

A = 1830
B = 54
C = 528
D = 0
E = 86
F = 6
a = 81906
b = 323136
c = 2244
Group Variance = 4445.9
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 109.675
M1 = (558 - 109.675)/2.0 = 224.163
M2 = (558 + 109.675)/2.0 + 1 = 334.837
Lower limit is -0.237569 = Q(224)
Upper limit is -0.13826 = Q(335)
-0.13826 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Diisopropyl ether

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 194
Total Non-Detect: 186
Percent Non-Detects: 95.8763%
Total Background Measurements: 14
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	14	14 (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

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-10	25	19 (76%)	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	0.54 J	0.54 J
			10/25/2005	1.04 J	1.04 J
			4/29/2006	1.15 J	1.15 J
			11/18/2006	0.88 J	0.88 J
			5/23/2007	ND<2	ND<2
			11/28/2007	1.13 J	1.13 J
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/5/2012	1.9 J	1.9 J
MW-11R	25	24 (96%)	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	0.28 J	0.28 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/5/2012	ND<0.24 U	ND<0.24 U	
MW-7	25	25 (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	
			6/5/2012	ND<0.24 U	ND<0.24 U	
MW-6	25	25 (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	
			6/5/2012	ND<0.24 U	ND<0.24 U	
MW-9	25	25 (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	
			6/5/2012	ND<0.24 U	ND<0.24 U	
MW-8	25	24 (96%)	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	0.43 J	0.43 J	
			6/5/2008	ND<2	ND<2	

		11/20/2008	ND<2	ND<2		
		6/5/2012	ND<0.24 U	ND<0.24 U		
MW-12AR	15	15 (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		
		6/5/2012	ND<0.24 U	ND<0.24 U		
MW-12BR	15	15 (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		
		6/5/2012	ND<0.24 U	ND<0.24 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Diisopropyl ether
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.12	-2.575836.63492	-0.3091	
2	0.12	-2.3263412.0468	-0.588261	
3	0.12	-2.1700916.7561	-0.848672	
4	0.12	-2.0537520.974	-1.09512	
5	0.12	-1.9599624.8154	-1.33032	
6	0.12	-1.8807928.3528	-1.55601	
7	0.12	-1.8119131.6358	-1.77344	
8	0.28	-1.7392 34.6606	-2.26042	
9	0.43	-1.6849437.4996	-2.98494	
10	0.54	-1.6352440.1736	-3.86797	
11	0.88	-1.5892742.6994	-5.26653	
12	1	-1.5464345.0909	-6.81296	
13	1	-1.5062647.3597	-8.31922	
14	1	-1.4683849.5158	-9.7876	
15	1	-1.4325 51.5679	-11.2201	
16	1	-1.3917553.5049	-12.6118	
17	1	-1.3594655.353	-13.9713	
18	1	-1.3285457.118	-15.2999	
19	1	-1.2988458.805	-16.5987	
20	1	-1.2702460.4185	-17.8689	
21	1	-1.2426461.9627	-19.1116	
22	1	-1.2159663.4412	-20.3275	
23	1	-1.1901264.8576	-21.5176	
24	1	-1.1601266.2035	-22.6778	
25	1	-1.1359 67.4937	-23.8137	
26	1	-1.1123268.731	-24.926	
27	1	-1.0893569.9177	-26.0153	
28	1	-1.0669471.056	-27.0823	
29	1	-1.0450572.1482	-28.1273	
30	1	-1.0236573.196	-29.151	
31	1	-1.0027174.2015	-30.1537	
32	1	-0.9781575.1582	-31.1318	
33	1	-0.958125	76.0762	-32.09
34	1	-0.938476	76.957	-33.0284
35	1	-0.919183	77.8019	-33.9476
36	1	-0.900227	78.6123	-34.8478
37	1	-0.881587	79.3895	-35.7294
38	1	-0.863249	80.1347	-36.5927
39	1	-0.841621	80.843	-37.4343
40	1	-0.823893	81.5218	-38.2582
41	1	-0.806422	82.1721	-39.0646
42	1	-0.789191	82.7949	-39.8538
43	1	-0.772193	83.3912	-40.626
44	1	-0.755415	83.9619	-41.3814
45	1	-0.738846	84.5078	-42.1203
46	1	-0.722479	85.0297	-42.8427
47	1	-0.703089	85.5241	-43.5458
48	1	-0.687131	85.9962	-44.233
49	1	-0.671346	86.4469	-44.9043
50	1	-0.655726	86.8769	-45.56
51	1	-0.640266	87.2868	-46.2003

52	1	-0.624956	87.6774	-46.8253
53	1	-0.609791	88.0493	-47.435
54	1	-0.594766	88.403	-48.0298
55	1	-0.576911	88.7358	-48.6067
56	1	-0.5621789.0519	-49.1689	
57	1	-0.547551	89.3517	-49.7164
58	1	-0.533048	89.6358	-50.2495
59	1	-0.518658	89.9048	-50.7682
60	1	-0.504372	90.1592	-51.2725
61	1	-0.490189	90.3995	-51.7627
62	1	-0.476105	90.6262	-52.2388
63	1	-0.459327	90.8372	-52.6981
64	1	-0.445443	91.0356	-53.1436
65	1	-0.431644	91.2219	-53.5752
66	1	-0.417928	91.3966	-53.9932
67	1	-0.4042991.56	-54.3974	
68	1	-0.390726	91.7127	-54.7882
69	1	-0.377233	91.855	-55.1654
70	1	-0.363809	91.9873	-55.5292
71	1	-0.347787	92.1083	-55.877
72	1	-0.334503	92.2202	-56.2115
73	1	-0.321278	92.3234	-56.5328
74	1	-0.308108	92.4183	-56.8409
75	1	-0.294992	92.5054	-57.1359
76	1	-0.281926	92.5848	-57.4178
77	1	-0.268908	92.6572	-57.6867
78	1	-0.253347	92.7213	-57.9401
79	1	-0.240426	92.7791	-58.1805
80	1	-0.227545	92.8309	-58.408
81	1	-0.214702	92.877	-58.6227
82	1	-0.201894	92.9178	-58.8246
83	1	-0.189118	92.9535	-59.0138
84	1	-0.176374	92.9847	-59.1901
85	1	-0.163659	93.0114	-59.3538
86	1	-0.148434	93.0335	-59.5022
87	1	-0.135774	93.0519	-59.638
88	1	-0.123135	93.0671	-59.7611
89	1	-0.110516	93.0793	-59.8716
90	1	-0.0979139	93.0889	-59.9696
91	1	-0.0853288	93.0961	-60.0549
92	1	-0.0727562	93.1014	-60.1276
93	1	-0.0601949	93.1051	-60.1878
94	1	-0.0451348	93.1071	-60.233
95	1	-0.0325917	93.1082	-60.2656
96	1	-0.0200544	93.1086	-60.2856
97	1	-0.00751925	93.1086	-60.2931
98	1	0.00751925	93.1087	-60.2856
99	1	0.0200544	93.1091	-60.2656
100	1	0.0325917	93.1101	-60.233
101	1	0.0451348	93.1122	-60.1878
102	1	0.0601949	93.1158	-60.1276
103	1	0.0727562	93.1211	-60.0549
104	1	0.0853288	93.1284	-59.9696
105	1	0.0979139	93.138	-59.8716
106	1	0.110516	93.1502	-59.7611
107	1	0.123135	93.1653	-59.638
108	1	0.135774	93.1838	-59.5022
109	1	0.148434	93.2058	-59.3538
110	1	0.163659	93.2326	-59.1901
111	1	0.176374	93.2637	-59.0138
112	1	0.189118	93.2995	-58.8246
113	1	0.201894	93.3402	-58.6227

114	1	0.214702	93.3863	-58.408
115	1	0.227545	93.4381	-58.1805
116	1	0.240426	93.4959	-57.9401
117	1	0.253347	93.5601	-57.6867
118	1	0.268908	93.6324	-57.4178
119	1	0.281926	93.7119	-57.1359
120	1	0.294992	93.7989	-56.8409
121	1	0.308108	93.8938	-56.5328
122	1	0.321278	93.9971	-56.2115
123	1	0.334503	94.1089	-55.877
124	1	0.347787	94.2299	-55.5292
125	1	0.363809	94.3623	-55.1654
126	1	0.377233	94.5046	-54.7882
127	1	0.390726	94.6572	-54.3974
128	1	0.40429	94.8207	-53.9932
129	1	0.417928	94.9953	-53.5752
130	1	0.431644	95.1817	-53.1436
131	1	0.445443	95.3801	-52.6981
132	1	0.459327	95.5911	-52.2388
133	1	0.476105	95.8177	-51.7627
134	1	0.490189	96.058	-51.2725
135	1	0.504372	96.3124	-50.7682
136	1	0.518658	96.5814	-50.2495
137	1	0.533048	96.8656	-49.7164
138	1	0.547551	97.1654	-49.1689
139	1	0.56217	97.4814	-48.6067
140	1	0.576911	97.8142	-48.0298
141	1	0.594766	98.168	-47.435
142	1	0.609791	98.5398	-46.8253
143	1	0.624956	98.9304	-46.2003
144	1	0.640266	99.3403	-45.56
145	1	0.655726	99.7703	-44.9043
146	1	0.671346	100.221	-44.233
147	1	0.687131	100.693	-43.5458
148	1	0.703089	101.188	-42.8427
149	1	0.722479	101.709	-42.1203
150	1	0.738846	102.255	-41.3814
151	1	0.755415	102.826	-40.626
152	1	0.772193	103.422	-39.8538
153	1	0.789191	104.045	-39.0646
154	1	0.806422	104.695	-38.2582
155	1	0.823893	105.374	-37.4343
156	1	0.841621	106.083	-36.5927
157	1	0.863249	106.828	-35.7294
158	1	0.881587	107.605	-34.8478
159	1	0.900227	108.415	-33.9476
160	1	0.919183	109.26	-33.0284
161	1	0.938476	110.141	-32.09
162	1	0.958125	111.059	-31.1318
163	1	0.97815	112.016	-30.1537
164	1	1.00271	113.021	-29.151
165	1	1.02365	114.069	-28.1273
166	1	1.04505	115.161	-27.0823
167	1	1.06694	116.3	-26.0153
168	1	1.08935	117.486	-24.926
169	1	1.11232	118.724	-23.8137
170	1	1.1359	120.014	-22.6778
171	1	1.16012	121.36	-21.5176
172	1	1.19012	122.776	-20.3275
173	1	1.21596	124.255	-19.1116
174	1	1.24264	125.799	-17.8689
175	1	1.27024	127.412	-16.5987

176	1	1.29884	129.099	-15.2999
177	1	1.32854	130.864	-13.9713
178	1	1.35946	132.712	-12.6118
179	1	1.39175	134.649	-11.2201
180	1	1.4325	136.701	-9.7876
181	1	1.46838	138.858	-8.31922
182	1	1.50626	141.126	-6.81296
183	1	1.54643	143.518	-5.26653
184	1	1.58927	146.044	-3.67726
185	1	1.63524	148.718	-2.04202
186	1	1.68494	151.557	-0.357082
187	1	1.7392	154.581	1.38212
188	1	1.81191	157.864	3.19403
189	1	1.88079	161.402	5.07482
190	1	1.95996	165.243	7.03478
191	1.04	2.05375	169.461	9.17068
192	1.13	2.17009	174.17	11.6229
193	1.15	2.32634	179.582	14.2982
194	1.9	2.57583	186.217	19.1923

Data Set Standard Deviation = 0.191829
Numerator = 368.343
Denominator = 1322.52
W Statistic = 0.278515 = 368.343 / 1322.52

5% Critical value of 0.976 exceeds 0.278515
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.278515
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Diisopropyl ether

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.535652
0.535652 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.12	0.00512821	-2.57583	71.1	340.287	
2	0.12	0.0102564	-2.32634	71.1	328.103	
3	0.12	0.0153846	-2.17009	71.1	320.473	
4	0.12	0.0205128	-2.05375	71.1	314.791	
5	0.12	0.025641	-1.95996	71.1	310.211	
6	0.12	0.0307692	-1.88079	71.1	306.345	
7	0.12	0.0358974	-1.81191	71.1	302.982	
8	0.28	0.0410256	-1.7392	113.9	299.431	
9	0.43	0.0461538	-1.68494	154.025	296.781	
10	0.54	0.0512821	-1.63524	183.45	294.354	
11	0.88	0.0564103	-1.58927	274.4	292.109	
12	1	0.0615385	-1.54643	306.5	290.017	
13	1	0.0666667	-1.50626	306.5	288.056	
14	1	0.0717949	-1.46838	306.5	286.206	
15	1	0.0769231	-1.4325	306.5	284.454	
16	1	0.0820513	-1.39175	306.5	282.464	
17	1	0.0871795	-1.35946	306.5	280.887	
18	1	0.0923077	-1.32854	306.5	279.377	
19	1	0.0974359	-1.29884	306.5	277.926	
20	1	0.102564	-1.27024	306.5	276.53	
21	1	0.107692	-1.24264	306.5	275.182	
22	1	0.112821	-1.21596	306.5	273.879	
23	1	0.117949	-1.19012	306.5	272.617	
24	1	0.123077	-1.16012	306.5	271.153	
25	1	0.128205	-1.1359	306.5	269.97	
26	1	0.133333	-1.11232	306.5	268.818	
27	1	0.138462	-1.08935	306.5	267.697	
28	1	0.14359	-1.06694	306.5	266.602	
29	1	0.148718	-1.04505	306.5	265.533	
30	1	0.153846	-1.02365	306.5	264.488	
31	1	0.158974	-1.00271	306.5	263.466	
32	1	0.164103	-0.97815	306.5	262.266	
33	1	0.169231	-0.958125	306.5	261.288	
34	1	0.174359	-0.938476	306.5	260.329	
35	1	0.179487	-0.919183	306.5	259.387	
36	1	0.184615	-0.900227	306.5	258.461	
37	1	0.189744	-0.881587	306.5	257.551	
38	1	0.194872	-0.863249	306.5	256.655	
39	1	0.2	-0.841621	306.5	255.599	
40	1	0.205128	-0.823893	306.5	254.733	
41	1	0.210256	-0.806422	306.5	253.88	
42	1	0.215385	-0.789191	306.5	253.039	
43	1	0.220513	-0.772193	306.5	252.209	
44	1	0.225641	-0.755415	306.5	251.389	
45	1	0.230769	-0.738846	306.5	250.58	
46	1	0.235897	-0.722479	306.5	249.781	
47	1	0.241026	-0.703089	306.5	248.834	
48	1	0.246154	-0.687131	306.5	248.055	

49	1	0.251282	-0.671346	306.5	247.284
50	1	0.25641	-0.655726	306.5	246.521
51	1	0.261538	-0.640266	306.5	245.766
52	1	0.266667	-0.624956	306.5	245.019
53	1	0.271795	-0.609791	306.5	244.278
54	1	0.276923	-0.594766	306.5	243.544
55	1	0.282051	-0.576911	306.5	242.672
56	1	0.287179	-0.56217	306.5	241.953
57	1	0.292308	-0.547551	306.5	241.239
58	1	0.297436	-0.533048	306.5	240.531
59	1	0.302564	-0.518658	306.5	239.828
60	1	0.307692	-0.504372	306.5	239.13
61	1	0.312821	-0.490189	306.5	238.438
62	1	0.317949	-0.476105	306.5	237.75
63	1	0.323077	-0.459327	306.5	236.93
64	1	0.328205	-0.445443	306.5	236.252
65	1	0.333333	-0.431644	306.5	235.579
66	1	0.338462	-0.417928	306.5	234.909
67	1	0.34359	-0.40429	306.5	234.243
68	1	0.348718	-0.390726	306.5	233.58
69	1	0.353846	-0.377233	306.5	232.922
70	1	0.358974	-0.363809	306.5	232.266
71	1	0.364103	-0.347787	306.5	231.484
72	1	0.369231	-0.334503	306.5	230.835
73	1	0.374359	-0.321278	306.5	230.189
74	1	0.379487	-0.308108	306.5	229.546
75	1	0.384615	-0.294992	306.5	228.905
76	1	0.389744	-0.281926	306.5	228.267
77	1	0.394872	-0.268908	306.5	227.632
78	1	0.4	-0.253347	306.5	226.872
79	1	0.405128	-0.240426	306.5	226.241
80	1	0.410256	-0.227545	306.5	225.612
81	1	0.415385	-0.214702	306.5	224.985
82	1	0.420513	-0.201894	306.5	224.359
83	1	0.425641	-0.189118	306.5	223.735
84	1	0.430769	-0.176374	306.5	223.113
85	1	0.435897	-0.163659	306.5	222.492
86	1	0.441026	-0.148434	306.5	221.749
87	1	0.446154	-0.135774	306.5	221.13
88	1	0.451282	-0.123135	306.5	220.513
89	1	0.45641	-0.110516	306.5	219.897
90	1	0.461538	-0.0979139	306.5	219.281
91	1	0.466667	-0.0853288	306.5	218.667
92	1	0.471795	-0.0727562	306.5	218.053
93	1	0.476923	-0.0601949	306.5	217.44
94	1	0.482051	-0.0451348	306.5	216.704
95	1	0.487179	-0.0325917	306.5	216.092
96	1	0.492308	-0.0200544	306.5	215.479
97	1	0.497436	-0.00751925	306.5	214.867
98	1	0.502564	0.00751925	306.5	214.133
99	1	0.507692	0.0200544	306.5	213.521
100	1	0.512821	0.0325917	306.5	212.908
101	1	0.517949	0.0451348	306.5	212.296
102	1	0.523077	0.0601949	306.5	211.56
103	1	0.528205	0.0727562	306.5	210.947
104	1	0.533333	0.0853288	306.5	210.333
105	1	0.538462	0.0979139	306.5	209.719
106	1	0.54359	0.110516	306.5	209.103
107	1	0.548718	0.123135	306.5	208.487
108	1	0.553846	0.135774	306.5	207.87
109	1	0.558974	0.148434	306.5	207.251
110	1	0.564103	0.163659	306.5	206.508

111	1	0.569231	0.176374	306.5	205.887
112	1	0.574359	0.189118	306.5	205.265
113	1	0.579487	0.201894	306.5	204.641
114	1	0.584615	0.214702	306.5	204.015
115	1	0.589744	0.227545	306.5	203.388
116	1	0.594872	0.240426	306.5	202.759
117	1	0.6	0.253347	306.5	202.128
118	1	0.605128	0.268908	306.5	201.368
119	1	0.610256	0.281926	306.5	200.733
120	1	0.615385	0.294992	306.5	200.095
121	1	0.620513	0.308108	306.5	199.454
122	1	0.625641	0.321278	306.5	198.811
123	1	0.630769	0.334503	306.5	198.165
124	1	0.635897	0.347787	306.5	197.516
125	1	0.641026	0.363809	306.5	196.734
126	1	0.646154	0.377233	306.5	196.078
127	1	0.651282	0.390726	306.5	195.42
128	1	0.65641	0.40429	306.5	194.757
129	1	0.661538	0.417928	306.5	194.091
130	1	0.666667	0.431644	306.5	193.421
131	1	0.671795	0.445443	306.5	192.748
132	1	0.676923	0.459327	306.5	192.07
133	1	0.682051	0.476105	306.5	191.25
134	1	0.687179	0.490189	306.5	190.562
135	1	0.692308	0.504372	306.5	189.87
136	1	0.697436	0.518658	306.5	189.172
137	1	0.702564	0.533048	306.5	188.469
138	1	0.707692	0.547551	306.5	187.761
139	1	0.712821	0.56217	306.5	187.047
140	1	0.717949	0.576911	306.5	186.328
141	1	0.723077	0.594766	306.5	185.456
142	1	0.728205	0.609791	306.5	184.722
143	1	0.733333	0.624956	306.5	183.981
144	1	0.738462	0.640266	306.5	183.234
145	1	0.74359	0.655726	306.5	182.479
146	1	0.748718	0.671346	306.5	181.716
147	1	0.753846	0.687131	306.5	180.945
148	1	0.758974	0.703089	306.5	180.166
149	1	0.764103	0.722479	306.5	179.219
150	1	0.769231	0.738846	306.5	178.42
151	1	0.774359	0.755415	306.5	177.611
152	1	0.779487	0.772193	306.5	176.791
153	1	0.784615	0.789191	306.5	175.961
154	1	0.789744	0.806422	306.5	175.12
155	1	0.794872	0.823893	306.5	174.267
156	1	0.8	0.841621	306.5	173.401
157	1	0.805128	0.863249	306.5	172.345
158	1	0.810256	0.881587	306.5	171.449
159	1	0.815385	0.900227	306.5	170.539
160	1	0.820513	0.919183	306.5	169.613
161	1	0.825641	0.938476	306.5	168.671
162	1	0.830769	0.958125	306.5	167.712
163	1	0.835897	0.97815	306.5	166.734
164	1	0.841026	1.00271	306.5	165.534
165	1	0.846154	1.02365	306.5	164.512
166	1	0.851282	1.04505	306.5	163.467
167	1	0.85641	1.06694	306.5	162.398
168	1	0.861538	1.08935	306.5	161.303
169	1	0.866667	1.11232	306.5	160.182
170	1	0.871795	1.1359	306.5	159.03
171	1	0.876923	1.16012	306.5	157.847
172	1	0.882051	1.19012	306.5	156.383

173	1	0.887179	1.21596	306.5	155.121
174	1	0.892308	1.24264	306.5	153.818
175	1	0.897436	1.27024	306.5	152.47
176	1	0.902564	1.29884	306.5	151.074
177	1	0.907692	1.32854	306.5	149.623
178	1	0.912821	1.35946	306.5	148.113
179	1	0.917949	1.39175	306.5	146.536
180	1	0.923077	1.4325	306.5	144.546
181	1	0.928205	1.46838	306.5	142.794
182	1	0.933333	1.50626	306.5	140.944
183	1	0.938462	1.54643	306.5	138.983
184	1	0.94359	1.58927	306.5	136.891
185	1	0.948718	1.63524	306.5	134.646
186	1	0.953846	1.68494	306.5	132.219
187	1	0.958974	1.7392	306.5	129.569
188	1	0.964103	1.81191	306.5	126.018
189	1	0.969231	1.88079	306.5	122.655
190	1	0.974359	1.95996	306.5	118.789
191	1.04	0.979487	2.05375	317.2	114.209
192	1.13	0.984615	2.17009	341.275	108.527
193	1.15	0.989744	2.32634	346.625	100.897
194	1.9	0.994872	2.57583	547.25	88.7134

Shapiro-Francia Test of Normality

Parameter: Diisopropyl ether

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.12026	-2.57583	6.63492	5.46145
2	-2.12026	-2.32634	12.0468	10.3939
3	-2.12026	-2.17009	16.7561	14.9951
4	-2.12026	-2.05375	20.974	19.3496
5	-2.12026	-1.95996	24.8154	23.5052
6	-2.12026	-1.88079	28.3528	27.493
7	-2.12026	-1.81191	31.6358	31.3347
8	-1.27297	-1.7392	34.6606	33.5486
9	-0.84397	-1.68494	37.4996	34.9707
10	-0.616186	-1.63524	40.1736	35.9783
11	-0.127833	-1.58927	42.6994	36.1814
12	0	-1.54643	45.0909	36.1814
13	0	-1.50626	47.3597	36.1814
14	0	-1.46838	49.5158	36.1814
15	0	-1.4325	51.5679	36.1814
16	0	-1.39175	53.5049	36.1814
17	0	-1.35946	55.353	36.1814
18	0	-1.32854	57.118	36.1814
19	0	-1.29884	58.805	36.1814
20	0	-1.27024	60.4185	36.1814
21	0	-1.24264	61.9627	36.1814
22	0	-1.21596	63.4412	36.1814
23	0	-1.19012	64.8576	36.1814
24	0	-1.16012	66.2035	36.1814
25	0	-1.1359	67.4937	36.1814
26	0	-1.11232	68.731	36.1814
27	0	-1.08935	69.9177	36.1814
28	0	-1.06694	71.056	36.1814
29	0	-1.04505	72.1482	36.1814
30	0	-1.02365	73.196	36.1814
31	0	-1.00271	74.2015	36.1814
32	0	-0.97815	75.1582	36.1814
33	0	-0.958125	76.0762	36.1814
34	0	-0.938476	76.957	36.1814
35	0	-0.919183	77.8019	36.1814
36	0	-0.900227	78.6123	36.1814
37	0	-0.881587	79.3895	36.1814
38	0	-0.863249	80.1347	36.1814
39	0	-0.841621	80.843	36.1814
40	0	-0.823893	81.5218	36.1814
41	0	-0.806422	82.1721	36.1814
42	0	-0.789191	82.7949	36.1814
43	0	-0.772193	83.3912	36.1814
44	0	-0.755415	83.9619	36.1814
45	0	-0.738846	84.5078	36.1814
46	0	-0.722479	85.0297	36.1814
47	0	-0.703089	85.5241	36.1814
48	0	-0.687131	85.9962	36.1814
49	0	-0.671346	86.4469	36.1814
50	0	-0.655726	86.8769	36.1814
51	0	-0.640266	87.2868	36.1814

52	0	-0.624956	87.6774	36.1814
53	0	-0.609791	88.0493	36.1814
54	0	-0.594766	88.403	36.1814
55	0	-0.576911	88.7358	36.1814
56	0	-0.5621789.0519	36.1814	
57	0	-0.547551	89.3517	36.1814
58	0	-0.533048	89.6358	36.1814
59	0	-0.518658	89.9048	36.1814
60	0	-0.504372	90.1592	36.1814
61	0	-0.490189	90.3995	36.1814
62	0	-0.476105	90.6262	36.1814
63	0	-0.459327	90.8372	36.1814
64	0	-0.445443	91.0356	36.1814
65	0	-0.431644	91.2219	36.1814
66	0	-0.417928	91.3966	36.1814
67	0	-0.4042991.56	36.1814	
68	0	-0.390726	91.7127	36.1814
69	0	-0.377233	91.855	36.1814
70	0	-0.363809	91.9873	36.1814
71	0	-0.347787	92.1083	36.1814
72	0	-0.334503	92.2202	36.1814
73	0	-0.321278	92.3234	36.1814
74	0	-0.308108	92.4183	36.1814
75	0	-0.294992	92.5054	36.1814
76	0	-0.281926	92.5848	36.1814
77	0	-0.268908	92.6572	36.1814
78	0	-0.253347	92.7213	36.1814
79	0	-0.240426	92.7791	36.1814
80	0	-0.227545	92.8309	36.1814
81	0	-0.214702	92.877	36.1814
82	0	-0.201894	92.9178	36.1814
83	0	-0.189118	92.9535	36.1814
84	0	-0.176374	92.9847	36.1814
85	0	-0.163659	93.0114	36.1814
86	0	-0.148434	93.0335	36.1814
87	0	-0.135774	93.0519	36.1814
88	0	-0.123135	93.0671	36.1814
89	0	-0.110516	93.0793	36.1814
90	0	-0.0979139	93.0889	36.1814
91	0	-0.0853288	93.0961	36.1814
92	0	-0.0727562	93.1014	36.1814
93	0	-0.0601949	93.1051	36.1814
94	0	-0.0451348	93.1071	36.1814
95	0	-0.0325917	93.1082	36.1814
96	0	-0.0200544	93.1086	36.1814
97	0	-0.00751925	93.1086	36.1814
98	0	0.00751925	93.1087	36.1814
99	0	0.0200544	93.1091	36.1814
100	0	0.0325917	93.1101	36.1814
101	0	0.0451348	93.1122	36.1814
102	0	0.0601949	93.1158	36.1814
103	0	0.0727562	93.1211	36.1814
104	0	0.0853288	93.1284	36.1814
105	0	0.0979139	93.138	36.1814
106	0	0.110516	93.1502	36.1814
107	0	0.123135	93.1653	36.1814
108	0	0.135774	93.1838	36.1814
109	0	0.148434	93.2058	36.1814
110	0	0.163659	93.2326	36.1814
111	0	0.176374	93.2637	36.1814
112	0	0.189118	93.2995	36.1814
113	0	0.201894	93.3402	36.1814

114	0	0.214702	93.3863	36.1814
115	0	0.227545	93.4381	36.1814
116	0	0.240426	93.4959	36.1814
117	0	0.253347	93.5601	36.1814
118	0	0.268908	93.6324	36.1814
119	0	0.281926	93.7119	36.1814
120	0	0.294992	93.7989	36.1814
121	0	0.308108	93.8938	36.1814
122	0	0.321278	93.9971	36.1814
123	0	0.334503	94.1089	36.1814
124	0	0.347787	94.2299	36.1814
125	0	0.363809	94.3623	36.1814
126	0	0.377233	94.5046	36.1814
127	0	0.390726	94.6572	36.1814
128	0	0.40429	94.8207	36.1814
129	0	0.417928	94.9953	36.1814
130	0	0.431644	95.1817	36.1814
131	0	0.445443	95.3801	36.1814
132	0	0.459327	95.5911	36.1814
133	0	0.476105	95.8177	36.1814
134	0	0.490189	96.058	36.1814
135	0	0.504372	96.3124	36.1814
136	0	0.518658	96.5814	36.1814
137	0	0.533048	96.8656	36.1814
138	0	0.547551	97.1654	36.1814
139	0	0.56217	97.4814	36.1814
140	0	0.576911	97.8142	36.1814
141	0	0.594766	98.168	36.1814
142	0	0.609791	98.5398	36.1814
143	0	0.624956	98.9304	36.1814
144	0	0.640266	99.3403	36.1814
145	0	0.655726	99.7703	36.1814
146	0	0.671346	100.221	36.1814
147	0	0.687131	100.693	36.1814
148	0	0.703089	101.188	36.1814
149	0	0.722479	101.709	36.1814
150	0	0.738846	102.255	36.1814
151	0	0.755415	102.826	36.1814
152	0	0.772193	103.422	36.1814
153	0	0.789191	104.045	36.1814
154	0	0.806422	104.695	36.1814
155	0	0.823893	105.374	36.1814
156	0	0.841621	106.083	36.1814
157	0	0.863249	106.828	36.1814
158	0	0.881587	107.605	36.1814
159	0	0.900227	108.415	36.1814
160	0	0.919183	109.26	36.1814
161	0	0.938476	110.141	36.1814
162	0	0.958125	111.059	36.1814
163	0	0.97815	112.016	36.1814
164	0	1.00271	113.021	36.1814
165	0	1.02365	114.069	36.1814
166	0	1.04505	115.161	36.1814
167	0	1.06694	116.3	36.1814
168	0	1.08935	117.486	36.1814
169	0	1.11232	118.724	36.1814
170	0	1.1359	120.014	36.1814
171	0	1.16012	121.36	36.1814
172	0	1.19012	122.776	36.1814
173	0	1.21596	124.255	36.1814
174	0	1.24264	125.799	36.1814
175	0	1.27024	127.412	36.1814

176	0	1.29884	129.099	36.1814	
177	0	1.32854	130.864	36.1814	
178	0	1.35946	132.712	36.1814	
179	0	1.39175	134.649	36.1814	
180	0	1.4325	136.701	36.1814	
181	0	1.46838	138.858	36.1814	
182	0	1.50626	141.126	36.1814	
183	0	1.54643	143.518	36.1814	
184	0	1.58927	146.044	36.1814	
185	0	1.63524	148.718	36.1814	
186	0	1.68494	151.557	36.1814	
187	0	1.7392	154.581	36.1814	
188	0	1.81191	157.864	36.1814	
189	0	1.88079	161.402	36.1814	
190	0	1.95996	165.243	36.1814	
191	0.0392207		2.05375	169.461	36.262
192	0.122218		2.17009	174.17	36.5272
193	0.139762		2.32634	179.582	36.8524
194	0.641854		2.57583	186.217	38.5057

Data Set Standard Deviation = 0.414738
Numerator = 1482.69
Denominator = 6181.94
W Statistic = 0.239841 = 1482.69 / 6181.94

5% Critical value of 0.976 exceeds 0.239841
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.239841
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Diisopropyl ether

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.495824
0.495824 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.12026	0.00512821	-2.57583	156.665	340.287
2	-2.12026	0.0102564	-2.32634	156.665	328.103
3	-2.12026	0.0153846	-2.17009	156.665	320.473
4	-2.12026	0.0205128	-2.05375	156.665	314.791
5	-2.12026	0.025641	-1.95996	156.665	310.211
6	-2.12026	0.0307692	-1.88079	156.665	306.345
7	-2.12026	0.0358974	-1.81191	156.665	302.982
8	-1.27297	0.0410256	-1.7392	269.991	299.431
9	-0.84397	0.0461538	-1.68494	327.369	296.781
10	-0.616186	0.0512821	-1.63524	357.835	294.354
11	-0.127833	0.0564103	-1.58927	423.152	292.109
12	0	0.0615385	-1.54643	440.25	290.017
13	0	0.0666667	-1.50626	440.25	288.056
14	0	0.0717949	-1.46838	440.25	286.206
15	0	0.0769231	-1.4325	440.25	284.454
16	0	0.0820513	-1.39175	440.25	282.464
17	0	0.0871795	-1.35946	440.25	280.887
18	0	0.0923077	-1.32854	440.25	279.377
19	0	0.0974359	-1.29884	440.25	277.926
20	0	0.102564	-1.27024	440.25	276.53
21	0	0.107692	-1.24264	440.25	275.182
22	0	0.112821	-1.21596	440.25	273.879
23	0	0.117949	-1.19012	440.25	272.617
24	0	0.123077	-1.16012	440.25	271.153
25	0	0.128205	-1.1359	440.25	269.97
26	0	0.133333	-1.11232	440.25	268.818
27	0	0.138462	-1.08935	440.25	267.697
28	0	0.14359	-1.06694	440.25	266.602
29	0	0.148718	-1.04505	440.25	265.533
30	0	0.153846	-1.02365	440.25	264.488
31	0	0.158974	-1.00271	440.25	263.466
32	0	0.164103	-0.97815	440.25	262.266
33	0	0.169231	-0.958125	440.25	261.288
34	0	0.174359	-0.938476	440.25	260.329
35	0	0.179487	-0.919183	440.25	259.387
36	0	0.184615	-0.900227	440.25	258.461
37	0	0.189744	-0.881587	440.25	257.551
38	0	0.194872	-0.863249	440.25	256.655
39	0	0.2	-0.841621	440.25	255.599
40	0	0.205128	-0.823893	440.25	254.733
41	0	0.210256	-0.806422	440.25	253.88
42	0	0.215385	-0.789191	440.25	253.039
43	0	0.220513	-0.772193	440.25	252.209
44	0	0.225641	-0.755415	440.25	251.389
45	0	0.230769	-0.738846	440.25	250.58
46	0	0.235897	-0.722479	440.25	249.781
47	0	0.241026	-0.703089	440.25	248.834
48	0	0.246154	-0.687131	440.25	248.055

49	0	0.251282	-0.671346	440.25	247.284
50	0	0.25641	-0.655726	440.25	246.521
51	0	0.261538	-0.640266	440.25	245.766
52	0	0.266667	-0.624956	440.25	245.019
53	0	0.271795	-0.609791	440.25	244.278
54	0	0.276923	-0.594766	440.25	243.544
55	0	0.282051	-0.576911	440.25	242.672
56	0	0.287179	-0.56217	440.25	241.953
57	0	0.292308	-0.547551	440.25	241.239
58	0	0.297436	-0.533048	440.25	240.531
59	0	0.302564	-0.518658	440.25	239.828
60	0	0.307692	-0.504372	440.25	239.13
61	0	0.312821	-0.490189	440.25	238.438
62	0	0.317949	-0.476105	440.25	237.75
63	0	0.323077	-0.459327	440.25	236.93
64	0	0.328205	-0.445443	440.25	236.252
65	0	0.333333	-0.431644	440.25	235.579
66	0	0.338462	-0.417928	440.25	234.909
67	0	0.34359	-0.40429	440.25	234.243
68	0	0.348718	-0.390726	440.25	233.58
69	0	0.353846	-0.377233	440.25	232.922
70	0	0.358974	-0.363809	440.25	232.266
71	0	0.364103	-0.347787	440.25	231.484
72	0	0.369231	-0.334503	440.25	230.835
73	0	0.374359	-0.321278	440.25	230.189
74	0	0.379487	-0.308108	440.25	229.546
75	0	0.384615	-0.294992	440.25	228.905
76	0	0.389744	-0.281926	440.25	228.267
77	0	0.394872	-0.268908	440.25	227.632
78	0	0.4	-0.253347	440.25	226.872
79	0	0.405128	-0.240426	440.25	226.241
80	0	0.410256	-0.227545	440.25	225.612
81	0	0.415385	-0.214702	440.25	224.985
82	0	0.420513	-0.201894	440.25	224.359
83	0	0.425641	-0.189118	440.25	223.735
84	0	0.430769	-0.176374	440.25	223.113
85	0	0.435897	-0.163659	440.25	222.492
86	0	0.441026	-0.148434	440.25	221.749
87	0	0.446154	-0.135774	440.25	221.13
88	0	0.451282	-0.123135	440.25	220.513
89	0	0.45641	-0.110516	440.25	219.897
90	0	0.461538	-0.0979139	440.25	219.281
91	0	0.466667	-0.0853288	440.25	218.667
92	0	0.471795	-0.0727562	440.25	218.053
93	0	0.476923	-0.0601949	440.25	217.44
94	0	0.482051	-0.0451348	440.25	216.704
95	0	0.487179	-0.0325917	440.25	216.092
96	0	0.492308	-0.0200544	440.25	215.479
97	0	0.497436	-0.00751925	440.25	214.867
98	0	0.502564	0.00751925	440.25	214.133
99	0	0.507692	0.0200544	440.25	213.521
100	0	0.512821	0.0325917	440.25	212.908
101	0	0.517949	0.0451348	440.25	212.296
102	0	0.523077	0.0601949	440.25	211.56
103	0	0.528205	0.0727562	440.25	210.947
104	0	0.533333	0.0853288	440.25	210.333
105	0	0.538462	0.0979139	440.25	209.719
106	0	0.54359	0.110516	440.25	209.103
107	0	0.548718	0.123135	440.25	208.487
108	0	0.553846	0.135774	440.25	207.87
109	0	0.558974	0.148434	440.25	207.251
110	0	0.564103	0.163659	440.25	206.508

111	0	0.569231	0.176374	440.25	205.887
112	0	0.574359	0.189118	440.25	205.265
113	0	0.579487	0.201894	440.25	204.641
114	0	0.584615	0.214702	440.25	204.015
115	0	0.589744	0.227545	440.25	203.388
116	0	0.594872	0.240426	440.25	202.759
117	0	0.6	0.253347	440.25	202.128
118	0	0.605128	0.268908	440.25	201.368
119	0	0.610256	0.281926	440.25	200.733
120	0	0.615385	0.294992	440.25	200.095
121	0	0.620513	0.308108	440.25	199.454
122	0	0.625641	0.321278	440.25	198.811
123	0	0.630769	0.334503	440.25	198.165
124	0	0.635897	0.347787	440.25	197.516
125	0	0.641026	0.363809	440.25	196.734
126	0	0.646154	0.377233	440.25	196.078
127	0	0.651282	0.390726	440.25	195.42
128	0	0.65641	0.40429	440.25	194.757
129	0	0.661538	0.417928	440.25	194.091
130	0	0.666667	0.431644	440.25	193.421
131	0	0.671795	0.445443	440.25	192.748
132	0	0.676923	0.459327	440.25	192.07
133	0	0.682051	0.476105	440.25	191.25
134	0	0.687179	0.490189	440.25	190.562
135	0	0.692308	0.504372	440.25	189.87
136	0	0.697436	0.518658	440.25	189.172
137	0	0.702564	0.533048	440.25	188.469
138	0	0.707692	0.547551	440.25	187.761
139	0	0.712821	0.56217	440.25	187.047
140	0	0.717949	0.576911	440.25	186.328
141	0	0.723077	0.594766	440.25	185.456
142	0	0.728205	0.609791	440.25	184.722
143	0	0.733333	0.624956	440.25	183.981
144	0	0.738462	0.640266	440.25	183.234
145	0	0.74359	0.655726	440.25	182.479
146	0	0.748718	0.671346	440.25	181.716
147	0	0.753846	0.687131	440.25	180.945
148	0	0.758974	0.703089	440.25	180.166
149	0	0.764103	0.722479	440.25	179.219
150	0	0.769231	0.738846	440.25	178.42
151	0	0.774359	0.755415	440.25	177.611
152	0	0.779487	0.772193	440.25	176.791
153	0	0.784615	0.789191	440.25	175.961
154	0	0.789744	0.806422	440.25	175.12
155	0	0.794872	0.823893	440.25	174.267
156	0	0.8	0.841621	440.25	173.401
157	0	0.805128	0.863249	440.25	172.345
158	0	0.810256	0.881587	440.25	171.449
159	0	0.815385	0.900227	440.25	170.539
160	0	0.820513	0.919183	440.25	169.613
161	0	0.825641	0.938476	440.25	168.671
162	0	0.830769	0.958125	440.25	167.712
163	0	0.835897	0.97815	440.25	166.734
164	0	0.841026	1.00271	440.25	165.534
165	0	0.846154	1.02365	440.25	164.512
166	0	0.851282	1.04505	440.25	163.467
167	0	0.85641	1.06694	440.25	162.398
168	0	0.861538	1.08935	440.25	161.303
169	0	0.866667	1.11232	440.25	160.182
170	0	0.871795	1.1359	440.25	159.03
171	0	0.876923	1.16012	440.25	157.847
172	0	0.882051	1.19012	440.25	156.383

173	0	0.887179	1.21596	440.25	155.121	
174	0	0.892308	1.24264	440.25	153.818	
175	0	0.897436	1.27024	440.25	152.47	
176	0	0.902564	1.29884	440.25	151.074	
177	0	0.907692	1.32854	440.25	149.623	
178	0	0.912821	1.35946	440.25	148.113	
179	0	0.917949	1.39175	440.25	146.536	
180	0	0.923077	1.4325	440.25	144.546	
181	0	0.928205	1.46838	440.25	142.794	
182	0	0.933333	1.50626	440.25	140.944	
183	0	0.938462	1.54643	440.25	138.983	
184	0	0.94359	1.58927	440.25	136.891	
185	0	0.948718	1.63524	440.25	134.646	
186	0	0.953846	1.68494	440.25	132.219	
187	0	0.958974	1.7392	440.25	129.569	
188	0	0.964103	1.81191	440.25	126.018	
189	0	0.969231	1.88079	440.25	122.655	
190	0	0.974359	1.95996	440.25	118.789	
191	0.0392207	0.979487	2.05375	445.496	114.209	
192	0.122218	0.984615	2.17009	456.597	108.527	
193	0.139762	0.989744	2.32634	458.943	100.897	
194	0.641854	0.994872	2.57583	526.098	88.7134	

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Diisopropyl ether

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 95.8763%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 14
Maximum Background Value = 0
Confidence Level = 63.6%
False Positive Rate = 36.4%

Location	Date	Count	Mean	Significant
MW-10	6/5/2012	1	0.641854	TRUE
MW-11R	6/5/2012	1	-2.12026	FALSE
MW-7	6/5/2012	1	-2.12026	FALSE
MW-6	6/5/2012	1	-2.12026	FALSE
MW-9	6/5/2012	1	-2.12026	FALSE
MW-8	6/5/2012	1	-2.12026	FALSE
MW-12AR	6/5/2012	1	-2.12026	FALSE
MW-12BR	6/5/2012	1	-2.12026	FALSE

Shewhart-CUSUM Control Chart

Parameter: Diisopropyl ether

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	-0.616186	0	0	
4/1/2005	-0.616186	0	0	
10/25/2005	0.0392207	0	0	
10/25/2005	0.0392207	0	0	
4/29/2006	0.139762	0	0	
4/29/2006	0.139762	0	0	
11/18/2006	-0.127833	0	0	
11/18/2006	-0.127833	0	0	
5/23/2007	0	0	0	
5/23/2007	0	0	0	
11/28/2007	0.122218	0	0	
11/28/2007	0.122218	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	
6/5/2012	0.641854	0	0	
6/5/2012	0.641854	0	0	

Sen's Slope Analysis
Parameter: Diisopropyl ether
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
-0.616186 J	(4/1/2005)	ND<0 (7/20/1995)	(-0.616186 - 0)/(17 - 1) -0.0385116
0.0392207 J	(10/25/2005)	ND<0 (7/20/1995)	(0.0392207 - 0)/(18 - 1) 0.0023071
0.139762 J	(4/29/2006)	ND<0 (7/20/1995)	(0.139762 - 0)/(19 - 1) 0.00776455
-0.127833 J	(11/18/2006)	ND<0 (7/20/1995)	(-0.127833 - 0)/(20 - 1) -0.00672807
ND<0	(5/23/2007)	ND<0 (7/20/1995)	(0 - 0)/(21 - 1) 0
0.122218 J	(11/28/2007)	ND<0 (7/20/1995)	(0.122218 - 0)/(22 - 1) 0.00581989
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
0.641854 J	(6/5/2012)	ND<0 (7/20/1995)	(0.641854 - 0)/(25 - 1) 0.0267439
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
-0.616186 J	(4/1/2005)	ND<0 (8/24/1995)	(-0.616186 - 0)/(17 - 2) -0.0410791
0.0392207 J	(10/25/2005)	ND<0 (8/24/1995)	(0.0392207 - 0)/(18 - 2) 0.00245129
0.139762 J	(4/29/2006)	ND<0 (8/24/1995)	(0.139762 - 0)/(19 - 2) 0.00822129

-0.127833 J (11/18/2006)	ND<0	(8/24/1995)	(-0.127833 - 0)/(20 - 2)	-0.00710185
ND<0 (5/23/2007)	ND<0	(8/24/1995)	(0 - 0)/(21 - 2)	0
0.122218 J (11/28/2007)	ND<0	(8/24/1995)	(0.122218 - 0)/(22 - 2)	0.00611088
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
0.641854 J (6/5/2012)	ND<0	(8/24/1995)	(0.641854 - 0)/(25 - 2)	0.0279067
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
-0.616186 J (4/1/2005)	ND<0	(9/28/1995)	(-0.616186 - 0)/(17 - 3)	-0.0440133
0.0392207 J (10/25/2005)	ND<0	(9/28/1995)	(0.0392207 - 0)/(18 - 3)	0.00261471
0.139762 J (4/29/2006)	ND<0	(9/28/1995)	(0.139762 - 0)/(19 - 3)	0.00873512
-0.127833 J (11/18/2006)	ND<0	(9/28/1995)	(-0.127833 - 0)/(20 - 3)	-0.00751961
ND<0 (5/23/2007)	ND<0	(9/28/1995)	(0 - 0)/(21 - 3)	0
0.122218 J (11/28/2007)	ND<0	(9/28/1995)	(0.122218 - 0)/(22 - 3)	0.00643251
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
0.641854 J (6/5/2012)	ND<0	(9/28/1995)	(0.641854 - 0)/(25 - 3)	0.0291752
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
-0.616186 J (4/1/2005)	ND<0	(10/26/1995)	(-0.616186 - 0)/(17 - 4)	-0.0473989
0.0392207 J (10/25/2005)	ND<0	(10/26/1995)	(0.0392207 - 0)/(18 - 4)	0.00280148
0.139762 J (4/29/2006)	ND<0	(10/26/1995)	(0.139762 - 0)/(19 - 4)	0.00931746
-0.127833 J (11/18/2006)	ND<0	(10/26/1995)	(-0.127833 - 0)/(20 - 4)	-0.00798959
ND<0 (5/23/2007)	ND<0	(10/26/1995)	(0 - 0)/(21 - 4)	0
0.122218 J (11/28/2007)	ND<0	(10/26/1995)	(0.122218 - 0)/(22 - 4)	0.00678987

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
0.641854 J	(6/5/2012)	ND<0	(10/26/1995)	(0.641854 - 0)/(25 - 4)	
0.0305645					
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
-0.616186 J	(4/1/2005)	ND<0	(11/19/1996)	(-0.616186 - 0)/(17 - 5)	
-0.0513488					
0.0392207 J	(10/25/2005)	ND<0	(11/19/1996)	(0.0392207 - 0)/(18 - 5)	
0.00301698					
0.139762 J	(4/29/2006)	ND<0	(11/19/1996)	(0.139762 - 0)/(19 - 5)	
0.009983					
-0.127833 J	(11/18/2006)	ND<0	(11/19/1996)	(-0.127833 - 0)/(20 - 5)	
-0.00852222					
ND<0	(5/23/2007)	ND<0	(11/19/1996)	(0 - 0)/(21 - 5)	0
0.122218 J	(11/28/2007)	ND<0	(11/19/1996)	(0.122218 - 0)/(22 - 5)	
0.00718927					
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
0.641854 J	(6/5/2012)	ND<0	(11/19/1996)	(0.641854 - 0)/(25 - 5)	
0.0320927					
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
-0.616186 J	(4/1/2005)	ND<0	(12/19/1996)	(-0.616186 - 0)/(17 - 6)	
-0.0560169					
0.0392207 J	(10/25/2005)	ND<0	(12/19/1996)	(0.0392207 - 0)/(18 - 6)	
0.00326839					
0.139762 J	(4/29/2006)	ND<0	(12/19/1996)	(0.139762 - 0)/(19 - 6)	
0.0107509					
-0.127833 J	(11/18/2006)	ND<0	(12/19/1996)	(-0.127833 - 0)/(20 - 6)	
-0.00913096					
ND<0	(5/23/2007)	ND<0	(12/19/1996)	(0 - 0)/(21 - 6)	0
0.122218 J	(11/28/2007)	ND<0	(12/19/1996)	(0.122218 - 0)/(22 - 6)	
0.0076386					
ND<0	(6/5/2008)	ND<0	(12/19/1996)	(0 - 0)/(23 - 6)	0
ND<0	(11/20/2008)	ND<0	(12/19/1996)	(0 - 0)/(24 - 6)	0
0.641854 J	(6/5/2012)	ND<0	(12/19/1996)	(0.641854 - 0)/(25 - 6)	
0.0337818					
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
-0.616186 J	(4/1/2005)	ND<0	(3/24/1997)	(-0.616186 - 0)/(17 - 7)	-0.0616186
0.0392207 J	(10/25/2005)	ND<0	(3/24/1997)	(0.0392207 - 0)/(18 - 7)	0.00356552
0.139762 J	(4/29/2006)	ND<0	(3/24/1997)	(0.139762 - 0)/(19 - 7)	0.0116468
-0.127833 J	(11/18/2006)	ND<0	(3/24/1997)	(-0.127833 - 0)/(20 - 7)	-0.00983334
ND<0	(5/23/2007)	ND<0	(3/24/1997)	(0 - 0)/(21 - 7)	0
0.122218 J	(11/28/2007)	ND<0	(3/24/1997)	(0.122218 - 0)/(22 - 7)	0.00814784
ND<0	(6/5/2008)	ND<0	(3/24/1997)	(0 - 0)/(23 - 7)	0
ND<0	(11/20/2008)	ND<0	(3/24/1997)	(0 - 0)/(24 - 7)	0
0.641854 J	(6/5/2012)	ND<0	(3/24/1997)	(0.641854 - 0)/(25 - 7)	0.0356585
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
-0.616186 J	(4/1/2005)	ND<0	(9/24/1997)	(-0.616186 - 0)/(17 - 8)	-0.0684651
0.0392207 J	(10/25/2005)	ND<0	(9/24/1997)	(0.0392207 - 0)/(18 - 8)	0.00392207
0.139762 J	(4/29/2006)	ND<0	(9/24/1997)	(0.139762 - 0)/(19 - 8)	0.0127056
-0.127833 J	(11/18/2006)	ND<0	(9/24/1997)	(-0.127833 - 0)/(20 - 8)	-0.0106528
ND<0	(5/23/2007)	ND<0	(9/24/1997)	(0 - 0)/(21 - 8)	0
0.122218 J	(11/28/2007)	ND<0	(9/24/1997)	(0.122218 - 0)/(22 - 8)	0.00872983
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
0.641854 J	(6/5/2012)	ND<0	(9/24/1997)	(0.641854 - 0)/(25 - 8)	0.0377561
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
-0.616186 J	(4/1/2005)	ND<0	(4/7/1998)	(-0.616186 - 0)/(17 - 9)	-0.0770233
0.0392207 J	(10/25/2005)	ND<0	(4/7/1998)	(0.0392207 - 0)/(18 - 9)	0.00435786
0.139762 J	(4/29/2006)	ND<0	(4/7/1998)	(0.139762 - 0)/(19 - 9)	0.0139762
-0.127833 J	(11/18/2006)	ND<0	(4/7/1998)	(-0.127833 - 0)/(20 - 9)	-0.0116212
ND<0	(5/23/2007)	ND<0	(4/7/1998)	(0 - 0)/(21 - 9)	0

0.122218 J (11/28/2007)	ND<0	(4/7/1998)	(0.122218 - 0)/(22 - 9)	0.00940136
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
0.641854 J (6/5/2012)	ND<0	(4/7/1998)	(0.641854 - 0)/(25 - 9)	0.0401159
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
-0.616186 J (4/1/2005)	ND<0	(9/23/1998)	(-0.616186 - 0)/(17 - 10)	-0.0880266
0.0392207 J (10/25/2005)	ND<0	(9/23/1998)	(0.0392207 - 0)/(18 - 10)	0.00490259
0.139762 J (4/29/2006)	ND<0	(9/23/1998)	(0.139762 - 0)/(19 - 10)	0.0155291
-0.127833 J (11/18/2006)	ND<0	(9/23/1998)	(-0.127833 - 0)/(20 - 10)	-0.0127833
ND<0 (5/23/2007)	ND<0	(9/23/1998)	(0 - 0)/(21 - 10)	0
0.122218 J (11/28/2007)	ND<0	(9/23/1998)	(0.122218 - 0)/(22 - 10)	0.0101848
ND<0 (6/5/2008)	ND<0	(9/23/1998)	(0 - 0)/(23 - 10)	0
ND<0 (11/20/2008)	ND<0	(9/23/1998)	(0 - 0)/(24 - 10)	0
0.641854 J (6/5/2012)	ND<0	(9/23/1998)	(0.641854 - 0)/(25 - 10)	0.0427903
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
-0.616186 J (4/1/2005)	ND<0	(3/16/1999)	(-0.616186 - 0)/(17 - 11)	-0.102698
0.0392207 J (10/25/2005)	ND<0	(3/16/1999)	(0.0392207 - 0)/(18 - 11)	0.00560296
0.139762 J (4/29/2006)	ND<0	(3/16/1999)	(0.139762 - 0)/(19 - 11)	0.0174702
-0.127833 J (11/18/2006)	ND<0	(3/16/1999)	(-0.127833 - 0)/(20 - 11)	-0.0142037
ND<0 (5/23/2007)	ND<0	(3/16/1999)	(0 - 0)/(21 - 11)	0
0.122218 J (11/28/2007)	ND<0	(3/16/1999)	(0.122218 - 0)/(22 - 11)	0.0111107
ND<0 (6/5/2008)	ND<0	(3/16/1999)	(0 - 0)/(23 - 11)	0
ND<0 (11/20/2008)	ND<0	(3/16/1999)	(0 - 0)/(24 - 11)	0
0.641854 J (6/5/2012)	ND<0	(3/16/1999)	(0.641854 - 0)/(25 - 11)	0.0458467
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
-0.616186 J (4/1/2005)	ND<0	(9/23/1999)	(-0.616186 - 0)/(17 - 12)	-0.123237
0.0392207 J (10/25/2005)	ND<0	(9/23/1999)	(0.0392207 - 0)/(18 - 12)	0.00653679
0.139762 J (4/29/2006)	ND<0	(9/23/1999)	(0.139762 - 0)/(19 - 12)	0.019966
-0.127833 J (11/18/2006)	ND<0	(9/23/1999)	(-0.127833 - 0)/(20 - 12)	-0.0159792

ND<0 (5/23/2007)	ND<0 (9/23/1999)	(0 - 0)/(21 - 12)	0
0.122218 J (11/28/2007)	ND<0 (9/23/1999)	(0.122218 - 0)/(22 - 12)	
0.0122218			
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
0.641854 J (6/5/2012)	ND<0 (9/23/1999)	(0.641854 - 0)/(25 - 12)	
0.0493734			
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
-0.616186 J (4/1/2005)	ND<0 (3/15/2000)	(-0.616186 - 0)/(17 - 13)	
-0.154047			
0.0392207 J (10/25/2005)	ND<0 (3/15/2000)	(0.0392207 - 0)/(18 - 13)	
0.00784414			
0.139762 J (4/29/2006)	ND<0 (3/15/2000)	(0.139762 - 0)/(19 - 13)	
0.0232937			
-0.127833 J (11/18/2006)	ND<0 (3/15/2000)	(-0.127833 - 0)/(20 - 13)	
-0.0182619			
ND<0 (5/23/2007)	ND<0 (3/15/2000)	(0 - 0)/(21 - 13)	0
0.122218 J (11/28/2007)	ND<0 (3/15/2000)	(0.122218 - 0)/(22 - 13)	
0.0135797			
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
0.641854 J (6/5/2012)	ND<0 (3/15/2000)	(0.641854 - 0)/(25 - 13)	
0.0534878			
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
-0.616186 J (4/1/2005)	ND<0 (9/24/2003)	(-0.616186 - 0)/(17 - 14)	
-0.205395			
0.0392207 J (10/25/2005)	ND<0 (9/24/2003)	(0.0392207 - 0)/(18 - 14)	
0.00980518			
0.139762 J (4/29/2006)	ND<0 (9/24/2003)	(0.139762 - 0)/(19 - 14)	
0.0279524			
-0.127833 J (11/18/2006)	ND<0 (9/24/2003)	(-0.127833 - 0)/(20 - 14)	
-0.0213056			
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0
0.122218 J (11/28/2007)	ND<0 (9/24/2003)	(0.122218 - 0)/(22 - 14)	
0.0152772			
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
0.641854 J (6/5/2012)	ND<0 (9/24/2003)	(0.641854 - 0)/(25 - 14)	
0.0583504			
ND<0 (10/12/2004)	ND<0 (3/11/2004)	(0 - 0)/(16 - 15)	0
-0.616186 J (4/1/2005)	ND<0 (3/11/2004)	(-0.616186 - 0)/(17 - 15)	
-0.308093			
0.0392207 J (10/25/2005)	ND<0 (3/11/2004)	(0.0392207 - 0)/(18 - 15)	
0.0130736			
0.139762 J (4/29/2006)	ND<0 (3/11/2004)	(0.139762 - 0)/(19 - 15)	
0.0349405			
-0.127833 J (11/18/2006)	ND<0 (3/11/2004)	(-0.127833 - 0)/(20 - 15)	
-0.0255667			
ND<0 (5/23/2007)	ND<0 (3/11/2004)	(0 - 0)/(21 - 15)	0
0.122218 J (11/28/2007)	ND<0 (3/11/2004)	(0.122218 - 0)/(22 - 15)	
0.0174597			
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
0.641854 J (6/5/2012)	ND<0 (3/11/2004)	(0.641854 - 0)/(25 - 15)	
0.0641854			

-0.616186 J (4/1/2005)	ND<0 (10/12/2004)	(-0.616186 - 0)/(17 - 16)	
-0.616186			
0.0392207 J (10/25/2005)	ND<0 (10/12/2004)	(0.0392207 - 0)/(18 - 16)	
0.0196104			
0.139762 J (4/29/2006)	ND<0 (10/12/2004)	(0.139762 - 0)/(19 - 16)	
0.0465873			
-0.127833 J (11/18/2006)	ND<0 (10/12/2004)	(-0.127833 - 0)/(20 - 16)	
-0.0319583			
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0
0.122218 J (11/28/2007)	ND<0 (10/12/2004)	(0.122218 - 0)/(22 - 16)	
0.0203696			
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
0.641854 J (6/5/2012)	ND<0 (10/12/2004)	(0.641854 - 0)/(25 - 16)	
0.0713171			
0.0392207 J (10/25/2005)	-0.616186 J (4/1/2005)	(0.0392207 - -0.616186)/(18 - 17)	
0.655407			
0.139762 J (4/29/2006)	-0.616186 J (4/1/2005)	(0.139762 - -0.616186)/(19 - 17)	
0.377974			
-0.127833 J (11/18/2006)	-0.616186 J (4/1/2005)	(-0.127833 - -0.616186)/(20 - 17)	
0.162784			
ND<0 (5/23/2007)	-0.616186 J (4/1/2005)	(0 - -0.616186)/(21 - 17)	
0.154047			
0.122218 J (11/28/2007)	-0.616186 J (4/1/2005)	(0.122218 - -0.616186)/(22 - 17)	
0.147681			
ND<0 (6/5/2008)	-0.616186 J (4/1/2005)	(0 - -0.616186)/(23 - 17)	
0.102698			
ND<0 (11/20/2008)	-0.616186 J (4/1/2005)	(0 - -0.616186)/(24 - 17)	
0.0880266			
0.641854 J (6/5/2012)	-0.616186 J (4/1/2005)	(0.641854 - -0.616186)/(25 - 17)	
0.157255			
0.139762 J (4/29/2006)	0.0392207 J (10/25/2005)	(0.139762 - 0.0392207)/(19 - 18)	
0.100541			
-0.127833 J (11/18/2006)	0.0392207 J (10/25/2005)	(-0.127833 - 0.0392207)/(20 - 18)	
-0.083527			
ND<0 (5/23/2007)	0.0392207 J (10/25/2005)	(0 - 0.0392207)/(21 - 18)	
-0.0130736			
0.122218 J (11/28/2007)	0.0392207 J (10/25/2005)	(0.122218 - 0.0392207)/(22 - 18)	
0.0207492			
ND<0 (6/5/2008)	0.0392207 J (10/25/2005)	(0 - 0.0392207)/(23 - 18)	
-0.00784414			
ND<0 (11/20/2008)	0.0392207 J (10/25/2005)	(0 - 0.0392207)/(24 - 18)	
-0.00653679			
0.641854 J (6/5/2012)	0.0392207 J (10/25/2005)	(0.641854 - 0.0392207)/(25 - 18)	
0.0860905			
-0.127833 J (11/18/2006)	0.139762 J (4/29/2006)	(-0.127833 - 0.139762)/(20 - 19)	
-0.267595			
ND<0 (5/23/2007)	0.139762 J (4/29/2006)	(0 - 0.139762)/(21 - 19)	
-0.069881			
0.122218 J (11/28/2007)	0.139762 J (4/29/2006)	(0.122218 - 0.139762)/(22 - 19)	
-0.0058481			
ND<0 (6/5/2008)	0.139762 J (4/29/2006)	(0 - 0.139762)/(23 - 19)	
-0.0349405			
ND<0 (11/20/2008)	0.139762 J (4/29/2006)	(0 - 0.139762)/(24 - 19)	
-0.0279524			
0.641854 J (6/5/2012)	0.139762 J (4/29/2006)	(0.641854 - 0.139762)/(25 - 19)	
0.083682			

ND<0 (5/23/2007)	-0.127833 J (11/18/2006)	(0 - -0.127833)/(21 - 20)	
0.127833			
0.122218 J (11/28/2007)	-0.127833 J (11/18/2006)	(0.122218 - -0.127833)/(22 - 20)	
0.125026			
ND<0 (6/5/2008)	-0.127833 J (11/18/2006)	(0 - -0.127833)/(23 - 20)	
0.0426111			
ND<0 (11/20/2008)	-0.127833 J (11/18/2006)	(0 - -0.127833)/(24 - 20)	
0.0319583			
0.641854 J (6/5/2012)	-0.127833 J (11/18/2006)	(0.641854 - -0.127833)/(25 - 20)	
0.153937			
0.122218 J (11/28/2007)	ND<0 (5/23/2007)	(0.122218 - 0)/(22 - 21)	
0.122218			
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
0.641854 J (6/5/2012)	ND<0 (5/23/2007)	(0.641854 - 0)/(25 - 21)	
0.160463			
ND<0 (6/5/2008)	0.122218 J (11/28/2007)	(0 - 0.122218)/(23 - 22)	
-0.122218			
ND<0 (11/20/2008)	0.122218 J (11/28/2007)	(0 - 0.122218)/(24 - 22)	
-0.0611088			
0.641854 J (6/5/2012)	0.122218 J (11/28/2007)	(0.641854 - 0.122218)/(25 - 22)	
0.173212			
ND<0 (11/20/2008)	ND<0 (6/5/2008)	(0 - 0)/(24 - 23)	0
0.641854 J (6/5/2012)	ND<0 (6/5/2008)	(0.641854 - 0)/(25 - 23)	
0.320927			
0.641854 J (6/5/2012)	ND<0 (11/20/2008)	(0.641854 - 0)/(25 - 24)	
0.641854			

Number of Q values = 300

Ordered Q Values

n	Q
1	-0.616186
2	-0.308093
3	-0.267595
4	-0.205395
5	-0.154047
6	-0.123237
7	-0.122218
8	-0.102698
9	-0.0880266
10	-0.083527
11	-0.0770233
12	-0.069881
13	-0.0684651
14	-0.0616186
15	-0.0611088
16	-0.0560169
17	-0.0513488
18	-0.0473989
19	-0.0440133
20	-0.0410791
21	-0.0385116
22	-0.0349405
23	-0.0319583
24	-0.0279524

25	-0.0255667
26	-0.0213056
27	-0.0182619
28	-0.0159792
29	-0.0142037
30	-0.0130736
31	-0.0127833
32	-0.0116212
33	-0.0106528
34	-0.00983334
35	-0.00913096
36	-0.00852222
37	-0.00798959
38	-0.00784414
39	-0.00751961
40	-0.00710185
41	-0.00672807
42	-0.00653679
43	-0.0058481
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
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205	0
206	0
207	0
208	0
209	0
210	0

211	0
212	0
213	0
214	0
215	0.0023071
216	0.00245129
217	0.00261471
218	0.00280148
219	0.00301698
220	0.00326839
221	0.00356552
222	0.00392207
223	0.00435786
224	0.00490259
225	0.00560296
226	0.00581989
227	0.00611088
228	0.00643251
229	0.00653679
230	0.00678987
231	0.00718927
232	0.0076386
233	0.00776455
234	0.00784414
235	0.00814784
236	0.00822129
237	0.00872983
238	0.00873512
239	0.00931746
240	0.00940136
241	0.00980518
242	0.009983
243	0.0101848
244	0.0107509
245	0.0111107
246	0.0116468
247	0.0122218
248	0.0127056
249	0.0130736
250	0.0135797
251	0.0139762
252	0.0152772
253	0.0155291
254	0.0174597
255	0.0174702
256	0.0196104
257	0.019966
258	0.0203696
259	0.0207492
260	0.0232937
261	0.0267439
262	0.0279067
263	0.0279524
264	0.0291752
265	0.0305645
266	0.0319583
267	0.0320927
268	0.0337818
269	0.0349405
270	0.0356585
271	0.0377561
272	0.0401159

273	0.0426111
274	0.0427903
275	0.0458467
276	0.0465873
277	0.0493734
278	0.0534878
279	0.0583504
280	0.0641854
281	0.0713171
282	0.083682
283	0.0860905
284	0.0880266
285	0.100541
286	0.102698
287	0.122218
288	0.125026
289	0.127833
290	0.147681
291	0.153937
292	0.154047
293	0.157255
294	0.160463
295	0.162784
296	0.173212
297	0.320927
298	0.377974
299	0.641854
300	0.655407

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	0	19

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
6/5/2012	1	

There are 0 time periods with multiple data

A = 14706
B = 0
C = 5814
D = 0
E = 342
F = 0
a = 33000
b = 124200
c = 1200
Group Variance = 1016.33
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 52.4379
M1 = (300 - 52.4379)/2.0 = 123.781
M2 = (300 + 52.4379)/2.0 + 1 = 177.219
Lower limit is 0 = Q(124)
Upper limit is 0 = Q(177)
0 < 0 < 0 indicating no trend in data.

Concentrations (ppb)
Parameter: Ethyl Chloride
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 219
Percent Non-Detects: 86.2205%
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	32	30 (93.75%)	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	
			6/5/2012	ND<1 U	ND<1 U	
MW-8	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	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	
			6/5/2012	ND<1 U	ND<1 U	
MW-9	32	29 (90.625%)	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	
			6/5/2012	ND<1 U	ND<1 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<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	
			6/5/2012	ND<1 U	ND<1 U	
MW-11R	32	25 (78.125%)	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	
			6/5/2012	ND<1 U	ND<1 U	
MW-7	32	19 (59.375%)	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	
			6/5/2012	2.1	2.1	
MW-12AR	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<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		
		6/5/2012	ND<1 U	ND<1 U		
MW-12BR	22	21 (95.4545%)	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		
		6/5/2012	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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.74777	7.55021	-0.549553
2	0.22	-2.45727	13.5884	-1.09015
3	0.27	-2.29036	18.8342	-1.70855
4	0.3	-2.17009	23.5435	-2.35958
5	0.38	-2.07485	27.8485	-3.14802
6	0.4	-1.99539	31.8301	-3.94618
7	0.4	-1.92684	35.5428	-4.71691
8	0.4	-1.86629	39.0258	-5.46343
9	0.4	-1.81191	42.3088	-6.1882
10	0.42	-1.76241	45.4149	-6.92841
11	0.43	-1.71688	48.3626	-7.66667
12	0.5	-1.67466	51.1671	-8.504
13	0.5	-1.64485	53.8726	-9.32643
14	0.5	-1.60725	56.4559	-10.1301
15	0.5	-1.57179	58.9264	-10.9159
16	0.5	-1.5382	61.2925	-11.685
17	0.5	-1.50626	63.5613	-12.4382
18	0.5	-1.47579	65.7393	-13.1761
19	0.5	-1.44663	67.832	-13.8994
20	0.5	-1.41865	69.8446	-14.6087
21	0.5	-1.39175	71.7815	-15.3046
22	0.5	-1.36581	73.647	-15.9875
23	0.5	-1.34075	75.4446	-16.6579
24	0.5	-1.31652	77.1778	-17.3161
25	0.5	-1.29303	78.8498	-17.9626
26	0.5	-1.27588	80.4776	-18.6006
27	0.5	-1.25357	82.049	-19.2274
28	0.5	-1.23187	83.5665	-19.8433
29	0.5	-1.21073	85.0324	-20.4487
30	0.5	-1.19012	86.4488	-21.0437
31	0.5	-1.17	87.8177	-21.6287
32	0.5	-1.15035	89.141	-22.2039
33	0.5	-1.13113	90.4204	-22.7695
34	0.5	-1.11232	91.6577	-23.3256
35	0.5	-1.0939	92.8543	-23.8726
36	0.5	-1.07584	94.0117	-24.4105
37	0.5	-1.05812	95.1314	-24.9396
38	0.5	-1.04073	96.2145	-25.4599
39	0.5	-1.02789	97.271	-25.9739
40	0.5	-1.01104	98.2932	-26.4794
41	0.5	-0.994457	99.2822	-26.9766
42	0.5	-0.97815	100.239	-27.4657
43	0.5	-0.9621	101.165	-27.9467
44	0.5	-0.946291	102.06	-28.4199
45	0.5	-0.930718	102.926	-28.8852
46	0.5	-0.915365	103.764	-29.3429
47	0.5	-0.900227	104.575	-29.793
48	0.5	-0.885291	105.358	-30.2357
49	0.5	-0.87055	106.116	-30.671
50	0.5	-0.855996	106.849	-31.099
51	0.5	-0.841621	107.557	-31.5198

52	0.5	-0.830953	108.248	-31.9352
53	0.5	-0.816874	108.915	-32.3437
54	0.5	-0.802956	109.56	-32.7452
55	0.5	-0.789191	110.183	-33.1398
56	0.5	-0.775574	110.784	-33.5275
57	0.5	-0.7621	111.365	-33.9086
58	0.5	-0.748762	111.926	-34.283
59	0.5	-0.735557	112.467	-34.6507
60	0.5	-0.722479	112.989	-35.012
61	0.5	-0.709522	113.492	-35.3667
62	0.5	-0.696684	113.977	-35.7151
63	0.5	-0.68396	114.445	-36.0571
64	0.5	-0.67449	114.9	-36.3943
65	0.5	-0.661955	115.338	-36.7253
66	0.5	-0.649522	115.76	-37.0501
67	0.5	-0.637192	116.166	-37.3687
68	0.5	-0.624956	116.557	-37.6811
69	0.5	-0.612813	116.932	-37.9875
70	0.5	-0.60076	117.293	-38.2879
71	0.5	-0.588793	117.64	-38.5823
72	0.5	-0.576911	117.973	-38.8708
73	0.5	-0.565108	118.292	-39.1533
74	0.53	-0.553384	118.598	-39.4466
75	0.56	-0.541736	118.892	-39.75
76	0.7	-0.530162	119.173	-40.1211
77	0.72	-0.521527	119.445	-40.4966
78	0.75	-0.510074	119.705	-40.8792
79	0.76	-0.498687	119.954	-41.2582
80	0.82	-0.487364	120.191	-41.6578
81	0.83	-0.476105	120.418	-42.053
82	0.9	-0.464904	120.634	-42.4714
83	0.9	-0.453763	120.84	-42.8798
84	0.96	-0.442676	121.036	-43.3047
85	0.98	-0.431644	121.222	-43.7277
86	1	-0.420664	121.399	-44.1484
87	1	-0.409735	121.567	-44.5581
88	1	-0.398855	121.726	-44.957
89	1	-0.388022	121.877	-45.345
90	1	-0.379927	122.021	-45.7249
91	1	-0.369171	122.157	-46.0941
92	1	-0.358459	122.286	-46.4526
93	1	-0.347787	122.407	-46.8004
94	1	-0.337155	122.52	-47.1375
95	1	-0.326561	122.627	-47.4641
96	1	-0.316004	122.727	-47.7801
97	1	-0.305481	122.82	-48.0856
98	1	-0.294992	122.907	-48.3806
99	1	-0.284535	122.988	-48.6651
100	1	-0.27411	123.063	-48.9392
101	1	-0.263715	123.133	-49.2029
102	1	-0.253347	123.197	-49.4563
103	1	-0.24559	123.257	-49.7019
104	1	-0.235269	123.313	-49.9371
105	1	-0.224974	123.363	-50.1621
106	1	-0.214702	123.409	-50.3768
107	1	-0.204452	123.451	-50.5813
108	1	-0.194225	123.489	-50.7755
109	1	-0.184017	123.523	-50.9595
110	1	-0.173829	123.553	-51.1333
111	1	-0.163659	123.58	-51.297
112	1	-0.153505	123.603	-51.4505
113	1	-0.143367	123.624	-51.5939

114	1	-0.133244	123.642	-51.7271
115	1	-0.125661	123.658	-51.8528
116	1	-0.115562	123.671	-51.9683
117	1	-0.105474	123.682	-52.0738
118	1	-0.0953969	123.691	-52.1692
119	1	-0.0853288	123.698	-52.2545
120	1	-0.0752698	123.704	-52.3298
121	1	-0.0652187	123.708	-52.395
122	1	-0.0551734	123.711	-52.4502
123	1	-0.0451348	123.713	-52.4953
124	1	-0.0350997	123.715	-52.5304
125	1	-0.0250691	123.715	-52.5555
126	1	-0.0150408	123.715	-52.5705
127	1	-0.00501359	123.715	-52.5755
128	1	0.00501359	123.716	-52.5705
129	1	0.0150408	123.716	-52.5555
130	1	0.0250691	123.716	-52.5304
131	1	0.0350997	123.718	-52.4953
132	1	0.0451348	123.72	-52.4502
133	1	0.0551734	123.723	-52.395
134	1	0.0652187	123.727	-52.3298
135	1	0.0752698	123.733	-52.2545
136	1	0.0853288	123.74	-52.1692
137	1	0.0953969	123.749	-52.0738
138	1	0.105474	123.76	-51.9683
139	1	0.115562	123.773	-51.8528
140	1	0.125661	123.789	-51.7271
141	1	0.133244	123.807	-51.5939
142	1	0.143367	123.828	-51.4505
143	1	0.153505	123.851	-51.297
144	1	0.163659	123.878	-51.1333
145	1	0.173829	123.908	-50.9595
146	1	0.184017	123.942	-50.7755
147	1	0.194225	123.98	-50.5813
148	1	0.204452	124.022	-50.3768
149	1	0.214702	124.068	-50.1621
150	1	0.224974	124.118	-49.9371
151	1	0.235269	124.174	-49.7019
152	1	0.24559	124.234	-49.4563
153	1	0.253347	124.298	-49.2029
154	1	0.263715	124.368	-48.9392
155	1	0.27411	124.443	-48.6651
156	1	0.284535	124.524	-48.3806
157	1	0.294992	124.611	-48.0856
158	1	0.305481	124.704	-47.7801
159	1	0.316004	124.804	-47.4641
160	1	0.326561	124.911	-47.1375
161	1	0.337155	125.024	-46.8004
162	1	0.347787	125.145	-46.4526
163	1	0.358459	125.274	-46.0941
164	1	0.369171	125.41	-45.7249
165	1	0.379927	125.554	-45.345
166	1	0.388022	125.705	-44.957
167	1	0.398855	125.864	-44.5581
168	1	0.409735	126.032	-44.1484
169	1	0.420664	126.209	-43.7277
170	1	0.431644	126.395	-43.2961
171	1	0.442676	126.591	-42.8534
172	1	0.453763	126.797	-42.3997
173	1	0.464904	127.013	-41.9348
174	1	0.476105	127.24	-41.4587
175	1	0.487364	127.477	-40.9713

176	1	0.498687	127.726	-40.4726
177	1	0.510074	127.986	-39.9625
178	1	0.521527	128.258	-39.441
179	1	0.530162	128.539	-38.9108
180	1	0.541736	128.833	-38.3691
181	1	0.553384	129.139	-37.8157
182	1	0.565108	129.458	-37.2506
183	1	0.576911	129.791	-36.6737
184	1	0.588793	130.138	-36.0849
185	1	0.60076	130.499	-35.4841
186	1	0.612813	130.874	-34.8713
187	1	0.624956	131.265	-34.2464
188	1	0.637192	131.671	-33.6092
189	1	0.649522	132.093	-32.9597
190	1	0.661955	132.531	-32.2977
191	1	0.67449	132.986	-31.6232
192	1	0.68396	133.454	-30.9393
193	1	0.696684	133.939	-30.2426
194	1	0.709522	134.442	-29.533
195	1	0.722479	134.964	-28.8106
196	1	0.735557	135.505	-28.075
197	1	0.748762	136.066	-27.3263
198	1	0.7621	136.647	-26.5642
199	1	0.775574	137.248	-25.7886
200	1	0.789191	137.871	-24.9994
201	1	0.802956	138.516	-24.1964
202	1	0.816874	139.183	-23.3796
203	1	0.830953	139.874	-22.5486
204	1	0.841621	140.582	-21.707
205	1	0.855996	141.315	-20.851
206	1	0.87055	142.073	-19.9804
207	1	0.885291	142.856	-19.0951
208	1	0.900227	143.667	-18.1949
209	1	0.915365	144.505	-17.2796
210	1	0.930718	145.371	-16.3488
211	1	0.946291	146.266	-15.4025
212	1	0.9621	147.192	-14.4404
213	1	0.97815	148.149	-13.4623
214	1	0.994457	149.138	-12.4678
215	1	1.01104	150.16	-11.4568
216	1	1.02789	151.217	-10.4289
217	1	1.04073	152.3	-9.38818
218	1	1.05812	153.419	-8.33005
219	1	1.07584	154.577	-7.25422
220	1	1.0939	155.773	-6.16032
221	1	1.11232	157.011	-5.048
222	1	1.13113	158.29	-3.91687
223	1	1.15035	159.613	-2.76652
224	1	1.17	160.982	-1.59652
225	1	1.19012	162.399	-0.406398
226	1	1.21073	163.864	0.80433
227	1	1.23187	165.382	2.0362
228	1	1.25357	166.953	3.28976
229	1	1.27588	168.581	4.56564
230	1	1.29303	170.253	5.85867
231	1	1.31652	171.986	7.17519
232	1	1.34075	173.784	8.51595
233	1	1.36581	175.649	9.88175
234	1	1.39175	177.586	11.2735
235	1	1.41865	179.599	12.6921
236	1	1.44663	181.692	14.1388
237	1	1.47579	183.87	15.6146

238	1	1.50626	186.139	17.1208
239	1	1.5382	188.505	18.659
240	1	1.57179	190.975	20.2308
241	1	1.60725	193.558	21.8381
242	1	1.64485	196.264	23.4829
243	1.1	1.67466	199.068	25.3251
244	1.2	1.71688	202.016	27.3853
245	1.23	1.76241	205.122	29.5531
246	1.47	1.81191	208.405	32.2166
247	1.7	1.86629	211.888	35.3893
248	1.9	1.92684	215.601	39.0503
249	2.1	1.99539	219.583	43.2406
250	2.1	2.07485	223.888	47.5978
251	2.1	2.17009	228.597	52.155
252	2.27	2.29036	233.843	57.3541
253	2.74	2.45727	239.881	64.087
254	9.1	2.74777	247.431	89.0917

Data Set Standard Deviation = 0.610595
Numerator = 7937.33
Denominator = 23338.9
W Statistic = 0.34009 = 7937.33 / 23338.9

5% Critical value of 0.976 exceeds 0.34009
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.34009
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 = 0.588668
0.588668 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00392157	-2.747	77	49.7	348.683
2	0.22	0.00784314	-2.457	27	50.77	334.497
3	0.27	0.0117647	-2.290	36	53.445	326.346
4	0.3	0.0156863	-2.170	09	55.05	320.473
5	0.38	0.0196078	-2.074	85	59.33	315.822
6	0.4	0.0235294	-1.995	39	60.4	311.942
7	0.4	0.027451	-1.926	84	60.4	308.594
8	0.4	0.0313725	-1.866	29	60.4	305.637
9	0.4	0.0352941	-1.811	91	60.4	302.982
10	0.42	0.0392157	-1.762	41	61.47	300.564
11	0.43	0.0431373	-1.716	88	62.005	298.341
12	0.5	0.0470588	-1.674	66	65.75	296.279
13	0.5	0.0509804	-1.644	85	65.75	294.824
14	0.5	0.054902	-1.607	25	65.75	292.987
15	0.5	0.0588235	-1.571	79	65.75	291.256
16	0.5	0.0627451	-1.5382		65.75	289.615
17	0.5	0.0666667	-1.506	26	65.75	288.056
18	0.5	0.0705882	-1.475	79	65.75	286.568
19	0.5	0.0745098	-1.446	63	65.75	285.144
20	0.5	0.0784314	-1.418	65	65.75	283.778
21	0.5	0.0823529	-1.391	75	65.75	282.464
22	0.5	0.0862745	-1.365	81	65.75	281.197
23	0.5	0.0901961	-1.340	75	65.75	279.974
24	0.5	0.0941176	-1.316	52	65.75	278.79
25	0.5	0.0980392	-1.293	03	65.75	277.643
26	0.5	0.101961	-1.275	88	65.75	276.805
27	0.5	0.105882	-1.253	57	65.75	275.716
28	0.5	0.109804	-1.231	87	65.75	274.656
29	0.5	0.113725	-1.210	73	65.75	273.624
30	0.5	0.117647	-1.190	12	65.75	272.617
31	0.5	0.121569	-1.17		65.75	271.635
32	0.5	0.12549	-1.150	35	65.75	270.675
33	0.5	0.129412	-1.131	13	65.75	269.737
34	0.5	0.133333	-1.112	32	65.75	268.818
35	0.5	0.137255	-1.0939		65.75	267.919
36	0.5	0.141176	-1.075	84	65.75	267.037
37	0.5	0.145098	-1.058	12	65.75	266.172
38	0.5	0.14902	-1.040	73	65.75	265.322
39	0.5	0.152941	-1.027	89	65.75	264.695
40	0.5	0.156863	-1.011	04	65.75	263.872
41	0.5	0.160784	-0.994457		65.75	263.063
42	0.5	0.164706	-0.978	15	65.75	262.266
43	0.5	0.168627	-0.9621		65.75	261.483
44	0.5	0.172549	-0.946291		65.75	260.711
45	0.5	0.176471	-0.930718		65.75	259.95
46	0.5	0.180392	-0.915365		65.75	259.2
47	0.5	0.184314	-0.900227		65.75	258.461
48	0.5	0.188235	-0.885291		65.75	257.732

49	0.5	0.192157	-0.870565.75	257.012	
50	0.5	0.196078	-0.855996	65.75	256.301
51	0.5	0.2	-0.841621	65.75	255.599
52	0.5	0.203922	-0.830953	65.75	255.078
53	0.5	0.207843	-0.816874	65.75	254.391
54	0.5	0.211765	-0.802956	65.75	253.711
55	0.5	0.215686	-0.789191	65.75	253.039
56	0.5	0.219608	-0.775574	65.75	252.374
57	0.5	0.223529	-0.7621 65.75	251.716	
58	0.5	0.227451	-0.748762	65.75	251.065
59	0.5	0.231373	-0.735557	65.75	250.42
60	0.5	0.235294	-0.722479	65.75	249.781
61	0.5	0.239216	-0.709522	65.75	249.148
62	0.5	0.243137	-0.696684	65.75	248.521
63	0.5	0.247059	-0.683965.75	247.9	
64	0.5	0.25098	-0.674465.75	247.438	
65	0.5	0.254902	-0.661955	65.75	246.825
66	0.5	0.258824	-0.649522	65.75	246.218
67	0.5	0.262745	-0.637192	65.75	245.616
68	0.5	0.266667	-0.624956	65.75	245.019
69	0.5	0.270588	-0.612813	65.75	244.426
70	0.5	0.27451	-0.600765.75	243.837	
71	0.5	0.278431	-0.588793	65.75	243.253
72	0.5	0.282353	-0.576911	65.75	242.672
73	0.5	0.286275	-0.565108	65.75	242.096
74	0.53	0.290196	-0.553384	67.355	241.524
75	0.56	0.294118	-0.541736	68.96	240.955
76	0.7	0.298039	-0.530162	76.45	240.39
77	0.72	0.301961	-0.521527	77.52	239.968
78	0.75	0.305882	-0.510074	79.125	239.409
79	0.76	0.309804	-0.498687	79.66	238.853
80	0.82	0.313725	-0.487364	82.87	238.3
81	0.83	0.317647	-0.476105	83.405	237.75
82	0.9	0.321569	-0.464904	87.15	237.203
83	0.9	0.32549	-0.453763	87.15	236.659
84	0.96	0.329412	-0.442676	90.36	236.117
85	0.98	0.333333	-0.431644	91.43	235.579
86	1	0.337255	-0.420664	92.5	235.042
87	1	0.341176	-0.409735	92.5	234.509
88	1	0.345098	-0.398855	92.5	233.977
89	1	0.34902	-0.388022	92.5	233.448
90	1	0.352941	-0.379927	92.5	233.053
91	1	0.356863	-0.369171	92.5	232.528
92	1	0.360784	-0.358459	92.5	232.005
93	1	0.364706	-0.347787	92.5	231.484
94	1	0.368627	-0.337155	92.5	230.964
95	1	0.372549	-0.326561	92.5	230.447
96	1	0.376471	-0.316004	92.5	229.932
97	1	0.380392	-0.305481	92.5	229.418
98	1	0.384314	-0.294992	92.5	228.905
99	1	0.388235	-0.284535	92.5	228.395
100	1	0.392157	-0.274192.5	227.886	
101	1	0.396078	-0.263715	92.5	227.378
102	1	0.4	-0.253347	92.5	226.872
103	1	0.403922	-0.245592.5	226.493	
104	1	0.407843	-0.235269	92.5	225.989
105	1	0.411765	-0.224974	92.5	225.486
106	1	0.415686	-0.214702	92.5	224.985
107	1	0.419608	-0.204452	92.5	224.484
108	1	0.423529	-0.194225	92.5	223.985
109	1	0.427451	-0.184017	92.5	223.486
110	1	0.431373	-0.173829	92.5	222.989

111	1	0.435294	-0.163659	92.5	222.492
112	1	0.439216	-0.153505	92.5	221.996
113	1	0.443137	-0.143367	92.5	221.501
114	1	0.447059	-0.133244	92.5	221.007
115	1	0.45098	-0.125661	92.5	220.636
116	1	0.454902	-0.115562	92.5	220.143
117	1	0.458824	-0.105474	92.5	219.651
118	1	0.462745	-0.0953969	92.5	219.159
119	1	0.466667	-0.0853288	92.5	218.667
120	1	0.470588	-0.0752698	92.5	218.176
121	1	0.47451	-0.0652187	92.5	217.685
122	1	0.478431	-0.0551734	92.5	217.194
123	1	0.482353	-0.0451348	92.5	216.704
124	1	0.486275	-0.0350997	92.5	216.214
125	1	0.490196	-0.0250691	92.5	215.724
126	1	0.494118	-0.0150408	92.5	215.234
127	1	0.498039	-0.00501359	92.5	214.745
128	1	0.501961	0.00501359	92.5	214.255
129	1	0.505882	0.0150408	92.5	213.766
130	1	0.509804	0.0250691	92.5	213.276
131	1	0.513725	0.0350997	92.5	212.786
132	1	0.517647	0.0451348	92.5	212.296
133	1	0.521569	0.0551734	92.5	211.806
134	1	0.52549	0.0652187	92.5	211.315
135	1	0.529412	0.0752698	92.5	210.824
136	1	0.533333	0.0853288	92.5	210.333
137	1	0.537255	0.0953969	92.5	209.841
138	1	0.541176	0.105474	92.5	209.349
139	1	0.545098	0.115562	92.5	208.857
140	1	0.54902	0.125661	92.5	208.364
141	1	0.552941	0.133244	92.5	207.993
142	1	0.556863	0.143367	92.5	207.499
143	1	0.560784	0.153505	92.5	207.004
144	1	0.564706	0.163659	92.5	206.508
145	1	0.568627	0.173829	92.5	206.011
146	1	0.572549	0.184017	92.5	205.514
147	1	0.576471	0.194225	92.5	205.015
148	1	0.580392	0.204452	92.5	204.516
149	1	0.584314	0.214702	92.5	204.015
150	1	0.588235	0.224974	92.5	203.514
151	1	0.592157	0.235269	92.5	203.011
152	1	0.596078	0.24559	92.5	202.507
153	1	0.6	0.253347	92.5	202.128
154	1	0.603922	0.263715	92.5	201.622
155	1	0.607843	0.27411	92.5	201.114
156	1	0.611765	0.284535	92.5	200.605
157	1	0.615686	0.294992	92.5	200.095
158	1	0.619608	0.305481	92.5	199.582
159	1	0.623529	0.316004	92.5	199.068
160	1	0.627451	0.326561	92.5	198.553
161	1	0.631373	0.337155	92.5	198.036
162	1	0.635294	0.347787	92.5	197.516
163	1	0.639216	0.358459	92.5	196.995
164	1	0.643137	0.369171	92.5	196.472
165	1	0.647059	0.379927	92.5	195.947
166	1	0.65098	0.388022	92.5	195.552
167	1	0.654902	0.398855	92.5	195.023
168	1	0.658824	0.409735	92.5	194.491
169	1	0.662745	0.420664	92.5	193.958
170	1	0.666667	0.431644	92.5	193.421
171	1	0.670588	0.442676	92.5	192.883
172	1	0.67451	0.453763	92.5	192.341

173	1	0.678431	0.464904	92.5	191.797
174	1	0.682353	0.476105	92.5	191.25
175	1	0.686275	0.487364	92.5	190.7
176	1	0.690196	0.498687	92.5	190.147
177	1	0.694118	0.510074	92.5	189.591
178	1	0.698039	0.521527	92.5	189.032
179	1	0.701961	0.530162	92.5	188.61
180	1	0.705882	0.541736	92.5	188.045
181	1	0.709804	0.553384	92.5	187.476
182	1	0.713725	0.565108	92.5	186.904
183	1	0.717647	0.576911	92.5	186.328
184	1	0.721569	0.588793	92.5	185.747
185	1	0.72549	0.60076	92.5	185.163
186	1	0.729412	0.612813	92.5	184.574
187	1	0.733333	0.624956	92.5	183.981
188	1	0.737255	0.637192	92.5	183.384
189	1	0.741176	0.649522	92.5	182.782
190	1	0.745098	0.661955	92.5	182.175
191	1	0.74902	0.67449	92.5	181.562
192	1	0.752941	0.68396	92.5	181.1
193	1	0.756863	0.696684	92.5	180.479
194	1	0.760784	0.709522	92.5	179.852
195	1	0.764706	0.722479	92.5	179.219
196	1	0.768627	0.735557	92.5	178.58
197	1	0.772549	0.748762	92.5	177.935
198	1	0.776471	0.7621	92.5	177.284
199	1	0.780392	0.775574	92.5	176.626
200	1	0.784314	0.789191	92.5	175.961
201	1	0.788235	0.802956	92.5	175.289
202	1	0.792157	0.816874	92.5	174.609
203	1	0.796078	0.830953	92.5	173.922
204	1	0.8	0.841621	92.5	173.401
205	1	0.803922	0.855996	92.5	172.699
206	1	0.807843	0.87055	92.5	171.988
207	1	0.811765	0.885291	92.5	171.268
208	1	0.815686	0.900227	92.5	170.539
209	1	0.819608	0.915365	92.5	169.8
210	1	0.823529	0.930718	92.5	169.05
211	1	0.827451	0.946291	92.5	168.289
212	1	0.831373	0.9621	92.5	167.517
213	1	0.835294	0.97815	92.5	166.734
214	1	0.839216	0.994457	92.5	165.937
215	1	0.843137	1.01104	92.5	165.128
216	1	0.847059	1.02789	92.5	164.305
217	1	0.85098	1.04073	92.5	163.678
218	1	0.854902	1.05812	92.5	162.828
219	1	0.858824	1.07584	92.5	161.963
220	1	0.862745	1.0939	92.5	161.081
221	1	0.866667	1.11232	92.5	160.182
222	1	0.870588	1.13113	92.5	159.263
223	1	0.87451	1.15035	92.5	158.325
224	1	0.878431	1.17	92.5	157.365
225	1	0.882353	1.19012	92.5	156.383
226	1	0.886275	1.21073	92.5	155.376
227	1	0.890196	1.23187	92.5	154.344
228	1	0.894118	1.25357	92.5	153.284
229	1	0.898039	1.27588	92.5	152.195
230	1	0.901961	1.29303	92.5	151.357
231	1	0.905882	1.31652	92.5	150.21
232	1	0.909804	1.34075	92.5	149.026
233	1	0.913725	1.36581	92.5	147.803
234	1	0.917647	1.39175	92.5	146.536

235	1	0.921569		1.41865	92.5	145.222
236	1	0.92549	1.44663	92.5	143.856	
237	1	0.929412		1.47579	92.5	142.432
238	1	0.933333		1.50626	92.5	140.944
239	1	0.937255		1.5382	92.5	139.385
240	1	0.941176		1.57179	92.5	137.744
241	1	0.945098		1.60725	92.5	136.013
242	1	0.94902	1.64485	92.5	134.176	
243	1.1	0.952941		1.67466	97.85	132.721
244	1.2	0.956863		1.71688	103.2	130.659
245	1.23	0.960784		1.76241	104.805	128.436
246	1.47	0.964706		1.81191	117.645	126.018
247	1.7	0.968627		1.86629	129.95	123.363
248	1.9	0.972549		1.92684	140.65	120.406
249	2.1	0.976471		1.99539	151.35	117.058
250	2.1	0.980392		2.07485	151.35	113.178
251	2.1	0.984314		2.17009	151.35	108.527
252	2.27	0.988235		2.29036	160.445	102.654
253	2.74	0.992157		2.45727	185.59	94.5032
254	9.1	0.996078		2.74777	525.85	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-1.60944	-2.74777	7.55021	4.42236	
2	-1.51413	-2.45727	13.5884	8.14298	
3	-1.30933	-2.29036	18.8342	11.1418	
4	-1.20397	-2.17009	23.5435	13.7546	
5	-0.967584	-2.07485	27.8485	15.7622	
6	-0.916291	-1.99539	31.8301	17.5905	
7	-0.916291	-1.92684	35.5428	19.3561	
8	-0.916291	-1.86629	39.0258	21.0661	
9	-0.916291	-1.81191	42.3088	22.7264	
10	-0.867501	-1.76241	45.4149	24.2553	
11	-0.84397	-1.71688	48.3626	25.7043	
12	-0.693147	-1.67466	51.1671	26.865	
13	-0.693147	-1.64485	53.8726	28.0052	
14	-0.693147	-1.60725	56.4559	29.1192	
15	-0.693147	-1.57179	58.9264	30.2087	
16	-0.693147	-1.5382	61.2925	31.2749	
17	-0.693147	-1.50626	63.5613	32.319	
18	-0.693147	-1.47579	65.7393	33.3419	
19	-0.693147	-1.44663	67.832	34.3446	
20	-0.693147	-1.41865	69.8446	35.328	
21	-0.693147	-1.39175	71.7815	36.2927	
22	-0.693147	-1.36581	73.647	37.2394	
23	-0.693147	-1.34075	75.4446	38.1687	
24	-0.693147	-1.31652	77.1778	39.0812	
25	-0.693147	-1.29303	78.8498	39.9775	
26	-0.693147	-1.27588	80.4776	40.8619	
27	-0.693147	-1.25357	82.049	41.7308	
28	-0.693147	-1.23187	83.5665	42.5846	
29	-0.693147	-1.21073	85.0324	43.4239	
30	-0.693147	-1.19012	86.4488	44.2488	
31	-0.693147	-1.17	87.8177	45.0598	
32	-0.693147	-1.15035	89.141	45.8571	
33	-0.693147	-1.13113	90.4204	46.6412	
34	-0.693147	-1.11232	91.6577	47.4122	
35	-0.693147	-1.0939	92.8543	48.1704	
36	-0.693147	-1.07584	94.0117	48.9161	
37	-0.693147	-1.05812	95.1314	49.6496	
38	-0.693147	-1.04073	96.2145	50.3709	
39	-0.693147	-1.02789	97.271	51.0834	
40	-0.693147	-1.01104	98.2932	51.7842	
41	-0.693147	-0.994457		99.2822	52.4735
42	-0.693147	-0.97815	100.239	53.1515	
43	-0.693147	-0.9621	101.165	53.8184	
44	-0.693147	-0.946291		102.06	54.4743
45	-0.693147	-0.930718		102.926	55.1194
46	-0.693147	-0.915365		103.764	55.7539
47	-0.693147	-0.900227		104.575	56.3779
48	-0.693147	-0.885291		105.358	56.9915
49	-0.693147	-0.87055	106.116	57.595	
50	-0.693147	-0.855996		106.849	58.1883
51	-0.693147	-0.841621		107.557	58.7717

52	-0.693147	-0.830953	108.248	59.3476
53	-0.693147	-0.816874	108.915	59.9139
54	-0.693147	-0.802956	109.56	60.4704
55	-0.693147	-0.789191	110.183	61.0174
56	-0.693147	-0.775574	110.784	61.555
57	-0.693147	-0.7621	111.365	62.0833
58	-0.693147	-0.748762	111.926	62.6023
59	-0.693147	-0.735557	112.467	63.1121
60	-0.693147	-0.722479	112.989	63.6129
61	-0.693147	-0.709522	113.492	64.1047
62	-0.693147	-0.696684	113.977	64.5876
63	-0.693147	-0.68396	114.445	65.0617
64	-0.693147	-0.67449	114.9	65.5292
65	-0.693147	-0.661955	115.338	65.9881
66	-0.693147	-0.649522	115.76	66.4383
67	-0.693147	-0.637192	116.166	66.8799
68	-0.693147	-0.624956	116.557	67.3131
69	-0.693147	-0.612813	116.932	67.7379
70	-0.693147	-0.60076	117.293	68.1543
71	-0.693147	-0.588793	117.64	68.5624
72	-0.693147	-0.576911	117.973	68.9623
73	-0.693147	-0.565108	118.292	69.354
74	-0.634878	-0.553384	118.598	69.7054
75	-0.579818	-0.541736	118.892	70.0195
76	-0.356675	-0.530162	119.173	70.2086
77	-0.328504	-0.521527	119.445	70.3799
78	-0.287682	-0.510074	119.705	70.5266
79	-0.274437	-0.498687	119.954	70.6635
80	-0.198451	-0.487364	120.191	70.7602
81	-0.18633	-0.476105	120.418	70.8489
82	-0.105361	-0.464904	120.634	70.8979
83	-0.105361	-0.453763	120.84	70.9457
84	-0.040822	-0.442676	121.036	70.9638
85	-0.0202027	-0.431644	121.222	70.9725
86	0	-0.420664	121.399	70.9725
87	0	-0.409735	121.567	70.9725
88	0	-0.398855	121.726	70.9725
89	0	-0.388022	121.877	70.9725
90	0	-0.379927	122.021	70.9725
91	0	-0.369171	122.157	70.9725
92	0	-0.358459	122.286	70.9725
93	0	-0.347787	122.407	70.9725
94	0	-0.337155	122.52	70.9725
95	0	-0.326561	122.627	70.9725
96	0	-0.316004	122.727	70.9725
97	0	-0.305481	122.82	70.9725
98	0	-0.294992	122.907	70.9725
99	0	-0.284535	122.988	70.9725
100	0	-0.27411	123.063	70.9725
101	0	-0.263715	123.133	70.9725
102	0	-0.253347	123.197	70.9725
103	0	-0.24559	123.257	70.9725
104	0	-0.235269	123.313	70.9725
105	0	-0.224974	123.363	70.9725
106	0	-0.214702	123.409	70.9725
107	0	-0.204452	123.451	70.9725
108	0	-0.194225	123.489	70.9725
109	0	-0.184017	123.523	70.9725
110	0	-0.173829	123.553	70.9725
111	0	-0.163659	123.58	70.9725
112	0	-0.153505	123.603	70.9725
113	0	-0.143367	123.624	70.9725

114	0	-0.133244	123.642	70.9725
115	0	-0.125661	123.658	70.9725
116	0	-0.115562	123.671	70.9725
117	0	-0.105474	123.682	70.9725
118	0	-0.0953969	123.691	70.9725
119	0	-0.0853288	123.698	70.9725
120	0	-0.0752698	123.704	70.9725
121	0	-0.0652187	123.708	70.9725
122	0	-0.0551734	123.711	70.9725
123	0	-0.0451348	123.713	70.9725
124	0	-0.0350997	123.715	70.9725
125	0	-0.0250691	123.715	70.9725
126	0	-0.0150408	123.715	70.9725
127	0	-0.00501359	123.715	70.9725
128	0	0.00501359	123.716	70.9725
129	0	0.0150408	123.716	70.9725
130	0	0.0250691	123.716	70.9725
131	0	0.0350997	123.718	70.9725
132	0	0.0451348	123.72	70.9725
133	0	0.0551734	123.723	70.9725
134	0	0.0652187	123.727	70.9725
135	0	0.0752698	123.733	70.9725
136	0	0.0853288	123.74	70.9725
137	0	0.0953969	123.749	70.9725
138	0	0.105474	123.76	70.9725
139	0	0.115562	123.773	70.9725
140	0	0.125661	123.789	70.9725
141	0	0.133244	123.807	70.9725
142	0	0.143367	123.828	70.9725
143	0	0.153505	123.851	70.9725
144	0	0.163659	123.878	70.9725
145	0	0.173829	123.908	70.9725
146	0	0.184017	123.942	70.9725
147	0	0.194225	123.98	70.9725
148	0	0.204452	124.022	70.9725
149	0	0.214702	124.068	70.9725
150	0	0.224974	124.118	70.9725
151	0	0.235269	124.174	70.9725
152	0	0.24559	124.234	70.9725
153	0	0.253347	124.298	70.9725
154	0	0.263715	124.368	70.9725
155	0	0.27411	124.443	70.9725
156	0	0.284535	124.524	70.9725
157	0	0.294992	124.611	70.9725
158	0	0.305481	124.704	70.9725
159	0	0.316004	124.804	70.9725
160	0	0.326561	124.911	70.9725
161	0	0.337155	125.024	70.9725
162	0	0.347787	125.145	70.9725
163	0	0.358459	125.274	70.9725
164	0	0.369171	125.41	70.9725
165	0	0.379927	125.554	70.9725
166	0	0.388022	125.705	70.9725
167	0	0.398855	125.864	70.9725
168	0	0.409735	126.032	70.9725
169	0	0.420664	126.209	70.9725
170	0	0.431644	126.395	70.9725
171	0	0.442676	126.591	70.9725
172	0	0.453763	126.797	70.9725
173	0	0.464904	127.013	70.9725
174	0	0.476105	127.24	70.9725
175	0	0.487364	127.477	70.9725

176	0	0.498687		127.726	70.9725
177	0	0.510074		127.986	70.9725
178	0	0.521527		128.258	70.9725
179	0	0.530162		128.539	70.9725
180	0	0.541736		128.833	70.9725
181	0	0.553384		129.139	70.9725
182	0	0.565108		129.458	70.9725
183	0	0.576911		129.791	70.9725
184	0	0.588793		130.138	70.9725
185	0	0.60076	130.499	70.9725	
186	0	0.612813		130.874	70.9725
187	0	0.624956		131.265	70.9725
188	0	0.637192		131.671	70.9725
189	0	0.649522		132.093	70.9725
190	0	0.661955		132.531	70.9725
191	0	0.67449	132.986	70.9725	
192	0	0.68396	133.454	70.9725	
193	0	0.696684		133.939	70.9725
194	0	0.709522		134.442	70.9725
195	0	0.722479		134.964	70.9725
196	0	0.735557		135.505	70.9725
197	0	0.748762		136.066	70.9725
198	0	0.7621	136.647	70.9725	
199	0	0.775574		137.248	70.9725
200	0	0.789191		137.871	70.9725
201	0	0.802956		138.516	70.9725
202	0	0.816874		139.183	70.9725
203	0	0.830953		139.874	70.9725
204	0	0.841621		140.582	70.9725
205	0	0.855996		141.315	70.9725
206	0	0.87055	142.073	70.9725	
207	0	0.885291		142.856	70.9725
208	0	0.900227		143.667	70.9725
209	0	0.915365		144.505	70.9725
210	0	0.930718		145.371	70.9725
211	0	0.946291		146.266	70.9725
212	0	0.9621	147.192	70.9725	
213	0	0.97815	148.149	70.9725	
214	0	0.994457		149.138	70.9725
215	0	1.01104	150.16	70.9725	
216	0	1.02789	151.217	70.9725	
217	0	1.04073	152.3	70.9725	
218	0	1.05812	153.419	70.9725	
219	0	1.07584	154.577	70.9725	
220	0	1.0939	155.773	70.9725	
221	0	1.11232	157.011	70.9725	
222	0	1.13113	158.29	70.9725	
223	0	1.15035	159.613	70.9725	
224	0	1.17	160.982	70.9725	
225	0	1.19012	162.399	70.9725	
226	0	1.21073	163.864	70.9725	
227	0	1.23187	165.382	70.9725	
228	0	1.25357	166.953	70.9725	
229	0	1.27588	168.581	70.9725	
230	0	1.29303	170.253	70.9725	
231	0	1.31652	171.986	70.9725	
232	0	1.34075	173.784	70.9725	
233	0	1.36581	175.649	70.9725	
234	0	1.39175	177.586	70.9725	
235	0	1.41865	179.599	70.9725	
236	0	1.44663	181.692	70.9725	
237	0	1.47579	183.87	70.9725	

238	0	1.50626	186.139	70.9725	
239	0	1.5382	188.505	70.9725	
240	0	1.57179	190.975	70.9725	
241	0	1.60725	193.558	70.9725	
242	0	1.64485	196.264	70.9725	
243	0.0953102		1.67466	199.068	71.1321
244	0.182322		1.71688	202.016	71.4451
245	0.207014		1.76241	205.122	71.81
246	0.385262		1.81191	208.405	72.508
247	0.530628		1.86629	211.888	73.4983
248	0.641854		1.92684	215.601	74.7351
249	0.741937		1.99539	219.583	76.2155
250	0.741937		2.07485	223.888	77.755
251	0.741937		2.17009	228.597	79.365
252	0.81978	2.29036	233.843	81.2426	
253	1.00796	2.45727	239.881	83.7194	
254	2.20827	2.74777	247.431	89.7873	

Data Set Standard Deviation = 0.41805
Numerator = 8061.75
Denominator = 10940.4
W Statistic = 0.736882 = 8061.75 / 10940.4

5% Critical value of 0.976 exceeds 0.736882
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.736882
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 = 0.860815
0.860815 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00392157	-2.74777	80.7901	348.683
2	-1.51413	0.00784314	-2.45727	90.9883	334.497
3	-1.30933	0.0117647	-2.29036	112.901	326.346
4	-1.20397	0.0156863	-2.17009	124.175	320.473
5	-0.967584	0.0196078	-2.07485	149.469	315.822
6	-0.916291	0.0235294	-1.99539	154.957	311.942
7	-0.916291	0.027451	-1.92684	154.957	308.594
8	-0.916291	0.0313725	-1.86629	154.957	305.637
9	-0.916291	0.0352941	-1.81191	154.957	302.982
10	-0.867501	0.0392157	-1.76241	160.177	300.564
11	-0.84397	0.0431373	-1.71688	162.695	298.341
12	-0.693147	0.0470588	-1.67466	178.833	296.279
13	-0.693147	0.0509804	-1.64485	178.833	294.824
14	-0.693147	0.054902	-1.60725	178.833	292.987
15	-0.693147	0.0588235	-1.57179	178.833	291.256
16	-0.693147	0.0627451	-1.5382	178.833	289.615
17	-0.693147	0.0666667	-1.50626	178.833	288.056
18	-0.693147	0.0705882	-1.47579	178.833	286.568
19	-0.693147	0.0745098	-1.44663	178.833	285.144
20	-0.693147	0.0784314	-1.41865	178.833	283.778
21	-0.693147	0.0823529	-1.39175	178.833	282.464
22	-0.693147	0.0862745	-1.36581	178.833	281.197
23	-0.693147	0.0901961	-1.34075	178.833	279.974
24	-0.693147	0.0941176	-1.31652	178.833	278.79
25	-0.693147	0.0980392	-1.29303	178.833	277.643
26	-0.693147	0.101961	-1.27588	178.833	276.805
27	-0.693147	0.105882	-1.25357	178.833	275.716
28	-0.693147	0.109804	-1.23187	178.833	274.656
29	-0.693147	0.113725	-1.21073	178.833	273.624
30	-0.693147	0.117647	-1.19012	178.833	272.617
31	-0.693147	0.121569	-1.17	178.833	271.635
32	-0.693147	0.12549	-1.15035	178.833	270.675
33	-0.693147	0.129412	-1.13113	178.833	269.737
34	-0.693147	0.133333	-1.11232	178.833	268.818
35	-0.693147	0.137255	-1.0939	178.833	267.919
36	-0.693147	0.141176	-1.07584	178.833	267.037
37	-0.693147	0.145098	-1.05812	178.833	266.172
38	-0.693147	0.14902	-1.04073	178.833	265.322
39	-0.693147	0.152941	-1.02789	178.833	264.695
40	-0.693147	0.156863	-1.01104	178.833	263.872
41	-0.693147	0.160784	-0.994457	178.833	263.063
42	-0.693147	0.164706	-0.97815	178.833	262.266
43	-0.693147	0.168627	-0.9621	178.833	261.483
44	-0.693147	0.172549	-0.946291	178.833	260.711
45	-0.693147	0.176471	-0.930718	178.833	259.95
46	-0.693147	0.180392	-0.915365	178.833	259.2
47	-0.693147	0.184314	-0.900227	178.833	258.461
48	-0.693147	0.188235	-0.885291	178.833	257.732

49	-0.693147	0.192157	-0.87055	178.833	257.012
50	-0.693147	0.196078	-0.855996	178.833	256.301
51	-0.693147	0.2	-0.841621	178.833	255.599
52	-0.693147	0.203922	-0.830953	178.833	255.078
53	-0.693147	0.207843	-0.816874	178.833	254.391
54	-0.693147	0.211765	-0.802956	178.833	253.711
55	-0.693147	0.215686	-0.789191	178.833	253.039
56	-0.693147	0.219608	-0.775574	178.833	252.374
57	-0.693147	0.223529	-0.7621	178.833	251.716
58	-0.693147	0.227451	-0.748762	178.833	251.065
59	-0.693147	0.231373	-0.735557	178.833	250.42
60	-0.693147	0.235294	-0.722479	178.833	249.781
61	-0.693147	0.239216	-0.709522	178.833	249.148
62	-0.693147	0.243137	-0.696684	178.833	248.521
63	-0.693147	0.247059	-0.68396	178.833	247.9
64	-0.693147	0.25098	-0.67449	178.833	247.438
65	-0.693147	0.254902	-0.661955	178.833	246.825
66	-0.693147	0.258824	-0.649522	178.833	246.218
67	-0.693147	0.262745	-0.637192	178.833	245.616
68	-0.693147	0.266667	-0.624956	178.833	245.019
69	-0.693147	0.270588	-0.612813	178.833	244.426
70	-0.693147	0.27451	-0.60076	178.833	243.837
71	-0.693147	0.278431	-0.588793	178.833	243.253
72	-0.693147	0.282353	-0.576911	178.833	242.672
73	-0.693147	0.286275	-0.565108	178.833	242.096
74	-0.634878	0.290196	-0.553384	185.068	241.524
75	-0.579818	0.294118	-0.541736	190.959	240.955
76	-0.356675	0.298039	-0.530162	214.836	240.39
77	-0.328504	0.301961	-0.521527	217.85	239.968
78	-0.287682	0.305882	-0.510074	222.218	239.409
79	-0.274437	0.309804	-0.498687	223.635	238.853
80	-0.198451	0.313725	-0.487364	231.766	238.3
81	-0.186330	0.317647	-0.476105	233.063	237.75
82	-0.105361	0.321569	-0.464904	241.726	237.203
83	-0.105361	0.32549	-0.453763	241.726	236.659
84	-0.040822	0.329412	-0.442676	248.632	236.117
85	-0.0202027	0.333333	-0.431644	250.838	235.579
86	0	0.337255	-0.420664	253	235.042
87	0	0.341176	-0.409735	253	234.509
88	0	0.345098	-0.398855	253	233.977
89	0	0.34902	-0.388022	253	233.448
90	0	0.352941	-0.379927	253	233.053
91	0	0.356863	-0.369171	253	232.528
92	0	0.360784	-0.358459	253	232.005
93	0	0.364706	-0.347787	253	231.484
94	0	0.368627	-0.337155	253	230.964
95	0	0.372549	-0.326561	253	230.447
96	0	0.376471	-0.316004	253	229.932
97	0	0.380392	-0.305481	253	229.418
98	0	0.384314	-0.294992	253	228.905
99	0	0.388235	-0.284535	253	228.395
100	0	0.392157	-0.27411	253	227.886
101	0	0.396078	-0.263715	253	227.378
102	0	0.4	-0.253347	253	226.872
103	0	0.403922	-0.24559	253	226.493
104	0	0.407843	-0.235269	253	225.989
105	0	0.411765	-0.224974	253	225.486
106	0	0.415686	-0.214702	253	224.985
107	0	0.419608	-0.204452	253	224.484
108	0	0.423529	-0.194225	253	223.985
109	0	0.427451	-0.184017	253	223.486
110	0	0.431373	-0.173829	253	222.989

111	0	0.435294	-0.163659	253	222.492
112	0	0.439216	-0.153505	253	221.996
113	0	0.443137	-0.143367	253	221.501
114	0	0.447059	-0.133244	253	221.007
115	0	0.45098	-0.125661	253	220.636
116	0	0.454902	-0.115562	253	220.143
117	0	0.458824	-0.105474	253	219.651
118	0	0.462745	-0.0953969	253	219.159
119	0	0.466667	-0.0853288	253	218.667
120	0	0.470588	-0.0752698	253	218.176
121	0	0.47451	-0.0652187	253	217.685
122	0	0.478431	-0.0551734	253	217.194
123	0	0.482353	-0.0451348	253	216.704
124	0	0.486275	-0.0350997	253	216.214
125	0	0.490196	-0.0250691	253	215.724
126	0	0.494118	-0.0150408	253	215.234
127	0	0.498039	-0.00501359	253	214.745
128	0	0.501961	0.00501359	253	214.255
129	0	0.505882	0.0150408	253	213.766
130	0	0.509804	0.0250691	253	213.276
131	0	0.513725	0.0350997	253	212.786
132	0	0.517647	0.0451348	253	212.296
133	0	0.521569	0.0551734	253	211.806
134	0	0.52549	0.0652187	253	211.315
135	0	0.529412	0.0752698	253	210.824
136	0	0.533333	0.0853288	253	210.333
137	0	0.537255	0.0953969	253	209.841
138	0	0.541176	0.105474	253	209.349
139	0	0.545098	0.115562	253	208.857
140	0	0.54902	0.125661	253	208.364
141	0	0.552941	0.133244	253	207.993
142	0	0.556863	0.143367	253	207.499
143	0	0.560784	0.153505	253	207.004
144	0	0.564706	0.163659	253	206.508
145	0	0.568627	0.173829	253	206.011
146	0	0.572549	0.184017	253	205.514
147	0	0.576471	0.194225	253	205.015
148	0	0.580392	0.204452	253	204.516
149	0	0.584314	0.214702	253	204.015
150	0	0.588235	0.224974	253	203.514
151	0	0.592157	0.235269	253	203.011
152	0	0.596078	0.24559	253	202.507
153	0	0.6	0.253347	253	202.128
154	0	0.603922	0.263715	253	201.622
155	0	0.607843	0.27411	253	201.114
156	0	0.611765	0.284535	253	200.605
157	0	0.615686	0.294992	253	200.095
158	0	0.619608	0.305481	253	199.582
159	0	0.623529	0.316004	253	199.068
160	0	0.627451	0.326561	253	198.553
161	0	0.631373	0.337155	253	198.036
162	0	0.635294	0.347787	253	197.516
163	0	0.639216	0.358459	253	196.995
164	0	0.643137	0.369171	253	196.472
165	0	0.647059	0.379927	253	195.947
166	0	0.65098	0.388022	253	195.552
167	0	0.654902	0.398855	253	195.023
168	0	0.658824	0.409735	253	194.491
169	0	0.662745	0.420664	253	193.958
170	0	0.666667	0.431644	253	193.421
171	0	0.670588	0.442676	253	192.883
172	0	0.67451	0.453763	253	192.341

173	0	0.678431	0.464904	253	191.797
174	0	0.682353	0.476105	253	191.25
175	0	0.686275	0.487364	253	190.7
176	0	0.690196	0.498687	253	190.147
177	0	0.694118	0.510074	253	189.591
178	0	0.698039	0.521527	253	189.032
179	0	0.701961	0.530162	253	188.61
180	0	0.705882	0.541736	253	188.045
181	0	0.709804	0.553384	253	187.476
182	0	0.713725	0.565108	253	186.904
183	0	0.717647	0.576911	253	186.328
184	0	0.721569	0.588793	253	185.747
185	0	0.72549	0.60076	253	185.163
186	0	0.729412	0.612813	253	184.574
187	0	0.733333	0.624956	253	183.981
188	0	0.737255	0.637192	253	183.384
189	0	0.741176	0.649522	253	182.782
190	0	0.745098	0.661955	253	182.175
191	0	0.74902	0.67449	253	181.562
192	0	0.752941	0.68396	253	181.1
193	0	0.756863	0.696684	253	180.479
194	0	0.760784	0.709522	253	179.852
195	0	0.764706	0.722479	253	179.219
196	0	0.768627	0.735557	253	178.58
197	0	0.772549	0.748762	253	177.935
198	0	0.776471	0.7621	253	177.284
199	0	0.780392	0.775574	253	176.626
200	0	0.784314	0.789191	253	175.961
201	0	0.788235	0.802956	253	175.289
202	0	0.792157	0.816874	253	174.609
203	0	0.796078	0.830953	253	173.922
204	0	0.8	0.841621	253	173.401
205	0	0.803922	0.855996	253	172.699
206	0	0.807843	0.87055	253	171.988
207	0	0.811765	0.885291	253	171.268
208	0	0.815686	0.900227	253	170.539
209	0	0.819608	0.915365	253	169.8
210	0	0.823529	0.930718	253	169.05
211	0	0.827451	0.946291	253	168.289
212	0	0.831373	0.9621	253	167.517
213	0	0.835294	0.97815	253	166.734
214	0	0.839216	0.994457	253	165.937
215	0	0.843137	1.01104	253	165.128
216	0	0.847059	1.02789	253	164.305
217	0	0.85098	1.04073	253	163.678
218	0	0.854902	1.05812	253	162.828
219	0	0.858824	1.07584	253	161.963
220	0	0.862745	1.0939	253	161.081
221	0	0.866667	1.11232	253	160.182
222	0	0.870588	1.13113	253	159.263
223	0	0.87451	1.15035	253	158.325
224	0	0.878431	1.17	253	157.365
225	0	0.882353	1.19012	253	156.383
226	0	0.886275	1.21073	253	155.376
227	0	0.890196	1.23187	253	154.344
228	0	0.894118	1.25357	253	153.284
229	0	0.898039	1.27588	253	152.195
230	0	0.901961	1.29303	253	151.357
231	0	0.905882	1.31652	253	150.21
232	0	0.909804	1.34075	253	149.026
233	0	0.913725	1.36581	253	147.803
234	0	0.917647	1.39175	253	146.536

235	0	0.921569	1.41865	253	145.222	
236	0	0.92549	1.44663	253	143.856	
237	0	0.929412	1.47579	253	142.432	
238	0	0.933333	1.50626	253	140.944	
239	0	0.937255	1.5382	253	139.385	
240	0	0.941176	1.57179	253	137.744	
241	0	0.945098	1.60725	253	136.013	
242	0	0.94902	1.64485	253	134.176	
243	0.0953102	0.952941	1.67466	263.198	132.721	
244	0.182322	0.956863	1.71688	272.508	130.659	
245	0.207014	0.960784	1.76241	275.151	128.436	
246	0.385262	0.964706	1.81191	294.223	126.018	
247	0.530628	0.968627	1.86629	309.777	123.363	
248	0.641854	0.972549	1.92684	321.678	120.406	
249	0.741937	0.976471	1.99539	332.387	117.058	
250	0.741937	0.980392	2.07485	332.387	113.178	
251	0.741937	0.984314	2.17009	332.387	108.527	
252	0.81978	0.988235	2.29036	340.716	102.654	
253	1.00796	0.992157	2.45727	360.851	94.5032	
254	2.20827	0.996078	2.74777	489.285	80.3175	

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	110
	9/23/1999	ND<0	110
	3/15/2000	ND<0	110
	9/24/2003	ND<0	110
	3/11/2004	ND<0	110
	10/12/2004	ND<0	110
	4/1/2005	ND<0	110
	10/25/2005	ND<0	110
	4/29/2006	ND<0	110
	11/18/2006	ND<0	110
	5/23/2007	ND<0	110
	11/28/2007	ND<0	110
	6/5/2008	ND<0	110
	11/20/2008	ND<0	110
	6/11/2009	ND<-0.693147	110
	11/16/2009	ND<-0.693147	110
	6/30/2010	ND<-0.693147	110
	11/12/2010	ND<-0.693147 U	110
	7/5/2011	ND<-0.693147 U	110

Rank Sum = 2090
Rank Mean = 110

Background Rank Sum = 2090
Background Rank Mean = 110

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<0	110
	8/24/1995	-1.30933 J	222
	9/28/1995	ND<0	110
	10/26/1995	-0.916291 J	225
	11/19/1996	ND<0	110
	12/19/1996	ND<0	110
	3/24/1997	ND<0	110
	9/24/1997	ND<0	110
	4/7/1998	ND<0	110
	9/23/1998	ND<0	110
	3/16/1999	ND<0	110
	9/23/1999	ND<0	110
	3/15/2000	ND<0	110
	9/24/2003	ND<0	110
	3/11/2004	ND<0	110
	10/12/2004	ND<0	110
	4/1/2005	ND<0	110
	10/25/2005	ND<0	110
	4/29/2006	ND<0	110
	11/18/2006	ND<0	110
	5/23/2007	ND<0	110

	11/28/2007	ND<0	110	
	6/5/2008	ND<0	110	
	11/20/2008	ND<0	110	
	6/11/2009	ND<-0.693147		110
	11/16/2009	ND<-0.693147		110
	6/30/2010	ND<-0.693147		110
	11/12/2010	ND<-0.693147 U		110
	7/5/2011	ND<-0.693147 U	110	
	11/22/2011	ND<-0.693147 U		110
	11/22/2011	ND<-0.693147 U		110
	6/5/2012	ND<-0.693147 U	110	

Rank Sum = 3747
Rank Mean = 117.094

MW-8	7/20/1995	ND<0	110	
	8/24/1995	ND<0	110	
	9/28/1995	ND<0	110	
	10/26/1995	ND<0	110	
	11/19/1996	ND<0	110	
	12/19/1996	ND<0	110	
	3/24/1997	ND<0	110	
	9/24/1997	ND<0	110	
	4/7/1998	ND<0	110	
	9/23/1998	ND<0	110	
	3/16/1999	ND<0	110	
	9/23/1999	ND<0	110	
	3/15/2000	ND<0	110	
	9/24/2003	ND<0	110	
	3/11/2004	ND<0	110	
	10/12/2004	ND<0	110	
	4/1/2005	-0.274437 J	236	
	10/25/2005	-0.040822 J		241
	4/29/2006	-1.20397 J		223
	11/18/2006	-0.967584 J		224
	5/23/2007	ND<0	110	
	11/28/2007	ND<0	110	
	6/5/2008	ND<0	110	
	11/20/2008	0.0953102 J		243
	6/11/2009	2.20827		254
	6/30/2010	ND<-0.693147		110
	11/12/2010	0.641854		248
	7/5/2011	ND<-0.693147 U	110	
	11/22/2011	0.741937		249
	11/22/2011	0.741937		250
	6/5/2012	ND<-0.693147 U	110	

Rank Sum = 4588
Rank Mean = 148

MW-9	7/20/1995	ND<0	110	
	8/24/1995	ND<0	110	
	9/28/1995	ND<0	110	
	10/26/1995	ND<0	110	
	11/19/1996	ND<0	110	
	12/19/1996	ND<0	110	
	3/24/1997	ND<0	110	
	9/24/1997	ND<0	110	
	4/7/1998	ND<0	110	
	9/23/1998	ND<0	110	
	3/16/1999	ND<0	110	
	9/23/1999	ND<0	110	
	3/15/2000	ND<0	110	
	9/24/2003	ND<0	110	

	3/11/2004	ND<0		110
	10/12/2004	ND<0		110
	4/1/2005	ND<0		110
	10/25/2005	ND<0		110
	4/29/2006	ND<0		110
	11/18/2006	-1.51413	J	221
	5/23/2007	ND<0		110
	11/28/2007	-0.634878	J	231
	6/5/2008	-0.84397	J	230
	11/20/2008	ND<0		110
	6/11/2009	ND<-0.693147		110
	11/16/2009	ND<-0.693147		110
	6/30/2010	ND<-0.693147		110
	11/12/2010	ND<-0.693147	U	110
	7/5/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	6/5/2012	ND<-0.693147	U	110

Rank Sum = 3872
Rank Mean = 121

MW-6	7/20/1995	ND<0		110
	8/24/1995	ND<0		110
	9/28/1995	ND<0		110
	10/26/1995	ND<0		110
	11/19/1996	ND<0		110
	12/19/1996	ND<0		110
	3/24/1997	ND<0		110
	9/24/1997	ND<0		110
	4/7/1998	ND<0		110
	9/23/1998	ND<0		110
	3/16/1999	ND<0		110
	9/23/1999	ND<0		110
	3/15/2000	ND<0		110
	9/24/2003	ND<0		110
	3/11/2004	ND<0		110
	10/12/2004	ND<0		110
	4/1/2005	ND<0		110
	10/25/2005	ND<0		110
	4/29/2006	ND<0		110
	11/18/2006	ND<0		110
	5/23/2007	ND<0		110
	11/28/2007	ND<0		110
	6/5/2008	ND<0		110
	11/20/2008	ND<0		110
	6/11/2009	ND<-0.693147		110
	11/16/2009	ND<-0.693147		110
	6/30/2010	ND<-0.693147		110
	11/12/2010	ND<-0.693147	U	110
	7/5/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	6/5/2012	ND<-0.693147	U	110

Rank Sum = 3520
Rank Mean = 110

MW-11R	7/20/1995	-0.916291	J	226
	8/24/1995	ND<0		110
	9/28/1995	-0.916291	J	227
	10/26/1995	-0.356675	J	233
	11/19/1996	ND<0		110
	12/19/1996	ND<0		110

	3/24/1997	ND<0		110
	9/24/1997	ND<0		110
	4/7/1998	ND<0		110
	9/23/1998	ND<0		110
	3/16/1999	ND<0		110
	9/23/1999	ND<0		110
	3/15/2000	ND<0		110
	9/24/2003	ND<0		110
	3/11/2004	ND<0		110
	10/12/2004	ND<0		110
	4/1/2005	ND<0		110
	10/25/2005	-0.867501	J	229
	4/29/2006	-0.579818	J	232
	11/18/2006	-0.198451	J	237
	5/23/2007	ND<0		110
	11/28/2007	-1.60944	J	220
	6/5/2008	ND<0		110
	11/20/2008	ND<0		110
	6/11/2009	ND<-0.693147		110
	11/16/2009	ND<-0.693147		110
	6/30/2010	ND<-0.693147		110
	11/12/2010	ND<-0.693147	U	110
	7/5/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	6/5/2012	ND<-0.693147	U	110

Rank Sum = 4354
Rank Mean = 136.063

MW-7	7/20/1995	0.182322	J	244
	8/24/1995	-0.287682	J	235
	9/28/1995	-0.105361	J	239
	10/26/1995	-0.105361	J	240
	11/19/1996	ND<0		110
	12/19/1996	ND<0		110
	3/24/1997	ND<0		110
	9/24/1997	ND<0		110
	4/7/1998	ND<0		110
	9/23/1998	ND<0		110
	3/16/1999	ND<0		110
	9/23/1999	ND<0		110
	3/15/2000	ND<0		110
	9/24/2003	ND<0		110
	3/11/2004	ND<0		110
	10/12/2004	ND<0		110
	4/1/2005	1.00796		253
	10/25/2005	0.385262	J	246
	4/29/2006	0.81978		252
	11/18/2006	-0.328504	J	234
	5/23/2007	ND<0		110
	11/28/2007	-0.0202027	J	242
	6/5/2008	-0.18633	J	238
	11/20/2008	0.207014	J	245
	6/11/2009	ND<-0.693147		110
	11/16/2009	ND<-0.693147		110
	6/30/2010	ND<-0.693147		110
	11/12/2010	ND<-0.693147	U	110
	7/5/2011	0.530628		247
	11/22/2011	ND<-0.693147	U	110
	11/22/2011	ND<-0.693147	U	110
	6/5/2012	0.741937		251

Rank Sum = 5256

Rank Mean = 164.25

MW-12AR	3/16/1999	ND<0	110	
	9/23/1999	ND<0	110	
	3/15/2000	ND<0	110	
	9/24/2003	ND<0	110	
	3/11/2004	ND<0	110	
	10/12/2004	ND<0	110	
	4/1/2005	ND<0	110	
	10/25/2005	ND<0	110	
	4/29/2006	ND<0	110	
	11/18/2006	ND<0	110	
	5/23/2007	ND<0	110	
	11/28/2007	ND<0	110	
	6/5/2008	ND<0	110	
	11/20/2008	ND<0	110	
	6/11/2009	ND<-0.693147	110	
	11/16/2009	ND<-0.693147	110	
	6/30/2010	ND<-0.693147	110	
	11/12/2010	ND<-0.693147 U	110	
	7/5/2011	ND<-0.693147 U	110	
	11/22/2011	ND<-0.693147 U	110	
	11/22/2011	ND<-0.693147 U	110	
	6/5/2012	ND<-0.693147 U	110	

Rank Sum = 2420
Rank Mean = 110

MW-12BR	3/16/1999	ND<0	110	
	9/23/1999	ND<0	110	
	3/15/2000	ND<0	110	
	9/24/2003	ND<0	110	
	3/11/2004	ND<0	110	
	10/12/2004	ND<0	110	
	4/1/2005	-0.916291 J	228	
	10/25/2005	ND<0	110	
	4/29/2006	ND<0	110	
	11/18/2006	ND<0	110	
	5/23/2007	ND<0	110	
	11/28/2007	ND<0	110	
	6/5/2008	ND<0	110	
	11/20/2008	ND<0	110	
	6/11/2009	ND<-0.693147	110	
	11/16/2009	ND<-0.693147	110	
	6/30/2010	ND<-0.693147	110	
	11/12/2010	ND<-0.693147 U	110	
	7/5/2011	ND<-0.693147 U	110	
	11/22/2011	ND<-0.693147 U	110	
	11/22/2011	ND<-0.693147 U	110	
	6/5/2012	ND<-0.693147 U	110	

Rank Sum = 2538
Rank Mean = 115.364

Calculation Results:

Kruskal-Wallis H Statistic = 16.4902
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 45.9282
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
16.4902 > 15.5073 indicating a significant group difference at 5% significance level
45.9282 > 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

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	117.094	7.09375	49.4998
MW-8	148	38	49.7963
MW-9	121	11	49.4998
MW-6	110	0	49.4998
MW-11R	136.063	26.0625	49.4998
MW-7	164.25	54.25	49.4998
MW-12AR	110	0	53.5271
MW-12BR	115.364	5.36364	53.5271

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

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	117.094	7.09375	53.453
MW-8	148	38	53.7733
MW-9	121	11	53.453
MW-6	110	0	53.453
MW-11R	136.063	26.0625	53.453
MW-7	164.25	54.25	53.453
MW-12AR	110	0	57.802
MW-12BR	115.364	5.36364	57.802

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	-0.186336	12.691	-0.857175
6/5/2008	-0.186336	12.691	-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	
6/5/2012	0.741937	4.09637	5.09637	
6/5/2012	0.741937	4.09637	5.09637	

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
0.741937 (6/5/2012) 0.182322 J (7/20/1995) (0.741937 - 0.182322)/(31 - 1)
0.0186539

-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
0.741937 (6/5/2012) -0.287682 J (8/24/1995) (0.741937 - -0.287682)/(31 - 2)
0.0355041

-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
0.741937 (6/5/2012) -0.105361 J (9/28/1995) (0.741937 - -0.105361)/(31 - 3)
0.0302606

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
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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<-0.693147 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<-0.693147 (6/11/2009) (-0.693147 -
-0.693147)/(30 - 25) 0
0.741937 (6/5/2012) ND<-0.693147 (6/11/2009) (0.741937 - -0.693147)/(31 - 25)
0.239181

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)
0.407925
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
0.741937 (6/5/2012) ND<-0.693147 (11/16/2009) (0.741937 - -0.693147)/(31 - 26)
0.287017

ND<-0.693147 U (11/12/2010) ND<-0.693147 (6/30/2010) (-0.693147 -
-0.693147)/(28 - 27) 0
0.530628 (7/5/2011) ND<-0.693147 (6/30/2010) (0.530628 - -0.693147)/(29 - 27)
0.611888

ND<-0.693147 U (11/22/2011) ND<-0.693147 (6/30/2010) (-0.693147 -
-0.693147)/(30 - 27) 0
ND<-0.693147 U (11/22/2011) ND<-0.693147 (6/30/2010) (-0.693147 -
-0.693147)/(30 - 27) 0
0.741937 (6/5/2012) ND<-0.693147 (6/30/2010) (0.741937 - -0.693147)/(31 - 27)
0.358771

0.530628 (7/5/2011) ND<-0.693147 U (11/12/2010) (0.530628 - -0.693147)/(29 - 28)
1.22378
ND<-0.693147 U (11/22/2011) ND<-0.693147 U (11/12/2010) (-0.693147 -
-0.693147)/(30 - 28) 0
ND<-0.693147 U (11/22/2011) ND<-0.693147 U (11/12/2010) (-0.693147 -
-0.693147)/(30 - 28) 0
0.741937 (6/5/2012) ND<-0.693147 U (11/12/2010) (0.741937 - -0.693147)/(31 - 28)
0.478362

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
0.741937 (6/5/2012) 0.530628 (7/5/2011) (0.741937 - 0.530628)/(31 - 29)
0.105655

ND<-0.693147 U (11/22/2011) ND<-0.693147 U (11/22/2011) (-0.693147 -
-0.693147)/(30 - 30) Same Date
0.741937 (6/5/2012) ND<-0.693147 U (11/22/2011) (0.741937 - -0.693147)/(31 - 30)
1.43508

0.741937 (6/5/2012) ND<-0.693147 U (11/22/2011) (0.741937 - -0.693147)/(31 - 30)
1.43508

Number of Q values = 495

Ordered Q Values

n	Q
1	-1.22378
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
70	-0.0693147
71	-0.0657008
72	-0.0630134
73	-0.0630134
74	-0.0630134
75	-0.0607739
76	-0.0577623
77	-0.0577623
78	-0.0577623
79	-0.0577623
80	-0.0547507
81	-0.053319
82	-0.053319
83	-0.053319
84	-0.053319
85	-0.0520919
86	-0.0495105
87	-0.0495105

88	-0.0495105
89	-0.0495105
90	-0.0495105
91	-0.0495105
92	-0.0469292
93	-0.0462098
94	-0.0462098
95	-0.0462098
96	-0.0462098
97	-0.0462098
98	-0.0462098
99	-0.0455804
100	-0.0455804
101	-0.0433217
102	-0.0433217
103	-0.0433217
104	-0.0433217
105	-0.0433217
106	-0.0433217
107	-0.041063
108	-0.0407734
109	-0.0407734
110	-0.0407734
111	-0.0407734
112	-0.0407734
113	-0.0407734
114	-0.0397775
115	-0.0385082
116	-0.0385082
117	-0.0385082
118	-0.0385082
119	-0.0385082
120	-0.0385082
121	-0.0365005
122	-0.0364814
123	-0.0364814
124	-0.0364814
125	-0.0364814
126	-0.0364814
127	-0.0364814
128	-0.0364779
129	-0.0364643
130	-0.0364643
131	-0.0364643
132	-0.0350187
133	-0.0346574
134	-0.0346574
135	-0.0346574
136	-0.0346574
137	-0.0346574
138	-0.0346574
139	-0.0336719
140	-0.033007
141	-0.033007
142	-0.033007
143	-0.033007
144	-0.033007
145	-0.0328504
146	-0.0324248
147	-0.0315067
148	-0.0315067
149	-0.0315067

150	-0.0315067
151	-0.0303869
152	-0.0301886
153	-0.0301886
154	-0.0301368
155	-0.0301368
156	-0.0301368
157	-0.029864
158	-0.029708
159	-0.0289152
160	-0.0288811
161	-0.0288811
162	-0.0279898
163	-0.0277259
164	-0.0277259
165	-0.0273753
166	-0.0268856
167	-0.0267176
168	-0.0267176
169	-0.0266185
170	-0.0260459
171	-0.0255559
172	-0.0255559
173	-0.0252695
174	-0.0244911
175	-0.0244911
176	-0.0235115
177	-0.0234646
178	-0.0232912
179	-0.0227902
180	-0.0226072
181	-0.0226072
182	-0.0219003
183	-0.0217699
184	-0.0217699
185	-0.0207033
186	-0.020258
187	-0.0202027
188	-0.0190015
189	-0.018633
190	-0.0182322
191	-0.0176289
192	-0.0169391
193	-0.0168944
194	-0.0167569
195	-0.0165747
196	-0.0162186
197	-0.0155948
198	-0.0155275
199	-0.0151935
200	-0.0144809
201	-0.0144809
202	-0.014333
203	-0.0140247
204	-0.0139465
205	-0.0133093
206	-0.0131261
207	-0.013023
208	-0.012422
209	-0.0121548
210	-0.0116456
211	-0.0109606

212	-0.0103516
213	-0.00964401
214	-0.00911608
215	-0.00648687
216	-0.00426153
217	-0.00404845
218	-0.00336712
219	-0.0028861
220	-0.00252534
221	-0.00226789
222	-0.00224475
223	-0.00202027
224	-0.00183661
225	-0.00168356
226	-0.00155405
227	-0.00144305
228	-0.00134685
229	-0.00126267
230	-0.00118839
231	0
232	0
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237	0
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240	0
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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	0.00107359
325	0.00448199
326	0.00473099
327	0.00482631
328	0.00585336
329	0.00619768
330	0.00810466
331	0.00878004
332	0.00878004
333	0.00957823
334	0.00957823
335	0.0105361

336	0.0105361
337	0.0108955
338	0.0115008
339	0.0117067
340	0.0117067
341	0.0119377
342	0.0121773
343	0.0124395
344	0.0129384
345	0.0131701
346	0.0131701
347	0.0132151
348	0.013374
349	0.0138009
350	0.0147867
351	0.014875
352	0.0150515
353	0.0150515
354	0.0151412
355	0.0156187
356	0.0159242
357	0.0172512
358	0.0175601
359	0.0175601
360	0.0186539
361	0.0188195
362	0.0205487
363	0.0207014
364	0.0210721
365	0.0210721
366	0.0221095
367	0.0221294
368	0.0224862
369	0.0230016
370	0.0230708
371	0.0239735
372	0.0241195
373	0.0244611
374	0.025268
375	0.0254396
376	0.0258768
377	0.0261529
378	0.0263401
379	0.0263401
380	0.0265314
381	0.0274365
382	0.0279278
383	0.0285361
384	0.0287682
385	0.0294793
386	0.0296356
387	0.0296775
388	0.0302606
389	0.0303078
390	0.0309141
391	0.0312134
392	0.0313814
393	0.0319647
394	0.0321052
395	0.0322581
396	0.0327082
397	0.0331643

398	0.0337244
399	0.0350239
400	0.0350445
401	0.0351202
402	0.0351202
403	0.0353303
404	0.0353752
405	0.0354143
406	0.0355041
407	0.0359603
408	0.0370969
409	0.037902
410	0.0385262
411	0.0390493
412	0.0408176
413	0.0410974
414	0.0412187
415	0.042059
416	0.0428069
417	0.0436434
418	0.0463711
419	0.0473915
420	0.047947
421	0.0481578
422	0.0494625
423	0.0516023
424	0.0526803
425	0.0526803
426	0.0550375
427	0.0575364
428	0.0578213
429	0.0585557
430	0.061676
431	0.06306
432	0.0642104
433	0.0647228
434	0.0651448
435	0.0663285
436	0.068315
437	0.0690047
438	0.0719205
439	0.0741937
440	0.0745254
441	0.0764176
442	0.0770525
443	0.0786901
444	0.0795227
445	0.081978
446	0.0839965
447	0.0846822
448	0.0856399
449	0.086376
450	0.0910866
451	0.0911608
452	0.0916325
453	0.0954591
454	0.095894
455	0.0963156
456	0.0973129
457	0.100796
458	0.102472
459	0.105361

460	0.105655
461	0.111995
462	0.113608
463	0.116033
464	0.117111
465	0.119493
466	0.125995
467	0.128421
468	0.13388
469	0.13663
470	0.143994
471	0.154151
472	0.163956
473	0.167993
474	0.182322
475	0.192631
476	0.201592
477	0.204945
478	0.239181
479	0.251989
480	0.27326
481	0.287017
482	0.305944
483	0.328504
484	0.335986
485	0.358771
486	0.393344
487	0.407925
488	0.434517
489	0.478362
490	0.503979
491	0.611888
492	1.00796
493	1.22378
494	1.43508
495	1.43508

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 5364
B = 18
C = 1836
D = 0
E = 188
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3503.86
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 97.3644
M1 = (495 - 97.3644)/2.0 = 198.818
M2 = (495 + 97.3644)/2.0 + 1 = 297.182
Lower limit is -0.0151935 = Q(199)
Upper limit is 0 = Q(297)
-0.0151935 < 0 < 0 indicating no trend in data.

Concentrations (ppb)

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 173
Percent Non-Detects: 69.7581%
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-10	31	27 (87.0968%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U
MW-8	30	23 (76.6667%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U
MW-6	31	22 (70.9677%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-11R	32	25 (78.125%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-9	32	26 (81.25%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-7	31	16 (51.6129%)	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	
			6/5/2012	0.29 J	0.29 J	
MW-12BR	21	10 (47.619%)	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		
		6/5/2012	0.26 J	0.26 J		
MW-12AR	21	9 (42.8571%)	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		
		6/5/2012	0.37	0.37		

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 = 248

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	-1.91103	34.3095	-0.616188
8	0.04	-1.85218	37.7401	-0.690275
9	0.04	-1.79912	40.9769	-0.76224
10	0.04	-1.75069	44.0418	-0.832267
11	0.04	-1.70604	46.9524	-0.900509
12	0.04	-1.66456	49.7231	-0.967091
13	0.04	-1.62576	52.3662	-1.03212
14	0.04	-1.58927	54.892	-1.09569
15	0.04	-1.55477	57.3093	-1.15788
16	0.04	-1.52203	59.6259	-1.21876
17	0.04	-1.49085	61.8486	-1.2784
18	0.04	-1.46106	63.9833	-1.33684
19	0.04	-1.4325	66.0353	-1.39414
20	0.04	-1.40507	68.0096	-1.45034
21	0.04	-1.37866	69.9102	-1.50549
22	0.04	-1.35317	71.7413	-1.55962
23	0.04	-1.32854	73.5063	-1.61276
24	0.04	-1.30469	75.2086	-1.66495
25	0.04	-1.28155	76.8509	-1.71621
26	0.04	-1.25908	78.4362	-1.76657
27	0.04	-1.23724	79.967	-1.81606
28	0.04	-1.21596	81.4455	-1.8647
29	0.04	-1.19522	82.8741	-1.91251
30	0.04	-1.17499	84.2547	-1.95951
31	0.04	-1.15522	85.5892	-2.00572
32	0.04	-1.1359	86.8795	-2.05115
33	0.04	-1.11699	88.1271	-2.09583
34	0.04	-1.09847	89.3338	-2.13977
35	0.085	-1.08032	90.5009	-2.2316
36	0.09	-1.06252	91.6298	-2.32723
37	0.11	-1.04505	92.7219	-2.44218
38	0.12	-1.02789	93.7785	-2.56553
39	0.12	-1.01104	94.8007	-2.68685
40	0.14	-0.994457	95.7896	-2.82608
41	0.15	-0.97815	96.7464	-2.9728
42	0.15	-0.9621	97.6721	-3.11711
43	0.16	-0.946291	98.5675	-3.26852
44	0.16	-0.930718	99.4338	-3.41743
45	0.17	-0.915365	100.272	-3.57305
46	0.17	-0.900227	101.082	-3.72609
47	0.18	-0.885291	101.866	-3.88544
48	0.19	-0.87055	102.624	-4.05084
49	0.26	-0.855996	103.356	-4.2734
50	0.26	-0.841621	104.065	-4.49222
51	0.27	-0.827417	104.749	-4.71563

52	0.28	-0.813379	105.411	-4.94337
53	0.29	-0.7995	106.05	-5.17523
54	0.34	-0.785774	106.668	-5.44239
55	0.34	-0.772193	107.264	-5.70494
56	0.37	-0.758753	107.84	-5.98567
57	0.44	-0.745449	108.395	-6.31367
58	0.45	-0.732275	108.931	-6.6432
59	0.49	-0.719228	109.449	-6.99562
60	0.5	-0.706302	109.948	-7.34877
61	0.5	-0.693493	110.429	-7.69552
62	0.5	-0.680797	110.892	-8.03591
63	0.5	-0.665079	111.334	-8.36845
64	0.5	-0.652622	111.76	-8.69476
65	0.5	-0.640266	112.17	-9.0149
66	0.5	-0.628006	112.565	-9.3289
67	0.5	-0.615839	112.944	-9.63682
68	0.5	-0.603765	113.308	-9.9387
69	0.5	-0.591776	113.659	-10.2346
70	0.5	-0.579873	113.995	-10.5245
71	0.5	-0.568052	114.318	-10.8086
72	0.5	-0.556308	114.627	-11.0867
73	0.5	-0.544642	114.924	-11.359
74	0.5	-0.533048	115.208	-11.6256
75	0.5	-0.521527	115.48	-11.8863
76	0.5	-0.510074	115.74	-12.1414
77	0.5	-0.498687	115.989	-12.3907
78	0.5	-0.487364	116.226	-12.6344
79	0.5	-0.476105	116.453	-12.8724
80	0.5	-0.464904	116.669	-13.1049
81	0.5	-0.453763	116.875	-13.3318
82	0.5	-0.442676	117.071	-13.5531
83	0.5	-0.431644	117.257	-13.7689
84	0.5	-0.420664	117.434	-13.9793
85	0.5	-0.409735	117.602	-14.1841
86	0.5	-0.398855	117.761	-14.3836
87	0.5	-0.388022	117.912	-14.5776
88	0.5	-0.377233	118.054	-14.7662
89	0.5	-0.36649	118.188	-14.9494
90	0.5	-0.355788	118.315	-15.1273
91	0.5	-0.345126	118.434	-15.2999
92	0.5	-0.334503	118.546	-15.4671
93	0.5	-0.323919	118.651	-15.6291
94	0.5	-0.31337	118.749	-15.7858
95	0.5	-0.302855	118.841	-15.9372
96	0.5	-0.292375	118.926	-16.0834
97	0.5	-0.281926	119.006	-16.2244
98	0.5	-0.271509	119.079	-16.3601
99	0.5	-0.26112	119.148	-16.4907
100	0.5	-0.250759	119.21	-16.616
101	0.5	-0.240426	119.268	-16.7363
102	0.5	-0.230118	119.321	-16.8513
103	0.5	-0.219834	119.37	-16.9612
104	0.5	-0.209575	119.413	-17.066
105	0.5	-0.199336	119.453	-17.1657
106	0.5	-0.189118	119.489	-17.2603
107	0.5	-0.17892	119.521	-17.3497
108	0.5	-0.168741	119.549	-17.4341
109	0.5	-0.158579	119.575	-17.5134
110	0.5	-0.148434	119.597	-17.5876
111	0.5	-0.138305	119.616	-17.6567
112	0.5	-0.128189	119.632	-17.7208
113	0.5	-0.118085	119.646	-17.7799

114	0.5	-0.107995	119.658	-17.8339
115	0.5	-0.0979139	119.667	-17.8828
116	0.5	-0.0878447	119.675	-17.9268
117	0.5	-0.0777834	119.681	-17.9656
118	0.5	-0.0677301	119.686	-17.9995
119	0.5	-0.0576847	119.689	-18.0284
120	0.5	-0.0476439	119.691	-18.0522
121	0.5	-0.0376076	119.693	-18.071
122	0.5	-0.0275759	119.694	-18.0848
123	0.5	-0.0175476	119.694	-18.0935
124	0.5	-0.00751925	119.694	-18.0973
125	0.5	0.00751925	119.694	-18.0935
126	0.5	0.0175476	119.694	-18.0848
127	0.5	0.0275759	119.695	-18.071
128	0.5	0.0376076	119.696	-18.0522
129	0.5	0.0476439	119.699	-18.0284
130	0.5	0.0576847	119.702	-17.9995
131	0.5	0.0677301	119.707	-17.9656
132	0.5	0.0777834	119.713	-17.9268
133	0.5	0.0878447	119.72	-17.8828
134	0.5	0.0979139	119.73	-17.8339
135	0.5	0.107995	119.742	-17.7799
136	0.5	0.118085	119.756	-17.7208
137	0.5	0.128189	119.772	-17.6567
138	0.5	0.138305	119.791	-17.5876
139	0.5	0.148434	119.813	-17.5134
140	0.5	0.158579	119.838	-17.4341
141	0.5	0.168741	119.867	-17.3497
142	0.5	0.17892	119.899	-17.2603
143	0.5	0.189118	119.935	-17.1657
144	0.5	0.199336	119.974	-17.066
145	0.5	0.209575	120.018	-16.9612
146	0.5	0.219834	120.067	-16.8513
147	0.5	0.230118	120.119	-16.7363
148	0.5	0.240426	120.177	-16.616
149	0.5	0.250759	120.24	-16.4907
150	0.5	0.26112	120.308	-16.3601
151	0.5	0.271509	120.382	-16.2244
152	0.5	0.281926	120.462	-16.0834
153	0.5	0.292375	120.547	-15.9372
154	0.5	0.302855	120.639	-15.7858
155	0.5	0.31337	120.737	-15.6291
156	0.5	0.323919	120.842	-15.4671
157	0.5	0.334503	120.954	-15.2999
158	0.5	0.345126	121.073	-15.1273
159	0.5	0.355788	121.199	-14.9494
160	0.5	0.36649	121.334	-14.7662
161	0.5	0.377233	121.476	-14.5776
162	0.5	0.388022	121.627	-14.3836
163	0.5	0.398855	121.786	-14.1841
164	0.5	0.409735	121.954	-13.9793
165	0.5	0.420664	122.131	-13.7689
166	0.5	0.431644	122.317	-13.5531
167	0.5	0.442676	122.513	-13.3318
168	0.5	0.453763	122.719	-13.1049
169	0.5	0.464904	122.935	-12.8724
170	0.5	0.476105	123.162	-12.6344
171	0.5	0.487364	123.399	-12.3907
172	0.5	0.498687	123.648	-12.1414
173	0.5	0.510074	123.908	-11.8863
174	0.5	0.521527	124.18	-11.6256
175	0.5	0.533048	124.464	-11.359

176	0.5	0.544642		124.761	-11.0867
177	0.5	0.556308		125.07	-10.8086
178	0.5	0.568052		125.393	-10.5245
179	0.5	0.579873		125.729	-10.2346
180	0.5	0.591776		126.079	-9.9387
181	0.5	0.603765		126.444	-9.63682
182	0.5	0.615839		126.823	-9.3289
183	0.5	0.628006		127.218	-9.0149
184	0.5	0.640266		127.627	-8.69476
185	0.5	0.652622		128.053	-8.36845
186	0.5	0.665079		128.496	-8.03591
187	0.5	0.680797		128.959	-7.69552
188	0.5	0.693493		129.44	-7.34877
189	0.5	0.706302		129.939	-6.99562
190	0.5	0.719228		130.456	-6.636
191	0.5	0.732275		130.993	-6.26987
192	0.5	0.745449		131.548	-5.89714
193	0.5	0.758753		132.124	-5.51776
194	0.5	0.772193		132.72	-5.13167
195	0.5	0.785774		133.338	-4.73878
196	0.5	0.7995	133.977	-4.33903	
197	0.5	0.813379		134.638	-3.93234
198	0.5	0.827417		135.323	-3.51863
199	0.5	0.841621		136.031	-3.09782
200	0.522	0.855996		136.764	-2.65099
201	0.54	0.87055	137.522	-2.1809	
202	0.623	0.885291		138.306	-1.62936
203	0.636	0.900227		139.116	-1.05681
204	0.658	0.915365		139.954	-0.454504
205	0.66	0.930718		140.82	0.159769
206	0.68	0.946291		141.716	0.803247
207	0.72	0.9621	142.641	1.49596	
208	0.734	0.97815	143.598	2.21392	
209	0.738	0.994457		144.587	2.94783
210	0.819	1.01104	145.609	3.77587	
211	1.22	1.02789	146.666	5.0299	
212	2.72	1.04505	147.758	7.87243	
213	3	1.06252	148.887	11.06	
214	3	1.08032	150.054	14.301	
215	3.3	1.09847	151.261	17.9259	
216	3.4	1.11699	152.508	21.7237	
217	3.5	1.1359	153.799	25.6993	
218	3.7	1.15522	155.133	29.9736	
219	3.8	1.17499	156.514	34.4386	
220	4	1.19522	157.942	39.2195	
221	4.8	1.21596	159.421	45.0561	
222	5	1.23724	160.952	51.2422	
223	5	1.25908	162.537	57.5377	
224	5	1.28155	164.179	63.9454	
225	5.9	1.30469	165.881	71.6431	
226	6	1.32854	167.646	79.6143	
227	6	1.35317	169.477	87.7333	
228	6	1.37866	171.378	96.0053	
229	8	1.40507	173.352	107.246	
230	8.1	1.4325	175.404	118.849	
231	8.9	1.46106	177.539	131.853	
232	9	1.49085	179.762	145.27	
233	9	1.52203	182.078	158.969	
234	10.3	1.55477	184.496	174.983	
235	11	1.58927	187.022	192.465	
236	11.9	1.62576	189.665	211.811	
237	12	1.66456	192.435	231.786	

238	12.8	1.70604	195.346	253.623
239	13	1.75069	198.411	276.382
240	13	1.79912	201.648	299.771
241	13.3	1.85218	205.078	324.405
242	14.1	1.91103	208.73	351.35
243	19.6	1.97737	212.64	390.107
244	21	2.05375	216.858	433.235
245	21.5	2.14441	221.457	479.34
246	22	2.25713	226.551	528.997
247	40.6	2.40892	232.354	626.799
248	73	2.65209	239.388	820.402

Data Set Standard Deviation = 6.31219
Numerator = 673059
Denominator = 2.35591e+006
W Statistic = 0.285689 = 673059 / 2.35591e+006

5% Critical value of 0.976 exceeds 0.285689
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.285689
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 = 0.544266
0.544266 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.04	0.00401606	-2.65209	39.2675	344.01	
2	0.04	0.00803213	-2.40892	39.2675	332.136	
3	0.04	0.0120482	-2.25713	39.2675	324.723	
4	0.04	0.0160643	-2.14441	39.2675	319.219	
5	0.04	0.0200803	-2.05375	39.2675	314.791	
6	0.04	0.0240964	-1.97737	39.2675	311.062	
7	0.04	0.0281124	-1.91103	39.2675	307.822	
8	0.04	0.0321285	-1.85218	39.2675	304.948	
9	0.04	0.0361446	-1.79912	39.2675	302.357	
10	0.04	0.0401606	-1.75069	39.2675	299.992	
11	0.04	0.0441767	-1.70604	39.2675	297.812	
12	0.04	0.0481928	-1.66456	39.2675	295.786	
13	0.04	0.0522088	-1.62576	39.2675	293.891	
14	0.04	0.0562249	-1.58927	39.2675	292.109	
15	0.04	0.060241	-1.55477	39.2675	290.425	
16	0.04	0.064257	-1.52203	39.2675	288.826	
17	0.04	0.0682731	-1.49085	39.2675	287.303	
18	0.04	0.0722892	-1.46106	39.2675	285.848	
19	0.04	0.0763052	-1.4325	39.2675	284.454	
20	0.04	0.0803213	-1.40507	39.2675	283.114	
21	0.04	0.0843373	-1.37866	39.2675	281.824	
22	0.04	0.0883534	-1.35317	39.2675	280.58	
23	0.04	0.0923695	-1.32854	39.2675	279.377	
24	0.04	0.0963855	-1.30469	39.2675	278.212	
25	0.04	0.100402	-1.28155	39.2675	277.082	
26	0.04	0.104418	-1.25908	39.2675	275.985	
27	0.04	0.108434	-1.23724	39.2675	274.918	
28	0.04	0.11245	-1.21596	39.2675	273.879	
29	0.04	0.116466	-1.19522	39.2675	272.867	
30	0.04	0.120482	-1.17499	39.2675	271.879	
31	0.04	0.124498	-1.15522	39.2675	270.913	
32	0.04	0.128514	-1.1359	39.2675	269.97	
33	0.04	0.13253	-1.11699	39.2675	269.046	
34	0.04	0.136546	-1.09847	39.2675	268.142	
35	0.085	0.140562	-1.08032	39.5684	267.256	
36	0.09	0.144578	-1.06252	39.6019	266.386	
37	0.11	0.148594	-1.04505	39.7356	265.533	
38	0.12	0.15261	-1.02789	39.8025	264.695	
39	0.12	0.156627	-1.01104	39.8025	263.872	
40	0.14	0.160643	-0.994457	39.9363	263.063	
41	0.15	0.164659	-0.97815	40.0031	262.266	
42	0.15	0.168675	-0.9621	40.0031	261.483	
43	0.16	0.172691	-0.946291	40.07	260.711	
44	0.16	0.176707	-0.930718	40.07	259.95	
45	0.17	0.180723	-0.915365	40.1369	259.2	
46	0.17	0.184739	-0.900227	40.1369	258.461	
47	0.18	0.188755	-0.885291	40.2037	257.732	
48	0.19	0.192771	-0.87055	40.2706	257.012	

49	0.26	0.196787	-0.855996	40.7388	256.301
50	0.26	0.200803	-0.841621	40.7388	255.599
51	0.27	0.204819	-0.827417	40.8056	254.906
52	0.28	0.208835	-0.813379	40.8725	254.22
53	0.29	0.212851	-0.7995	40.9394	253.542
54	0.34	0.216867	-0.785774	41.2738	252.872
55	0.34	0.220884	-0.772193	41.2738	252.209
56	0.37	0.2249	-0.758753	41.4744	251.552
57	0.44	0.228916	-0.745449	41.9425	250.903
58	0.45	0.232932	-0.732275	42.0094	250.259
59	0.49	0.236948	-0.719228	42.2769	249.622
60	0.5	0.240964	-0.706302	42.3438	248.991
61	0.5	0.24498	-0.693493	42.3438	248.366
62	0.5	0.248996	-0.680797	42.3438	247.746
63	0.5	0.253012	-0.665079	42.3438	246.978
64	0.5	0.257028	-0.652622	42.3438	246.37
65	0.5	0.261044	-0.640266	42.3438	245.766
66	0.5	0.26506	-0.628006	42.3438	245.168
67	0.5	0.269076	-0.615839	42.3438	244.573
68	0.5	0.273092	-0.603765	42.3438	243.984
69	0.5	0.277108	-0.591776	42.3438	243.398
70	0.5	0.281124	-0.579873	42.3438	242.817
71	0.5	0.285141	-0.568052	42.3438	242.24
72	0.5	0.289157	-0.556308	42.3438	241.666
73	0.5	0.293173	-0.544642	42.3438	241.097
74	0.5	0.297189	-0.533048	42.3438	240.531
75	0.5	0.301205	-0.521527	42.3438	239.968
76	0.5	0.305221	-0.510074	42.3438	239.409
77	0.5	0.309237	-0.498687	42.3438	238.853
78	0.5	0.313253	-0.487364	42.3438	238.3
79	0.5	0.317269	-0.476105	42.3438	237.75
80	0.5	0.321285	-0.464904	42.3438	237.203
81	0.5	0.325301	-0.453763	42.3438	236.659
82	0.5	0.329317	-0.442676	42.3438	236.117
83	0.5	0.333333	-0.431644	42.3438	235.579
84	0.5	0.337349	-0.420664	42.3438	235.042
85	0.5	0.341365	-0.409735	42.3438	234.509
86	0.5	0.345382	-0.398855	42.3438	233.977
87	0.5	0.349398	-0.388022	42.3438	233.448
88	0.5	0.353414	-0.377233	42.3438	232.922
89	0.5	0.35743	-0.3664	42.3438	232.397
90	0.5	0.361446	-0.355788	42.3438	231.874
91	0.5	0.365462	-0.345126	42.3438	231.354
92	0.5	0.369478	-0.334503	42.3438	230.835
93	0.5	0.373494	-0.323919	42.3438	230.318
94	0.5	0.37751	-0.3133	42.3438	229.803
95	0.5	0.381526	-0.302855	42.3438	229.289
96	0.5	0.385542	-0.292375	42.3438	228.778
97	0.5	0.389558	-0.281926	42.3438	228.267
98	0.5	0.393574	-0.271509	42.3438	227.759
99	0.5	0.39759	-0.2611	42.3438	227.251
100	0.5	0.401606	-0.250759	42.3438	226.745
101	0.5	0.405622	-0.240426	42.3438	226.241
102	0.5	0.409639	-0.230118	42.3438	225.737
103	0.5	0.413655	-0.219834	42.3438	225.235
104	0.5	0.417671	-0.209575	42.3438	224.734
105	0.5	0.421687	-0.199336	42.3438	224.234
106	0.5	0.425703	-0.189118	42.3438	223.735
107	0.5	0.429719	-0.1789	42.3438	223.237
108	0.5	0.433735	-0.168741	42.3438	222.74
109	0.5	0.437751	-0.158579	42.3438	222.244
110	0.5	0.441767	-0.148434	42.3438	221.749

111	0.5	0.445783	-0.138305	42.3438	221.254
112	0.5	0.449799	-0.128189	42.3438	220.76
113	0.5	0.453815	-0.118085	42.3438	220.267
114	0.5	0.457831	-0.107995	42.3438	219.774
115	0.5	0.461847	-0.0979139	42.3438	219.281
116	0.5	0.465863	-0.0878447	42.3438	218.79
117	0.5	0.46988	-0.0777834	42.3438	218.298
118	0.5	0.473896	-0.0677301	42.3438	217.807
119	0.5	0.477912	-0.0576847	42.3438	217.317
120	0.5	0.481928	-0.0476439	42.3438	216.827
121	0.5	0.485944	-0.0376076	42.3438	216.337
122	0.5	0.48996	-0.0275759	42.3438	215.847
123	0.5	0.493976	-0.0175476	42.3438	215.357
124	0.5	0.497992	-0.00751925	42.3438	214.867
125	0.5	0.502008	0.00751925	42.3438	214.133
126	0.5	0.506024	0.0175476	42.3438	213.643
127	0.5	0.51004	0.0275759	42.3438	213.153
128	0.5	0.514056	0.0376076	42.3438	212.663
129	0.5	0.518072	0.0476439	42.3438	212.173
130	0.5	0.522088	0.0576847	42.3438	211.683
131	0.5	0.526104	0.0677301	42.3438	211.193
132	0.5	0.53012	0.0777834	42.3438	210.702
133	0.5	0.534137	0.0878447	42.3438	210.21
134	0.5	0.538153	0.0979139	42.3438	209.719
135	0.5	0.542169	0.107995	42.3438	209.226
136	0.5	0.546185	0.118085	42.3438	208.733
137	0.5	0.550201	0.128189	42.3438	208.24
138	0.5	0.554217	0.138305	42.3438	207.746
139	0.5	0.558233	0.148434	42.3438	207.251
140	0.5	0.562249	0.158579	42.3438	206.756
141	0.5	0.566265	0.168741	42.3438	206.26
142	0.5	0.570281	0.17892	42.3438	205.763
143	0.5	0.574297	0.189118	42.3438	205.265
144	0.5	0.578313	0.199336	42.3438	204.766
145	0.5	0.582329	0.209575	42.3438	204.266
146	0.5	0.586345	0.219834	42.3438	203.765
147	0.5	0.590361	0.230118	42.3438	203.263
148	0.5	0.594378	0.240426	42.3438	202.759
149	0.5	0.598394	0.250759	42.3438	202.255
150	0.5	0.60241	0.26112	42.3438	201.749
151	0.5	0.606426	0.271509	42.3438	201.241
152	0.5	0.610442	0.281926	42.3438	200.733
153	0.5	0.614458	0.292375	42.3438	200.222
154	0.5	0.618474	0.302855	42.3438	199.711
155	0.5	0.62249	0.31337	42.3438	199.197
156	0.5	0.626506	0.323919	42.3438	198.682
157	0.5	0.630522	0.334503	42.3438	198.165
158	0.5	0.634538	0.345126	42.3438	197.646
159	0.5	0.638554	0.355788	42.3438	197.126
160	0.5	0.64257	0.36649	42.3438	196.603
161	0.5	0.646586	0.377233	42.3438	196.078
162	0.5	0.650602	0.388022	42.3438	195.552
163	0.5	0.654618	0.398855	42.3438	195.023
164	0.5	0.658635	0.409735	42.3438	194.491
165	0.5	0.662651	0.420664	42.3438	193.958
166	0.5	0.666667	0.431644	42.3438	193.421
167	0.5	0.670683	0.442676	42.3438	192.883
168	0.5	0.674699	0.453763	42.3438	192.341
169	0.5	0.678715	0.464904	42.3438	191.797
170	0.5	0.682731	0.476105	42.3438	191.25
171	0.5	0.686747	0.487364	42.3438	190.7
172	0.5	0.690763	0.498687	42.3438	190.147

173	0.5	0.694779	0.510074	42.3438	189.591
174	0.5	0.698795	0.521527	42.3438	189.032
175	0.5	0.702811	0.533048	42.3438	188.469
176	0.5	0.706827	0.544642	42.3438	187.903
177	0.5	0.710843	0.556308	42.3438	187.334
178	0.5	0.714859	0.568052	42.3438	186.76
179	0.5	0.718876	0.579873	42.3438	186.183
180	0.5	0.722892	0.591776	42.3438	185.602
181	0.5	0.726908	0.603765	42.3438	185.016
182	0.5	0.730924	0.615839	42.3438	184.427
183	0.5	0.73494	0.628006	42.3438	183.832
184	0.5	0.738956	0.640266	42.3438	183.234
185	0.5	0.742972	0.652622	42.3438	182.63
186	0.5	0.746988	0.665079	42.3438	182.022
187	0.5	0.751004	0.680797	42.3438	181.254
188	0.5	0.75502	0.693493	42.3438	180.634
189	0.5	0.759036	0.706302	42.3438	180.009
190	0.5	0.763052	0.719228	42.3438	179.378
191	0.5	0.767068	0.732275	42.3438	178.741
192	0.5	0.771084	0.745449	42.3438	178.097
193	0.5	0.7751	0.758753	42.3438	177.448
194	0.5	0.779116	0.772193	42.3438	176.791
195	0.5	0.783133	0.785774	42.3438	176.128
196	0.5	0.787149	0.7995	42.3438	175.458
197	0.5	0.791165	0.813379	42.3438	174.78
198	0.5	0.795181	0.827417	42.3438	174.094
199	0.5	0.799197	0.841621	42.3438	173.401
200	0.522	0.803213	0.855996	42.4909	172.699
201	0.54	0.807229	0.87055	42.6112	171.988
202	0.623	0.811245	0.885291	43.1663	171.268
203	0.636	0.815261	0.900227	43.2533	170.539
204	0.658	0.819277	0.915365	43.4004	169.8
205	0.66	0.823293	0.930718	43.4138	169.05
206	0.68	0.827309	0.946291	43.5475	168.289
207	0.72	0.831325	0.9621	43.815	167.517
208	0.734	0.835341	0.97815	43.9086	166.734
209	0.738	0.839357	0.994457	43.9354	165.937
210	0.819	0.843373	1.01104	44.4771	165.128
211	1.22	0.84739	1.02789	47.1587	164.305
212	2.72	0.851406	1.04505	57.19	163.467
213	3	0.855422	1.06252	59.0625	162.614
214	3	0.859438	1.08032	59.0625	161.744
215	3.3	0.863454	1.09847	61.0687	160.858
216	3.4	0.86747	1.11699	61.7375	159.954
217	3.5	0.871486	1.1359	62.4063	159.03
218	3.7	0.875502	1.15522	63.7437	158.087
219	3.8	0.879518	1.17499	64.4125	157.121
220	4	0.883534	1.19522	65.75	156.133
221	4.8	0.88755	1.21596	71.1	155.121
222	5	0.891566	1.23724	72.4375	154.082
223	5	0.895582	1.25908	72.4375	153.015
224	5	0.899598	1.28155	72.4375	151.918
225	5.9	0.903614	1.30469	78.4563	150.788
226	6	0.907631	1.32854	79.125	149.623
227	6	0.911647	1.35317	79.125	148.42
228	6	0.915663	1.37866	79.125	147.176
229	8	0.919679	1.40507	92.5	145.886
230	8.1	0.923695	1.4325	93.1687	144.546
231	8.9	0.927711	1.46106	98.5188	143.152
232	9	0.931727	1.49085	99.1875	141.697
233	9	0.935743	1.52203	99.1875	140.174
234	10.3	0.939759	1.55477	107.881	138.575

235	11	0.943775	1.58927	112.563	136.891
236	11.9	0.947791	1.62576	118.581	135.109
237	12	0.951807	1.66456	119.25	133.214
238	12.8	0.955823	1.70604	124.6	131.188
239	13	0.959839	1.75069	125.938	129.008
240	13	0.963855	1.79912	125.938	126.643
241	13.3	0.967871	1.85218	127.944	124.052
242	14.1	0.971888	1.91103	133.294	121.178
243	19.6	0.975904	1.97737	170.075	117.938
244	21	0.97992	2.05375	179.438	114.209
245	21.5	0.983936	2.14441	182.781	109.781
246	22	0.987952	2.25713	186.125	104.277
247	40.6	0.991968	2.40892	310.513	96.8642
248	73	0.995984	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 = 248

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	-1.91103	34.3095	49.5858
8	-3.21888	-1.85218	37.7401	55.5477
9	-3.21888	-1.79912	40.9769	61.3389
10	-3.21888	-1.75069	44.0418	66.9741
11	-3.21888	-1.70604	46.9524	72.4656
12	-3.21888	-1.66456	49.7231	77.8237
13	-3.21888	-1.62576	52.3662	83.0568
14	-3.21888	-1.58927	54.892	88.1724
15	-3.21888	-1.55477	57.3093	93.1771
16	-3.21888	-1.52203	59.6259	98.0763
17	-3.21888	-1.49085	61.8486	102.875
18	-3.21888	-1.46106	63.9833	107.578
19	-3.21888	-1.4325	66.0353	112.189
20	-3.21888	-1.40507	68.0096	116.712
21	-3.21888	-1.37866	69.9102	121.15
22	-3.21888	-1.35317	71.7413	125.505
23	-3.21888	-1.32854	73.5063	129.782
24	-3.21888	-1.30469	75.2086	133.981
25	-3.21888	-1.28155	76.8509	138.107
26	-3.21888	-1.25908	78.4362	142.159
27	-3.21888	-1.23724	79.967	146.142
28	-3.21888	-1.21596	81.4455	150.056
29	-3.21888	-1.19522	82.8741	153.903
30	-3.21888	-1.17499	84.2547	157.685
31	-3.21888	-1.15522	85.5892	161.404
32	-3.21888	-1.1359	86.8795	165.06
33	-3.21888	-1.11699	88.1271	168.656
34	-3.21888	-1.09847	89.3338	172.191
35	-2.4651	-1.08032	90.5009	174.855
36	-2.40795	-1.06252	91.6298	177.413
37	-2.20727	-1.04505	92.7219	179.72
38	-2.12026	-1.02789	93.7785	181.899
39	-2.12026	-1.01104	94.8007	184.043
40	-1.96611	-0.994457	95.7896	185.998
41	-1.89712	-0.97815	96.7464	187.854
42	-1.89712	-0.9621	97.6721	189.679
43	-1.83258	-0.946291	98.5675	191.413
44	-1.83258	-0.930718	99.4338	193.119
45	-1.77196	-0.915365	100.272	194.741
46	-1.77196	-0.900227	101.082	196.336
47	-1.7148	-0.885291	101.866	197.854
48	-1.66073	-0.87055	102.624	199.3
49	-1.34707	-0.855996	103.356	200.453
50	-1.34707	-0.841621	104.065	201.586
51	-1.30933	-0.827417	104.749	202.67

52	-1.27297	-0.813379	105.411	203.705
53	-1.23787	-0.7995	106.05	204.695
54	-1.07881	-0.785774	106.668	205.543
55	-1.07881	-0.772193	107.264	206.376
56	-0.994252	-0.758753	107.84	207.13
57	-0.820981	-0.745449	108.395	207.742
58	-0.798508	-0.732275	108.931	208.327
59	-0.71335	-0.719228	109.449	208.84
60	-0.693147	-0.706302	109.948	209.329
61	-0.693147	-0.693493	110.429	209.81
62	-0.693147	-0.680797	110.892	210.282
63	-0.693147	-0.665079	111.334	210.743
64	-0.693147	-0.652622	111.76	211.195
65	-0.693147	-0.640266	112.17	211.639
66	-0.693147	-0.628006	112.565	212.074
67	-0.693147	-0.615839	112.944	212.501
68	-0.693147	-0.603765	113.308	212.92
69	-0.693147	-0.591776	113.659	213.33
70	-0.693147	-0.579873	113.995	213.732
71	-0.693147	-0.568052	114.318	214.126
72	-0.693147	-0.556308	114.627	214.511
73	-0.693147	-0.544642	114.924	214.889
74	-0.693147	-0.533048	115.208	215.258
75	-0.693147	-0.521527	115.48	215.62
76	-0.693147	-0.510074	115.74	215.973
77	-0.693147	-0.498687	115.989	216.319
78	-0.693147	-0.487364	116.226	216.657
79	-0.693147	-0.476105	116.453	216.987
80	-0.693147	-0.464904	116.669	217.309
81	-0.693147	-0.453763	116.875	217.624
82	-0.693147	-0.442676	117.071	217.93
83	-0.693147	-0.431644	117.257	218.23
84	-0.693147	-0.420664	117.434	218.521
85	-0.693147	-0.409735	117.602	218.805
86	-0.693147	-0.398855	117.761	219.082
87	-0.693147	-0.388022	117.912	219.351
88	-0.693147	-0.377233	118.054	219.612
89	-0.693147	-0.36649	118.188	219.866
90	-0.693147	-0.355788	118.315	220.113
91	-0.693147	-0.345126	118.434	220.352
92	-0.693147	-0.334503	118.546	220.584
93	-0.693147	-0.323919	118.651	220.808
94	-0.693147	-0.31337	118.749	221.026
95	-0.693147	-0.302855	118.841	221.236
96	-0.693147	-0.292375	118.926	221.438
97	-0.693147	-0.281926	119.006	221.634
98	-0.693147	-0.271509	119.079	221.822
99	-0.693147	-0.26112	119.148	222.003
100	-0.693147	-0.250759	119.21	222.177
101	-0.693147	-0.240426	119.268	222.343
102	-0.693147	-0.230118	119.321	222.503
103	-0.693147	-0.219834	119.37	222.655
104	-0.693147	-0.209575	119.413	222.8
105	-0.693147	-0.199336	119.453	222.939
106	-0.693147	-0.189118	119.489	223.07
107	-0.693147	-0.17892	119.521	223.194
108	-0.693147	-0.168741	119.549	223.311
109	-0.693147	-0.158579	119.575	223.421
110	-0.693147	-0.148434	119.597	223.523
111	-0.693147	-0.138305	119.616	223.619
112	-0.693147	-0.128189	119.632	223.708
113	-0.693147	-0.118085	119.646	223.79

114	-0.693147	-0.107995	119.658	223.865
115	-0.693147	-0.0979139	119.667	223.933
116	-0.693147	-0.0878447	119.675	223.994
117	-0.693147	-0.0777834	119.681	224.048
118	-0.693147	-0.0677301	119.686	224.095
119	-0.693147	-0.0576847	119.689	224.134
120	-0.693147	-0.0476439	119.691	224.168
121	-0.693147	-0.0376076	119.693	224.194
122	-0.693147	-0.0275759	119.694	224.213
123	-0.693147	-0.0175476	119.694	224.225
124	-0.693147	-0.00751925	119.694	224.23
125	-0.693147	0.00751925	119.694	224.225
126	-0.693147	0.0175476	119.694	224.213
127	-0.693147	0.0275759	119.695	224.194
128	-0.693147	0.0376076	119.696	224.168
129	-0.693147	0.0476439	119.699	224.134
130	-0.693147	0.0576847	119.702	224.095
131	-0.693147	0.0677301	119.707	224.048
132	-0.693147	0.0777834	119.713	223.994
133	-0.693147	0.0878447	119.72	223.933
134	-0.693147	0.0979139	119.73	223.865
135	-0.693147	0.107995	119.742	223.79
136	-0.693147	0.118085	119.756	223.708
137	-0.693147	0.128189	119.772	223.619
138	-0.693147	0.138305	119.791	223.523
139	-0.693147	0.148434	119.813	223.421
140	-0.693147	0.158579	119.838	223.311
141	-0.693147	0.168741	119.867	223.194
142	-0.693147	0.17892	119.899	223.07
143	-0.693147	0.189118	119.935	222.939
144	-0.693147	0.199336	119.974	222.8
145	-0.693147	0.209575	120.018	222.655
146	-0.693147	0.219834	120.067	222.503
147	-0.693147	0.230118	120.119	222.343
148	-0.693147	0.240426	120.177	222.177
149	-0.693147	0.250759	120.24	222.003
150	-0.693147	0.26112	120.308	221.822
151	-0.693147	0.271509	120.382	221.634
152	-0.693147	0.281926	120.462	221.438
153	-0.693147	0.292375	120.547	221.236
154	-0.693147	0.302855	120.639	221.026
155	-0.693147	0.31337	120.737	220.808
156	-0.693147	0.323919	120.842	220.584
157	-0.693147	0.334503	120.954	220.352
158	-0.693147	0.345126	121.073	220.113
159	-0.693147	0.355788	121.199	219.866
160	-0.693147	0.36649	121.334	219.612
161	-0.693147	0.377233	121.476	219.351
162	-0.693147	0.388022	121.627	219.082
163	-0.693147	0.398855	121.786	218.805
164	-0.693147	0.409735	121.954	218.521
165	-0.693147	0.420664	122.131	218.23
166	-0.693147	0.431644	122.317	217.93
167	-0.693147	0.442676	122.513	217.624
168	-0.693147	0.453763	122.719	217.309
169	-0.693147	0.464904	122.935	216.987
170	-0.693147	0.476105	123.162	216.657
171	-0.693147	0.487364	123.399	216.319
172	-0.693147	0.498687	123.648	215.973
173	-0.693147	0.510074	123.908	215.62
174	-0.693147	0.521527	124.18	215.258
175	-0.693147	0.533048	124.464	214.889

176	-0.693147		0.544642	124.761	214.511
177	-0.693147		0.556308	125.07	214.126
178	-0.693147		0.568052	125.393	213.732
179	-0.693147		0.579873	125.729	213.33
180	-0.693147		0.591776	126.079	212.92
181	-0.693147		0.603765	126.444	212.501
182	-0.693147		0.615839	126.823	212.074
183	-0.693147		0.628006	127.218	211.639
184	-0.693147		0.640266	127.627	211.195
185	-0.693147		0.652622	128.053	210.743
186	-0.693147		0.665079	128.496	210.282
187	-0.693147		0.680797	128.959	209.81
188	-0.693147		0.693493	129.44	209.329
189	-0.693147		0.706302	129.939	208.84
190	-0.693147		0.719228	130.456	208.341
191	-0.693147		0.732275	130.993	207.834
192	-0.693147		0.745449	131.548	207.317
193	-0.693147		0.758753	132.124	206.791
194	-0.693147		0.772193	132.72	206.256
195	-0.693147		0.785774	133.338	205.711
196	-0.693147		0.7995	133.977	205.157
197	-0.693147		0.813379	134.638	204.593
198	-0.693147		0.827417	135.323	204.02
199	-0.693147		0.841621	136.031	203.436
200	-0.650088		0.855996	136.764	202.88
201	-0.616186		0.87055	137.522	202.343
202	-0.473209		0.885291	138.306	201.925
203	-0.452557		0.900227	139.116	201.517
204	-0.418550	0.915365		139.954	201.134
205	-0.415515		0.930718	140.82	200.747
206	-0.385662		0.946291	141.716	200.382
207	-0.328504		0.9621	142.641	200.066
208	-0.309246		0.97815	143.598	199.764
209	-0.303811		0.994457	144.587	199.462
210	-0.199671		1.01104	145.609	199.26
211	0.198851		1.02789	146.666	199.464
212	1.00063	1.04505	147.758	200.51	
213	1.09861	1.06252	148.887	201.677	
214	1.09861	1.08032	150.054	202.864	
215	1.19392	1.09847	151.261	204.176	
216	1.22378	1.11699	152.508	205.542	
217	1.25276	1.1359	153.799	206.966	
218	1.30833	1.15522	155.133	208.477	
219	1.335	1.17499	156.514	210.046	
220	1.38629	1.19522	157.942	211.702	
221	1.56862	1.21596	159.421	213.61	
222	1.60944	1.23724	160.952	215.601	
223	1.60944	1.25908	162.537	217.628	
224	1.60944	1.28155	164.179	219.69	
225	1.77495	1.30469	165.881	222.006	
226	1.79176	1.32854	167.646	224.386	
227	1.79176	1.35317	169.477	226.811	
228	1.79176	1.37866	171.378	229.281	
229	2.07944	1.40507	173.352	232.203	
230	2.09186	1.4325	175.404	235.199	
231	2.18605	1.46106	177.539	238.393	
232	2.19722	1.49085	179.762	241.669	
233	2.19722	1.52203	182.078	245.013	
234	2.33214	1.55477	184.496	248.639	
235	2.3979	1.58927	187.022	252.45	
236	2.47654	1.62576	189.665	256.476	
237	2.48491	1.66456	192.435	260.613	

238	2.54945	1.70604	195.346	264.962
239	2.56495	1.75069	198.411	269.453
240	2.56495	1.79912	201.648	274.067
241	2.58776	1.85218	205.078	278.86
242	2.64617	1.91103	208.73	283.917
243	2.97553	1.97737	212.64	289.801
244	3.04452	2.05375	216.858	296.054
245	3.06805	2.14441	221.457	302.633
246	3.09104	2.25713	226.551	309.61
247	3.70377	2.40892	232.354	318.532
248	4.29046	2.65209	239.388	329.91

Data Set Standard Deviation = 1.50073
Numerator = 108841
Denominator = 133170
W Statistic = 0.817307 = 108841 / 133170

5% Critical value of 0.976 exceeds 0.817307
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.817307
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 = 0.904682
0.904682 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.21888	0.00401606	-2.65209	85.4335	344.01
2	-3.21888	0.00803213	-2.40892	85.4335	332.136
3	-3.21888	0.0120482	-2.25713	85.4335	324.723
4	-3.21888	0.0160643	-2.14441	85.4335	319.219
5	-3.21888	0.0200803	-2.05375	85.4335	314.791
6	-3.21888	0.0240964	-1.97737	85.4335	311.062
7	-3.21888	0.0281124	-1.91103	85.4335	307.822
8	-3.21888	0.0321285	-1.85218	85.4335	304.948
9	-3.21888	0.0361446	-1.79912	85.4335	302.357
10	-3.21888	0.0401606	-1.75069	85.4335	299.992
11	-3.21888	0.0441767	-1.70604	85.4335	297.812
12	-3.21888	0.0481928	-1.66456	85.4335	295.786
13	-3.21888	0.0522088	-1.62576	85.4335	293.891
14	-3.21888	0.0562249	-1.58927	85.4335	292.109
15	-3.21888	0.060241	-1.55477	85.4335	290.425
16	-3.21888	0.064257	-1.52203	85.4335	288.826
17	-3.21888	0.0682731	-1.49085	85.4335	287.303
18	-3.21888	0.0722892	-1.46106	85.4335	285.848
19	-3.21888	0.0763052	-1.4325	85.4335	284.454
20	-3.21888	0.0803213	-1.40507	85.4335	283.114
21	-3.21888	0.0843373	-1.37866	85.4335	281.824
22	-3.21888	0.0883534	-1.35317	85.4335	280.58
23	-3.21888	0.0923695	-1.32854	85.4335	279.377
24	-3.21888	0.0963855	-1.30469	85.4335	278.212
25	-3.21888	0.100402	-1.28155	85.4335	277.082
26	-3.21888	0.104418	-1.25908	85.4335	275.985
27	-3.21888	0.108434	-1.23724	85.4335	274.918
28	-3.21888	0.11245	-1.21596	85.4335	273.879
29	-3.21888	0.116466	-1.19522	85.4335	272.867
30	-3.21888	0.120482	-1.17499	85.4335	271.879
31	-3.21888	0.124498	-1.15522	85.4335	270.913
32	-3.21888	0.128514	-1.1359	85.4335	269.97
33	-3.21888	0.13253	-1.11699	85.4335	269.046
34	-3.21888	0.136546	-1.09847	85.4335	268.142
35	-2.4651	0.140562	-1.08032	130.241	267.256
36	-2.40795	0.144578	-1.06252	133.639	266.386
37	-2.20727	0.148594	-1.04505	145.568	265.533
38	-2.12026	0.15261	-1.02789	150.74	264.695
39	-2.12026	0.156627	-1.01104	150.74	263.872
40	-1.96611	0.160643	-0.994457	159.903	263.063
41	-1.89712	0.164659	-0.97815	164.005	262.266
42	-1.89712	0.168675	-0.9621	164.005	261.483
43	-1.83258	0.172691	-0.946291	167.841	260.711
44	-1.83258	0.176707	-0.930718	167.841	259.95
45	-1.77196	0.180723	-0.915365	171.445	259.2
46	-1.77196	0.184739	-0.900227	171.445	258.461
47	-1.7148	0.188755	-0.885291	174.843	257.732
48	-1.66073	0.192771	-0.87055	178.057	257.012

49	-1.34707	0.196787	-0.855996	196.702	256.301
50	-1.34707	0.200803	-0.841621	196.702	255.599
51	-1.30933	0.204819	-0.827417	198.945	254.906
52	-1.27297	0.208835	-0.813379	201.107	254.22
53	-1.23787	0.212851	-0.7995	203.193	253.542
54	-1.07881	0.216867	-0.785774	212.649	252.872
55	-1.07881	0.220884	-0.772193	212.649	252.209
56	-0.994252	0.2249	-0.758753	217.675	251.552
57	-0.820981	0.228916	-0.745449	227.975	250.903
58	-0.798508	0.232932	-0.732275	229.311	250.259
59	-0.71335	0.236948	-0.719228	234.373	249.622
60	-0.693147	0.240964	-0.706302	235.574	248.991
61	-0.693147	0.24498	-0.693493	235.574	248.366
62	-0.693147	0.248996	-0.680797	235.574	247.746
63	-0.693147	0.253012	-0.665079	235.574	246.978
64	-0.693147	0.257028	-0.652622	235.574	246.37
65	-0.693147	0.261044	-0.640266	235.574	245.766
66	-0.693147	0.26506	-0.628006	235.574	245.168
67	-0.693147	0.269076	-0.615839	235.574	244.573
68	-0.693147	0.273092	-0.603765	235.574	243.984
69	-0.693147	0.277108	-0.591776	235.574	243.398
70	-0.693147	0.281124	-0.579873	235.574	242.817
71	-0.693147	0.285141	-0.568052	235.574	242.24
72	-0.693147	0.289157	-0.556308	235.574	241.666
73	-0.693147	0.293173	-0.544642	235.574	241.097
74	-0.693147	0.297189	-0.533048	235.574	240.531
75	-0.693147	0.301205	-0.521527	235.574	239.968
76	-0.693147	0.305221	-0.510074	235.574	239.409
77	-0.693147	0.309237	-0.498687	235.574	238.853
78	-0.693147	0.313253	-0.487364	235.574	238.3
79	-0.693147	0.317269	-0.476105	235.574	237.75
80	-0.693147	0.321285	-0.464904	235.574	237.203
81	-0.693147	0.325301	-0.453763	235.574	236.659
82	-0.693147	0.329317	-0.442676	235.574	236.117
83	-0.693147	0.333333	-0.431644	235.574	235.579
84	-0.693147	0.337349	-0.420664	235.574	235.042
85	-0.693147	0.341365	-0.409735	235.574	234.509
86	-0.693147	0.345382	-0.398855	235.574	233.977
87	-0.693147	0.349398	-0.388022	235.574	233.448
88	-0.693147	0.353414	-0.377233	235.574	232.922
89	-0.693147	0.35743	-0.36649	235.574	232.397
90	-0.693147	0.361446	-0.355788	235.574	231.874
91	-0.693147	0.365462	-0.345126	235.574	231.354
92	-0.693147	0.369478	-0.334503	235.574	230.835
93	-0.693147	0.373494	-0.323919	235.574	230.318
94	-0.693147	0.37751	-0.31337	235.574	229.803
95	-0.693147	0.381526	-0.302855	235.574	229.289
96	-0.693147	0.385542	-0.292375	235.574	228.778
97	-0.693147	0.389558	-0.281926	235.574	228.267
98	-0.693147	0.393574	-0.271509	235.574	227.759
99	-0.693147	0.39759	-0.26112	235.574	227.251
100	-0.693147	0.401606	-0.250759	235.574	226.745
101	-0.693147	0.405622	-0.240426	235.574	226.241
102	-0.693147	0.409639	-0.230118	235.574	225.737
103	-0.693147	0.413655	-0.219834	235.574	225.235
104	-0.693147	0.417671	-0.209575	235.574	224.734
105	-0.693147	0.421687	-0.199336	235.574	224.234
106	-0.693147	0.425703	-0.189118	235.574	223.735
107	-0.693147	0.429719	-0.17892	235.574	223.237
108	-0.693147	0.433735	-0.168741	235.574	222.74
109	-0.693147	0.437751	-0.158579	235.574	222.244
110	-0.693147	0.441767	-0.148434	235.574	221.749

111	-0.693147	0.445783	-0.138305	235.574	221.254
112	-0.693147	0.449799	-0.128189	235.574	220.76
113	-0.693147	0.453815	-0.118085	235.574	220.267
114	-0.693147	0.457831	-0.107995	235.574	219.774
115	-0.693147	0.461847	-0.0979139	235.574	219.281
116	-0.693147	0.465863	-0.0878447	235.574	218.79
117	-0.693147	0.46988	-0.0777834	235.574	218.298
118	-0.693147	0.473896	-0.0677301	235.574	217.807
119	-0.693147	0.477912	-0.0576847	235.574	217.317
120	-0.693147	0.481928	-0.0476439	235.574	216.827
121	-0.693147	0.485944	-0.0376076	235.574	216.337
122	-0.693147	0.48996	-0.0275759	235.574	215.847
123	-0.693147	0.493976	-0.0175476	235.574	215.357
124	-0.693147	0.497992	-0.00751925	235.574	214.867
125	-0.693147	0.502008	0.00751925	235.574	214.133
126	-0.693147	0.506024	0.0175476	235.574	213.643
127	-0.693147	0.51004	0.0275759	235.574	213.153
128	-0.693147	0.514056	0.0376076	235.574	212.663
129	-0.693147	0.518072	0.0476439	235.574	212.173
130	-0.693147	0.522088	0.0576847	235.574	211.683
131	-0.693147	0.526104	0.0677301	235.574	211.193
132	-0.693147	0.53012	0.0777834	235.574	210.702
133	-0.693147	0.534137	0.0878447	235.574	210.21
134	-0.693147	0.538153	0.0979139	235.574	209.719
135	-0.693147	0.542169	0.107995	235.574	209.226
136	-0.693147	0.546185	0.118085	235.574	208.733
137	-0.693147	0.550201	0.128189	235.574	208.24
138	-0.693147	0.554217	0.138305	235.574	207.746
139	-0.693147	0.558233	0.148434	235.574	207.251
140	-0.693147	0.562249	0.158579	235.574	206.756
141	-0.693147	0.566265	0.168741	235.574	206.26
142	-0.693147	0.570281	0.17892	235.574	205.763
143	-0.693147	0.574297	0.189118	235.574	205.265
144	-0.693147	0.578313	0.199336	235.574	204.766
145	-0.693147	0.582329	0.209575	235.574	204.266
146	-0.693147	0.586345	0.219834	235.574	203.765
147	-0.693147	0.590361	0.230118	235.574	203.263
148	-0.693147	0.594378	0.240426	235.574	202.759
149	-0.693147	0.598394	0.250759	235.574	202.255
150	-0.693147	0.60241	0.26112	235.574	201.749
151	-0.693147	0.606426	0.271509	235.574	201.241
152	-0.693147	0.610442	0.281926	235.574	200.733
153	-0.693147	0.614458	0.292375	235.574	200.222
154	-0.693147	0.618474	0.302855	235.574	199.711
155	-0.693147	0.62249	0.31337	235.574	199.197
156	-0.693147	0.626506	0.323919	235.574	198.682
157	-0.693147	0.630522	0.334503	235.574	198.165
158	-0.693147	0.634538	0.345126	235.574	197.646
159	-0.693147	0.638554	0.355788	235.574	197.126
160	-0.693147	0.64257	0.36649	235.574	196.603
161	-0.693147	0.646586	0.377233	235.574	196.078
162	-0.693147	0.650602	0.388022	235.574	195.552
163	-0.693147	0.654618	0.398855	235.574	195.023
164	-0.693147	0.658635	0.409735	235.574	194.491
165	-0.693147	0.662651	0.420664	235.574	193.958
166	-0.693147	0.666667	0.431644	235.574	193.421
167	-0.693147	0.670683	0.442676	235.574	192.883
168	-0.693147	0.674699	0.453763	235.574	192.341
169	-0.693147	0.678715	0.464904	235.574	191.797
170	-0.693147	0.682731	0.476105	235.574	191.25
171	-0.693147	0.686747	0.487364	235.574	190.7
172	-0.693147	0.690763	0.498687	235.574	190.147

173	-0.693147	0.694779	0.510074	235.574	189.591
174	-0.693147	0.698795	0.521527	235.574	189.032
175	-0.693147	0.702811	0.533048	235.574	188.469
176	-0.693147	0.706827	0.544642	235.574	187.903
177	-0.693147	0.710843	0.556308	235.574	187.334
178	-0.693147	0.714859	0.568052	235.574	186.76
179	-0.693147	0.718876	0.579873	235.574	186.183
180	-0.693147	0.722892	0.591776	235.574	185.602
181	-0.693147	0.726908	0.603765	235.574	185.016
182	-0.693147	0.730924	0.615839	235.574	184.427
183	-0.693147	0.73494	0.628006	235.574	183.832
184	-0.693147	0.738956	0.640266	235.574	183.234
185	-0.693147	0.742972	0.652622	235.574	182.63
186	-0.693147	0.746988	0.665079	235.574	182.022
187	-0.693147	0.751004	0.680797	235.574	181.254
188	-0.693147	0.75502	0.693493	235.574	180.634
189	-0.693147	0.759036	0.706302	235.574	180.009
190	-0.693147	0.763052	0.719228	235.574	179.378
191	-0.693147	0.767068	0.732275	235.574	178.741
192	-0.693147	0.771084	0.745449	235.574	178.097
193	-0.693147	0.7751	0.758753	235.574	177.448
194	-0.693147	0.779116	0.772193	235.574	176.791
195	-0.693147	0.783133	0.785774	235.574	176.128
196	-0.693147	0.787149	0.7995	235.574	175.458
197	-0.693147	0.791165	0.813379	235.574	174.78
198	-0.693147	0.795181	0.827417	235.574	174.094
199	-0.693147	0.799197	0.841621	235.574	173.401
200	-0.650088	0.803213	0.855996	238.134	172.699
201	-0.616186	0.807229	0.87055	240.149	171.988
202	-0.473209	0.811245	0.885291	248.648	171.268
203	-0.452557	0.815261	0.900227	249.876	170.539
204	-0.418550	0.819277	0.915365	251.897	169.8
205	-0.415515	0.823293	0.930718	252.078	169.05
206	-0.385662	0.827309	0.946291	253.852	168.289
207	-0.328504	0.831325	0.9621	257.25	167.517
208	-0.309246	0.835341	0.97815	258.395	166.734
209	-0.303811	0.839357	0.994457	258.718	165.937
210	-0.199671	0.843373	1.01104	264.908	165.128
211	0.198851	0.84739	1.02789	288.598	164.305
212	1.00063	0.851406	1.04505	336.26	163.467
213	1.09861	0.855422	1.06252	342.084	162.614
214	1.09861	0.859438	1.08032	342.084	161.744
215	1.19392	0.863454	1.09847	347.75	160.858
216	1.22378	0.86747	1.11699	349.524	159.954
217	1.25276	0.871486	1.1359	351.248	159.03
218	1.30833	0.875502	1.15522	354.551	158.087
219	1.335	0.879518	1.17499	356.136	157.121
220	1.38629	0.883534	1.19522	359.185	156.133
221	1.56862	0.88755	1.21596	370.023	155.121
222	1.60944	0.891566	1.23724	372.45	154.082
223	1.60944	0.895582	1.25908	372.45	153.015
224	1.60944	0.899598	1.28155	372.45	151.918
225	1.77495	0.903614	1.30469	382.289	150.788
226	1.79176	0.907631	1.32854	383.288	149.623
227	1.79176	0.911647	1.35317	383.288	148.42
228	1.79176	0.915663	1.37866	383.288	147.176
229	2.07944	0.919679	1.40507	400.389	145.886
230	2.09186	0.923695	1.4325	401.127	144.546
231	2.18605	0.927711	1.46106	406.726	143.152
232	2.19722	0.931727	1.49085	407.391	141.697
233	2.19722	0.935743	1.52203	407.391	140.174
234	2.33214	0.939759	1.55477	415.411	138.575

235	2.3979	0.943775	1.58927	419.319	136.891
236	2.47654	0.947791	1.62576	423.994	135.109
237	2.48491	0.951807	1.66456	424.492	133.214
238	2.54945	0.955823	1.70604	428.328	131.188
239	2.56495	0.959839	1.75069	429.25	129.008
240	2.56495	0.963855	1.79912	429.25	126.643
241	2.58776	0.967871	1.85218	430.606	124.052
242	2.64617	0.971888	1.91103	434.078	121.178
243	2.97553	0.975904	1.97737	453.656	117.938
244	3.04452	0.97992	2.05375	457.758	114.209
245	3.06805	0.983936	2.14441	459.156	109.781
246	3.09104	0.987952	2.25713	460.523	104.277
247	3.70377	0.991968	2.40892	496.946	96.8642
248	4.29046	0.995984	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	222
	9/23/1999	2.07944	229
	3/15/2000	3.04452	244
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	ND<-0.693147	87
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	ND<-0.693147	87
	6/11/2009	ND<-3.21888	87
	11/16/2009	ND<-3.21888	87
	6/30/2010	ND<-3.21888	87
	11/12/2010	-2.12026 J	177
	7/5/2011	ND<-3.21888 U	87

Rank Sum = 2177
Rank Mean = 114.579

Background Rank Sum = 2177
Background Rank Mean = 114.579

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<-0.693147	87
	8/24/1995	1.56862	221
	9/28/1995	ND<-0.693147	87
	10/26/1995	ND<-0.693147	87
	11/19/1996	ND<-0.693147	87
	12/19/1996	ND<-0.693147	87
	3/24/1997	ND<-0.693147	87
	9/24/1997	ND<-0.693147	87
	4/7/1998	ND<-0.693147	87
	9/23/1998	ND<-0.693147	87
	3/16/1999	ND<-0.693147	87
	9/23/1999	1.60944	223
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	ND<-0.693147	87
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87

	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	ND<-0.693147	87
	6/11/2009	-1.96611 J	179
	11/16/2009	ND<-3.21888	87
	6/30/2010	ND<-3.21888	87
	11/12/2010	ND<-3.21888 U	87
	7/5/2011	1.19392 H	215
	11/22/2011	ND<-3.21888 U	87
	6/5/2012	ND<-3.21888 U	87

Rank Sum = 3187
Rank Mean = 102.806

MW-8	7/20/1995	1.09861	213
	8/24/1995	2.18605	231
	9/28/1995	2.97553	243
	10/26/1995	ND<-0.693147	87
	11/19/1996	ND<-0.693147	87
	12/19/1996	2.58776	241
	3/24/1997	ND<-0.693147	87
	9/24/1997	ND<-0.693147	87
	4/7/1998	ND<-0.693147	87
	9/23/1998	2.56495	239
	3/16/1999	ND<-0.693147	87
	9/23/1999	4.29046	248
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	ND<-0.693147	87
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	-0.41855 J	204
	6/11/2009	ND<-3.21888	87
	6/30/2010	ND<-3.21888	87
	11/12/2010	ND<-3.21888 U	87
	7/5/2011	ND<-3.21888 U	87
	11/22/2011	ND<-3.21888 U	87
	6/5/2012	ND<-3.21888 U	87

Rank Sum = 3620
Rank Mean = 120.667

MW-6	7/20/1995	2.09186	230
	8/24/1995	1.77495	225
	9/28/1995	1.22378	216
	10/26/1995	ND<-0.693147	87
	11/19/1996	ND<-0.693147	87
	12/19/1996	2.33214	234
	3/24/1997	ND<-0.693147	87
	9/24/1997	2.48491	237
	4/7/1998	2.56495	240
	9/23/1998	ND<-0.693147	87
	3/16/1999	ND<-0.693147	87
	9/23/1999	ND<-0.693147	87
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87

	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	ND<-0.693147	87
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	ND<-0.693147	87
	6/11/2009	ND<-3.21888	87
	11/16/2009	-2.4651 J	174
	6/30/2010	ND<-3.21888	87
	11/12/2010	-2.20727 J	176
	7/5/2011	-1.89712 J	180
	11/22/2011	ND<-3.21888 U	87
	6/5/2012	ND<-3.21888 U	87

Rank Sum = 3826
Rank Mean = 123.419

MW-11R	7/20/1995	1.335	219
	8/24/1995	1.79176	226
	9/28/1995	1.30833	218
	10/26/1995	2.47654	236
	11/19/1996	ND<-0.693147	87
	12/19/1996	ND<-0.693147	87
	3/24/1997	ND<-0.693147	87
	9/24/1997	ND<-0.693147	87
	4/7/1998	ND<-0.693147	87
	9/23/1998	ND<-0.693147	87
	3/16/1999	ND<-0.693147	87
	9/23/1999	2.19722	232
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	0.198851	211
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	-0.452557 J	203
	6/11/2009	ND<-3.21888	87
	11/16/2009	ND<-3.21888	87
	6/30/2010	ND<-3.21888	87
	11/12/2010	ND<-3.21888 U	87
	7/5/2011	ND<-3.21888 U H	87
	11/22/2011	ND<-3.21888 U	87
	11/22/2011	ND<-3.21888 U	87
	6/5/2012	ND<-3.21888 U	87

Rank Sum = 3720
Rank Mean = 116.25

MW-9	7/20/1995	1.38629	220
	8/24/1995	1.09861	214
	9/28/1995	1.25276	217
	10/26/1995	ND<-0.693147	87
	11/19/1996	ND<-0.693147	87
	12/19/1996	ND<-0.693147	87
	3/24/1997	ND<-0.693147	87
	9/24/1997	3.09104	246
	4/7/1998	ND<-0.693147	87

	9/23/1998	ND<-0.693147	87
	3/16/1999	ND<-0.693147	87
	9/23/1999	ND<-0.693147	87
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	-0.415515 J	205
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	ND<-0.693147	87
	6/11/2009	ND<-3.21888	87
	11/16/2009	ND<-3.21888	87
	6/30/2010	ND<-3.21888	87
	11/12/2010	ND<-3.21888 U	87
	7/5/2011	-2.40795 J	175
	11/22/2011	ND<-3.21888 U	87
	11/22/2011	ND<-3.21888 U	87
	6/5/2012	ND<-3.21888 U	87

Rank Sum = 3539
Rank Mean = 110.594

MW-7	7/20/1995	ND<-0.693147	87
	8/24/1995	2.54945	238
	9/28/1995	3.70377	247
	10/26/1995	2.64617	242
	11/19/1996	ND<-0.693147	87
	12/19/1996	3.06805	245
	3/24/1997	ND<-0.693147	87
	9/24/1997	ND<-0.693147	87
	4/7/1998	ND<-0.693147	87
	9/23/1998	ND<-0.693147	87
	3/16/1999	2.19722	233
	9/23/1999	1.60944	224
	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	ND<-0.693147	87
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	-0.650088 J	200
	11/20/2008	-0.309246 J	208
	6/11/2009	-1.77196 J	184
	11/16/2009	-1.83258 J	182
	6/30/2010	-1.83258 J H	183
	11/12/2010	-1.7148 J	186
	7/5/2011	-1.89712 J	181
	11/22/2011	-2.12026 J	178
	6/5/2012	-1.23787 J	192

Rank Sum = 4515
Rank Mean = 145.645

MW-12BR	3/16/1999	ND<-0.693147	87
	9/23/1999	1.79176	227

	3/15/2000	ND<-0.693147	87
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	-0.473209 J	202
	4/29/2006	-0.693147 J	199
	11/18/2006	ND<-0.693147	87
	5/23/2007	ND<-0.693147	87
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	1.00063	212
	6/11/2009	-1.77196 J	185
	11/16/2009	-1.34707 J	188
	6/30/2010	-1.30933 J	190
	11/12/2010	-0.328504	207
	7/5/2011	-1.27297 J	191
	11/22/2011	-1.66073 J	187
	6/5/2012	-1.34707 J	189

Rank Sum = 3047
Rank Mean = 145.095

MW-12AR	3/16/1999	ND<-0.693147	87
	9/23/1999	1.79176	228
	3/15/2000	2.3979	235
	9/24/2003	ND<-0.693147	87
	3/11/2004	ND<-0.693147	87
	10/12/2004	ND<-0.693147	87
	4/1/2005	ND<-0.693147	87
	10/25/2005	ND<-0.693147	87
	4/29/2006	-0.385662 J	206
	11/18/2006	ND<-0.693147	87
	5/23/2007	-0.199671 J	210
	11/28/2007	ND<-0.693147	87
	6/5/2008	ND<-0.693147	87
	11/20/2008	-0.303811 J	209
	6/11/2009	-1.07881	193
	11/16/2009	-0.820981	196
	6/30/2010	-0.798508	197
	11/12/2010	-0.71335	198
	7/5/2011	-0.616186	201
	11/22/2011	-1.07881	194
	6/5/2012	-0.994252	195

Rank Sum = 3245
Rank Mean = 154.524

Calculation Results:

Kruskal-Wallis H Statistic = 13.0199
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 19.7107
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
13.0199 < 15.5073 indicating no significant group difference at 5% significance level
19.7107 > 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 114.579

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**102.806**	**-11.7725**	**48.6223**
MW-8	**120.667**	**6.08772**	**48.9293**

MW-6	**123.419**	**8.84041**	**48.6223**
MW-11R	**116.25**	**1.67105**	**48.3328**
MW-9	**110.594**	**-3.9852**	**48.3328**
MW-7	**145.645**	**31.0662**	**48.6223**
MW-12BR	**145.095**	**30.5163**	**52.8387**
MW-12AR	**154.524**	**39.9449**	**52.8387**

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 114.579

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**102.806**	**-11.7725**	**52.5055**
MW-8	**120.667**	**6.08772**	**52.837**
MW-6	**123.419**	**8.84041**	**52.5055**
MW-11R	**116.25**	**1.67105**	**52.1928**
MW-9	**110.594**	**-3.9852**	**52.1928**
MW-7	**145.645**	**31.0662**	**52.5055**
MW-12BR	**145.095**	**30.5163**	**57.0586**
MW-12AR	**154.524**	**39.9449**	**57.0586**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Lead

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 69.7581%
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-10	6/5/2012	1	-3.21888	FALSE
MW-8	6/5/2012	1	-3.21888	FALSE
MW-6	6/5/2012	1	-3.21888	FALSE
MW-11R	6/5/2012	1	-3.21888	FALSE
MW-9	6/5/2012	1	-3.21888	FALSE
MW-7	6/5/2012	1	-1.23787	FALSE
MW-12BR	6/5/2012	1	-1.34707	FALSE
MW-12AR	6/5/2012	1	-0.994252	FALSE

Concentrations (ppb)

Parameter: Mercury

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 243
Total Non-Detect: 225
Percent Non-Detects: 92.5926%
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-10	30	28 (93.3333%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U
MW-6	31	27 (87.0968%)	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
			6/5/2012	0.11 J	0.11 J
MW-11R	31	27 (87.0968%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-7	30	29 (96.6667%)	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	1.4	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-8	29	25 (86.2069%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-9	31	31 (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
			6/5/2012	ND<0.08 U	ND<0.08 U	
MW-12BR	21	20 (95.2381%)	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
			6/5/2012	ND<0.08 U	ND<0.08 U	

MW-12AR	21	21 (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	
		6/5/2012	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: Mercury

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 243

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	-1.91103	34.3095	-0.616188
8	0.0455	-1.85218	37.7401	-0.700462
9	0.0455	-1.79912	40.9769	-0.782322
10	0.0455	-1.75069	44.0418	-0.861978
11	0.0455	-1.6954	46.9162	-0.939118
12	0.0455	-1.65463	49.6539	-1.0144
13	0.0455	-1.61644	52.2668	-1.08795
14	0.0455	-1.58047	54.7647	-1.15986
15	0.0455	-1.54643	57.1561	-1.23023
16	0.0455	-1.5141	59.4486	-1.29912
17	0.0455	-1.48328	61.6488	-1.36661
18	0.0455	-1.4538	63.7623	-1.43275
19	0.0455	-1.42554	65.7945	-1.49762
20	0.0455	-1.39838	67.7499	-1.56124
21	0.0455	-1.36581	69.6154	-1.62339
22	0.0455	-1.34075	71.413	-1.68439
23	0.0455	-1.31652	73.1462	-1.74429
24	0.0455	-1.29303	74.8182	-1.80313
25	0.0455	-1.27024	76.4317	-1.86092
26	0.0455	-1.24809	77.9894	-1.91771
27	0.0455	-1.22653	79.4937	-1.97352
28	0.0455	-1.20553	80.947	-2.02837
29	0.0455	-1.18504	82.3514	-2.08229
30	0.0455	-1.16505	83.7087	-2.1353
31	0.0455	-1.14069	85.0099	-2.1872
32	0.0455	-1.12168	86.268	-2.23824
33	0.0455	-1.10306	87.4848	-2.28842
34	0.0455	-1.08482	88.6616	-2.33778
35	0.0455	-1.06694	89.8	-2.38633
36	0.0455	-1.04939	90.9012	-2.43408
37	0.0455	-1.03215	91.9665	-2.48104
38	0.0455	-1.01522	92.9972	-2.52723
39	0.0455	-0.998575	93.9944	-2.57267
40	0.0455	-0.982202	94.9591	-2.61736
41	0.0455	-0.9621	95.8847	-2.66113
42	0.0455	-0.946291	96.7802	-2.70419
43	0.0455	-0.930718	97.6464	-2.74654
44	0.0455	-0.915365	98.4843	-2.78819
45	0.0455	-0.900227	99.2947	-2.82915
46	0.0455	-0.885291	100.078	-2.86943
47	0.0455	-0.87055	100.836	-2.90904
48	0.0455	-0.855996	101.569	-2.94799
49	0.0455	-0.841621	102.277	-2.98628
50	0.0455	-0.827417	102.962	-3.02393
51	0.0455	-0.809896	103.618	-3.06078

52	0.091	-0.796056	104.252	-3.13322
53	0.11	-0.782366	104.864	-3.21928
54	0.11	-0.768821	105.455	-3.30385
55	0.11	-0.755415	106.025	-3.38694
56	0.12	-0.742143	106.576	-3.476
57	0.2	-0.729003	107.108	-3.6218
58	0.25	-0.715986	107.62	-3.8008
59	0.25	-0.703089	108.115	-3.97657
60	0.25	-0.690309	108.591	-4.14915
61	0.25	-0.67449	109.046	-4.31777
62	0.25	-0.661955	109.484	-4.48326
63	0.25	-0.649522	109.906	-4.64564
64	0.25	-0.637192	110.312	-4.80494
65	0.25	-0.624956	110.703	-4.96118
66	0.25	-0.612813	111.078	-5.11438
67	0.25	-0.60076	111.439	-5.26457
68	0.25	-0.588793	111.786	-5.41177
69	0.25	-0.576911	112.119	-5.556
70	0.25	-0.565108	112.438	-5.69727
71	0.25	-0.553384	112.744	-5.83562
72	0.25	-0.538836	113.035	-5.97033
73	0.25	-0.52728	113.313	-6.10215
74	0.25	-0.515791	113.579	-6.2311
75	0.25	-0.504372	113.833	-6.35719
76	0.25	-0.493018	114.076	-6.48044
77	0.25	-0.481728	114.308	-6.60087
78	0.25	-0.470498	114.53	-6.7185
79	0.25	-0.459327	114.741	-6.83333
80	0.25	-0.448213	114.941	-6.94538
81	0.25	-0.437153	115.133	-7.05467
82	0.25	-0.423405	115.312	-7.16052
83	0.25	-0.412463	115.482	-7.26364
84	0.25	-0.401571	115.643	-7.36403
85	0.25	-0.390726	115.796	-7.46171
86	0.25	-0.379927	115.94	-7.5567
87	0.25	-0.369171	116.077	-7.64899
88	0.25	-0.358459	116.205	-7.7386
89	0.25	-0.347787	116.326	-7.82555
90	0.25	-0.337155	116.44	-7.90984
91	0.25	-0.326561	116.546	-7.99148
92	0.25	-0.31337	116.644	-8.06982
93	0.25	-0.302855	116.736	-8.14553
94	0.25	-0.292375	116.822	-8.21863
95	0.25	-0.281926	116.901	-8.28911
96	0.25	-0.271509	116.975	-8.35699
97	0.25	-0.26112	117.043	-8.42227
98	0.25	-0.250759	117.106	-8.48496
99	0.25	-0.240426	117.164	-8.54506
100	0.25	-0.230118	117.217	-8.60259
101	0.25	-0.219834	117.265	-8.65755
102	0.25	-0.207012	117.308	-8.70931
103	0.25	-0.196779	117.347	-8.7585
104	0.25	-0.186567	117.381	-8.80514
105	0.25	-0.176374	117.413	-8.84924
106	0.25	-0.166199	117.44	-8.89078
107	0.25	-0.156042	117.465	-8.9298
108	0.25	-0.1459	117.486	-8.96627
109	0.25	-0.135774	117.504	-9.00021
110	0.25	-0.125661	117.52	-9.03163
111	0.25	-0.115562	117.533	-9.06052
112	0.25	-0.102953	117.544	-9.08626
113	0.25	-0.0928787	117.553	-9.10948

114	0.25	-0.0828129	117.559	-9.13018
115	0.25	-0.0727562	117.565	-9.14837
116	0.25	-0.0627062	117.569	-9.16405
117	0.25	-0.0526632	117.571	-9.17721
118	0.25	-0.0426257	117.573	-9.18787
119	0.25	-0.0325917	117.574	-9.19602
120	0.25	-0.0225612	117.575	-9.20166
121	0.25	-0.0125328	117.575	-9.20479
122	0.25	0	117.575	-9.20479
123	0.25	0.0125328	117.575	-9.20166
124	0.25	0.0225612	117.576	-9.19602
125	0.25	0.0325917	117.577	-9.18787
126	0.25	0.0426257	117.579	-9.17721
127	0.25	0.0526632	117.581	-9.16405
128	0.25	0.0627062	117.585	-9.14837
129	0.25	0.0727562	117.591	-9.13018
130	0.25	0.0828129	117.597	-9.10948
131	0.25	0.0928787	117.606	-9.08626
132	0.25	0.102953	117.617	-9.06052
133	0.25	0.115562	117.63	-9.03163
134	0.25	0.125661	117.646	-9.00021
135	0.25	0.135774	117.664	-8.96627
136	0.25	0.1459	117.685	-8.9298
137	0.25	0.156042	117.71	-8.89078
138	0.25	0.166199	117.737	-8.84924
139	0.25	0.176374	117.769	-8.80514
140	0.25	0.186567	117.803	-8.7585
141	0.25	0.196779	117.842	-8.70931
142	0.25	0.207012	117.885	-8.65755
143	0.25	0.219834	117.933	-8.60259
144	0.25	0.230118	117.986	-8.54506
145	0.25	0.240426	118.044	-8.48496
146	0.25	0.250759	118.107	-8.42227
147	0.25	0.26112	118.175	-8.35699
148	0.25	0.271509	118.249	-8.28911
149	0.25	0.281926	118.328	-8.21863
150	0.25	0.292375	118.414	-8.14553
151	0.25	0.302855	118.506	-8.06982
152	0.25	0.31337	118.604	-7.99148
153	0.25	0.326561	118.71	-7.90984
154	0.25	0.337155	118.824	-7.82555
155	0.25	0.347787	118.945	-7.7386
156	0.25	0.358459	119.073	-7.64899
157	0.25	0.369171	119.21	-7.5567
158	0.25	0.379927	119.354	-7.46171
159	0.25	0.390726	119.507	-7.36403
160	0.25	0.401571	119.668	-7.26364
161	0.25	0.412463	119.838	-7.16052
162	0.25	0.423405	120.017	-7.05467
163	0.25	0.437153	120.209	-6.94538
164	0.25	0.448213	120.409	-6.83333
165	0.25	0.459327	120.62	-6.7185
166	0.25	0.470498	120.842	-6.60087
167	0.25	0.481728	121.074	-6.48044
168	0.25	0.493018	121.317	-6.35719
169	0.25	0.504372	121.571	-6.2311
170	0.25	0.515791	121.837	-6.10215
171	0.25	0.52728	122.115	-5.97033
172	0.25	0.538836	122.406	-5.83562
173	0.25	0.553384	122.712	-5.69727
174	0.25	0.565108	123.031	-5.556
175	0.25	0.576911	123.364	-5.41177

176	0.25	0.588793	123.711	-5.26457
177	0.25	0.60076	124.072	-5.11438
178	0.25	0.612813	124.447	-4.96118
179	0.25	0.624956	124.838	-4.80494
180	0.25	0.637192	125.244	-4.64564
181	0.25	0.649522	125.666	-4.48326
182	0.25	0.661955	126.104	-4.31777
183	0.25	0.67449	126.559	-4.14915
184	0.25	0.690309	127.035	-3.97657
185	0.25	0.703089	127.53	-3.8008
186	0.25	0.715986	128.042	-3.6218
187	0.25	0.729003	128.574	-3.43955
188	0.25	0.742143	129.125	-3.25402
189	0.25	0.755415	129.695	-3.06516
190	0.25	0.768821	130.286	-2.87296
191	0.25	0.782366	130.898	-2.67736
192	0.25	0.796056	131.532	-2.47835
193	0.25	0.809896	132.188	-2.27588
194	0.25	0.827417	132.873	-2.06902
195	0.25	0.841621	133.581	-1.85862
196	0.25	0.855996	134.314	-1.64462
197	0.25	0.87055	135.072	-1.42698
198	0.25	0.885291	135.855	-1.20566
199	0.25	0.900227	136.666	-0.980601
200	0.25	0.915365	137.504	-0.75176
201	0.25	0.930718	138.37	-0.51908
202	0.25	0.946291	139.265	-0.282508
203	0.25	0.9621	140.191	-0.0419828
204	0.25	0.982202	141.156	0.203568
205	0.25	0.998575	142.153	0.453211
206	0.25	1.01522	143.183	0.707017
207	0.25	1.03215	144.249	0.965055
208	0.25	1.04939	145.35	1.2274
209	0.25	1.06694	146.488	1.49414
210	0.25	1.08482	147.665	1.76534
211	0.25	1.10306	148.882	2.04111
212	0.25	1.12168	150.14	2.32153
213	0.25	1.14069	151.441	2.6067
214	0.25	1.16505	152.799	2.89796
215	0.25	1.18504	154.203	3.19422
216	0.25	1.20553	155.656	3.4956
217	0.25	1.22653	157.161	3.80224
218	0.25	1.24809	158.718	4.11426
219	0.25	1.27024	160.332	4.43182
220	0.25	1.29303	162.004	4.75507
221	0.25	1.31652	163.737	5.0842
222	0.25	1.34075	165.535	5.41939
223	0.25	1.36581	167.4	5.76084
224	0.25	1.39838	169.356	6.11044
225	0.25	1.42554	171.388	6.46682
226	0.25	1.4538	173.501	6.83028
227	0.25	1.48328	175.701	7.2011
228	0.25	1.5141	177.994	7.57962
229	0.25	1.54643	180.385	7.96623
230	0.25	1.58047	182.883	8.36135
231	0.25	1.61644	185.496	8.76546
232	0.31	1.65463	188.234	9.27839
233	0.37	1.6954	191.108	9.90569
234	0.4	1.75069	194.173	10.606
235	0.5	1.79912	197.41	11.5055
236	0.5	1.85218	200.841	12.4316
237	1	1.91103	204.493	14.3426

238	1.03	1.97737	208.403	16.3793
239	1.2	2.05375	212.62	18.8438
240	1.4	2.14441	217.219	21.846
241	1.5	2.25713	222.314	25.2317
242	1.62	2.40892	228.116	29.1341
243	5.19	2.65209	235.15	42.8985

Data Set Standard Deviation = 0.372916
Numerator = 1840.28
Denominator = 7913.76
W Statistic = 0.232542 = 1840.28 / 7913.76

5% Critical value of 0.976 exceeds 0.232542
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.232542
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 = 0.493115
0.493115 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.04	0.00409836	-2.65209	42.5667	344.01	
2	0.04	0.00819672	-2.40892	42.5667	332.136	
3	0.04	0.0122951	-2.25713	42.5667	324.723	
4	0.04	0.0163934	-2.14441	42.5667	319.219	
5	0.04	0.0204918	-2.05375	42.5667	314.791	
6	0.04	0.0245902	-1.97737	42.5667	311.062	
7	0.04	0.0286885	-1.91103	42.5667	307.822	
8	0.0455	0.0327869	-1.85218	43.0571	304.948	
9	0.0455	0.0368852	-1.79912	43.0571	302.357	
10	0.0455	0.0409836	-1.75069	43.0571	299.992	
11	0.0455	0.045082	-1.6954	43.0571	297.292	
12	0.0455	0.0491803	-1.65463	43.0571	295.301	
13	0.0455	0.0532787	-1.61644	43.0571	293.436	
14	0.0455	0.057377	-1.58047	43.0571	291.679	
15	0.0455	0.0614754	-1.54643	43.0571	290.017	
16	0.0455	0.0655738	-1.5141	43.0571	288.439	
17	0.0455	0.0696721	-1.48328	43.0571	286.934	
18	0.0455	0.0737705	-1.4538	43.0571	285.494	
19	0.0455	0.0778689	-1.42554	43.0571	284.114	
20	0.0455	0.0819672	-1.39838	43.0571	282.787	
21	0.0455	0.0860656	-1.36581	43.0571	281.197	
22	0.0455	0.0901639	-1.34075	43.0571	279.974	
23	0.0455	0.0942623	-1.31652	43.0571	278.79	
24	0.0455	0.0983607	-1.29303	43.0571	277.643	
25	0.0455	0.102459	-1.27024	43.0571	276.53	
26	0.0455	0.106557	-1.24809	43.0571	275.448	
27	0.0455	0.110656	-1.22653	43.0571	274.395	
28	0.0455	0.114754	-1.20553	43.0571	273.37	
29	0.0455	0.118852	-1.18504	43.0571	272.37	
30	0.0455	0.122951	-1.16505	43.0571	271.393	
31	0.0455	0.127049	-1.14069	43.0571	270.204	
32	0.0455	0.131148	-1.12168	43.0571	269.275	
33	0.0455	0.135246	-1.10306	43.0571	268.366	
34	0.0455	0.139344	-1.08482	43.0571	267.476	
35	0.0455	0.143443	-1.06694	43.0571	266.602	
36	0.0455	0.147541	-1.04939	43.0571	265.745	
37	0.0455	0.151639	-1.03215	43.0571	264.904	
38	0.0455	0.155738	-1.01522	43.0571	264.077	
39	0.0455	0.159836	-0.998575	43.0571	263.264	
40	0.0455	0.163934	-0.982202	43.0571	262.464	
41	0.0455	0.168033	-0.9621	43.0571	261.483	
42	0.0455	0.172131	-0.946291	43.0571	260.711	
43	0.0455	0.17623	-0.930718	43.0571	259.95	
44	0.0455	0.180328	-0.915365	43.0571	259.2	
45	0.0455	0.184426	-0.900227	43.0571	258.461	
46	0.0455	0.188525	-0.885291	43.0571	257.732	
47	0.0455	0.192623	-0.87055	43.0571	257.012	
48	0.0455	0.196721	-0.855996	43.0571	256.301	

49	0.0455	0.20082	-0.841621	43.0571	255.599
50	0.0455	0.204918	-0.827417	43.0571	254.906
51	0.0455	0.209016	-0.809896	43.0571	254.05
52	0.091	0.213115	-0.796056	47.1142	253.374
53	0.11	0.217213	-0.782366	48.8083	252.706
54	0.11	0.221311	-0.768821	48.8083	252.044
55	0.11	0.22541	-0.755415	48.8083	251.389
56	0.12	0.229508	-0.742143	49.7	250.741
57	0.2	0.233607	-0.729003	56.8333	250.1
58	0.25	0.237705	-0.715986	61.2917	249.464
59	0.25	0.241803	-0.703089	61.2917	248.834
60	0.25	0.245902	-0.690309	61.2917	248.21
61	0.25	0.25	-0.674496	61.2917	247.438
62	0.25	0.254098	-0.661955	61.2917	246.825
63	0.25	0.258197	-0.649522	61.2917	246.218
64	0.25	0.262295	-0.637192	61.2917	245.616
65	0.25	0.266393	-0.624956	61.2917	245.019
66	0.25	0.270492	-0.612813	61.2917	244.426
67	0.25	0.27459	-0.600766	61.2917	243.837
68	0.25	0.278689	-0.588793	61.2917	243.253
69	0.25	0.282787	-0.576911	61.2917	242.672
70	0.25	0.286885	-0.565108	61.2917	242.096
71	0.25	0.290984	-0.553384	61.2917	241.524
72	0.25	0.295082	-0.538836	61.2917	240.813
73	0.25	0.29918	-0.527286	61.2917	240.249
74	0.25	0.303279	-0.515791	61.2917	239.688
75	0.25	0.307377	-0.504372	61.2917	239.13
76	0.25	0.311475	-0.493018	61.2917	238.576
77	0.25	0.315574	-0.481728	61.2917	238.024
78	0.25	0.319672	-0.470498	61.2917	237.476
79	0.25	0.32377	-0.459327	61.2917	236.93
80	0.25	0.327869	-0.448213	61.2917	236.388
81	0.25	0.331967	-0.437153	61.2917	235.848
82	0.25	0.336066	-0.423405	61.2917	235.176
83	0.25	0.340164	-0.412463	61.2917	234.642
84	0.25	0.344262	-0.401571	61.2917	234.11
85	0.25	0.348361	-0.390726	61.2917	233.58
86	0.25	0.352459	-0.379927	61.2917	233.053
87	0.25	0.356557	-0.369171	61.2917	232.528
88	0.25	0.360656	-0.358459	61.2917	232.005
89	0.25	0.364754	-0.347787	61.2917	231.484
90	0.25	0.368852	-0.337155	61.2917	230.964
91	0.25	0.372951	-0.326561	61.2917	230.447
92	0.25	0.377049	-0.313337	61.2917	229.803
93	0.25	0.381148	-0.302855	61.2917	229.289
94	0.25	0.385246	-0.292375	61.2917	228.778
95	0.25	0.389344	-0.281926	61.2917	228.267
96	0.25	0.393443	-0.271509	61.2917	227.759
97	0.25	0.397541	-0.261126	61.2917	227.251
98	0.25	0.401639	-0.250759	61.2917	226.745
99	0.25	0.405738	-0.240426	61.2917	226.241
100	0.25	0.409836	-0.230118	61.2917	225.737
101	0.25	0.413934	-0.219834	61.2917	225.235
102	0.25	0.418033	-0.207012	61.2917	224.609
103	0.25	0.422131	-0.196779	61.2917	224.109
104	0.25	0.42623	-0.186567	61.2917	223.611
105	0.25	0.430328	-0.176374	61.2917	223.113
106	0.25	0.434426	-0.166199	61.2917	222.616
107	0.25	0.438525	-0.156042	61.2917	222.12
108	0.25	0.442623	-0.1459	61.2917	221.625
109	0.25	0.446721	-0.135774	61.2917	221.13
110	0.25	0.45082	-0.125661	61.2917	220.636

111	0.25	0.454918	-0.115562	61.2917	220.143
112	0.25	0.459016	-0.102953	61.2917	219.528
113	0.25	0.463115	-0.0928787	61.2917	219.036
114	0.25	0.467213	-0.0828129	61.2917	218.544
115	0.25	0.471311	-0.0727562	61.2917	218.053
116	0.25	0.47541	-0.0627062	61.2917	217.562
117	0.25	0.479508	-0.0526632	61.2917	217.072
118	0.25	0.483607	-0.0426257	61.2917	216.582
119	0.25	0.487705	-0.0325917	61.2917	216.092
120	0.25	0.491803	-0.0225612	61.2917	215.602
121	0.25	0.495902	-0.0125328	61.2917	215.112
122	0.25	0.5	0	61.2917	214.5
123	0.25	0.504098	0.0125328	61.2917	213.888
124	0.25	0.508197	0.0225612	61.2917	213.398
125	0.25	0.512295	0.0325917	61.2917	212.908
126	0.25	0.516393	0.0426257	61.2917	212.418
127	0.25	0.520492	0.0526632	61.2917	211.928
128	0.25	0.52459	0.0627062	61.2917	211.438
129	0.25	0.528689	0.0727562	61.2917	210.947
130	0.25	0.532787	0.0828129	61.2917	210.456
131	0.25	0.536885	0.0928787	61.2917	209.964
132	0.25	0.540984	0.102953	61.2917	209.472
133	0.25	0.545082	0.115562	61.2917	208.857
134	0.25	0.54918	0.125661	61.2917	208.364
135	0.25	0.553279	0.135774	61.2917	207.87
136	0.25	0.557377	0.1459	61.2917	207.375
137	0.25	0.561475	0.156042	61.2917	206.88
138	0.25	0.565574	0.166199	61.2917	206.384
139	0.25	0.569672	0.176374	61.2917	205.887
140	0.25	0.57377	0.186567	61.2917	205.389
141	0.25	0.577869	0.196779	61.2917	204.891
142	0.25	0.581967	0.207012	61.2917	204.391
143	0.25	0.586066	0.219834	61.2917	203.765
144	0.25	0.590164	0.230118	61.2917	203.263
145	0.25	0.594262	0.240426	61.2917	202.759
146	0.25	0.598361	0.250759	61.2917	202.255
147	0.25	0.602459	0.26112	61.2917	201.749
148	0.25	0.606557	0.271509	61.2917	201.241
149	0.25	0.610656	0.281926	61.2917	200.733
150	0.25	0.614754	0.292375	61.2917	200.222
151	0.25	0.618852	0.302855	61.2917	199.711
152	0.25	0.622951	0.31337	61.2917	199.197
153	0.25	0.627049	0.326561	61.2917	198.553
154	0.25	0.631148	0.337155	61.2917	198.036
155	0.25	0.635246	0.347787	61.2917	197.516
156	0.25	0.639344	0.358459	61.2917	196.995
157	0.25	0.643443	0.369171	61.2917	196.472
158	0.25	0.647541	0.379927	61.2917	195.947
159	0.25	0.651639	0.390726	61.2917	195.42
160	0.25	0.655738	0.401571	61.2917	194.89
161	0.25	0.659836	0.412463	61.2917	194.358
162	0.25	0.663934	0.423405	61.2917	193.824
163	0.25	0.668033	0.437153	61.2917	193.152
164	0.25	0.672131	0.448213	61.2917	192.612
165	0.25	0.67623	0.459327	61.2917	192.07
166	0.25	0.680328	0.470498	61.2917	191.524
167	0.25	0.684426	0.481728	61.2917	190.976
168	0.25	0.688525	0.493018	61.2917	190.424
169	0.25	0.692623	0.504372	61.2917	189.87
170	0.25	0.696721	0.515791	61.2917	189.312
171	0.25	0.70082	0.52728	61.2917	188.751
172	0.25	0.704918	0.538836	61.2917	188.187

173	0.25	0.709016	0.553384	61.2917	187.476
174	0.25	0.713115	0.565108	61.2917	186.904
175	0.25	0.717213	0.576911	61.2917	186.328
176	0.25	0.721311	0.588793	61.2917	185.747
177	0.25	0.72541	0.60076	61.2917	185.163
178	0.25	0.729508	0.612813	61.2917	184.574
179	0.25	0.733607	0.624956	61.2917	183.981
180	0.25	0.737705	0.637192	61.2917	183.384
181	0.25	0.741803	0.649522	61.2917	182.782
182	0.25	0.745902	0.661955	61.2917	182.175
183	0.25	0.75	0.67449	61.2917	181.562
184	0.25	0.754098	0.690309	61.2917	180.79
185	0.25	0.758197	0.703089	61.2917	180.166
186	0.25	0.762295	0.715986	61.2917	179.536
187	0.25	0.766393	0.729003	61.2917	178.9
188	0.25	0.770492	0.742143	61.2917	178.259
189	0.25	0.77459	0.755415	61.2917	177.611
190	0.25	0.778689	0.768821	61.2917	176.956
191	0.25	0.782787	0.782366	61.2917	176.294
192	0.25	0.786885	0.796056	61.2917	175.626
193	0.25	0.790984	0.809896	61.2917	174.95
194	0.25	0.795082	0.827417	61.2917	174.094
195	0.25	0.79918	0.841621	61.2917	173.401
196	0.25	0.803279	0.855996	61.2917	172.699
197	0.25	0.807377	0.87055	61.2917	171.988
198	0.25	0.811475	0.885291	61.2917	171.268
199	0.25	0.815574	0.900227	61.2917	170.539
200	0.25	0.819672	0.915365	61.2917	169.8
201	0.25	0.82377	0.930718	61.2917	169.05
202	0.25	0.827869	0.946291	61.2917	168.289
203	0.25	0.831967	0.9621	61.2917	167.517
204	0.25	0.836066	0.982202	61.2917	166.536
205	0.25	0.840164	0.998575	61.2917	165.736
206	0.25	0.844262	1.01522	61.2917	164.923
207	0.25	0.848361	1.03215	61.2917	164.096
208	0.25	0.852459	1.04939	61.2917	163.255
209	0.25	0.856557	1.06694	61.2917	162.398
210	0.25	0.860656	1.08482	61.2917	161.524
211	0.25	0.864754	1.10306	61.2917	160.634
212	0.25	0.868852	1.12168	61.2917	159.725
213	0.25	0.872951	1.14069	61.2917	158.796
214	0.25	0.877049	1.16505	61.2917	157.607
215	0.25	0.881148	1.18504	61.2917	156.63
216	0.25	0.885246	1.20553	61.2917	155.63
217	0.25	0.889344	1.22653	61.2917	154.605
218	0.25	0.893443	1.24809	61.2917	153.552
219	0.25	0.897541	1.27024	61.2917	152.47
220	0.25	0.901639	1.29303	61.2917	151.357
221	0.25	0.905738	1.31652	61.2917	150.21
222	0.25	0.909836	1.34075	61.2917	149.026
223	0.25	0.913934	1.36581	61.2917	147.803
224	0.25	0.918033	1.39838	61.2917	146.213
225	0.25	0.922131	1.42554	61.2917	144.886
226	0.25	0.92623	1.4538	61.2917	143.506
227	0.25	0.930328	1.48328	61.2917	142.066
228	0.25	0.934426	1.5141	61.2917	140.561
229	0.25	0.938525	1.54643	61.2917	138.983
230	0.25	0.942623	1.58047	61.2917	137.321
231	0.25	0.946721	1.61644	61.2917	135.564
232	0.31	0.95082	1.65463	66.6417	133.699
233	0.37	0.954918	1.6954	71.9917	131.708
234	0.4	0.959016	1.75069	74.6667	129.008

235	0.5	0.963115		1.79912	83.5833	126.643
236	0.5	0.967213		1.85218	83.5833	124.052
237	1	0.971311		1.91103	128.167	121.178
238	1.03	0.97541	1.97737	130.842	117.938	
239	1.2	0.979508		2.05375	146	114.209
240	1.4	0.983607		2.14441	163.833	109.781
241	1.5	0.987705		2.25713	172.75	104.277
242	1.62	0.991803		2.40892	183.45	96.8642
243	5.19	0.995902		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 = 243

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	-1.91103	34.3095	49.5858
8	-3.09004	-1.85218	37.7401	55.3091
9	-3.09004	-1.79912	40.9769	60.8685
10	-3.09004	-1.75069	44.0418	66.2781
11	-3.09004	-1.6954	46.9162	71.517
12	-3.09004	-1.65463	49.6539	76.6299
13	-3.09004	-1.61644	52.2668	81.6247
14	-3.09004	-1.58047	54.7647	86.5084
15	-3.09004	-1.54643	57.1561	91.287
16	-3.09004	-1.5141	59.4486	95.9656
17	-3.09004	-1.48328	61.6488	100.549
18	-3.09004	-1.4538	63.7623	105.041
19	-3.09004	-1.42554	65.7945	109.446
20	-3.09004	-1.39838	67.7499	113.767
21	-3.09004	-1.36581	69.6154	117.988
22	-3.09004	-1.34075	71.413	122.131
23	-3.09004	-1.31652	73.1462	126.199
24	-3.09004	-1.29303	74.8182	130.194
25	-3.09004	-1.27024	76.4317	134.119
26	-3.09004	-1.24809	77.9894	137.976
27	-3.09004	-1.22653	79.4937	141.766
28	-3.09004	-1.20553	80.947	145.491
29	-3.09004	-1.18504	82.3514	149.153
30	-3.09004	-1.16505	83.7087	152.753
31	-3.09004	-1.14069	85.0099	156.278
32	-3.09004	-1.12168	86.268	159.744
33	-3.09004	-1.10306	87.4848	163.152
34	-3.09004	-1.08482	88.6616	166.505
35	-3.09004	-1.06694	89.8	169.802
36	-3.09004	-1.04939	90.9012	173.044
37	-3.09004	-1.03215	91.9665	176.234
38	-3.09004	-1.01522	92.9972	179.371
39	-3.09004	-0.998575	93.9944	182.456
40	-3.09004	-0.982202	94.9591	185.491
41	-3.09004	-0.9621	95.8847	188.464
42	-3.09004	-0.946291	96.7802	191.388
43	-3.09004	-0.930718	97.6464	194.264
44	-3.09004	-0.915365	98.4843	197.093
45	-3.09004	-0.900227	99.2947	199.875
46	-3.09004	-0.885291	100.078	202.61
47	-3.09004	-0.87055	100.836	205.3
48	-3.09004	-0.855996	101.569	207.945
49	-3.09004	-0.841621	102.277	210.546
50	-3.09004	-0.827417	102.962	213.103
51	-3.09004	-0.809896	103.618	215.605

52	-2.3969	-0.796056	104.252	217.513
53	-2.20727	-0.782366	104.864	219.24
54	-2.20727	-0.768821	105.455	220.937
55	-2.20727	-0.755415	106.025	222.605
56	-2.12026	-0.742143	106.576	224.178
57	-1.60944	-0.729003	107.108	225.351
58	-1.38629	-0.715986	107.62	226.344
59	-1.38629	-0.703089	108.115	227.319
60	-1.38629	-0.690309	108.591	228.276
61	-1.38629	-0.67449	109.046	229.211
62	-1.38629	-0.661955	109.484	230.128
63	-1.38629	-0.649522	109.906	231.029
64	-1.38629	-0.637192	110.312	231.912
65	-1.38629	-0.624956	110.703	232.779
66	-1.38629	-0.612813	111.078	233.628
67	-1.38629	-0.60076	111.439	234.461
68	-1.38629	-0.588793	111.786	235.277
69	-1.38629	-0.576911	112.119	236.077
70	-1.38629	-0.565108	112.438	236.86
71	-1.38629	-0.553384	112.744	237.627
72	-1.38629	-0.538836	113.035	238.374
73	-1.38629	-0.52728	113.313	239.105
74	-1.38629	-0.515791	113.579	239.82
75	-1.38629	-0.504372	113.833	240.52
76	-1.38629	-0.493018	114.076	241.203
77	-1.38629	-0.481728	114.308	241.871
78	-1.38629	-0.470498	114.53	242.523
79	-1.38629	-0.459327	114.741	243.16
80	-1.38629	-0.448213	114.941	243.781
81	-1.38629	-0.437153	115.133	244.387
82	-1.38629	-0.423405	115.312	244.974
83	-1.38629	-0.412463	115.482	245.546
84	-1.38629	-0.401571	115.643	246.103
85	-1.38629	-0.390726	115.796	246.644
86	-1.38629	-0.379927	115.94	247.171
87	-1.38629	-0.369171	116.077	247.683
88	-1.38629	-0.358459	116.205	248.18
89	-1.38629	-0.347787	116.326	248.662
90	-1.38629	-0.337155	116.44	249.129
91	-1.38629	-0.326561	116.546	249.582
92	-1.38629	-0.31337	116.644	250.016
93	-1.38629	-0.302855	116.736	250.436
94	-1.38629	-0.292375	116.822	250.842
95	-1.38629	-0.281926	116.901	251.232
96	-1.38629	-0.271509	116.975	251.609
97	-1.38629	-0.26112	117.043	251.971
98	-1.38629	-0.250759	117.106	252.318
99	-1.38629	-0.240426	117.164	252.652
100	-1.38629	-0.230118	117.217	252.971
101	-1.38629	-0.219834	117.265	253.276
102	-1.38629	-0.207012	117.308	253.563
103	-1.38629	-0.196779	117.347	253.835
104	-1.38629	-0.186567	117.381	254.094
105	-1.38629	-0.176374	117.413	254.338
106	-1.38629	-0.166199	117.44	254.569
107	-1.38629	-0.156042	117.465	254.785
108	-1.38629	-0.1459	117.486	254.987
109	-1.38629	-0.135774	117.504	255.176
110	-1.38629	-0.125661	117.52	255.35
111	-1.38629	-0.115562	117.533	255.51
112	-1.38629	-0.102953	117.544	255.653
113	-1.38629	-0.0928787	117.553	255.782

114	-1.38629	-0.0828129	117.559	255.896
115	-1.38629	-0.0727562	117.565	255.997
116	-1.38629	-0.0627062	117.569	256.084
117	-1.38629	-0.0526632	117.571	256.157
118	-1.38629	-0.0426257	117.573	256.216
119	-1.38629	-0.0325917	117.574	256.261
120	-1.38629	-0.0225612	117.575	256.293
121	-1.38629	-0.0125328	117.575	256.31
122	-1.386290	117.575	256.31	
123	-1.386290	.0125328	117.575	256.293
124	-1.386290	.0225612	117.576	256.261
125	-1.386290	.0325917	117.577	256.216
126	-1.386290	.0426257	117.579	256.157
127	-1.386290	.0526632	117.581	256.084
128	-1.386290	.0627062	117.585	255.997
129	-1.386290	.0727562	117.591	255.896
130	-1.386290	.0828129	117.597	255.782
131	-1.386290	.0928787	117.606	255.653
132	-1.386290	.102953	117.617	255.51
133	-1.386290	.115562	117.63	255.35
134	-1.386290	.125661	117.646	255.176
135	-1.386290	.135774	117.664	254.987
136	-1.386290	.1459	117.685	254.785
137	-1.386290	.156042	117.71	254.569
138	-1.386290	.166199	117.737	254.338
139	-1.386290	.176374	117.769	254.094
140	-1.386290	.186567	117.803	253.835
141	-1.386290	.196779	117.842	253.563
142	-1.386290	.207012	117.885	253.276
143	-1.386290	.219834	117.933	252.971
144	-1.386290	.230118	117.986	252.652
145	-1.386290	.240426	118.044	252.318
146	-1.386290	.250759	118.107	251.971
147	-1.386290	.26112	118.175	251.609
148	-1.386290	.271509	118.249	251.232
149	-1.386290	.281926	118.328	250.842
150	-1.386290	.292375	118.414	250.436
151	-1.386290	.302855	118.506	250.016
152	-1.386290	.31337	118.604	249.582
153	-1.386290	.326561	118.71	249.129
154	-1.386290	.337155	118.824	248.662
155	-1.386290	.347787	118.945	248.18
156	-1.386290	.358459	119.073	247.683
157	-1.386290	.369171	119.21	247.171
158	-1.386290	.379927	119.354	246.644
159	-1.386290	.390726	119.507	246.103
160	-1.386290	.401571	119.668	245.546
161	-1.386290	.412463	119.838	244.974
162	-1.386290	.423405	120.017	244.387
163	-1.386290	.437153	120.209	243.781
164	-1.386290	.448213	120.409	243.16
165	-1.386290	.459327	120.62	242.523
166	-1.386290	.470498	120.842	241.871
167	-1.386290	.481728	121.074	241.203
168	-1.386290	.493018	121.317	240.52
169	-1.386290	.504372	121.571	239.82
170	-1.386290	.515791	121.837	239.105
171	-1.386290	.52728	122.115	238.374
172	-1.386290	.538836	122.406	237.627
173	-1.386290	.553384	122.712	236.86
174	-1.386290	.565108	123.031	236.077
175	-1.386290	.576911	123.364	235.277

176	-1.386290.588793		123.711	234.461
177	-1.386290.60076	124.072	233.628	
178	-1.386290.612813		124.447	232.779
179	-1.386290.624956		124.838	231.912
180	-1.386290.637192		125.244	231.029
181	-1.386290.649522		125.666	230.128
182	-1.386290.661955		126.104	229.211
183	-1.386290.67449	126.559	228.276	
184	-1.386290.690309		127.035	227.319
185	-1.386290.703089		127.53	226.344
186	-1.386290.715986		128.042	225.351
187	-1.386290.729003		128.574	224.341
188	-1.386290.742143		129.125	223.312
189	-1.386290.755415		129.695	222.265
190	-1.386290.768821		130.286	221.199
191	-1.386290.782366		130.898	220.114
192	-1.386290.796056		131.532	219.011
193	-1.386290.809896		132.188	217.888
194	-1.386290.827417		132.873	216.741
195	-1.386290.841621		133.581	215.574
196	-1.386290.855996		134.314	214.388
197	-1.386290.87055	135.072	213.181	
198	-1.386290.885291		135.855	211.953
199	-1.386290.900227		136.666	210.706
200	-1.386290.915365		137.504	209.437
201	-1.386290.930718		138.37	208.146
202	-1.386290.946291		139.265	206.834
203	-1.386290.9621	140.191	205.501	
204	-1.386290.982202		141.156	204.139
205	-1.386290.998575		142.153	202.755
206	-1.386291.01522	143.183	201.347	
207	-1.386291.03215	144.249	199.916	
208	-1.386291.04939	145.35	198.462	
209	-1.386291.06694	146.488	196.983	
210	-1.386291.08482	147.665	195.479	
211	-1.386291.10306	148.882	193.95	
212	-1.386291.12168	150.14	192.395	
213	-1.386291.14069	151.441	190.813	
214	-1.386291.16505	152.799	189.198	
215	-1.386291.18504	154.203	187.555	
216	-1.386291.20553	155.656	185.884	
217	-1.386291.22653	157.161	184.184	
218	-1.386291.24809	158.718	182.454	
219	-1.386291.27024	160.332	180.693	
220	-1.386291.29303	162.004	178.9	
221	-1.386291.31652	163.737	177.075	
222	-1.386291.34075	165.535	175.216	
223	-1.386291.36581	167.4	173.323	
224	-1.386291.39838	169.356	171.384	
225	-1.386291.42554	171.388	169.408	
226	-1.386291.4538	173.501	167.393	
227	-1.386291.48328	175.701	165.337	
228	-1.386291.5141	177.994	163.238	
229	-1.386291.54643	180.385	161.094	
230	-1.386291.58047	182.883	158.903	
231	-1.386291.61644	185.496	156.662	
232	-1.171181.65463	188.234	154.724	
233	-0.994252	1.6954	191.108	153.038
234	-0.916291	1.75069	194.173	151.434
235	-0.693147	1.79912	197.41	150.187
236	-0.693147	1.85218	200.841	148.903
237	0	1.91103	204.493	148.903

238	0.0295588		1.97737	208.403	148.962
239	0.182322		2.05375	212.62	149.336
240	0.336472		2.14441	217.219	150.058
241	0.405465		2.25713	222.314	150.973
242	0.482426		2.40892	228.116	152.135
243	1.64673	2.65209	235.15	156.502	

Data Set Standard Deviation = 0.805759
Numerator = 24493
Denominator = 36946.3
W Statistic = 0.662935 = 24493 / 36946.3

5% Critical value of 0.976 exceeds 0.662935
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.662935
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 = 0.816027
0.816027 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.21888	0.00409836	-2.65209	108.65	344.01
2	-3.21888	0.00819672	-2.40892	108.65	332.136
3	-3.21888	0.0122951	-2.25713	108.65	324.723
4	-3.21888	0.0163934	-2.14441	108.65	319.219
5	-3.21888	0.0204918	-2.05375	108.65	314.791
6	-3.21888	0.0245902	-1.97737	108.65	311.062
7	-3.21888	0.0286885	-1.91103	108.65	307.822
8	-3.09004	0.0327869	-1.85218	120.138	304.948
9	-3.09004	0.0368852	-1.79912	120.138	302.357
10	-3.09004	0.0409836	-1.75069	120.138	299.992
11	-3.09004	0.045082	-1.6954	120.138	297.292
12	-3.09004	0.0491803	-1.65463	120.138	295.301
13	-3.09004	0.0532787	-1.61644	120.138	293.436
14	-3.09004	0.057377	-1.58047	120.138	291.679
15	-3.09004	0.0614754	-1.54643	120.138	290.017
16	-3.09004	0.0655738	-1.5141	120.138	288.439
17	-3.09004	0.0696721	-1.48328	120.138	286.934
18	-3.09004	0.0737705	-1.4538	120.138	285.494
19	-3.09004	0.0778689	-1.42554	120.138	284.114
20	-3.09004	0.0819672	-1.39838	120.138	282.787
21	-3.09004	0.0860656	-1.36581	120.138	281.197
22	-3.09004	0.0901639	-1.34075	120.138	279.974
23	-3.09004	0.0942623	-1.31652	120.138	278.79
24	-3.09004	0.0983607	-1.29303	120.138	277.643
25	-3.09004	0.102459	-1.27024	120.138	276.53
26	-3.09004	0.106557	-1.24809	120.138	275.448
27	-3.09004	0.110656	-1.22653	120.138	274.395
28	-3.09004	0.114754	-1.20553	120.138	273.37
29	-3.09004	0.118852	-1.18504	120.138	272.37
30	-3.09004	0.122951	-1.16505	120.138	271.393
31	-3.09004	0.127049	-1.14069	120.138	270.204
32	-3.09004	0.131148	-1.12168	120.138	269.275
33	-3.09004	0.135246	-1.10306	120.138	268.366
34	-3.09004	0.139344	-1.08482	120.138	267.476
35	-3.09004	0.143443	-1.06694	120.138	266.602
36	-3.09004	0.147541	-1.04939	120.138	265.745
37	-3.09004	0.151639	-1.03215	120.138	264.904
38	-3.09004	0.155738	-1.01522	120.138	264.077
39	-3.09004	0.159836	-0.998575	120.138	263.264
40	-3.09004	0.163934	-0.982202	120.138	262.464
41	-3.09004	0.168033	-0.9621	120.138	261.483
42	-3.09004	0.172131	-0.946291	120.138	260.711
43	-3.09004	0.17623	-0.930718	120.138	259.95
44	-3.09004	0.180328	-0.915365	120.138	259.2
45	-3.09004	0.184426	-0.900227	120.138	258.461
46	-3.09004	0.188525	-0.885291	120.138	257.732
47	-3.09004	0.192623	-0.87055	120.138	257.012
48	-3.09004	0.196721	-0.855996	120.138	256.301

49	-3.09004	0.20082	-0.841621	120.138	255.599
50	-3.09004	0.204918	-0.827417	120.138	254.906
51	-3.09004	0.209016	-0.809896	120.138	254.05
52	-2.3969	0.213115	-0.796056	181.943	253.374
53	-2.20727	0.217213	-0.782366	198.851	252.706
54	-2.20727	0.221311	-0.768821	198.851	252.044
55	-2.20727	0.22541	-0.755415	198.851	251.389
56	-2.12026	0.229508	-0.742143	206.61	250.741
57	-1.60944	0.233607	-0.729003	252.158	250.1
58	-1.38629	0.237705	-0.715986	272.055	249.464
59	-1.38629	0.241803	-0.703089	272.055	248.834
60	-1.38629	0.245902	-0.690309	272.055	248.21
61	-1.38629	0.25	-0.67449	272.055	247.438
62	-1.38629	0.254098	-0.661955	272.055	246.825
63	-1.38629	0.258197	-0.649522	272.055	246.218
64	-1.38629	0.262295	-0.637192	272.055	245.616
65	-1.38629	0.266393	-0.624956	272.055	245.019
66	-1.38629	0.270492	-0.612813	272.055	244.426
67	-1.38629	0.27459	-0.60076	272.055	243.837
68	-1.38629	0.278689	-0.588793	272.055	243.253
69	-1.38629	0.282787	-0.576911	272.055	242.672
70	-1.38629	0.286885	-0.565108	272.055	242.096
71	-1.38629	0.290984	-0.553384	272.055	241.524
72	-1.38629	0.295082	-0.538836	272.055	240.813
73	-1.38629	0.29918	-0.52728	272.055	240.249
74	-1.38629	0.303279	-0.515791	272.055	239.688
75	-1.38629	0.307377	-0.504372	272.055	239.13
76	-1.38629	0.311475	-0.493018	272.055	238.576
77	-1.38629	0.315574	-0.481728	272.055	238.024
78	-1.38629	0.319672	-0.470498	272.055	237.476
79	-1.38629	0.32377	-0.459327	272.055	236.93
80	-1.38629	0.327869	-0.448213	272.055	236.388
81	-1.38629	0.331967	-0.437153	272.055	235.848
82	-1.38629	0.336066	-0.423405	272.055	235.176
83	-1.38629	0.340164	-0.412463	272.055	234.642
84	-1.38629	0.344262	-0.401571	272.055	234.11
85	-1.38629	0.348361	-0.390726	272.055	233.58
86	-1.38629	0.352459	-0.379927	272.055	233.053
87	-1.38629	0.356557	-0.369171	272.055	232.528
88	-1.38629	0.360656	-0.358459	272.055	232.005
89	-1.38629	0.364754	-0.347787	272.055	231.484
90	-1.38629	0.368852	-0.337155	272.055	230.964
91	-1.38629	0.372951	-0.326561	272.055	230.447
92	-1.38629	0.377049	-0.31337	272.055	229.803
93	-1.38629	0.381148	-0.302855	272.055	229.289
94	-1.38629	0.385246	-0.292375	272.055	228.778
95	-1.38629	0.389344	-0.281926	272.055	228.267
96	-1.38629	0.393443	-0.271509	272.055	227.759
97	-1.38629	0.397541	-0.26112	272.055	227.251
98	-1.38629	0.401639	-0.250759	272.055	226.745
99	-1.38629	0.405738	-0.240426	272.055	226.241
100	-1.38629	0.409836	-0.230118	272.055	225.737
101	-1.38629	0.413934	-0.219834	272.055	225.235
102	-1.38629	0.418033	-0.207012	272.055	224.609
103	-1.38629	0.422131	-0.196779	272.055	224.109
104	-1.38629	0.42623	-0.186567	272.055	223.611
105	-1.38629	0.430328	-0.176374	272.055	223.113
106	-1.38629	0.434426	-0.166199	272.055	222.616
107	-1.38629	0.438525	-0.156042	272.055	222.12
108	-1.38629	0.442623	-0.1459	272.055	221.625
109	-1.38629	0.446721	-0.135774	272.055	221.13
110	-1.38629	0.45082	-0.125661	272.055	220.636

111	-1.386290.454918	-0.115562	272.055	220.143
112	-1.386290.459016	-0.102953	272.055	219.528
113	-1.386290.463115	-0.0928787	272.055	219.036
114	-1.386290.467213	-0.0828129	272.055	218.544
115	-1.386290.471311	-0.0727562	272.055	218.053
116	-1.386290.47541	-0.0627062	272.055	217.562
117	-1.386290.479508	-0.0526632	272.055	217.072
118	-1.386290.483607	-0.0426257	272.055	216.582
119	-1.386290.487705	-0.0325917	272.055	216.092
120	-1.386290.491803	-0.0225612	272.055	215.602
121	-1.386290.495902	-0.0125328	272.055	215.112
122	-1.386290.5	0	272.055	214.5
123	-1.386290.504098	0.0125328	272.055	213.888
124	-1.386290.508197	0.0225612	272.055	213.398
125	-1.386290.512295	0.0325917	272.055	212.908
126	-1.386290.516393	0.0426257	272.055	212.418
127	-1.386290.520492	0.0526632	272.055	211.928
128	-1.386290.52459	0.0627062	272.055	211.438
129	-1.386290.528689	0.0727562	272.055	210.947
130	-1.386290.532787	0.0828129	272.055	210.456
131	-1.386290.536885	0.0928787	272.055	209.964
132	-1.386290.540984	0.102953	272.055	209.472
133	-1.386290.545082	0.115562	272.055	208.857
134	-1.386290.54918	0.125661	272.055	208.364
135	-1.386290.553279	0.135774	272.055	207.87
136	-1.386290.557377	0.1459	272.055	207.375
137	-1.386290.561475	0.156042	272.055	206.88
138	-1.386290.565574	0.166199	272.055	206.384
139	-1.386290.569672	0.176374	272.055	205.887
140	-1.386290.57377	0.186567	272.055	205.389
141	-1.386290.577869	0.196779	272.055	204.891
142	-1.386290.581967	0.207012	272.055	204.391
143	-1.386290.586066	0.219834	272.055	203.765
144	-1.386290.590164	0.230118	272.055	203.263
145	-1.386290.594262	0.240426	272.055	202.759
146	-1.386290.598361	0.250759	272.055	202.255
147	-1.386290.602459	0.26112	272.055	201.749
148	-1.386290.606557	0.271509	272.055	201.241
149	-1.386290.610656	0.281926	272.055	200.733
150	-1.386290.614754	0.292375	272.055	200.222
151	-1.386290.618852	0.302855	272.055	199.711
152	-1.386290.622951	0.31337	272.055	199.197
153	-1.386290.627049	0.326561	272.055	198.553
154	-1.386290.631148	0.337155	272.055	198.036
155	-1.386290.635246	0.347787	272.055	197.516
156	-1.386290.639344	0.358459	272.055	196.995
157	-1.386290.643443	0.369171	272.055	196.472
158	-1.386290.647541	0.379927	272.055	195.947
159	-1.386290.651639	0.390726	272.055	195.42
160	-1.386290.655738	0.401571	272.055	194.89
161	-1.386290.659836	0.412463	272.055	194.358
162	-1.386290.663934	0.423405	272.055	193.824
163	-1.386290.668033	0.437153	272.055	193.152
164	-1.386290.672131	0.448213	272.055	192.612
165	-1.386290.67623	0.459327	272.055	192.07
166	-1.386290.680328	0.470498	272.055	191.524
167	-1.386290.684426	0.481728	272.055	190.976
168	-1.386290.688525	0.493018	272.055	190.424
169	-1.386290.692623	0.504372	272.055	189.87
170	-1.386290.696721	0.515791	272.055	189.312
171	-1.386290.70082	0.52728	272.055	188.751
172	-1.386290.704918	0.538836	272.055	188.187

173	-1.386290.709016	0.553384	272.055	187.476	
174	-1.386290.713115	0.565108	272.055	186.904	
175	-1.386290.717213	0.576911	272.055	186.328	
176	-1.386290.721311	0.588793	272.055	185.747	
177	-1.386290.72541	0.60076	272.055	185.163	
178	-1.386290.729508	0.612813	272.055	184.574	
179	-1.386290.733607	0.624956	272.055	183.981	
180	-1.386290.737705	0.637192	272.055	183.384	
181	-1.386290.741803	0.649522	272.055	182.782	
182	-1.386290.745902	0.661955	272.055	182.175	
183	-1.386290.75	0.67449	272.055	181.562	
184	-1.386290.754098	0.690309	272.055	180.79	
185	-1.386290.758197	0.703089	272.055	180.166	
186	-1.386290.762295	0.715986	272.055	179.536	
187	-1.386290.766393	0.729003	272.055	178.9	
188	-1.386290.770492	0.742143	272.055	178.259	
189	-1.386290.77459	0.755415	272.055	177.611	
190	-1.386290.778689	0.768821	272.055	176.956	
191	-1.386290.782787	0.782366	272.055	176.294	
192	-1.386290.786885	0.796056	272.055	175.626	
193	-1.386290.790984	0.809896	272.055	174.95	
194	-1.386290.795082	0.827417	272.055	174.094	
195	-1.386290.79918	0.841621	272.055	173.401	
196	-1.386290.803279	0.855996	272.055	172.699	
197	-1.386290.807377	0.87055	272.055	171.988	
198	-1.386290.811475	0.885291	272.055	171.268	
199	-1.386290.815574	0.900227	272.055	170.539	
200	-1.386290.819672	0.915365	272.055	169.8	
201	-1.386290.82377	0.930718	272.055	169.05	
202	-1.386290.827869	0.946291	272.055	168.289	
203	-1.386290.831967	0.9621	272.055	167.517	
204	-1.386290.836066	0.982202	272.055	166.536	
205	-1.386290.840164	0.998575	272.055	165.736	
206	-1.386290.844262	1.01522	272.055	164.923	
207	-1.386290.848361	1.03215	272.055	164.096	
208	-1.386290.852459	1.04939	272.055	163.255	
209	-1.386290.856557	1.06694	272.055	162.398	
210	-1.386290.860656	1.08482	272.055	161.524	
211	-1.386290.864754	1.10306	272.055	160.634	
212	-1.386290.868852	1.12168	272.055	159.725	
213	-1.386290.872951	1.14069	272.055	158.796	
214	-1.386290.877049	1.16505	272.055	157.607	
215	-1.386290.881148	1.18504	272.055	156.63	
216	-1.386290.885246	1.20553	272.055	155.63	
217	-1.386290.889344	1.22653	272.055	154.605	
218	-1.386290.893443	1.24809	272.055	153.552	
219	-1.386290.897541	1.27024	272.055	152.47	
220	-1.386290.901639	1.29303	272.055	151.357	
221	-1.386290.905738	1.31652	272.055	150.21	
222	-1.386290.909836	1.34075	272.055	149.026	
223	-1.386290.913934	1.36581	272.055	147.803	
224	-1.386290.918033	1.39838	272.055	146.213	
225	-1.386290.922131	1.42554	272.055	144.886	
226	-1.386290.92623	1.4538	272.055	143.506	
227	-1.386290.930328	1.48328	272.055	142.066	
228	-1.386290.934426	1.5141	272.055	140.561	
229	-1.386290.938525	1.54643	272.055	138.983	
230	-1.386290.942623	1.58047	272.055	137.321	
231	-1.386290.946721	1.61644	272.055	135.564	
232	-1.171180.95082	1.65463	291.236	133.699	
233	-0.994252	0.954918	1.6954	307.013	131.708
234	-0.916291	0.959016	1.75069	313.964	129.008

235	-0.693147	0.963115	1.79912	333.861	126.643
236	-0.693147	0.967213	1.85218	333.861	124.052
237	0	0.971311	1.91103	395.667	121.178
238	0.0295588	0.97541	1.97737	398.302	117.938
239	0.182322	0.979508	2.05375	411.924	114.209
240	0.336472	0.983607	2.14441	425.669	109.781
241	0.405465	0.987705	2.25713	431.821	104.277
242	0.482426	0.991803	2.40892	438.683	96.8642
243	1.64673	0.995902	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 = 92.5926%
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-10	6/5/2012	1	-3.21888	FALSE
MW-6	6/5/2012	1	-2.20727	FALSE
MW-11R	6/5/2012	1	-3.21888	FALSE
MW-7	6/5/2012	1	-3.21888	FALSE
MW-8	6/5/2012	1	-3.21888	FALSE
MW-9	6/5/2012	1	-3.21888	FALSE
MW-12BR	6/5/2012	1	-3.21888	FALSE
MW-12AR	6/5/2012	1	-3.21888	FALSE

Concentrations (ppb)

Parameter: Methyl tert-Butyl Ether (MTBE)

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 194
Total Non-Detect: 178
Percent Non-Detects: 91.7526%
Total Background Measurements: 14
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	14	14 (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

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-8	25	22 (88%)	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	0.54 J	0.54 J
			4/29/2006	ND<2	ND<2
			11/18/2006	0.21 J	0.21 J
			5/23/2007	ND<2	ND<2
			11/28/2007	0.39 J	0.39 J
			6/5/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/5/2012	ND<0.2 U	ND<0.2 U
MW-10	25	19 (76%)	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	0.2 J	0.2 J	
			10/25/2005	0.37 J	0.37 J	
			4/29/2006	0.44 J	0.44 J	
			11/18/2006	0.28 J	0.28 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.39 J	0.39 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/5/2012	0.52 J	0.52 J	
MW-11R	25	25 (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	
			6/5/2012	ND<0.2 U	ND<0.2 U	
MW-6	25	25 (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	
			6/5/2012	ND<0.2 U	ND<0.2 U	
MW-7	25	25 (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	
			6/5/2012	ND<0.2 U	ND<0.2 U	
MW-9	25	21 (84%)	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	0.39 J	0.39 J	
			10/25/2005	ND<2	ND<2	
			4/29/2006	0.22 J	0.22 J	
			11/18/2006	ND<2	ND<2	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.34 J	0.34 J	
			6/5/2008	ND<2	ND<2	

		11/20/2008	0.29 J	0.29 J		
		6/5/2012	ND<0.2 U	ND<0.2 U		
MW-12BR	15	15 (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		
		6/5/2012	ND<0.2 U	ND<0.2 U		
MW-12AR	15	12 (80%)	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	0.31 J	0.31 J		
		11/18/2006	ND<2	ND<2		
		5/23/2007	ND<2	ND<2		
		11/28/2007	0.22 J	0.22 J		
		6/5/2008	ND<2	ND<2		
		11/20/2008	ND<2	ND<2		
		6/5/2012	ND<0.2 U	ND<0.2 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Methyl tert-Butyl Ether (MTBE)

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.1	-2.575836	3.63492	-0.257583
2	0.1	-2.326341	2.0468	-0.490218
3	0.1	-2.170091	6.7561	-0.707227
4	0.1	-2.053752	0.974	-0.912602
5	0.1	-1.959962	4.8154	-1.1086
6	0.1	-1.880792	8.3528	-1.29668
7	0.1	-1.811913	1.6358	-1.47787
8	0.2	-1.7392	34.6606	-1.82571
9	0.21	-1.684943	7.4996	-2.17955
10	0.22	-1.635244	0.1736	-2.5393
11	0.22	-1.589274	2.6994	-2.88894
12	0.28	-1.546434	5.0909	-3.32194
13	0.29	-1.506264	7.3597	-3.75875
14	0.31	-1.468384	9.5158	-4.21395
15	0.32	-1.4325	51.5679	-4.67235
16	0.34	-1.391755	3.5049	-5.14555
17	0.37	-1.359465	5.353	-5.64855
18	0.39	-1.328545	7.118	-6.16668
19	0.39	-1.298845	8.805	-6.67322
20	0.39	-1.270246	0.4185	-7.16862
21	0.44	-1.242646	1.9627	-7.71538
22	0.52	-1.215966	3.4412	-8.34768
23	0.54	-1.190126	4.8576	-8.99034
24	1	-1.160126	6.2035	-10.1505
25	1	-1.1359	67.4937	-11.2864
26	1	-1.112326	8.731	-12.3987
27	1	-1.089356	9.9177	-13.488
28	1	-1.066947	1.056	-14.555
29	1	-1.045057	2.1482	-15.6
30	1	-1.023657	3.196	-16.6237
31	1	-1.002717	4.2015	-17.6264
32	1	-0.978157	5.1582	-18.6045
33	1	-0.958125	76.0762	-19.5627
34	1	-0.938476	76.957	-20.5011
35	1	-0.919183	77.8019	-21.4203
36	1	-0.900227	78.6123	-22.3205
37	1	-0.881587	79.3895	-23.2021
38	1	-0.863249	80.1347	-24.0654
39	1	-0.841621	80.843	-24.907
40	1	-0.823893	81.5218	-25.7309
41	1	-0.806422	82.1721	-26.5373
42	1	-0.789191	82.7949	-27.3265
43	1	-0.772193	83.3912	-28.0987
44	1	-0.755415	83.9619	-28.8541
45	1	-0.738846	84.5078	-29.593
46	1	-0.722479	85.0297	-30.3154
47	1	-0.703089	85.5241	-31.0185
48	1	-0.687131	85.9962	-31.7057
49	1	-0.671346	86.4469	-32.377
50	1	-0.655726	86.8769	-33.0327
51	1	-0.640266	87.2868	-33.673

52	1	-0.624956	87.6774	-34.298
53	1	-0.609791	88.0493	-34.9077
54	1	-0.594766	88.403	-35.5025
55	1	-0.576911	88.7358	-36.0794
56	1	-0.5621789.0519	-36.6416	
57	1	-0.547551	89.3517	-37.1891
58	1	-0.533048	89.6358	-37.7222
59	1	-0.518658	89.9048	-38.2408
60	1	-0.504372	90.1592	-38.7452
61	1	-0.490189	90.3995	-39.2354
62	1	-0.476105	90.6262	-39.7115
63	1	-0.459327	90.8372	-40.1708
64	1	-0.445443	91.0356	-40.6163
65	1	-0.431644	91.2219	-41.0479
66	1	-0.417928	91.3966	-41.4659
67	1	-0.4042991.56	-41.8701	
68	1	-0.390726	91.7127	-42.2609
69	1	-0.377233	91.855	-42.6381
70	1	-0.363809	91.9873	-43.0019
71	1	-0.347787	92.1083	-43.3497
72	1	-0.334503	92.2202	-43.6842
73	1	-0.321278	92.3234	-44.0055
74	1	-0.308108	92.4183	-44.3136
75	1	-0.294992	92.5054	-44.6086
76	1	-0.281926	92.5848	-44.8905
77	1	-0.268908	92.6572	-45.1594
78	1	-0.253347	92.7213	-45.4128
79	1	-0.240426	92.7791	-45.6532
80	1	-0.227545	92.8309	-45.8807
81	1	-0.214702	92.877	-46.0954
82	1	-0.201894	92.9178	-46.2973
83	1	-0.189118	92.9535	-46.4864
84	1	-0.176374	92.9847	-46.6628
85	1	-0.163659	93.0114	-46.8265
86	1	-0.148434	93.0335	-46.9749
87	1	-0.135774	93.0519	-47.1107
88	1	-0.123135	93.0671	-47.2338
89	1	-0.110516	93.0793	-47.3443
90	1	-0.0979139	93.0889	-47.4423
91	1	-0.0853288	93.0961	-47.5276
92	1	-0.0727562	93.1014	-47.6003
93	1	-0.0601949	93.1051	-47.6605
94	1	-0.0451348	93.1071	-47.7057
95	1	-0.0325917	93.1082	-47.7383
96	1	-0.0200544	93.1086	-47.7583
97	1	-0.00751925	93.1086	-47.7658
98	1	0.00751925	93.1087	-47.7583
99	1	0.0200544	93.1091	-47.7383
100	1	0.0325917	93.1101	-47.7057
101	1	0.0451348	93.1122	-47.6605
102	1	0.0601949	93.1158	-47.6003
103	1	0.0727562	93.1211	-47.5276
104	1	0.0853288	93.1284	-47.4423
105	1	0.0979139	93.138	-47.3443
106	1	0.110516	93.1502	-47.2338
107	1	0.123135	93.1653	-47.1107
108	1	0.135774	93.1838	-46.9749
109	1	0.148434	93.2058	-46.8265
110	1	0.163659	93.2326	-46.6628
111	1	0.176374	93.2637	-46.4864
112	1	0.189118	93.2995	-46.2973
113	1	0.201894	93.3402	-46.0954

114	1	0.214702	93.3863	-45.8807
115	1	0.227545	93.4381	-45.6532
116	1	0.240426	93.4959	-45.4128
117	1	0.253347	93.5601	-45.1594
118	1	0.268908	93.6324	-44.8905
119	1	0.281926	93.7119	-44.6086
120	1	0.294992	93.7989	-44.3136
121	1	0.308108	93.8938	-44.0055
122	1	0.321278	93.9971	-43.6842
123	1	0.334503	94.1089	-43.3497
124	1	0.347787	94.2299	-43.0019
125	1	0.363809	94.3623	-42.6381
126	1	0.377233	94.5046	-42.2609
127	1	0.390726	94.6572	-41.8701
128	1	0.40429	94.8207	-41.4659
129	1	0.417928	94.9953	-41.0479
130	1	0.431644	95.1817	-40.6163
131	1	0.445443	95.3801	-40.1708
132	1	0.459327	95.5911	-39.7115
133	1	0.476105	95.8177	-39.2354
134	1	0.490189	96.058	-38.7452
135	1	0.504372	96.3124	-38.2408
136	1	0.518658	96.5814	-37.7222
137	1	0.533048	96.8656	-37.1891
138	1	0.547551	97.1654	-36.6416
139	1	0.56217	97.4814	-36.0794
140	1	0.576911	97.8142	-35.5025
141	1	0.594766	98.168	-34.9077
142	1	0.609791	98.5398	-34.298
143	1	0.624956	98.9304	-33.673
144	1	0.640266	99.3403	-33.0327
145	1	0.655726	99.7703	-32.377
146	1	0.671346	100.221	-31.7057
147	1	0.687131	100.693	-31.0185
148	1	0.703089	101.188	-30.3154
149	1	0.722479	101.709	-29.593
150	1	0.738846	102.255	-28.8541
151	1	0.755415	102.826	-28.0987
152	1	0.772193	103.422	-27.3265
153	1	0.789191	104.045	-26.5373
154	1	0.806422	104.695	-25.7309
155	1	0.823893	105.374	-24.907
156	1	0.841621	106.083	-24.0654
157	1	0.863249	106.828	-23.2021
158	1	0.881587	107.605	-22.3205
159	1	0.900227	108.415	-21.4203
160	1	0.919183	109.26	-20.5011
161	1	0.938476	110.141	-19.5627
162	1	0.958125	111.059	-18.6045
163	1	0.97815	112.016	-17.6264
164	1	1.00271	113.021	-16.6237
165	1	1.02365	114.069	-15.6
166	1	1.04505	115.161	-14.555
167	1	1.06694	116.3	-13.488
168	1	1.08935	117.486	-12.3987
169	1	1.11232	118.724	-11.2864
170	1	1.1359	120.014	-10.1505
171	1	1.16012	121.36	-8.99034
172	1	1.19012	122.776	-7.80022
173	1	1.21596	124.255	-6.58426
174	1	1.24264	125.799	-5.34162
175	1	1.27024	127.412	-4.07138

176	1	1.29884	129.099	-2.77255
177	1	1.32854	130.864	-1.44401
178	1	1.35946	132.712	-0.0845453
179	1	1.39175	134.649	1.3072
180	1	1.4325	136.701	2.7397
181	1	1.46838	138.858	4.20809
182	1	1.50626	141.126	5.71435
183	1	1.54643	143.518	7.26078
184	1	1.58927	146.044	8.85005
185	1	1.63524	148.718	10.4853
186	1	1.68494	151.557	12.1702
187	1	1.7392	154.581	13.9094
188	1	1.81191	157.864	15.7213
189	1	1.88079	161.402	17.6021
190	1	1.95996	165.243	19.5621
191	1	2.05375	169.461	21.6158
192	1	2.17009	174.17	23.7859
193	1	2.32634	179.582	26.1123
194	1	2.57583	186.217	28.6881

Data Set Standard Deviation = 0.242497
Numerator = 823.007
Denominator = 2113.44
W Statistic = 0.389417 = 823.007 / 2113.44

5% Critical value of 0.976 exceeds 0.389417
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.389417
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Methyl tert-Butyl Ether (MTBE)

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.625585
0.625585 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.1	0.00512821	-2.5758	392.5	340.287	
2	0.1	0.0102564	-2.3263	492.5	328.103	
3	0.1	0.0153846	-2.1700	992.5	320.473	
4	0.1	0.0205128	-2.0537	592.5	314.791	
5	0.1	0.025641	-1.9599	692.5	310.211	
6	0.1	0.0307692	-1.8807	992.5	306.345	
7	0.1	0.0358974	-1.8119	192.5	302.982	
8	0.2	0.0410256	-1.7392	146	299.431	
9	0.21	0.0461538	-1.68494	151.35	296.781	
10	0.22	0.0512821	-1.63524	156.7	294.354	
11	0.22	0.0564103	-1.58927	156.7	292.109	
12	0.28	0.0615385	-1.54643	188.8	290.017	
13	0.29	0.0666667	-1.50626	194.15	288.056	
14	0.31	0.0717949	-1.46838	204.85	286.206	
15	0.32	0.0769231	-1.4325	210.2	284.454	
16	0.34	0.0820513	-1.39175	220.9	282.464	
17	0.37	0.0871795	-1.35946	236.95	280.887	
18	0.39	0.0923077	-1.32854	247.65	279.377	
19	0.39	0.0974359	-1.29884	247.65	277.926	
20	0.39	0.102564	-1.27024	247.65	276.53	
21	0.44	0.107692	-1.24264	274.4	275.182	
22	0.52	0.112821	-1.21596	317.2	273.879	
23	0.54	0.117949	-1.19012	327.9	272.617	
24	1	0.123077	-1.16012	574	271.153	
25	1	0.128205	-1.1359	574	269.97	
26	1	0.133333	-1.11232	574	268.818	
27	1	0.138462	-1.08935	574	267.697	
28	1	0.14359	-1.06694	574	266.602	
29	1	0.148718	-1.04505	574	265.533	
30	1	0.153846	-1.02365	574	264.488	
31	1	0.158974	-1.00271	574	263.466	
32	1	0.164103	-0.97815	574	262.266	
33	1	0.169231	-0.958125	574	261.288	
34	1	0.174359	-0.938476	574	260.329	
35	1	0.179487	-0.919183	574	259.387	
36	1	0.184615	-0.900227	574	258.461	
37	1	0.189744	-0.881587	574	257.551	
38	1	0.194872	-0.863249	574	256.655	
39	1	0.2	-0.841621	574	255.599	
40	1	0.205128	-0.823893	574	254.733	
41	1	0.210256	-0.806422	574	253.88	
42	1	0.215385	-0.789191	574	253.039	
43	1	0.220513	-0.772193	574	252.209	
44	1	0.225641	-0.755415	574	251.389	
45	1	0.230769	-0.738846	574	250.58	
46	1	0.235897	-0.722479	574	249.781	
47	1	0.241026	-0.703089	574	248.834	
48	1	0.246154	-0.687131	574	248.055	

49	1	0.251282	-0.671346	574	247.284
50	1	0.25641	-0.655726	574	246.521
51	1	0.261538	-0.640266	574	245.766
52	1	0.266667	-0.624956	574	245.019
53	1	0.271795	-0.609791	574	244.278
54	1	0.276923	-0.594766	574	243.544
55	1	0.282051	-0.576911	574	242.672
56	1	0.287179	-0.56217	574	241.953
57	1	0.292308	-0.547551	574	241.239
58	1	0.297436	-0.533048	574	240.531
59	1	0.302564	-0.518658	574	239.828
60	1	0.307692	-0.504372	574	239.13
61	1	0.312821	-0.490189	574	238.438
62	1	0.317949	-0.476105	574	237.75
63	1	0.323077	-0.459327	574	236.93
64	1	0.328205	-0.445443	574	236.252
65	1	0.333333	-0.431644	574	235.579
66	1	0.338462	-0.417928	574	234.909
67	1	0.34359	-0.40429	574	234.243
68	1	0.348718	-0.390726	574	233.58
69	1	0.353846	-0.377233	574	232.922
70	1	0.358974	-0.363809	574	232.266
71	1	0.364103	-0.347787	574	231.484
72	1	0.369231	-0.334503	574	230.835
73	1	0.374359	-0.321278	574	230.189
74	1	0.379487	-0.308108	574	229.546
75	1	0.384615	-0.294992	574	228.905
76	1	0.389744	-0.281926	574	228.267
77	1	0.394872	-0.268908	574	227.632
78	1	0.4	-0.253347	574	226.872
79	1	0.405128	-0.240426	574	226.241
80	1	0.410256	-0.227545	574	225.612
81	1	0.415385	-0.214702	574	224.985
82	1	0.420513	-0.201894	574	224.359
83	1	0.425641	-0.189118	574	223.735
84	1	0.430769	-0.176374	574	223.113
85	1	0.435897	-0.163659	574	222.492
86	1	0.441026	-0.148434	574	221.749
87	1	0.446154	-0.135774	574	221.13
88	1	0.451282	-0.123135	574	220.513
89	1	0.45641	-0.110516	574	219.897
90	1	0.461538	-0.0979139	574	219.281
91	1	0.466667	-0.0853288	574	218.667
92	1	0.471795	-0.0727562	574	218.053
93	1	0.476923	-0.0601949	574	217.44
94	1	0.482051	-0.0451348	574	216.704
95	1	0.487179	-0.0325917	574	216.092
96	1	0.492308	-0.0200544	574	215.479
97	1	0.497436	-0.00751925	574	214.867
98	1	0.502564	0.00751925	574	214.133
99	1	0.507692	0.0200544	574	213.521
100	1	0.512821	0.0325917	574	212.908
101	1	0.517949	0.0451348	574	212.296
102	1	0.523077	0.0601949	574	211.56
103	1	0.528205	0.0727562	574	210.947
104	1	0.533333	0.0853288	574	210.333
105	1	0.538462	0.0979139	574	209.719
106	1	0.54359	0.110516	574	209.103
107	1	0.548718	0.123135	574	208.487
108	1	0.553846	0.135774	574	207.87
109	1	0.558974	0.148434	574	207.251
110	1	0.564103	0.163659	574	206.508

111	1	0.569231	0.176374	574	205.887
112	1	0.574359	0.189118	574	205.265
113	1	0.579487	0.201894	574	204.641
114	1	0.584615	0.214702	574	204.015
115	1	0.589744	0.227545	574	203.388
116	1	0.594872	0.240426	574	202.759
117	1	0.6	0.253347	574	202.128
118	1	0.605128	0.268908	574	201.368
119	1	0.610256	0.281926	574	200.733
120	1	0.615385	0.294992	574	200.095
121	1	0.620513	0.308108	574	199.454
122	1	0.625641	0.321278	574	198.811
123	1	0.630769	0.334503	574	198.165
124	1	0.635897	0.347787	574	197.516
125	1	0.641026	0.363809	574	196.734
126	1	0.646154	0.377233	574	196.078
127	1	0.651282	0.390726	574	195.42
128	1	0.65641	0.40429	574	194.757
129	1	0.661538	0.417928	574	194.091
130	1	0.666667	0.431644	574	193.421
131	1	0.671795	0.445443	574	192.748
132	1	0.676923	0.459327	574	192.07
133	1	0.682051	0.476105	574	191.25
134	1	0.687179	0.490189	574	190.562
135	1	0.692308	0.504372	574	189.87
136	1	0.697436	0.518658	574	189.172
137	1	0.702564	0.533048	574	188.469
138	1	0.707692	0.547551	574	187.761
139	1	0.712821	0.56217	574	187.047
140	1	0.717949	0.576911	574	186.328
141	1	0.723077	0.594766	574	185.456
142	1	0.728205	0.609791	574	184.722
143	1	0.733333	0.624956	574	183.981
144	1	0.738462	0.640266	574	183.234
145	1	0.74359	0.655726	574	182.479
146	1	0.748718	0.671346	574	181.716
147	1	0.753846	0.687131	574	180.945
148	1	0.758974	0.703089	574	180.166
149	1	0.764103	0.722479	574	179.219
150	1	0.769231	0.738846	574	178.42
151	1	0.774359	0.755415	574	177.611
152	1	0.779487	0.772193	574	176.791
153	1	0.784615	0.789191	574	175.961
154	1	0.789744	0.806422	574	175.12
155	1	0.794872	0.823893	574	174.267
156	1	0.8	0.841621	574	173.401
157	1	0.805128	0.863249	574	172.345
158	1	0.810256	0.881587	574	171.449
159	1	0.815385	0.900227	574	170.539
160	1	0.820513	0.919183	574	169.613
161	1	0.825641	0.938476	574	168.671
162	1	0.830769	0.958125	574	167.712
163	1	0.835897	0.97815	574	166.734
164	1	0.841026	1.00271	574	165.534
165	1	0.846154	1.02365	574	164.512
166	1	0.851282	1.04505	574	163.467
167	1	0.85641	1.06694	574	162.398
168	1	0.861538	1.08935	574	161.303
169	1	0.866667	1.11232	574	160.182
170	1	0.871795	1.1359	574	159.03
171	1	0.876923	1.16012	574	157.847
172	1	0.882051	1.19012	574	156.383

173	1	0.887179	1.21596	574	155.121
174	1	0.892308	1.24264	574	153.818
175	1	0.897436	1.27024	574	152.47
176	1	0.902564	1.29884	574	151.074
177	1	0.907692	1.32854	574	149.623
178	1	0.912821	1.35946	574	148.113
179	1	0.917949	1.39175	574	146.536
180	1	0.923077	1.4325	574	144.546
181	1	0.928205	1.46838	574	142.794
182	1	0.933333	1.50626	574	140.944
183	1	0.938462	1.54643	574	138.983
184	1	0.94359	1.58927	574	136.891
185	1	0.948718	1.63524	574	134.646
186	1	0.953846	1.68494	574	132.219
187	1	0.958974	1.7392	574	129.569
188	1	0.964103	1.81191	574	126.018
189	1	0.969231	1.88079	574	122.655
190	1	0.974359	1.95996	574	118.789
191	1	0.979487	2.05375	574	114.209
192	1	0.984615	2.17009	574	108.527
193	1	0.989744	2.32634	574	100.897
194	1	0.994872	2.57583	574	88.7134

Shapiro-Francia Test of Normality

Parameter: Methyl tert-Butyl Ether (MTBE)

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 194

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.30259	-2.57583	6.63492	5.93108
2	-2.30259	-2.32634	12.0468	11.2877
3	-2.30259	-2.17009	16.7561	16.2845
4	-2.30259	-2.05375	20.974	21.0134
5	-2.30259	-1.95996	24.8154	25.5264
6	-2.30259	-1.88079	28.3528	29.8571
7	-2.30259	-1.81191	31.6358	34.0292
8	-1.60944	-1.7392	34.6606	36.8283
9	-1.56065	-1.68494	37.4996	39.4579
10	-1.51413	-1.63524	40.1736	41.9339
11	-1.51413	-1.58927	42.6994	44.3402
12	-1.27297	-1.54643	45.0909	46.3088
13	-1.23787	-1.50626	47.3597	48.1733
14	-1.17118	-1.46838	49.5158	49.8931
15	-1.13943	-1.4325	51.5679	51.5253
16	-1.07881	-1.39175	53.5049	53.0267
17	-0.994252	-1.35946	55.353	54.3784
18	-0.941609	-1.32854	57.118	55.6294
19	-0.941609	-1.29884	58.805	56.8524
20	-0.941609	-1.27024	60.4185	58.0484
21	-0.820981	-1.24264	61.9627	59.0686
22	-0.653926	-1.21596	63.4412	59.8637
23	-0.616186	-1.19012	64.8576	60.5971
24	0	-1.16012	66.2035	60.5971
25	0	-1.1359	67.4937	60.5971
26	0	-1.11232	68.731	60.5971
27	0	-1.08935	69.9177	60.5971
28	0	-1.06694	71.056	60.5971
29	0	-1.04505	72.1482	60.5971
30	0	-1.02365	73.196	60.5971
31	0	-1.00271	74.2015	60.5971
32	0	-0.97815	75.1582	60.5971
33	0	-0.958125	76.0762	60.5971
34	0	-0.938476	76.957	60.5971
35	0	-0.919183	77.8019	60.5971
36	0	-0.900227	78.6123	60.5971
37	0	-0.881587	79.3895	60.5971
38	0	-0.863249	80.1347	60.5971
39	0	-0.841621	80.843	60.5971
40	0	-0.823893	81.5218	60.5971
41	0	-0.806422	82.1721	60.5971
42	0	-0.789191	82.7949	60.5971
43	0	-0.772193	83.3912	60.5971
44	0	-0.755415	83.9619	60.5971
45	0	-0.738846	84.5078	60.5971
46	0	-0.722479	85.0297	60.5971
47	0	-0.703089	85.5241	60.5971
48	0	-0.687131	85.9962	60.5971
49	0	-0.671346	86.4469	60.5971
50	0	-0.655726	86.8769	60.5971
51	0	-0.640266	87.2868	60.5971

52	0	-0.624956	87.6774	60.5971
53	0	-0.609791	88.0493	60.5971
54	0	-0.594766	88.403	60.5971
55	0	-0.576911	88.7358	60.5971
56	0	-0.5621789.0519	60.5971	
57	0	-0.547551	89.3517	60.5971
58	0	-0.533048	89.6358	60.5971
59	0	-0.518658	89.9048	60.5971
60	0	-0.504372	90.1592	60.5971
61	0	-0.490189	90.3995	60.5971
62	0	-0.476105	90.6262	60.5971
63	0	-0.459327	90.8372	60.5971
64	0	-0.445443	91.0356	60.5971
65	0	-0.431644	91.2219	60.5971
66	0	-0.417928	91.3966	60.5971
67	0	-0.4042991.56	60.5971	
68	0	-0.390726	91.7127	60.5971
69	0	-0.377233	91.855	60.5971
70	0	-0.363809	91.9873	60.5971
71	0	-0.347787	92.1083	60.5971
72	0	-0.334503	92.2202	60.5971
73	0	-0.321278	92.3234	60.5971
74	0	-0.308108	92.4183	60.5971
75	0	-0.294992	92.5054	60.5971
76	0	-0.281926	92.5848	60.5971
77	0	-0.268908	92.6572	60.5971
78	0	-0.253347	92.7213	60.5971
79	0	-0.240426	92.7791	60.5971
80	0	-0.227545	92.8309	60.5971
81	0	-0.214702	92.877	60.5971
82	0	-0.201894	92.9178	60.5971
83	0	-0.189118	92.9535	60.5971
84	0	-0.176374	92.9847	60.5971
85	0	-0.163659	93.0114	60.5971
86	0	-0.148434	93.0335	60.5971
87	0	-0.135774	93.0519	60.5971
88	0	-0.123135	93.0671	60.5971
89	0	-0.110516	93.0793	60.5971
90	0	-0.0979139	93.0889	60.5971
91	0	-0.0853288	93.0961	60.5971
92	0	-0.0727562	93.1014	60.5971
93	0	-0.0601949	93.1051	60.5971
94	0	-0.0451348	93.1071	60.5971
95	0	-0.0325917	93.1082	60.5971
96	0	-0.0200544	93.1086	60.5971
97	0	-0.00751925	93.1086	60.5971
98	0	0.00751925	93.1087	60.5971
99	0	0.0200544	93.1091	60.5971
100	0	0.0325917	93.1101	60.5971
101	0	0.0451348	93.1122	60.5971
102	0	0.0601949	93.1158	60.5971
103	0	0.0727562	93.1211	60.5971
104	0	0.0853288	93.1284	60.5971
105	0	0.0979139	93.138	60.5971
106	0	0.110516	93.1502	60.5971
107	0	0.123135	93.1653	60.5971
108	0	0.135774	93.1838	60.5971
109	0	0.148434	93.2058	60.5971
110	0	0.163659	93.2326	60.5971
111	0	0.176374	93.2637	60.5971
112	0	0.189118	93.2995	60.5971
113	0	0.201894	93.3402	60.5971

114	0	0.214702	93.3863	60.5971
115	0	0.227545	93.4381	60.5971
116	0	0.240426	93.4959	60.5971
117	0	0.253347	93.5601	60.5971
118	0	0.268908	93.6324	60.5971
119	0	0.281926	93.7119	60.5971
120	0	0.294992	93.7989	60.5971
121	0	0.308108	93.8938	60.5971
122	0	0.321278	93.9971	60.5971
123	0	0.334503	94.1089	60.5971
124	0	0.347787	94.2299	60.5971
125	0	0.363809	94.3623	60.5971
126	0	0.377233	94.5046	60.5971
127	0	0.390726	94.6572	60.5971
128	0	0.40429	94.8207	60.5971
129	0	0.417928	94.9953	60.5971
130	0	0.431644	95.1817	60.5971
131	0	0.445443	95.3801	60.5971
132	0	0.459327	95.5911	60.5971
133	0	0.476105	95.8177	60.5971
134	0	0.490189	96.058	60.5971
135	0	0.504372	96.3124	60.5971
136	0	0.518658	96.5814	60.5971
137	0	0.533048	96.8656	60.5971
138	0	0.547551	97.1654	60.5971
139	0	0.56217	97.4814	60.5971
140	0	0.576911	97.8142	60.5971
141	0	0.594766	98.168	60.5971
142	0	0.609791	98.5398	60.5971
143	0	0.624956	98.9304	60.5971
144	0	0.640266	99.3403	60.5971
145	0	0.655726	99.7703	60.5971
146	0	0.671346	100.221	60.5971
147	0	0.687131	100.693	60.5971
148	0	0.703089	101.188	60.5971
149	0	0.722479	101.709	60.5971
150	0	0.738846	102.255	60.5971
151	0	0.755415	102.826	60.5971
152	0	0.772193	103.422	60.5971
153	0	0.789191	104.045	60.5971
154	0	0.806422	104.695	60.5971
155	0	0.823893	105.374	60.5971
156	0	0.841621	106.083	60.5971
157	0	0.863249	106.828	60.5971
158	0	0.881587	107.605	60.5971
159	0	0.900227	108.415	60.5971
160	0	0.919183	109.26	60.5971
161	0	0.938476	110.141	60.5971
162	0	0.958125	111.059	60.5971
163	0	0.97815	112.016	60.5971
164	0	1.00271	113.021	60.5971
165	0	1.02365	114.069	60.5971
166	0	1.04505	115.161	60.5971
167	0	1.06694	116.3	60.5971
168	0	1.08935	117.486	60.5971
169	0	1.11232	118.724	60.5971
170	0	1.1359	120.014	60.5971
171	0	1.16012	121.36	60.5971
172	0	1.19012	122.776	60.5971
173	0	1.21596	124.255	60.5971
174	0	1.24264	125.799	60.5971
175	0	1.27024	127.412	60.5971

176	0	1.29884	129.099	60.5971
177	0	1.32854	130.864	60.5971
178	0	1.35946	132.712	60.5971
179	0	1.39175	134.649	60.5971
180	0	1.4325	136.701	60.5971
181	0	1.46838	138.858	60.5971
182	0	1.50626	141.126	60.5971
183	0	1.54643	143.518	60.5971
184	0	1.58927	146.044	60.5971
185	0	1.63524	148.718	60.5971
186	0	1.68494	151.557	60.5971
187	0	1.7392	154.581	60.5971
188	0	1.81191	157.864	60.5971
189	0	1.88079	161.402	60.5971
190	0	1.95996	165.243	60.5971
191	0	2.05375	169.461	60.5971
192	0	2.17009	174.17	60.5971
193	0	2.32634	179.582	60.5971
194	0	2.57583	186.217	60.5971

Data Set Standard Deviation = 0.523229
Numerator = 3672.01
Denominator = 9839.23
W Statistic = 0.373201 = 3672.01 / 9839.23

5% Critical value of 0.976 exceeds 0.373201
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.373201
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Methyl tert-Butyl Ether (MTBE)

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.613618
0.613618 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.30259	0.00512821	-2.57583	163.372	340.287
2	-2.30259	0.0102564	-2.32634	163.372	328.103
3	-2.30259	0.0153846	-2.17009	163.372	320.473
4	-2.30259	0.0205128	-2.05375	163.372	314.791
5	-2.30259	0.025641	-1.95996	163.372	310.211
6	-2.30259	0.0307692	-1.88079	163.372	306.345
7	-2.30259	0.0358974	-1.81191	163.372	302.982
8	-1.60944	0.0410256	-1.7392	286.984	299.431
9	-1.56065	0.0461538	-1.68494	295.684	296.781
10	-1.51413	0.0512821	-1.63524	303.981	294.354
11	-1.51413	0.0564103	-1.58927	303.981	292.109
12	-1.27297	0.0615385	-1.54643	346.988	290.017
13	-1.23787	0.0666667	-1.50626	353.246	288.056
14	-1.17118	0.0717949	-1.46838	365.139	286.206
15	-1.13943	0.0769231	-1.4325	370.801	284.454
16	-1.07881	0.0820513	-1.39175	381.612	282.464
17	-0.994252	0.0871795	-1.35946	396.692	280.887
18	-0.941609	0.0923077	-1.32854	406.08	279.377
19	-0.941609	0.0974359	-1.29884	406.08	277.926
20	-0.941609	0.102564	-1.27024	406.08	276.53
21	-0.820981	0.107692	-1.24264	427.592	275.182
22	-0.653926	0.112821	-1.21596	457.383	273.879
23	-0.616186	0.117949	-1.19012	464.113	272.617
24	0	0.123077	-1.16012	574	271.153
25	0	0.128205	-1.1359	574	269.97
26	0	0.133333	-1.11232	574	268.818
27	0	0.138462	-1.08935	574	267.697
28	0	0.14359	-1.06694	574	266.602
29	0	0.148718	-1.04505	574	265.533
30	0	0.153846	-1.02365	574	264.488
31	0	0.158974	-1.00271	574	263.466
32	0	0.164103	-0.97815	574	262.266
33	0	0.169231	-0.958125	574	261.288
34	0	0.174359	-0.938476	574	260.329
35	0	0.179487	-0.919183	574	259.387
36	0	0.184615	-0.900227	574	258.461
37	0	0.189744	-0.881587	574	257.551
38	0	0.194872	-0.863249	574	256.655
39	0	0.2	-0.841621	574	255.599
40	0	0.205128	-0.823893	574	254.733
41	0	0.210256	-0.806422	574	253.88
42	0	0.215385	-0.789191	574	253.039
43	0	0.220513	-0.772193	574	252.209
44	0	0.225641	-0.755415	574	251.389
45	0	0.230769	-0.738846	574	250.58
46	0	0.235897	-0.722479	574	249.781
47	0	0.241026	-0.703089	574	248.834
48	0	0.246154	-0.687131	574	248.055

49	0	0.251282	-0.671346	574	247.284
50	0	0.25641	-0.655726	574	246.521
51	0	0.261538	-0.640266	574	245.766
52	0	0.266667	-0.624956	574	245.019
53	0	0.271795	-0.609791	574	244.278
54	0	0.276923	-0.594766	574	243.544
55	0	0.282051	-0.576911	574	242.672
56	0	0.287179	-0.56217	574	241.953
57	0	0.292308	-0.547551	574	241.239
58	0	0.297436	-0.533048	574	240.531
59	0	0.302564	-0.518658	574	239.828
60	0	0.307692	-0.504372	574	239.13
61	0	0.312821	-0.490189	574	238.438
62	0	0.317949	-0.476105	574	237.75
63	0	0.323077	-0.459327	574	236.93
64	0	0.328205	-0.445443	574	236.252
65	0	0.333333	-0.431644	574	235.579
66	0	0.338462	-0.417928	574	234.909
67	0	0.34359	-0.40429	574	234.243
68	0	0.348718	-0.390726	574	233.58
69	0	0.353846	-0.377233	574	232.922
70	0	0.358974	-0.363809	574	232.266
71	0	0.364103	-0.347787	574	231.484
72	0	0.369231	-0.334503	574	230.835
73	0	0.374359	-0.321278	574	230.189
74	0	0.379487	-0.308108	574	229.546
75	0	0.384615	-0.294992	574	228.905
76	0	0.389744	-0.281926	574	228.267
77	0	0.394872	-0.268908	574	227.632
78	0	0.4	-0.253347	574	226.872
79	0	0.405128	-0.240426	574	226.241
80	0	0.410256	-0.227545	574	225.612
81	0	0.415385	-0.214702	574	224.985
82	0	0.420513	-0.201894	574	224.359
83	0	0.425641	-0.189118	574	223.735
84	0	0.430769	-0.176374	574	223.113
85	0	0.435897	-0.163659	574	222.492
86	0	0.441026	-0.148434	574	221.749
87	0	0.446154	-0.135774	574	221.13
88	0	0.451282	-0.123135	574	220.513
89	0	0.45641	-0.110516	574	219.897
90	0	0.461538	-0.0979139	574	219.281
91	0	0.466667	-0.0853288	574	218.667
92	0	0.471795	-0.0727562	574	218.053
93	0	0.476923	-0.0601949	574	217.44
94	0	0.482051	-0.0451348	574	216.704
95	0	0.487179	-0.0325917	574	216.092
96	0	0.492308	-0.0200544	574	215.479
97	0	0.497436	-0.00751925	574	214.867
98	0	0.502564	0.00751925	574	214.133
99	0	0.507692	0.0200544	574	213.521
100	0	0.512821	0.0325917	574	212.908
101	0	0.517949	0.0451348	574	212.296
102	0	0.523077	0.0601949	574	211.56
103	0	0.528205	0.0727562	574	210.947
104	0	0.533333	0.0853288	574	210.333
105	0	0.538462	0.0979139	574	209.719
106	0	0.54359	0.110516	574	209.103
107	0	0.548718	0.123135	574	208.487
108	0	0.553846	0.135774	574	207.87
109	0	0.558974	0.148434	574	207.251
110	0	0.564103	0.163659	574	206.508

111	0	0.569231	0.176374	574	205.887
112	0	0.574359	0.189118	574	205.265
113	0	0.579487	0.201894	574	204.641
114	0	0.584615	0.214702	574	204.015
115	0	0.589744	0.227545	574	203.388
116	0	0.594872	0.240426	574	202.759
117	0	0.6	0.253347	574	202.128
118	0	0.605128	0.268908	574	201.368
119	0	0.610256	0.281926	574	200.733
120	0	0.615385	0.294992	574	200.095
121	0	0.620513	0.308108	574	199.454
122	0	0.625641	0.321278	574	198.811
123	0	0.630769	0.334503	574	198.165
124	0	0.635897	0.347787	574	197.516
125	0	0.641026	0.363809	574	196.734
126	0	0.646154	0.377233	574	196.078
127	0	0.651282	0.390726	574	195.42
128	0	0.65641	0.40429	574	194.757
129	0	0.661538	0.417928	574	194.091
130	0	0.666667	0.431644	574	193.421
131	0	0.671795	0.445443	574	192.748
132	0	0.676923	0.459327	574	192.07
133	0	0.682051	0.476105	574	191.25
134	0	0.687179	0.490189	574	190.562
135	0	0.692308	0.504372	574	189.87
136	0	0.697436	0.518658	574	189.172
137	0	0.702564	0.533048	574	188.469
138	0	0.707692	0.547551	574	187.761
139	0	0.712821	0.56217	574	187.047
140	0	0.717949	0.576911	574	186.328
141	0	0.723077	0.594766	574	185.456
142	0	0.728205	0.609791	574	184.722
143	0	0.733333	0.624956	574	183.981
144	0	0.738462	0.640266	574	183.234
145	0	0.74359	0.655726	574	182.479
146	0	0.748718	0.671346	574	181.716
147	0	0.753846	0.687131	574	180.945
148	0	0.758974	0.703089	574	180.166
149	0	0.764103	0.722479	574	179.219
150	0	0.769231	0.738846	574	178.42
151	0	0.774359	0.755415	574	177.611
152	0	0.779487	0.772193	574	176.791
153	0	0.784615	0.789191	574	175.961
154	0	0.789744	0.806422	574	175.12
155	0	0.794872	0.823893	574	174.267
156	0	0.8	0.841621	574	173.401
157	0	0.805128	0.863249	574	172.345
158	0	0.810256	0.881587	574	171.449
159	0	0.815385	0.900227	574	170.539
160	0	0.820513	0.919183	574	169.613
161	0	0.825641	0.938476	574	168.671
162	0	0.830769	0.958125	574	167.712
163	0	0.835897	0.97815	574	166.734
164	0	0.841026	1.00271	574	165.534
165	0	0.846154	1.02365	574	164.512
166	0	0.851282	1.04505	574	163.467
167	0	0.85641	1.06694	574	162.398
168	0	0.861538	1.08935	574	161.303
169	0	0.866667	1.11232	574	160.182
170	0	0.871795	1.1359	574	159.03
171	0	0.876923	1.16012	574	157.847
172	0	0.882051	1.19012	574	156.383

173	0	0.887179	1.21596	574	155.121
174	0	0.892308	1.24264	574	153.818
175	0	0.897436	1.27024	574	152.47
176	0	0.902564	1.29884	574	151.074
177	0	0.907692	1.32854	574	149.623
178	0	0.912821	1.35946	574	148.113
179	0	0.917949	1.39175	574	146.536
180	0	0.923077	1.4325	574	144.546
181	0	0.928205	1.46838	574	142.794
182	0	0.933333	1.50626	574	140.944
183	0	0.938462	1.54643	574	138.983
184	0	0.94359	1.58927	574	136.891
185	0	0.948718	1.63524	574	134.646
186	0	0.953846	1.68494	574	132.219
187	0	0.958974	1.7392	574	129.569
188	0	0.964103	1.81191	574	126.018
189	0	0.969231	1.88079	574	122.655
190	0	0.974359	1.95996	574	118.789
191	0	0.979487	2.05375	574	114.209
192	0	0.984615	2.17009	574	108.527
193	0	0.989744	2.32634	574	100.897
194	0	0.994872	2.57583	574	88.7134

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Methyl tert-Butyl Ether (MTBE)

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 91.7526%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 14
Maximum Background Value = 0
Confidence Level = 63.6%
False Positive Rate = 36.4%

Location	Date	Count	Mean	Significant
MW-8	6/5/2012	1	-2.30259	FALSE
MW-10	6/5/2012	1	-0.653926	FALSE
MW-11R	6/5/2012	1	-2.30259	FALSE
MW-6	6/5/2012	1	-2.30259	FALSE
MW-7	6/5/2012	1	-2.30259	FALSE
MW-9	6/5/2012	1	-2.30259	FALSE
MW-12BR	6/5/2012	1	-2.30259	FALSE
MW-12AR	6/5/2012	1	-2.30259	FALSE

Concentrations (ppb)

Parameter: Nickel

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 172
Percent Non-Detects: 69.3548%
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-8	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	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	
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-6	31	25 (80.6452%)	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	
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-10	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	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
			6/5/2012	0.67 J	0.67 J	
MW-11R	32	22 (68.75%)	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	
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-9	32	23 (71.875%)	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	
			6/5/2012	0.76 J	0.76 J	
MW-7	31	19 (61.2903%)	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	
			6/5/2012	0.49 J	0.49 J	
MW-12BR	21	11 (52.381%)	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		
		6/5/2012	1.6	1.6		
MW-12AR	21	13 (61.9048%)	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		
		6/5/2012	0.68 J	0.68 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 = 248

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	-1.91103	34.3095	-2.81573
8	0.2	-1.85218	37.7401	-3.18617
9	0.2	-1.79912	40.9769	-3.54599
10	0.2	-1.75069	44.0418	-3.89613
11	0.2	-1.70604	46.9524	-4.23733
12	0.32	-1.66456	49.7231	-4.76999
13	0.35	-1.62576	52.3662	-5.33901
14	0.36	-1.58927	54.892	-5.91115
15	0.4	-1.55477	57.3093	-6.53306
16	0.42	-1.52203	59.6259	-7.17231
17	0.44	-1.49085	61.8486	-7.82829
18	0.46	-1.46106	63.9833	-8.50037
19	0.46	-1.4325	66.0353	-9.15933
20	0.49	-1.40507	68.0096	-9.84781
21	0.5	-1.37866	69.9102	-10.5371
22	0.51	-1.35317	71.7413	-11.2273
23	0.53	-1.32854	73.5063	-11.9314
24	0.54	-1.30469	75.2086	-12.6359
25	0.54	-1.28155	76.8509	-13.328
26	0.57	-1.25908	78.4362	-14.0456
27	0.57	-1.23724	79.967	-14.7509
28	0.57	-1.21596	81.4455	-15.444
29	0.58	-1.19522	82.8741	-16.1372
30	0.59	-1.17499	84.2547	-16.8304
31	0.62	-1.15522	85.5892	-17.5467
32	0.63	-1.1359	86.8795	-18.2623
33	0.64	-1.11699	88.1271	-18.9771
34	0.67	-1.09847	89.3338	-19.7131
35	0.68	-1.08032	90.5009	-20.4477
36	0.68	-1.06252	91.6298	-21.1703
37	0.69	-1.04505	92.7219	-21.8913
38	0.71	-1.02789	93.7785	-22.6211
39	0.73	-1.01104	94.8007	-23.3592
40	0.76	-0.994457	95.7896	-24.115
41	0.82	-0.97815	96.7464	-24.9171
42	0.82	-0.9621	97.6721	-25.706
43	0.84	-0.946291	98.5675	-26.5009
44	0.84	-0.930718	99.4338	-27.2827
45	0.87	-0.915365	100.272	-28.079
46	0.97	-0.900227	101.082	-28.9523
47	1	-0.885291	101.866	-29.8376
48	1.03	-0.87055	102.624	-30.7342
49	1.03	-0.855996	103.356	-31.6159
50	1.04	-0.841621	104.065	-32.4912
51	1.1	-0.827417	104.749	-33.4013

52	1.2	-0.813379	105.411	-34.3774
53	1.25	-0.7995	106.05	-35.3768
54	1.27	-0.785774	106.668	-36.3747
55	1.31	-0.772193	107.264	-37.3863
56	1.4	-0.758753	107.84	-38.4485
57	1.41	-0.745449	108.395	-39.4996
58	1.5	-0.732275	108.931	-40.598
59	1.6	-0.719228	109.449	-41.7488
60	1.7	-0.706302	109.948	-42.9495
61	1.74	-0.693493	110.429	-44.1562
62	1.8	-0.680797	110.892	-45.3816
63	1.89	-0.665079	111.334	-46.6386
64	1.9	-0.652622	111.76	-47.8786
65	2	-0.640266	112.17	-49.1591
66	2.1	-0.628006	112.565	-50.4779
67	2.2	-0.615839	112.944	-51.8328
68	2.2	-0.603765	113.308	-53.1611
69	2.29	-0.591776	113.659	-54.5162
70	2.3	-0.579873	113.995	-55.85
71	2.6	-0.568052	114.318	-57.3269
72	2.8	-0.556308	114.627	-58.8846
73	3.1	-0.544642	114.924	-60.5729
74	4	-0.533048	115.208	-62.7051
75	4.96	-0.521527	115.48	-65.2919
76	5	-0.510074	115.74	-67.8423
77	6	-0.498687	115.989	-70.8344
78	6	-0.487364	116.226	-73.7586
79	6	-0.476105	116.453	-76.6152
80	10	-0.464904	116.669	-81.2643
81	10	-0.453763	116.875	-85.8019
82	16	-0.442676	117.071	-92.8847
83	25	-0.431644	117.257	-103.676
84	25	-0.420664	117.434	-114.192
85	25	-0.409735	117.602	-124.436
86	25	-0.398855	117.761	-134.407
87	25	-0.388022	117.912	-144.108
88	25	-0.377233	118.054	-153.539
89	25	-0.36649	118.188	-162.701
90	25	-0.355788	118.315	-171.595
91	25	-0.345126	118.434	-180.224
92	25	-0.334503	118.546	-188.586
93	25	-0.323919	118.651	-196.684
94	25	-0.31337	118.749	-204.518
95	25	-0.302855	118.841	-212.09
96	25	-0.292375	118.926	-219.399
97	25	-0.281926	119.006	-226.447
98	25	-0.271509	119.079	-233.235
99	25	-0.26112	119.148	-239.763
100	25	-0.250759	119.21	-246.032
101	25	-0.240426	119.268	-252.043
102	25	-0.230118	119.321	-257.796
103	25	-0.219834	119.37	-263.292
104	25	-0.209575	119.413	-268.531
105	25	-0.199336	119.453	-273.514
106	25	-0.189118	119.489	-278.242
107	25	-0.17892	119.521	-282.715
108	25	-0.168741	119.549	-286.934
109	25	-0.158579	119.575	-290.898
110	25	-0.148434	119.597	-294.609
111	25	-0.138305	119.616	-298.067
112	25	-0.128189	119.632	-301.271
113	25	-0.118085	119.646	-304.224

114	25	-0.107995	119.658	-306.923
115	25	-0.0979139	119.667	-309.371
116	25	-0.0878447	119.675	-311.567
117	25	-0.0777834	119.681	-313.512
118	25	-0.0677301	119.686	-315.205
119	25	-0.0576847	119.689	-316.647
120	25	-0.0476439	119.691	-317.838
121	25	-0.0376076	119.693	-318.779
122	25	-0.0275759	119.694	-319.468
123	25	-0.0175476	119.694	-319.907
124	25	-0.00751925	119.694	-320.095
125	25	0.00751925	119.694	-319.907
126	25	0.0175476	119.694	-319.468
127	25	0.0275759	119.695	-318.779
128	25	0.0376076	119.696	-317.838
129	25	0.0476439	119.699	-316.647
130	25	0.0576847	119.702	-315.205
131	25	0.0677301	119.707	-313.512
132	25	0.0777834	119.713	-311.567
133	25	0.0878447	119.72	-309.371
134	25	0.0979139	119.73	-306.923
135	25	0.107995	119.742	-304.224
136	25	0.118085	119.756	-301.271
137	25	0.128189	119.772	-298.067
138	25	0.138305	119.791	-294.609
139	25	0.148434	119.813	-290.898
140	25	0.158579	119.838	-286.934
141	25	0.168741	119.867	-282.715
142	25	0.17892	119.899	-278.242
143	25	0.189118	119.935	-273.514
144	25	0.199336	119.974	-268.531
145	25	0.209575	120.018	-263.292
146	25	0.219834	120.067	-257.796
147	25	0.230118	120.119	-252.043
148	25	0.240426	120.177	-246.032
149	25	0.250759	120.24	-239.763
150	25	0.26112	120.308	-233.235
151	25	0.271509	120.382	-226.447
152	25	0.281926	120.462	-219.399
153	25	0.292375	120.547	-212.09
154	25	0.302855	120.639	-204.518
155	25	0.31337	120.737	-196.684
156	25	0.323919	120.842	-188.586
157	25	0.334503	120.954	-180.224
158	25	0.345126	121.073	-171.595
159	25	0.355788	121.199	-162.701
160	25	0.36649	121.334	-153.539
161	25	0.377233	121.476	-144.108
162	25	0.388022	121.627	-134.407
163	25	0.398855	121.786	-124.436
164	25	0.409735	121.954	-114.192
165	25	0.420664	122.131	-103.676
166	25	0.431644	122.317	-92.8847
167	25	0.442676	122.513	-81.8178
168	25	0.453763	122.719	-70.4737
169	25	0.464904	122.935	-58.8511
170	25	0.476105	123.162	-46.9485
171	25	0.487364	123.399	-34.7644
172	25	0.498687	123.648	-22.2972
173	25	0.510074	123.908	-9.54537
174	25	0.521527	124.18	3.4928
175	25	0.533048	124.464	16.819

176	25	0.544642		124.761	30.4351
177	25	0.556308		125.07	44.3428
178	25	0.568052		125.393	58.5441
179	25	0.579873		125.729	73.0409
180	25	0.591776		126.079	87.8353
181	25	0.603765		126.444	102.929
182	25	0.615839		126.823	118.325
183	25	0.628006		127.218	134.026
184	25	0.640266		127.627	150.032
185	25	0.652622		128.053	166.348
186	25	0.665079		128.496	182.975
187	25	0.680797		128.959	199.995
188	25	0.693493		129.44	217.332
189	25	0.706302		129.939	234.99
190	25	0.719228		130.456	252.97
191	25	0.732275		130.993	271.277
192	25	0.745449		131.548	289.913
193	25	0.758753		132.124	308.882
194	25	0.772193		132.72	328.187
195	25	0.785774		133.338	347.831
196	25	0.7995	133.977	367.819	
197	25	0.813379		134.638	388.153
198	25	0.827417		135.323	408.839
199	25	0.841621		136.031	429.879
200	25	0.855996		136.764	451.279
201	25	0.87055	137.522	473.043	
202	25	0.885291		138.306	495.175
203	25	0.900227		139.116	517.681
204	25	0.915365		139.954	540.565
205	25	0.930718		140.82	563.833
206	25	0.946291		141.716	587.49
207	25	0.9621	142.641	611.543	
208	25	0.97815	143.598	635.996	
209	25	0.994457		144.587	660.858
210	25	1.01104	145.609	686.134	
211	25	1.02789	146.666	711.831	
212	25	1.04505	147.758	737.957	
213	25	1.06252	148.887	764.52	
214	25	1.08032	150.054	791.528	
215	25	1.09847	151.261	818.99	
216	25	1.11699	152.508	846.915	
217	25	1.1359	153.799	875.312	
218	25	1.15522	155.133	904.193	
219	25	1.17499	156.514	933.567	
220	25	1.19522	157.942	963.448	
221	25	1.21596	159.421	993.847	
222	25	1.23724	160.952	1024.78	
223	25	1.25908	162.537	1056.25	
224	25	1.28155	164.179	1088.29	
225	25	1.30469	165.881	1120.91	
226	25	1.32854	167.646	1154.12	
227	25	1.35317	169.477	1187.95	
228	25	1.37866	171.378	1222.42	
229	25	1.40507	173.352	1257.55	
230	25	1.4325	175.404	1293.36	
231	25	1.46106	177.539	1329.89	
232	25	1.49085	179.762	1367.16	
233	25	1.52203	182.078	1405.21	
234	25	1.55477	184.496	1444.08	
235	25	1.58927	187.022	1483.81	
236	25	1.62576	189.665	1524.45	
237	25	1.66456	192.435	1566.07	

238	25	1.70604	195.346	1608.72
239	25	1.75069	198.411	1652.49
240	25	1.79912	201.648	1697.46
241	25	1.85218	205.078	1743.77
242	25	1.91103	208.73	1791.54
243	25	1.97737	212.64	1840.98
244	38	2.05375	216.858	1919.02
245	60	2.14441	221.457	2047.68
246	63	2.25713	226.551	2189.88
247	72	2.40892	232.354	2363.33
248	180	2.65209	239.388	2840.7

Data Set Standard Deviation = 16.0365
Numerator = 8.06959e+006
Denominator = 1.52062e+007
W Statistic = 0.530678 = 8.06959e+006 / 1.52062e+007

5% Critical value of 0.976 exceeds 0.530678
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.530678
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 = 0.734556
0.734556 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.1	0.00401606	-2.65209	39.2675	344.01	
2	0.2	0.00803213	-2.40892	39.535	332.136	
3	0.2	0.0120482	-2.25713	39.535	324.723	
4	0.2	0.0160643	-2.14441	39.535	319.219	
5	0.2	0.0200803	-2.05375	39.535	314.791	
6	0.2	0.0240964	-1.97737	39.535	311.062	
7	0.2	0.0281124	-1.91103	39.535	307.822	
8	0.2	0.0321285	-1.85218	39.535	304.948	
9	0.2	0.0361446	-1.79912	39.535	302.357	
10	0.2	0.0401606	-1.75069	39.535	299.992	
11	0.2	0.0441767	-1.70604	39.535	297.812	
12	0.32	0.0481928	-1.66456	39.856	295.786	
13	0.35	0.0522088	-1.62576	39.9363	293.891	
14	0.36	0.0562249	-1.58927	39.963	292.109	
15	0.4	0.060241	-1.55477	40.07	290.425	
16	0.42	0.064257	-1.52203	40.1235	288.826	
17	0.44	0.0682731	-1.49085	40.177	287.303	
18	0.46	0.0722892	-1.46106	40.2305	285.848	
19	0.46	0.0763052	-1.4325	40.2305	284.454	
20	0.49	0.0803213	-1.40507	40.3107	283.114	
21	0.5	0.0843373	-1.37866	40.3375	281.824	
22	0.51	0.0883534	-1.35317	40.3642	280.58	
23	0.53	0.0923695	-1.32854	40.4177	279.377	
24	0.54	0.0963855	-1.30469	40.4445	278.212	
25	0.54	0.100402	-1.28155	40.4445	277.082	
26	0.57	0.104418	-1.25908	40.5247	275.985	
27	0.57	0.108434	-1.23724	40.5247	274.918	
28	0.57	0.11245	-1.21596	40.5247	273.879	
29	0.58	0.116466	-1.19522	40.5515	272.867	
30	0.59	0.120482	-1.17499	40.5782	271.879	
31	0.62	0.124498	-1.15522	40.6585	270.913	
32	0.63	0.128514	-1.1359	40.6852	269.97	
33	0.64	0.13253	-1.11699	40.712	269.046	
34	0.67	0.136546	-1.09847	40.7923	268.142	
35	0.68	0.140562	-1.08032	40.819	267.256	
36	0.68	0.144578	-1.06252	40.819	266.386	
37	0.69	0.148594	-1.04505	40.8458	265.533	
38	0.71	0.15261	-1.02789	40.8993	264.695	
39	0.73	0.156627	-1.01104	40.9528	263.872	
40	0.76	0.160643	-0.994457	41.033	263.063	
41	0.82	0.164659	-0.97815	41.1935	262.266	
42	0.82	0.168675	-0.9621	41.1935	261.483	
43	0.84	0.172691	-0.946291	41.247	260.711	
44	0.84	0.176707	-0.930718	41.247	259.95	
45	0.87	0.180723	-0.915365	41.3272	259.2	
46	0.97	0.184739	-0.900227	41.5947	258.461	
47	1	0.188755	-0.885291	41.675	257.732	
48	1.03	0.192771	-0.87055	41.7553	257.012	

49	1.03	0.196787	-0.855996	41.7553	256.301
50	1.04	0.200803	-0.841621	41.782	255.599
51	1.1	0.204819	-0.827417	41.9425	254.906
52	1.2	0.208835	-0.813379	42.21	254.22
53	1.25	0.212851	-0.7995	42.3438	253.542
54	1.27	0.216867	-0.785774	42.3973	252.872
55	1.31	0.220884	-0.772193	42.5042	252.209
56	1.4	0.2249	-0.758753	42.745	251.552
57	1.41	0.228916	-0.745449	42.7717	250.903
58	1.5	0.232932	-0.732275	43.0125	250.259
59	1.6	0.236948	-0.719228	43.28	249.622
60	1.7	0.240964	-0.706302	43.5475	248.991
61	1.74	0.24498	-0.693493	43.6545	248.366
62	1.8	0.248996	-0.680797	43.815	247.746
63	1.89	0.253012	-0.665079	44.0558	246.978
64	1.9	0.257028	-0.652622	44.0825	246.37
65	2	0.261044	-0.640266	44.35	245.766
66	2.1	0.26506	-0.628006	44.6175	245.168
67	2.2	0.269076	-0.615839	44.885	244.573
68	2.2	0.273092	-0.603765	44.885	243.984
69	2.29	0.277108	-0.591776	45.1257	243.398
70	2.3	0.281124	-0.579873	45.1525	242.817
71	2.6	0.285141	-0.568052	45.955	242.24
72	2.8	0.289157	-0.556308	46.49	241.666
73	3.1	0.293173	-0.544642	47.2925	241.097
74	4	0.297189	-0.533048	49.7	240.531
75	4.96	0.301205	-0.521527	52.268	239.968
76	5	0.305221	-0.510074	52.375	239.409
77	6	0.309237	-0.498687	55.05	238.853
78	6	0.313253	-0.487364	55.05	238.3
79	6	0.317269	-0.476105	55.05	237.75
80	10	0.321285	-0.464904	65.75	237.203
81	10	0.325301	-0.453763	65.75	236.659
82	16	0.329317	-0.442676	81.8	236.117
83	25	0.333333	-0.431644	105.875	235.579
84	25	0.337349	-0.420664	105.875	235.042
85	25	0.341365	-0.409735	105.875	234.509
86	25	0.345382	-0.398855	105.875	233.977
87	25	0.349398	-0.388022	105.875	233.448
88	25	0.353414	-0.377233	105.875	232.922
89	25	0.35743	-0.36649	105.875	232.397
90	25	0.361446	-0.355788	105.875	231.874
91	25	0.365462	-0.345126	105.875	231.354
92	25	0.369478	-0.334503	105.875	230.835
93	25	0.373494	-0.323919	105.875	230.318
94	25	0.37751	-0.31337	105.875	229.803
95	25	0.381526	-0.302855	105.875	229.289
96	25	0.385542	-0.292375	105.875	228.778
97	25	0.389558	-0.281926	105.875	228.267
98	25	0.393574	-0.271509	105.875	227.759
99	25	0.39759	-0.26112	105.875	227.251
100	25	0.401606	-0.250759	105.875	226.745
101	25	0.405622	-0.240426	105.875	226.241
102	25	0.409639	-0.230118	105.875	225.737
103	25	0.413655	-0.219834	105.875	225.235
104	25	0.417671	-0.209575	105.875	224.734
105	25	0.421687	-0.199336	105.875	224.234
106	25	0.425703	-0.189118	105.875	223.735
107	25	0.429719	-0.17892	105.875	223.237
108	25	0.433735	-0.168741	105.875	222.74
109	25	0.437751	-0.158579	105.875	222.244
110	25	0.441767	-0.148434	105.875	221.749

111	25	0.445783	-0.138305	105.875	221.254
112	25	0.449799	-0.128189	105.875	220.76
113	25	0.453815	-0.118085	105.875	220.267
114	25	0.457831	-0.107995	105.875	219.774
115	25	0.461847	-0.0979139	105.875	219.281
116	25	0.465863	-0.0878447	105.875	218.79
117	25	0.46988	-0.0777834	105.875	218.298
118	25	0.473896	-0.0677301	105.875	217.807
119	25	0.477912	-0.0576847	105.875	217.317
120	25	0.481928	-0.0476439	105.875	216.827
121	25	0.485944	-0.0376076	105.875	216.337
122	25	0.48996	-0.0275759	105.875	215.847
123	25	0.493976	-0.0175476	105.875	215.357
124	25	0.497992	-0.00751925	105.875	214.867
125	25	0.502008	0.00751925	105.875	214.133
126	25	0.506024	0.0175476	105.875	213.643
127	25	0.51004	0.0275759	105.875	213.153
128	25	0.514056	0.0376076	105.875	212.663
129	25	0.518072	0.0476439	105.875	212.173
130	25	0.522088	0.0576847	105.875	211.683
131	25	0.526104	0.0677301	105.875	211.193
132	25	0.53012	0.0777834	105.875	210.702
133	25	0.534137	0.0878447	105.875	210.21
134	25	0.538153	0.0979139	105.875	209.719
135	25	0.542169	0.107995	105.875	209.226
136	25	0.546185	0.118085	105.875	208.733
137	25	0.550201	0.128189	105.875	208.24
138	25	0.554217	0.138305	105.875	207.746
139	25	0.558233	0.148434	105.875	207.251
140	25	0.562249	0.158579	105.875	206.756
141	25	0.566265	0.168741	105.875	206.26
142	25	0.570281	0.17892	105.875	205.763
143	25	0.574297	0.189118	105.875	205.265
144	25	0.578313	0.199336	105.875	204.766
145	25	0.582329	0.209575	105.875	204.266
146	25	0.586345	0.219834	105.875	203.765
147	25	0.590361	0.230118	105.875	203.263
148	25	0.594378	0.240426	105.875	202.759
149	25	0.598394	0.250759	105.875	202.255
150	25	0.60241	0.26112	105.875	201.749
151	25	0.606426	0.271509	105.875	201.241
152	25	0.610442	0.281926	105.875	200.733
153	25	0.614458	0.292375	105.875	200.222
154	25	0.618474	0.302855	105.875	199.711
155	25	0.62249	0.31337	105.875	199.197
156	25	0.626506	0.323919	105.875	198.682
157	25	0.630522	0.334503	105.875	198.165
158	25	0.634538	0.345126	105.875	197.646
159	25	0.638554	0.355788	105.875	197.126
160	25	0.64257	0.36649	105.875	196.603
161	25	0.646586	0.377233	105.875	196.078
162	25	0.650602	0.388022	105.875	195.552
163	25	0.654618	0.398855	105.875	195.023
164	25	0.658635	0.409735	105.875	194.491
165	25	0.662651	0.420664	105.875	193.958
166	25	0.666667	0.431644	105.875	193.421
167	25	0.670683	0.442676	105.875	192.883
168	25	0.674699	0.453763	105.875	192.341
169	25	0.678715	0.464904	105.875	191.797
170	25	0.682731	0.476105	105.875	191.25
171	25	0.686747	0.487364	105.875	190.7
172	25	0.690763	0.498687	105.875	190.147

173	25	0.694779	0.510074	105.875	189.591
174	25	0.698795	0.521527	105.875	189.032
175	25	0.702811	0.533048	105.875	188.469
176	25	0.706827	0.544642	105.875	187.903
177	25	0.710843	0.556308	105.875	187.334
178	25	0.714859	0.568052	105.875	186.76
179	25	0.718876	0.579873	105.875	186.183
180	25	0.722892	0.591776	105.875	185.602
181	25	0.726908	0.603765	105.875	185.016
182	25	0.730924	0.615839	105.875	184.427
183	25	0.73494	0.628006	105.875	183.832
184	25	0.738956	0.640266	105.875	183.234
185	25	0.742972	0.652622	105.875	182.63
186	25	0.746988	0.665079	105.875	182.022
187	25	0.751004	0.680797	105.875	181.254
188	25	0.75502	0.693493	105.875	180.634
189	25	0.759036	0.706302	105.875	180.009
190	25	0.763052	0.719228	105.875	179.378
191	25	0.767068	0.732275	105.875	178.741
192	25	0.771084	0.745449	105.875	178.097
193	25	0.7751	0.758753	105.875	177.448
194	25	0.779116	0.772193	105.875	176.791
195	25	0.783133	0.785774	105.875	176.128
196	25	0.787149	0.7995	105.875	175.458
197	25	0.791165	0.813379	105.875	174.78
198	25	0.795181	0.827417	105.875	174.094
199	25	0.799197	0.841621	105.875	173.401
200	25	0.803213	0.855996	105.875	172.699
201	25	0.807229	0.87055	105.875	171.988
202	25	0.811245	0.885291	105.875	171.268
203	25	0.815261	0.900227	105.875	170.539
204	25	0.819277	0.915365	105.875	169.8
205	25	0.823293	0.930718	105.875	169.05
206	25	0.827309	0.946291	105.875	168.289
207	25	0.831325	0.9621	105.875	167.517
208	25	0.835341	0.97815	105.875	166.734
209	25	0.839357	0.994457	105.875	165.937
210	25	0.843373	1.01104	105.875	165.128
211	25	0.84739	1.02789	105.875	164.305
212	25	0.851406	1.04505	105.875	163.467
213	25	0.855422	1.06252	105.875	162.614
214	25	0.859438	1.08032	105.875	161.744
215	25	0.863454	1.09847	105.875	160.858
216	25	0.86747	1.11699	105.875	159.954
217	25	0.871486	1.1359	105.875	159.03
218	25	0.875502	1.15522	105.875	158.087
219	25	0.879518	1.17499	105.875	157.121
220	25	0.883534	1.19522	105.875	156.133
221	25	0.88755	1.21596	105.875	155.121
222	25	0.891566	1.23724	105.875	154.082
223	25	0.895582	1.25908	105.875	153.015
224	25	0.899598	1.28155	105.875	151.918
225	25	0.903614	1.30469	105.875	150.788
226	25	0.907631	1.32854	105.875	149.623
227	25	0.911647	1.35317	105.875	148.42
228	25	0.915663	1.37866	105.875	147.176
229	25	0.919679	1.40507	105.875	145.886
230	25	0.923695	1.4325	105.875	144.546
231	25	0.927711	1.46106	105.875	143.152
232	25	0.931727	1.49085	105.875	141.697
233	25	0.935743	1.52203	105.875	140.174
234	25	0.939759	1.55477	105.875	138.575

235	25	0.943775		1.58927	105.875	136.891
236	25	0.947791		1.62576	105.875	135.109
237	25	0.951807		1.66456	105.875	133.214
238	25	0.955823		1.70604	105.875	131.188
239	25	0.959839		1.75069	105.875	129.008
240	25	0.963855		1.79912	105.875	126.643
241	25	0.967871		1.85218	105.875	124.052
242	25	0.971888		1.91103	105.875	121.178
243	25	0.975904		1.97737	105.875	117.938
244	38	0.97992	2.05375	140.65	114.209	
245	60	0.983936		2.14441	199.5	109.781
246	63	0.987952		2.25713	207.525	104.277
247	72	0.991968		2.40892	231.6	96.8642
248	180	0.995984		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 = 248

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	-1.91103	34.3095	26.6312
8	-1.60944	-1.85218	37.7401	29.6121
9	-1.60944	-1.79912	40.9769	32.5077
10	-1.60944	-1.75069	44.0418	35.3253
11	-1.60944	-1.70604	46.9524	38.0711
12	-1.13943	-1.66456	49.7231	39.9678
13	-1.04982	-1.62576	52.3662	41.6745
14	-1.02165	-1.58927	54.892	43.2982
15	-0.916291	-1.55477	57.3093	44.7228
16	-0.867501	-1.52203	59.6259	46.0432
17	-0.820981	-1.49085	61.8486	47.2672
18	-0.776529	-1.46106	63.9833	48.4017
19	-0.776529	-1.4325	66.0353	49.5141
20	-0.71335	-1.40507	68.0096	50.5164
21	-0.693147	-1.37866	69.9102	51.472
22	-0.673345	-1.35317	71.7413	52.3832
23	-0.634878	-1.32854	73.5063	53.2266
24	-0.616186	-1.30469	75.2086	54.0306
25	-0.616186	-1.28155	76.8509	54.8202
26	-0.562119	-1.25908	78.4362	55.528
27	-0.562119	-1.23724	79.967	56.2235
28	-0.562119	-1.21596	81.4455	56.907
29	-0.544727	-1.19522	82.8741	57.558
30	-0.527633	-1.17499	84.2547	58.178
31	-0.478036	-1.15522	85.5892	58.7302
32	-0.462035	-1.1359	86.8795	59.2551
33	-0.446287	-1.11699	88.1271	59.7536
34	-0.400478	-1.09847	89.3338	60.1935
35	-0.385662	-1.08032	90.5009	60.6101
36	-0.385662	-1.06252	91.6298	61.0199
37	-0.371064	-1.04505	92.7219	61.4077
38	-0.34249	-1.02789	93.7785	61.7597
39	-0.314711	-1.01104	94.8007	62.0779
40	-0.274437	-0.994457	95.7896	62.3508
41	-0.198451	-0.97815	96.7464	62.5449
42	-0.198451	-0.9621	97.6721	62.7359
43	-0.174353	-0.946291	98.5675	62.9008
44	-0.174353	-0.930718	99.4338	63.0631
45	-0.139262	-0.915365	100.272	63.1906
46	-0.0304592	-0.900227	101.082	63.218
47	0	-0.885291	101.866	63.218
48	0.0295588	-0.87055	102.624	63.1923
49	0.0295588	-0.855996	103.356	63.167
50	0.0392207	-0.841621	104.065	63.134
51	0.0953102	-0.827417	104.749	63.0551

52	0.182322	-0.813379	105.411	62.9068
53	0.223144	-0.7995	106.05	62.7284
54	0.239017	-0.785774	106.668	62.5406
55	0.270027	-0.772193	107.264	62.3321
56	0.336472	-0.758753	107.84	62.0768
57	0.34359	-0.745449	108.395	61.8207
58	0.405465	-0.732275	108.931	61.5237
59	0.470004	-0.719228	109.449	61.1857
60	0.530628	-0.706302	109.948	60.8109
61	0.553885	-0.693493	110.429	60.4268
62	0.587787	-0.680797	110.892	60.0266
63	0.636577	-0.665079	111.334	59.6033
64	0.641854	-0.652622	111.76	59.1844
65	0.693147	-0.640266	112.17	58.7406
66	0.741937	-0.628006	112.565	58.2746
67	0.788457	-0.615839	112.944	57.7891
68	0.788457	-0.603765	113.308	57.313
69	0.828552	-0.591776	113.659	56.8227
70	0.832909	-0.579873	113.995	56.3397
71	0.955511	-0.568052	114.318	55.797
72	1.02962	-0.556308	114.627	55.2242
73	1.1314	-0.544642	114.924	54.608
74	1.38629	-0.533048	115.208	53.869
75	1.60141	-0.521527	115.48	53.0338
76	1.60944	-0.510074	115.74	52.2129
77	1.79176	-0.498687	115.989	51.3194
78	1.79176	-0.487364	116.226	50.4461
79	1.79176	-0.476105	116.453	49.5931
80	2.30259	-0.464904	116.669	48.5226
81	2.30259	-0.453763	116.875	47.4777
82	2.77259	-0.442676	117.071	46.2504
83	3.21888	-0.431644	117.257	44.861
84	3.21888	-0.420664	117.434	43.5069
85	3.21888	-0.409735	117.602	42.188
86	3.21888	-0.398855	117.761	40.9042
87	3.21888	-0.388022	117.912	39.6552
88	3.21888	-0.377233	118.054	38.4409
89	3.21888	-0.36649	118.188	37.2612
90	3.21888	-0.355788	118.315	36.116
91	3.21888	-0.345126	118.434	35.0051
92	3.21888	-0.334503	118.546	33.9283
93	3.21888	-0.323919	118.651	32.8857
94	3.21888	-0.31337	118.749	31.877
95	3.21888	-0.302855	118.841	30.9021
96	3.21888	-0.292375	118.926	29.961
97	3.21888	-0.281926	119.006	29.0535
98	3.21888	-0.271509	119.079	28.1796
99	3.21888	-0.26112	119.148	27.3391
100	3.21888	-0.250759	119.21	26.5319
101	3.21888	-0.240426	119.268	25.758
102	3.21888	-0.230118	119.321	25.0173
103	3.21888	-0.219834	119.37	24.3097
104	3.21888	-0.209575	119.413	23.6351
105	3.21888	-0.199336	119.453	22.9934
106	3.21888	-0.189118	119.489	22.3847
107	3.21888	-0.17892	119.521	21.8087
108	3.21888	-0.168741	119.549	21.2656
109	3.21888	-0.158579	119.575	20.7551
110	3.21888	-0.148434	119.597	20.2774
111	3.21888	-0.138305	119.616	19.8322
112	3.21888	-0.128189	119.632	19.4195
113	3.21888	-0.118085	119.646	19.0394

114	3.21888	-0.107995	119.658	18.6918
115	3.21888	-0.0979139	119.667	18.3766
116	3.21888	-0.0878447	119.675	18.0939
117	3.21888	-0.0777834	119.681	17.8435
118	3.21888	-0.0677301	119.686	17.6255
119	3.21888	-0.0576847	119.689	17.4398
120	3.21888	-0.0476439	119.691	17.2865
121	3.21888	-0.0376076	119.693	17.1654
122	3.21888	-0.0275759	119.694	17.0766
123	3.21888	-0.0175476	119.694	17.0202
124	3.21888	-0.00751925	119.694	16.996
125	3.21888	0.00751925	119.694	17.0202
126	3.21888	0.0175476	119.694	17.0766
127	3.21888	0.0275759	119.695	17.1654
128	3.21888	0.0376076	119.696	17.2865
129	3.21888	0.0476439	119.699	17.4398
130	3.21888	0.0576847	119.702	17.6255
131	3.21888	0.0677301	119.707	17.8435
132	3.21888	0.0777834	119.713	18.0939
133	3.21888	0.0878447	119.72	18.3766
134	3.21888	0.0979139	119.73	18.6918
135	3.21888	0.107995	119.742	19.0394
136	3.21888	0.118085	119.756	19.4195
137	3.21888	0.128189	119.772	19.8322
138	3.21888	0.138305	119.791	20.2774
139	3.21888	0.148434	119.813	20.7551
140	3.21888	0.158579	119.838	21.2656
141	3.21888	0.168741	119.867	21.8087
142	3.21888	0.17892	119.899	22.3847
143	3.21888	0.189118	119.935	22.9934
144	3.21888	0.199336	119.974	23.6351
145	3.21888	0.209575	120.018	24.3097
146	3.21888	0.219834	120.067	25.0173
147	3.21888	0.230118	120.119	25.758
148	3.21888	0.240426	120.177	26.5319
149	3.21888	0.250759	120.24	27.3391
150	3.21888	0.26112	120.308	28.1796
151	3.21888	0.271509	120.382	29.0535
152	3.21888	0.281926	120.462	29.961
153	3.21888	0.292375	120.547	30.9021
154	3.21888	0.302855	120.639	31.877
155	3.21888	0.31337	120.737	32.8857
156	3.21888	0.323919	120.842	33.9283
157	3.21888	0.334503	120.954	35.0051
158	3.21888	0.345126	121.073	36.116
159	3.21888	0.355788	121.199	37.2612
160	3.21888	0.36649	121.334	38.4409
161	3.21888	0.377233	121.476	39.6552
162	3.21888	0.388022	121.627	40.9042
163	3.21888	0.398855	121.786	42.188
164	3.21888	0.409735	121.954	43.5069
165	3.21888	0.420664	122.131	44.861
166	3.21888	0.431644	122.317	46.2504
167	3.21888	0.442676	122.513	47.6753
168	3.21888	0.453763	122.719	49.1359
169	3.21888	0.464904	122.935	50.6324
170	3.21888	0.476105	123.162	52.1649
171	3.21888	0.487364	123.399	53.7337
172	3.21888	0.498687	123.648	55.3389
173	3.21888	0.510074	123.908	56.9807
174	3.21888	0.521527	124.18	58.6595
175	3.21888	0.533048	124.464	60.3753

176	3.21888	0.544642		124.761	62.1284
177	3.21888	0.556308		125.07	63.9191
178	3.21888	0.568052		125.393	65.7476
179	3.21888	0.579873		125.729	67.6141
180	3.21888	0.591776		126.079	69.519
181	3.21888	0.603765		126.444	71.4624
182	3.21888	0.615839		126.823	73.4448
183	3.21888	0.628006		127.218	75.4662
184	3.21888	0.640266		127.627	77.5272
185	3.21888	0.652622		128.053	79.6279
186	3.21888	0.665079		128.496	81.7687
187	3.21888	0.680797		128.959	83.9601
188	3.21888	0.693493		129.44	86.1923
189	3.21888	0.706302		129.939	88.4658
190	3.21888	0.719228		130.456	90.781
191	3.21888	0.732275		130.993	93.1381
192	3.21888	0.745449		131.548	95.5376
193	3.21888	0.758753		132.124	97.9799
194	3.21888	0.772193		132.72	100.465
195	3.21888	0.785774		133.338	102.995
196	3.21888	0.7995	133.977	105.568	
197	3.21888	0.813379		134.638	108.186
198	3.21888	0.827417		135.323	110.85
199	3.21888	0.841621		136.031	113.559
200	3.21888	0.855996		136.764	116.314
201	3.21888	0.87055	137.522	119.116	
202	3.21888	0.885291		138.306	121.966
203	3.21888	0.900227		139.116	124.864
204	3.21888	0.915365		139.954	127.81
205	3.21888	0.930718		140.82	130.806
206	3.21888	0.946291		141.716	133.852
207	3.21888	0.9621	142.641	136.949	
208	3.21888	0.97815	143.598	140.098	
209	3.21888	0.994457		144.587	143.299
210	3.21888	1.01104	145.609	146.553	
211	3.21888	1.02789	146.666	149.862	
212	3.21888	1.04505	147.758	153.225	
213	3.21888	1.06252	148.887	156.646	
214	3.21888	1.08032	150.054	160.123	
215	3.21888	1.09847	151.261	163.659	
216	3.21888	1.11699	152.508	167.254	
217	3.21888	1.1359	153.799	170.911	
218	3.21888	1.15522	155.133	174.629	
219	3.21888	1.17499	156.514	178.411	
220	3.21888	1.19522	157.942	182.259	
221	3.21888	1.21596	159.421	186.173	
222	3.21888	1.23724	160.952	190.155	
223	3.21888	1.25908	162.537	194.208	
224	3.21888	1.28155	164.179	198.333	
225	3.21888	1.30469	165.881	202.533	
226	3.21888	1.32854	167.646	206.809	
227	3.21888	1.35317	169.477	211.165	
228	3.21888	1.37866	171.378	215.603	
229	3.21888	1.40507	173.352	220.125	
230	3.21888	1.4325	175.404	224.736	
231	3.21888	1.46106	177.539	229.439	
232	3.21888	1.49085	179.762	234.238	
233	3.21888	1.52203	182.078	239.137	
234	3.21888	1.55477	184.496	244.142	
235	3.21888	1.58927	187.022	249.258	
236	3.21888	1.62576	189.665	254.491	
237	3.21888	1.66456	192.435	259.849	

238	3.21888	1.70604	195.346	265.34
239	3.21888	1.75069	198.411	270.976
240	3.21888	1.79912	201.648	276.767
241	3.21888	1.85218	205.078	282.729
242	3.21888	1.91103	208.73	288.88
243	3.21888	1.97737	212.64	295.245
244	3.63759	2.05375	216.858	302.716
245	4.09434	2.14441	221.457	311.496
246	4.14313	2.25713	226.551	320.847
247	4.27667	2.40892	232.354	331.149
248	5.19296	2.65209	239.388	344.921

Data Set Standard Deviation = 1.68717
Numerator = 118971
Denominator = 168312
W Statistic = 0.706848 = 118971 / 168312

5% Critical value of 0.976 exceeds 0.706848
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.706848
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 = 0.839859
0.839859 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.30259	0.00401606	-2.65209	80.4574	344.01
2	-1.60944	0.00803213	-2.40892	121.661	332.136
3	-1.60944	0.0120482	-2.25713	121.661	324.723
4	-1.60944	0.0160643	-2.14441	121.661	319.219
5	-1.60944	0.0200803	-2.05375	121.661	314.791
6	-1.60944	0.0240964	-1.97737	121.661	311.062
7	-1.60944	0.0281124	-1.91103	121.661	307.822
8	-1.60944	0.0321285	-1.85218	121.661	304.948
9	-1.60944	0.0361446	-1.79912	121.661	302.357
10	-1.60944	0.0401606	-1.75069	121.661	299.992
11	-1.60944	0.0441767	-1.70604	121.661	297.812
12	-1.13943	0.0481928	-1.66456	149.6	295.786
13	-1.04982	0.0522088	-1.62576	154.927	293.891
14	-1.02165	0.0562249	-1.58927	156.602	292.109
15	-0.916291	0.060241	-1.55477	162.865	290.425
16	-0.867501	0.064257	-1.52203	165.765	288.826
17	-0.820981	0.0682731	-1.49085	168.531	287.303
18	-0.776529	0.0722892	-1.46106	171.173	285.848
19	-0.776529	0.0763052	-1.4325	171.173	284.454
20	-0.71335	0.0803213	-1.40507	174.929	283.114
21	-0.693147	0.0843373	-1.37866	176.13	281.824
22	-0.673345	0.0883534	-1.35317	177.307	280.58
23	-0.634878	0.0923695	-1.32854	179.593	279.377
24	-0.616186	0.0963855	-1.30469	180.704	278.212
25	-0.616186	0.100402	-1.28155	180.704	277.082
26	-0.562119	0.104418	-1.25908	183.918	275.985
27	-0.562119	0.108434	-1.23724	183.918	274.918
28	-0.562119	0.11245	-1.21596	183.918	273.879
29	-0.544727	0.116466	-1.19522	184.952	272.867
30	-0.527633	0.120482	-1.17499	185.968	271.879
31	-0.478036	0.124498	-1.15522	188.917	270.913
32	-0.462035	0.128514	-1.1359	189.868	269.97
33	-0.446287	0.13253	-1.11699	190.804	269.046
34	-0.400478	0.136546	-1.09847	193.527	268.142
35	-0.385662	0.140562	-1.08032	194.408	267.256
36	-0.385662	0.144578	-1.06252	194.408	266.386
37	-0.371064	0.148594	-1.04505	195.276	265.533
38	-0.34249	0.15261	-1.02789	196.974	264.695
39	-0.314711	0.156627	-1.01104	198.626	263.872
40	-0.274437	0.160643	-0.994457	201.02	263.063
41	-0.198451	0.164659	-0.97815	205.537	262.266
42	-0.198451	0.168675	-0.9621	205.537	261.483
43	-0.174353	0.172691	-0.946291	206.969	260.711
44	-0.174353	0.176707	-0.930718	206.969	259.95
45	-0.139262	0.180723	-0.915365	209.055	259.2
46	-0.0304592	0.184739	-0.900227	215.523	258.461
47	0	0.188755	-0.885291	217.333	257.732
48	0.0295588	0.192771	-0.87055	219.09	257.012

49	0.0295588	0.196787	-0.855996	219.09	256.301
50	0.0392207	0.200803	-0.841621	219.665	255.599
51	0.0953102	0.204819	-0.827417	222.999	254.906
52	0.182322	0.208835	-0.813379	228.171	254.22
53	0.223144	0.212851	-0.7995	230.598	253.542
54	0.239017	0.216867	-0.785774	231.542	252.872
55	0.270027	0.220884	-0.772193	233.385	252.209
56	0.336472	0.2249	-0.758753	237.335	251.552
57	0.34359	0.228916	-0.745449	237.758	250.903
58	0.405465	0.232932	-0.732275	241.436	250.259
59	0.470004	0.236948	-0.719228	245.272	249.622
60	0.530628	0.240964	-0.706302	248.876	248.991
61	0.553885	0.24498	-0.693493	250.259	248.366
62	0.587787	0.248996	-0.680797	252.274	247.746
63	0.636577	0.253012	-0.665079	255.174	246.978
64	0.641854	0.257028	-0.652622	255.488	246.37
65	0.693147	0.261044	-0.640266	258.537	245.766
66	0.741937	0.26506	-0.628006	261.437	245.168
67	0.788457	0.269076	-0.615839	264.203	244.573
68	0.788457	0.273092	-0.603765	264.203	243.984
69	0.828552	0.277108	-0.591776	266.586	243.398
70	0.832909	0.281124	-0.579873	266.845	242.817
71	0.955511	0.285141	-0.568052	274.133	242.24
72	1.02962	0.289157	-0.556308	278.538	241.666
73	1.1314	0.293173	-0.544642	284.589	241.097
74	1.38629	0.297189	-0.533048	299.741	240.531
75	1.60141	0.301205	-0.521527	312.528	239.968
76	1.60944	0.305221	-0.510074	313.005	239.409
77	1.79176	0.309237	-0.498687	323.843	238.853
78	1.79176	0.313253	-0.487364	323.843	238.3
79	1.79176	0.317269	-0.476105	323.843	237.75
80	2.30259	0.321285	-0.464904	354.209	237.203
81	2.30259	0.325301	-0.453763	354.209	236.659
82	2.77259	0.329317	-0.442676	382.148	236.117
83	3.21888	0.333333	-0.431644	408.678	235.579
84	3.21888	0.337349	-0.420664	408.678	235.042
85	3.21888	0.341365	-0.409735	408.678	234.509
86	3.21888	0.345382	-0.398855	408.678	233.977
87	3.21888	0.349398	-0.388022	408.678	233.448
88	3.21888	0.353414	-0.377233	408.678	232.922
89	3.21888	0.35743	-0.36649	408.678	232.397
90	3.21888	0.361446	-0.355788	408.678	231.874
91	3.21888	0.365462	-0.345126	408.678	231.354
92	3.21888	0.369478	-0.334503	408.678	230.835
93	3.21888	0.373494	-0.323919	408.678	230.318
94	3.21888	0.37751	-0.31337	408.678	229.803
95	3.21888	0.381526	-0.302855	408.678	229.289
96	3.21888	0.385542	-0.292375	408.678	228.778
97	3.21888	0.389558	-0.281926	408.678	228.267
98	3.21888	0.393574	-0.271509	408.678	227.759
99	3.21888	0.39759	-0.26112	408.678	227.251
100	3.21888	0.401606	-0.250759	408.678	226.745
101	3.21888	0.405622	-0.240426	408.678	226.241
102	3.21888	0.409639	-0.230118	408.678	225.737
103	3.21888	0.413655	-0.219834	408.678	225.235
104	3.21888	0.417671	-0.209575	408.678	224.734
105	3.21888	0.421687	-0.199336	408.678	224.234
106	3.21888	0.425703	-0.189118	408.678	223.735
107	3.21888	0.429719	-0.17892	408.678	223.237
108	3.21888	0.433735	-0.168741	408.678	222.74
109	3.21888	0.437751	-0.158579	408.678	222.244
110	3.21888	0.441767	-0.148434	408.678	221.749

111	3.21888	0.445783	-0.138305	408.678	221.254
112	3.21888	0.449799	-0.128189	408.678	220.76
113	3.21888	0.453815	-0.118085	408.678	220.267
114	3.21888	0.457831	-0.107995	408.678	219.774
115	3.21888	0.461847	-0.0979139	408.678	219.281
116	3.21888	0.465863	-0.0878447	408.678	218.79
117	3.21888	0.46988	-0.0777834	408.678	218.298
118	3.21888	0.473896	-0.0677301	408.678	217.807
119	3.21888	0.477912	-0.0576847	408.678	217.317
120	3.21888	0.481928	-0.0476439	408.678	216.827
121	3.21888	0.485944	-0.0376076	408.678	216.337
122	3.21888	0.48996	-0.0275759	408.678	215.847
123	3.21888	0.493976	-0.0175476	408.678	215.357
124	3.21888	0.497992	-0.00751925	408.678	214.867
125	3.21888	0.502008	0.00751925	408.678	214.133
126	3.21888	0.506024	0.0175476	408.678	213.643
127	3.21888	0.51004	0.0275759	408.678	213.153
128	3.21888	0.514056	0.0376076	408.678	212.663
129	3.21888	0.518072	0.0476439	408.678	212.173
130	3.21888	0.522088	0.0576847	408.678	211.683
131	3.21888	0.526104	0.0677301	408.678	211.193
132	3.21888	0.53012	0.0777834	408.678	210.702
133	3.21888	0.534137	0.0878447	408.678	210.21
134	3.21888	0.538153	0.0979139	408.678	209.719
135	3.21888	0.542169	0.107995	408.678	209.226
136	3.21888	0.546185	0.118085	408.678	208.733
137	3.21888	0.550201	0.128189	408.678	208.24
138	3.21888	0.554217	0.138305	408.678	207.746
139	3.21888	0.558233	0.148434	408.678	207.251
140	3.21888	0.562249	0.158579	408.678	206.756
141	3.21888	0.566265	0.168741	408.678	206.26
142	3.21888	0.570281	0.17892	408.678	205.763
143	3.21888	0.574297	0.189118	408.678	205.265
144	3.21888	0.578313	0.199336	408.678	204.766
145	3.21888	0.582329	0.209575	408.678	204.266
146	3.21888	0.586345	0.219834	408.678	203.765
147	3.21888	0.590361	0.230118	408.678	203.263
148	3.21888	0.594378	0.240426	408.678	202.759
149	3.21888	0.598394	0.250759	408.678	202.255
150	3.21888	0.60241	0.26112	408.678	201.749
151	3.21888	0.606426	0.271509	408.678	201.241
152	3.21888	0.610442	0.281926	408.678	200.733
153	3.21888	0.614458	0.292375	408.678	200.222
154	3.21888	0.618474	0.302855	408.678	199.711
155	3.21888	0.62249	0.31337	408.678	199.197
156	3.21888	0.626506	0.323919	408.678	198.682
157	3.21888	0.630522	0.334503	408.678	198.165
158	3.21888	0.634538	0.345126	408.678	197.646
159	3.21888	0.638554	0.355788	408.678	197.126
160	3.21888	0.64257	0.36649	408.678	196.603
161	3.21888	0.646586	0.377233	408.678	196.078
162	3.21888	0.650602	0.388022	408.678	195.552
163	3.21888	0.654618	0.398855	408.678	195.023
164	3.21888	0.658635	0.409735	408.678	194.491
165	3.21888	0.662651	0.420664	408.678	193.958
166	3.21888	0.666667	0.431644	408.678	193.421
167	3.21888	0.670683	0.442676	408.678	192.883
168	3.21888	0.674699	0.453763	408.678	192.341
169	3.21888	0.678715	0.464904	408.678	191.797
170	3.21888	0.682731	0.476105	408.678	191.25
171	3.21888	0.686747	0.487364	408.678	190.7
172	3.21888	0.690763	0.498687	408.678	190.147

173	3.21888	0.694779	0.510074	408.678	189.591
174	3.21888	0.698795	0.521527	408.678	189.032
175	3.21888	0.702811	0.533048	408.678	188.469
176	3.21888	0.706827	0.544642	408.678	187.903
177	3.21888	0.710843	0.556308	408.678	187.334
178	3.21888	0.714859	0.568052	408.678	186.76
179	3.21888	0.718876	0.579873	408.678	186.183
180	3.21888	0.722892	0.591776	408.678	185.602
181	3.21888	0.726908	0.603765	408.678	185.016
182	3.21888	0.730924	0.615839	408.678	184.427
183	3.21888	0.73494	0.628006	408.678	183.832
184	3.21888	0.738956	0.640266	408.678	183.234
185	3.21888	0.742972	0.652622	408.678	182.63
186	3.21888	0.746988	0.665079	408.678	182.022
187	3.21888	0.751004	0.680797	408.678	181.254
188	3.21888	0.75502	0.693493	408.678	180.634
189	3.21888	0.759036	0.706302	408.678	180.009
190	3.21888	0.763052	0.719228	408.678	179.378
191	3.21888	0.767068	0.732275	408.678	178.741
192	3.21888	0.771084	0.745449	408.678	178.097
193	3.21888	0.7751	0.758753	408.678	177.448
194	3.21888	0.779116	0.772193	408.678	176.791
195	3.21888	0.783133	0.785774	408.678	176.128
196	3.21888	0.787149	0.7995	408.678	175.458
197	3.21888	0.791165	0.813379	408.678	174.78
198	3.21888	0.795181	0.827417	408.678	174.094
199	3.21888	0.799197	0.841621	408.678	173.401
200	3.21888	0.803213	0.855996	408.678	172.699
201	3.21888	0.807229	0.87055	408.678	171.988
202	3.21888	0.811245	0.885291	408.678	171.268
203	3.21888	0.815261	0.900227	408.678	170.539
204	3.21888	0.819277	0.915365	408.678	169.8
205	3.21888	0.823293	0.930718	408.678	169.05
206	3.21888	0.827309	0.946291	408.678	168.289
207	3.21888	0.831325	0.9621	408.678	167.517
208	3.21888	0.835341	0.97815	408.678	166.734
209	3.21888	0.839357	0.994457	408.678	165.937
210	3.21888	0.843373	1.01104	408.678	165.128
211	3.21888	0.84739	1.02789	408.678	164.305
212	3.21888	0.851406	1.04505	408.678	163.467
213	3.21888	0.855422	1.06252	408.678	162.614
214	3.21888	0.859438	1.08032	408.678	161.744
215	3.21888	0.863454	1.09847	408.678	160.858
216	3.21888	0.86747	1.11699	408.678	159.954
217	3.21888	0.871486	1.1359	408.678	159.03
218	3.21888	0.875502	1.15522	408.678	158.087
219	3.21888	0.879518	1.17499	408.678	157.121
220	3.21888	0.883534	1.19522	408.678	156.133
221	3.21888	0.88755	1.21596	408.678	155.121
222	3.21888	0.891566	1.23724	408.678	154.082
223	3.21888	0.895582	1.25908	408.678	153.015
224	3.21888	0.899598	1.28155	408.678	151.918
225	3.21888	0.903614	1.30469	408.678	150.788
226	3.21888	0.907631	1.32854	408.678	149.623
227	3.21888	0.911647	1.35317	408.678	148.42
228	3.21888	0.915663	1.37866	408.678	147.176
229	3.21888	0.919679	1.40507	408.678	145.886
230	3.21888	0.923695	1.4325	408.678	144.546
231	3.21888	0.927711	1.46106	408.678	143.152
232	3.21888	0.931727	1.49085	408.678	141.697
233	3.21888	0.935743	1.52203	408.678	140.174
234	3.21888	0.939759	1.55477	408.678	138.575

235	3.21888	0.943775	1.58927	408.678	136.891
236	3.21888	0.947791	1.62576	408.678	135.109
237	3.21888	0.951807	1.66456	408.678	133.214
238	3.21888	0.955823	1.70604	408.678	131.188
239	3.21888	0.959839	1.75069	408.678	129.008
240	3.21888	0.963855	1.79912	408.678	126.643
241	3.21888	0.967871	1.85218	408.678	124.052
242	3.21888	0.971888	1.91103	408.678	121.178
243	3.21888	0.975904	1.97737	408.678	117.938
244	3.63759	0.97992	2.05375	433.568	114.209
245	4.09434	0.983936	2.14441	460.719	109.781
246	4.14313	0.987952	2.25713	463.62	104.277
247	4.27667	0.991968	2.40892	471.557	96.8642
248	5.19296	0.995984	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	238
	9/23/1999	ND<3.21888	86.5
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	0.239017 J	215
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.0392207 J	211
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-1.02165 J	175
	11/16/2009	-0.867501 J	177
	6/30/2010	ND<-1.60944	86.5
	11/12/2010	ND<-1.60944 U	86.5
	7/5/2011	-0.562119 J	187

Rank Sum = 2327.5
Rank Mean = 122.5

Background Rank Sum = 2327.5
Background Rank Mean = 122.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-8	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	ND<3.21888	86.5
	4/7/1998	4.09434	245
	9/23/1998	ND<3.21888	86.5
	3/16/1999	ND<3.21888	86.5
	9/23/1999	ND<3.21888	86.5
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	ND<3.21888	86.5
	5/23/2007	ND<3.21888	86.5

	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.0295588 J	209
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-0.616186 J	185
	6/30/2010	-0.385662 J H	196
	11/12/2010	0.641854	225
	7/5/2011	0.182322	213
	11/22/2011	-0.673345 J	183
	6/5/2012	ND<-1.60944 U	86.5

Rank Sum = 3445.5
Rank Mean = 114.85

MW-6	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	ND<3.21888	86.5
	4/7/1998	ND<3.21888	86.5
	9/23/1998	ND<3.21888	86.5
	3/16/1999	ND<3.21888	86.5
	9/23/1999	2.30259 J	241
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	1.60141 J	236
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	ND<3.21888	86.5
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-1.04982 J	174
	11/16/2009	-1.13943 J	173
	6/30/2010	ND<-1.60944	86.5
	11/12/2010	ND<-1.60944 U	86.5
	7/5/2011	-0.314711 J	200
	11/22/2011	-0.776529 J	179
	6/5/2012	ND<-1.60944 U	86.5

Rank Sum = 3365.5
Rank Mean = 108.565

MW-10	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	ND<3.21888	86.5
	4/7/1998	5.19296	248
	9/23/1998	ND<3.21888	86.5
	3/16/1999	1.60944 J	237
	9/23/1999	3.63759 J	244
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5

	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	ND<3.21888	86.5
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.270027 J	216
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-0.527633 J	191
	11/16/2009	ND<-2.30259	86.5
	6/30/2010	ND<-1.60944	86.5
	11/12/2010	-0.776529 J	180
	7/5/2011	-0.916291 U J	176
	11/22/2011	ND<-1.60944 U	86.5
	6/5/2012	-0.400478 J	195

Rank Sum = 3676.5
Rank Mean = 118.597

MW-11R	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	2.30259 J	242
	4/7/1998	ND<3.21888	86.5
	9/23/1998	ND<3.21888	86.5
	3/16/1999	ND<3.21888	86.5
	9/23/1999	1.79176 J	239
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	0.34359 J	218
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	ND<3.21888	86.5
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-0.462035	193
	11/16/2009	-0.544727	190
	6/30/2010	-0.478036 J H	192
	11/12/2010	-0.820981 J	178
	7/5/2011	-0.174353 J	204
	11/22/2011	-0.562119 J	188
	11/22/2011	-0.562119 J	189
	6/5/2012	ND<-1.60944 U	86.5

Rank Sum = 3936
Rank Mean = 123

MW-9	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	ND<3.21888	86.5
	4/7/1998	4.27667	247

	9/23/1998	ND<3.21888	86.5
	3/16/1999	ND<3.21888	86.5
	9/23/1999	ND<3.21888	86.5
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	ND<3.21888	86.5
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.0295588 J	210
	11/20/2008	ND<3.21888	86.5
	6/11/2009	-0.139262	206
	11/16/2009	-0.371064 J	198
	6/30/2010	-0.634878 J H	184
	11/12/2010	ND<-1.60944 U	86.5
	7/5/2011	1.02962	233
	11/22/2011	-0.198451 J	202
	11/22/2011	-0.198451 J	203
	6/5/2012	-0.274437 J	201

Rank Sum = 3873.5
Rank Mean = 121.047

MW-7	7/20/1995	ND<3.21888	86.5
	8/24/1995	ND<3.21888	86.5
	9/28/1995	ND<3.21888	86.5
	10/26/1995	ND<3.21888	86.5
	11/19/1996	ND<3.21888	86.5
	12/19/1996	ND<3.21888	86.5
	3/24/1997	ND<3.21888	86.5
	9/24/1997	ND<3.21888	86.5
	4/7/1998	4.14313	246
	9/23/1998	ND<3.21888	86.5
	3/16/1999	1.79176	240
	9/23/1999	ND<3.21888	86.5
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	0.553885 J	222
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.636577 J	224
	11/20/2008	2.77259 J	243
	6/11/2009	-0.34249	199
	11/16/2009	0.405465	219
	6/30/2010	-0.693147 J H	182
	11/12/2010	0.530628	221
	7/5/2011	0.832909	231
	11/22/2011	-0.616186 J	186
	6/5/2012	-0.71335 J	181

Rank Sum = 4237.5
Rank Mean = 136.694

MW-12BR	3/16/1999	ND<3.21888	86.5
	9/23/1999	ND<3.21888	86.5

	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	0.828552 J	230
	5/23/2007	ND<3.21888	86.5
	11/28/2007	1.38629 J	235
	6/5/2008	1.1314 J	234
	11/20/2008	ND<3.21888	86.5
	6/11/2009	0.788457	228
	11/16/2009	0.587787	223
	6/30/2010	0.741937	227
	11/12/2010	0.955511	232
	7/5/2011	0.788457	229
	11/22/2011	0.693147	226
	6/5/2012	0.470004	220

Rank Sum = 3235.5
Rank Mean = 154.071

MW-12AR	3/16/1999	ND<3.21888	86.5
	9/23/1999	ND<3.21888	86.5
	3/15/2000	ND<3.21888	86.5
	9/24/2003	ND<3.21888	86.5
	3/11/2004	ND<3.21888	86.5
	10/12/2004	ND<3.21888	86.5
	4/1/2005	ND<3.21888	86.5
	10/25/2005	ND<3.21888	86.5
	4/29/2006	ND<3.21888	86.5
	11/18/2006	ND<3.21888	86.5
	5/23/2007	ND<3.21888	86.5
	11/28/2007	ND<3.21888	86.5
	6/5/2008	0.223144 J	214
	11/20/2008	ND<3.21888	86.5
	6/11/2009	0.0953102	212
	11/16/2009	0	208
	6/30/2010	-0.0304592 J	207
	11/12/2010	-0.446287 J	194
	7/5/2011	0.336472	217
	11/22/2011	-0.174353 J	205
	6/5/2012	-0.385662 J	197

Rank Sum = 2778.5
Rank Mean = 132.31

Calculation Results:

Kruskal-Wallis H Statistic = 7.09861
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.6521
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
7.09861 < 15.5073 indicating no significant group difference at 5% significance level
10.6521 < 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: 248
Total Non-Detect: 208
Percent Non-Detects: 83.871%
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-8	30	23 (76.6667%)	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	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	
			6/5/2012	ND<0.21 U	ND<0.21 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	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
			6/5/2012	0.22 J	0.22 J	
MW-10	31	21 (67.7419%)	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	
			6/5/2012	0.65	0.65	
MW-9	32	26 (81.25%)	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	
			6/5/2012	ND<0.21 U	ND<0.21 U	
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	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
		6/5/2012	ND<0.21 U	ND<0.21 U	
MW-11R	32	26 (81.25%)	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	
		6/5/2012	ND<0.21 U	ND<0.21 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	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		
		6/5/2012	ND<0.21 U	ND<0.21 U		
MW-12AR	21	18 (85.7143%)	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		
		6/5/2012	ND<0.21 U	ND<0.21 U		

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 = 248

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	-1.91103	34.3095	-1.61749
8	0.105	-1.85218	37.7401	-1.81197
9	0.105	-1.79912	40.9769	-2.00088
10	0.105	-1.75069	44.0418	-2.1847
11	0.105	-1.70604	46.9524	-2.36384
12	0.105	-1.66456	49.7231	-2.53861
13	0.105	-1.62576	52.3662	-2.70932
14	0.105	-1.58927	54.892	-2.87619
15	0.105	-1.55477	57.3093	-3.03944
16	0.105	-1.52203	59.6259	-3.19926
17	0.105	-1.49085	61.8486	-3.3558
18	0.105	-1.46106	63.9833	-3.50921
19	0.105	-1.4325	66.0353	-3.65962
20	0.105	-1.40507	68.0096	-3.80715
21	0.105	-1.37866	69.9102	-3.95191
22	0.105	-1.35317	71.7413	-4.094
23	0.105	-1.32854	73.5063	-4.23349
24	0.105	-1.30469	75.2086	-4.37048
25	0.105	-1.28155	76.8509	-4.50505
26	0.105	-1.25908	78.4362	-4.63725
27	0.105	-1.23724	79.967	-4.76716
28	0.105	-1.21596	81.4455	-4.89484
29	0.105	-1.19522	82.8741	-5.02034
30	0.105	-1.17499	84.2547	-5.14371
31	0.105	-1.15522	85.5892	-5.26501
32	0.105	-1.1359	86.8795	-5.38428
33	0.105	-1.11699	88.1271	-5.50156
34	0.105	-1.09847	89.3338	-5.6169
35	0.105	-1.08032	90.5009	-5.73033
36	0.105	-1.06252	91.6298	-5.8419
37	0.105	-1.04505	92.7219	-5.95163
38	0.105	-1.02789	93.7785	-6.05956
39	0.105	-1.01104	94.8007	-6.16572
40	0.105	-0.994457	95.7896	-6.27013
41	0.105	-0.97815	96.7464	-6.37284
42	0.105	-0.9621	97.6721	-6.47386
43	0.105	-0.946291	98.5675	-6.57322
44	0.21	-0.930718	99.4338	-6.76867
45	0.21	-0.915365	100.272	-6.9609
46	0.21	-0.900227	101.082	-7.14994
47	0.22	-0.885291	101.866	-7.34471
48	0.22	-0.87055	102.624	-7.53623
49	0.25	-0.855996	103.356	-7.75023
50	0.25	-0.841621	104.065	-7.96063
51	0.26	-0.827417	104.749	-8.17576

52	0.27	-0.813379	105.411	-8.39538
53	0.28	-0.7995	106.05	-8.61924
54	0.38	-0.785774	106.668	-8.91783
55	0.54	-0.772193	107.264	-9.33481
56	0.54	-0.758753	107.84	-9.74454
57	0.65	-0.745449	108.395	-10.2291
58	0.66	-0.732275	108.931	-10.7124
59	0.85	-0.719228	109.449	-11.3237
60	1	-0.706302	109.948	-12.03
61	1	-0.693493	110.429	-12.7235
62	1	-0.680797	110.892	-13.4043
63	1	-0.665079	111.334	-14.0694
64	1	-0.652622	111.76	-14.722
65	1	-0.640266	112.17	-15.3623
66	1	-0.628006	112.565	-15.9903
67	1	-0.615839	112.944	-16.6061
68	1	-0.603765	113.308	-17.2099
69	1	-0.591776	113.659	-17.8017
70	1	-0.579873	113.995	-18.3815
71	1	-0.568052	114.318	-18.9496
72	1	-0.556308	114.627	-19.5059
73	1	-0.544642	114.924	-20.0505
74	1	-0.533048	115.208	-20.5836
75	1	-0.521527	115.48	-21.1051
76	1	-0.510074	115.74	-21.6152
77	1	-0.498687	115.989	-22.1139
78	1	-0.487364	116.226	-22.6012
79	1	-0.476105	116.453	-23.0774
80	1	-0.464904	116.669	-23.5423
81	1	-0.453763	116.875	-23.996
82	1	-0.442676	117.071	-24.4387
83	1	-0.431644	117.257	-24.8703
84	1	-0.420664	117.434	-25.291
85	1	-0.409735	117.602	-25.7007
86	1	-0.398855	117.761	-26.0996
87	1	-0.388022	117.912	-26.4876
88	1	-0.377233	118.054	-26.8649
89	1	-0.36649	118.188	-27.2313
90	1	-0.355788	118.315	-27.5871
91	1	-0.345126	118.434	-27.9323
92	1	-0.334503	118.546	-28.2668
93	1	-0.323919	118.651	-28.5907
94	1	-0.31337	118.749	-28.904
95	1	-0.302855	118.841	-29.2069
96	1	-0.292375	118.926	-29.4993
97	1	-0.281926	119.006	-29.7812
98	1	-0.271509	119.079	-30.0527
99	1	-0.26112	119.148	-30.3138
100	1	-0.250759	119.21	-30.5646
101	1	-0.240426	119.268	-30.805
102	1	-0.230118	119.321	-31.0351
103	1	-0.219834	119.37	-31.255
104	1	-0.209575	119.413	-31.4645
105	1	-0.199336	119.453	-31.6639
106	1	-0.189118	119.489	-31.853
107	1	-0.17892	119.521	-32.0319
108	1	-0.168741	119.549	-32.2007
109	1	-0.158579	119.575	-32.3592
110	1	-0.148434	119.597	-32.5077
111	1	-0.138305	119.616	-32.646
112	1	-0.128189	119.632	-32.7742
113	1	-0.118085	119.646	-32.8923

114	1	-0.107995	119.658	-33.0002
115	1	-0.0979139	119.667	-33.0982
116	1	-0.0878447	119.675	-33.186
117	1	-0.0777834	119.681	-33.2638
118	1	-0.0677301	119.686	-33.3315
119	1	-0.0576847	119.689	-33.3892
120	1	-0.0476439	119.691	-33.4368
121	1	-0.0376076	119.693	-33.4745
122	1	-0.0275759	119.694	-33.502
123	1	-0.0175476	119.694	-33.5196
124	1	-0.00751925	119.694	-33.5271
125	1	0.00751925	119.694	-33.5196
126	1	0.0175476	119.694	-33.502
127	1	0.0275759	119.695	-33.4745
128	1	0.0376076	119.696	-33.4368
129	1	0.0476439	119.699	-33.3892
130	1	0.0576847	119.702	-33.3315
131	1	0.0677301	119.707	-33.2638
132	1	0.0777834	119.713	-33.186
133	1	0.0878447	119.72	-33.0982
134	1	0.0979139	119.73	-33.0002
135	1	0.107995	119.742	-32.8923
136	1	0.118085	119.756	-32.7742
137	1	0.128189	119.772	-32.646
138	1	0.138305	119.791	-32.5077
139	1	0.148434	119.813	-32.3592
140	1	0.158579	119.838	-32.2007
141	1	0.168741	119.867	-32.0319
142	1	0.17892	119.899	-31.853
143	1	0.189118	119.935	-31.6639
144	1	0.199336	119.974	-31.4645
145	1	0.209575	120.018	-31.255
146	1	0.219834	120.067	-31.0351
147	1	0.230118	120.119	-30.805
148	1	0.240426	120.177	-30.5646
149	1	0.250759	120.24	-30.3138
150	1	0.26112	120.308	-30.0527
151	1	0.271509	120.382	-29.7812
152	1	0.281926	120.462	-29.4993
153	1	0.292375	120.547	-29.2069
154	1	0.302855	120.639	-28.904
155	1	0.31337	120.737	-28.5907
156	1	0.323919	120.842	-28.2668
157	1	0.334503	120.954	-27.9323
158	1	0.345126	121.073	-27.5871
159	1	0.355788	121.199	-27.2313
160	1	0.36649	121.334	-26.8649
161	1	0.377233	121.476	-26.4876
162	1	0.388022	121.627	-26.0996
163	1	0.398855	121.786	-25.7007
164	1	0.409735	121.954	-25.291
165	1	0.420664	122.131	-24.8703
166	1	0.431644	122.317	-24.4387
167	1	0.442676	122.513	-23.996
168	1	0.453763	122.719	-23.5423
169	1	0.464904	122.935	-23.0774
170	1	0.476105	123.162	-22.6012
171	1	0.487364	123.399	-22.1139
172	1	0.498687	123.648	-21.6152
173	1	0.510074	123.908	-21.1051
174	1	0.521527	124.18	-20.5836
175	1	0.533048	124.464	-20.0505

176	1	0.544642	124.761	-19.5059
177	1	0.556308	125.07	-18.9496
178	1	0.568052	125.393	-18.3815
179	1	0.579873	125.729	-17.8017
180	1	0.591776	126.079	-17.2099
181	1	0.603765	126.444	-16.6061
182	1	0.615839	126.823	-15.9903
183	1	0.628006	127.218	-15.3623
184	1	0.640266	127.627	-14.722
185	1	0.652622	128.053	-14.0694
186	1	0.665079	128.496	-13.4043
187	1	0.680797	128.959	-12.7235
188	1	0.693493	129.44	-12.03
189	1	0.706302	129.939	-11.3237
190	1	0.719228	130.456	-10.6045
191	1	0.732275	130.993	-9.87222
192	1	0.745449	131.548	-9.12678
193	1	0.758753	132.124	-8.36802
194	1	0.772193	132.72	-7.59583
195	1	0.785774	133.338	-6.81006
196	1	0.7995	133.977	-6.01056
197	1	0.813379	134.638	-5.19718
198	1	0.827417	135.323	-4.36976
199	1	0.841621	136.031	-3.52814
200	1	0.855996	136.764	-2.67214
201	1	0.87055	137.522	-1.80159
202	1	0.885291	138.306	-0.9163
203	1	0.900227	139.116	-0.0160733
204	1	0.915365	139.954	0.899292
205	1	0.930718	140.82	1.83001
206	1	0.946291	141.716	2.7763
207	1	0.9621	142.641	3.7384
208	1	0.97815	143.598	4.71655
209	1	0.994457	144.587	5.71101
210	1	1.01104	145.609	6.72204
211	1	1.02789	146.666	7.74994
212	1	1.04505	147.758	8.79499
213	1	1.06252	148.887	9.85751
214	1	1.08032	150.054	10.9378
215	1	1.09847	151.261	12.0363
216	1	1.11699	152.508	13.1533
217	1	1.1359	153.799	14.2892
218	1	1.15522	155.133	15.4444
219	1	1.17499	156.514	16.6194
220	1	1.19522	157.942	17.8146
221	1	1.21596	159.421	19.0306
222	1	1.23724	160.952	20.2678
223	1	1.25908	162.537	21.5269
224	1	1.28155	164.179	22.8084
225	1	1.30469	165.881	24.1131
226	1.04	1.32854	167.646	25.4948
227	1.04	1.35317	169.477	26.9021
228	1.12	1.37866	171.378	28.4462
229	1.32	1.40507	173.352	30.3009
230	1.34	1.4325	175.404	32.2205
231	1.39	1.46106	177.539	34.2513
232	1.52	1.49085	179.762	36.5174
233	1.54	1.52203	182.078	38.8614
234	1.54	1.55477	184.496	41.2557
235	1.63	1.58927	187.022	43.8462
236	1.83	1.62576	189.665	46.8214
237	1.83	1.66456	192.435	49.8675

238	1.89	1.70604	195.346	53.0919
239	2.06	1.75069	198.411	56.6983
240	2.5	1.79912	201.648	61.1961
241	4	1.85218	205.078	68.6048
242	20	1.91103	208.73	106.825
243	27	1.97737	212.64	160.214
244	52	2.05375	216.858	267.009
245	58	2.14441	221.457	391.385
246	68	2.25713	226.551	544.87
247	90	2.40892	232.354	761.673
248	160	2.65209	239.388	1186.01

Data Set Standard Deviation = 13.3295
Numerator = 1.40661e+006
Denominator = 1.05058e+007
W Statistic = 0.133889 = 1.40661e+006 / 1.05058e+007

5% Critical value of 0.976 exceeds 0.133889
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.133889
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 = 0.377894
0.377894 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.105	0.00401606	-2.65209	39.2809	344.01	
2	0.105	0.00803213	-2.40892	39.2809	332.136	
3	0.105	0.0120482	-2.25713	39.2809	324.723	
4	0.105	0.0160643	-2.14441	39.2809	319.219	
5	0.105	0.0200803	-2.05375	39.2809	314.791	
6	0.105	0.0240964	-1.97737	39.2809	311.062	
7	0.105	0.0281124	-1.91103	39.2809	307.822	
8	0.105	0.0321285	-1.85218	39.2809	304.948	
9	0.105	0.0361446	-1.79912	39.2809	302.357	
10	0.105	0.0401606	-1.75069	39.2809	299.992	
11	0.105	0.0441767	-1.70604	39.2809	297.812	
12	0.105	0.0481928	-1.66456	39.2809	295.786	
13	0.105	0.0522088	-1.62576	39.2809	293.891	
14	0.105	0.0562249	-1.58927	39.2809	292.109	
15	0.105	0.060241	-1.55477	39.2809	290.425	
16	0.105	0.064257	-1.52203	39.2809	288.826	
17	0.105	0.0682731	-1.49085	39.2809	287.303	
18	0.105	0.0722892	-1.46106	39.2809	285.848	
19	0.105	0.0763052	-1.4325	39.2809	284.454	
20	0.105	0.0803213	-1.40507	39.2809	283.114	
21	0.105	0.0843373	-1.37866	39.2809	281.824	
22	0.105	0.0883534	-1.35317	39.2809	280.58	
23	0.105	0.0923695	-1.32854	39.2809	279.377	
24	0.105	0.0963855	-1.30469	39.2809	278.212	
25	0.105	0.100402	-1.28155	39.2809	277.082	
26	0.105	0.104418	-1.25908	39.2809	275.985	
27	0.105	0.108434	-1.23724	39.2809	274.918	
28	0.105	0.11245	-1.21596	39.2809	273.879	
29	0.105	0.116466	-1.19522	39.2809	272.867	
30	0.105	0.120482	-1.17499	39.2809	271.879	
31	0.105	0.124498	-1.15522	39.2809	270.913	
32	0.105	0.128514	-1.1359	39.2809	269.97	
33	0.105	0.13253	-1.11699	39.2809	269.046	
34	0.105	0.136546	-1.09847	39.2809	268.142	
35	0.105	0.140562	-1.08032	39.2809	267.256	
36	0.105	0.144578	-1.06252	39.2809	266.386	
37	0.105	0.148594	-1.04505	39.2809	265.533	
38	0.105	0.15261	-1.02789	39.2809	264.695	
39	0.105	0.156627	-1.01104	39.2809	263.872	
40	0.105	0.160643	-0.994457	39.2809	263.063	
41	0.105	0.164659	-0.97815	39.2809	262.266	
42	0.105	0.168675	-0.9621	39.2809	261.483	
43	0.105	0.172691	-0.946291	39.2809	260.711	
44	0.21	0.176707	-0.930718	39.5618	259.95	
45	0.21	0.180723	-0.915365	39.5618	259.2	
46	0.21	0.184739	-0.900227	39.5618	258.461	
47	0.22	0.188755	-0.885291	39.5885	257.732	
48	0.22	0.192771	-0.87055	39.5885	257.012	

49	0.25	0.196787	-0.855996	39.6688	256.301
50	0.25	0.200803	-0.841621	39.6688	255.599
51	0.26	0.204819	-0.827417	39.6955	254.906
52	0.27	0.208835	-0.813379	39.7223	254.22
53	0.28	0.212851	-0.7995	39.749	253.542
54	0.38	0.216867	-0.785774	40.0165	252.872
55	0.54	0.220884	-0.772193	40.4445	252.209
56	0.54	0.2249	-0.758753	40.4445	251.552
57	0.65	0.228916	-0.745449	40.7388	250.903
58	0.66	0.232932	-0.732275	40.7655	250.259
59	0.85	0.236948	-0.719228	41.2738	249.622
60	1	0.240964	-0.706302	41.675	248.991
61	1	0.24498	-0.693493	41.675	248.366
62	1	0.248996	-0.680797	41.675	247.746
63	1	0.253012	-0.665079	41.675	246.978
64	1	0.257028	-0.652622	41.675	246.37
65	1	0.261044	-0.640266	41.675	245.766
66	1	0.26506	-0.628006	41.675	245.168
67	1	0.269076	-0.615839	41.675	244.573
68	1	0.273092	-0.603765	41.675	243.984
69	1	0.277108	-0.591776	41.675	243.398
70	1	0.281124	-0.579873	41.675	242.817
71	1	0.285141	-0.568052	41.675	242.24
72	1	0.289157	-0.556308	41.675	241.666
73	1	0.293173	-0.544642	41.675	241.097
74	1	0.297189	-0.533048	41.675	240.531
75	1	0.301205	-0.521527	41.675	239.968
76	1	0.305221	-0.510074	41.675	239.409
77	1	0.309237	-0.498687	41.675	238.853
78	1	0.313253	-0.487364	41.675	238.3
79	1	0.317269	-0.476105	41.675	237.75
80	1	0.321285	-0.464904	41.675	237.203
81	1	0.325301	-0.453763	41.675	236.659
82	1	0.329317	-0.442676	41.675	236.117
83	1	0.333333	-0.431644	41.675	235.579
84	1	0.337349	-0.420664	41.675	235.042
85	1	0.341365	-0.409735	41.675	234.509
86	1	0.345382	-0.398855	41.675	233.977
87	1	0.349398	-0.388022	41.675	233.448
88	1	0.353414	-0.377233	41.675	232.922
89	1	0.35743	-0.36649	41.675	232.397
90	1	0.361446	-0.355788	41.675	231.874
91	1	0.365462	-0.345126	41.675	231.354
92	1	0.369478	-0.334503	41.675	230.835
93	1	0.373494	-0.323919	41.675	230.318
94	1	0.37751	-0.31337	41.675	229.803
95	1	0.381526	-0.302855	41.675	229.289
96	1	0.385542	-0.292375	41.675	228.778
97	1	0.389558	-0.281926	41.675	228.267
98	1	0.393574	-0.271509	41.675	227.759
99	1	0.39759	-0.26112	41.675	227.251
100	1	0.401606	-0.250759	41.675	226.745
101	1	0.405622	-0.240426	41.675	226.241
102	1	0.409639	-0.230118	41.675	225.737
103	1	0.413655	-0.219834	41.675	225.235
104	1	0.417671	-0.209575	41.675	224.734
105	1	0.421687	-0.199336	41.675	224.234
106	1	0.425703	-0.189118	41.675	223.735
107	1	0.429719	-0.17892	41.675	223.237
108	1	0.433735	-0.168741	41.675	222.74
109	1	0.437751	-0.158579	41.675	222.244
110	1	0.441767	-0.148434	41.675	221.749

111	1	0.445783	-0.138305	41.675	221.254
112	1	0.449799	-0.128189	41.675	220.76
113	1	0.453815	-0.118085	41.675	220.267
114	1	0.457831	-0.107995	41.675	219.774
115	1	0.461847	-0.0979139	41.675	219.281
116	1	0.465863	-0.0878447	41.675	218.79
117	1	0.46988	-0.0777834	41.675	218.298
118	1	0.473896	-0.0677301	41.675	217.807
119	1	0.477912	-0.0576847	41.675	217.317
120	1	0.481928	-0.0476439	41.675	216.827
121	1	0.485944	-0.0376076	41.675	216.337
122	1	0.48996	-0.0275759	41.675	215.847
123	1	0.493976	-0.0175476	41.675	215.357
124	1	0.497992	-0.00751925	41.675	214.867
125	1	0.502008	0.00751925	41.675	214.133
126	1	0.506024	0.0175476	41.675	213.643
127	1	0.51004	0.0275759	41.675	213.153
128	1	0.514056	0.0376076	41.675	212.663
129	1	0.518072	0.0476439	41.675	212.173
130	1	0.522088	0.0576847	41.675	211.683
131	1	0.526104	0.0677301	41.675	211.193
132	1	0.53012	0.0777834	41.675	210.702
133	1	0.534137	0.0878447	41.675	210.21
134	1	0.538153	0.0979139	41.675	209.719
135	1	0.542169	0.107995	41.675	209.226
136	1	0.546185	0.118085	41.675	208.733
137	1	0.550201	0.128189	41.675	208.24
138	1	0.554217	0.138305	41.675	207.746
139	1	0.558233	0.148434	41.675	207.251
140	1	0.562249	0.158579	41.675	206.756
141	1	0.566265	0.168741	41.675	206.26
142	1	0.570281	0.17892	41.675	205.763
143	1	0.574297	0.189118	41.675	205.265
144	1	0.578313	0.199336	41.675	204.766
145	1	0.582329	0.209575	41.675	204.266
146	1	0.586345	0.219834	41.675	203.765
147	1	0.590361	0.230118	41.675	203.263
148	1	0.594378	0.240426	41.675	202.759
149	1	0.598394	0.250759	41.675	202.255
150	1	0.60241	0.26112	41.675	201.749
151	1	0.606426	0.271509	41.675	201.241
152	1	0.610442	0.281926	41.675	200.733
153	1	0.614458	0.292375	41.675	200.222
154	1	0.618474	0.302855	41.675	199.711
155	1	0.62249	0.31337	41.675	199.197
156	1	0.626506	0.323919	41.675	198.682
157	1	0.630522	0.334503	41.675	198.165
158	1	0.634538	0.345126	41.675	197.646
159	1	0.638554	0.355788	41.675	197.126
160	1	0.64257	0.36649	41.675	196.603
161	1	0.646586	0.377233	41.675	196.078
162	1	0.650602	0.388022	41.675	195.552
163	1	0.654618	0.398855	41.675	195.023
164	1	0.658635	0.409735	41.675	194.491
165	1	0.662651	0.420664	41.675	193.958
166	1	0.666667	0.431644	41.675	193.421
167	1	0.670683	0.442676	41.675	192.883
168	1	0.674699	0.453763	41.675	192.341
169	1	0.678715	0.464904	41.675	191.797
170	1	0.682731	0.476105	41.675	191.25
171	1	0.686747	0.487364	41.675	190.7
172	1	0.690763	0.498687	41.675	190.147

173	1	0.694779	0.510074	41.675	189.591
174	1	0.698795	0.521527	41.675	189.032
175	1	0.702811	0.533048	41.675	188.469
176	1	0.706827	0.544642	41.675	187.903
177	1	0.710843	0.556308	41.675	187.334
178	1	0.714859	0.568052	41.675	186.76
179	1	0.718876	0.579873	41.675	186.183
180	1	0.722892	0.591776	41.675	185.602
181	1	0.726908	0.603765	41.675	185.016
182	1	0.730924	0.615839	41.675	184.427
183	1	0.73494	0.628006	41.675	183.832
184	1	0.738956	0.640266	41.675	183.234
185	1	0.742972	0.652622	41.675	182.63
186	1	0.746988	0.665079	41.675	182.022
187	1	0.751004	0.680797	41.675	181.254
188	1	0.75502	0.693493	41.675	180.634
189	1	0.759036	0.706302	41.675	180.009
190	1	0.763052	0.719228	41.675	179.378
191	1	0.767068	0.732275	41.675	178.741
192	1	0.771084	0.745449	41.675	178.097
193	1	0.7751	0.758753	41.675	177.448
194	1	0.779116	0.772193	41.675	176.791
195	1	0.783133	0.785774	41.675	176.128
196	1	0.787149	0.7995	41.675	175.458
197	1	0.791165	0.813379	41.675	174.78
198	1	0.795181	0.827417	41.675	174.094
199	1	0.799197	0.841621	41.675	173.401
200	1	0.803213	0.855996	41.675	172.699
201	1	0.807229	0.87055	41.675	171.988
202	1	0.811245	0.885291	41.675	171.268
203	1	0.815261	0.900227	41.675	170.539
204	1	0.819277	0.915365	41.675	169.8
205	1	0.823293	0.930718	41.675	169.05
206	1	0.827309	0.946291	41.675	168.289
207	1	0.831325	0.9621	41.675	167.517
208	1	0.835341	0.97815	41.675	166.734
209	1	0.839357	0.994457	41.675	165.937
210	1	0.843373	1.01104	41.675	165.128
211	1	0.84739	1.02789	41.675	164.305
212	1	0.851406	1.04505	41.675	163.467
213	1	0.855422	1.06252	41.675	162.614
214	1	0.859438	1.08032	41.675	161.744
215	1	0.863454	1.09847	41.675	160.858
216	1	0.86747	1.11699	41.675	159.954
217	1	0.871486	1.1359	41.675	159.03
218	1	0.875502	1.15522	41.675	158.087
219	1	0.879518	1.17499	41.675	157.121
220	1	0.883534	1.19522	41.675	156.133
221	1	0.88755	1.21596	41.675	155.121
222	1	0.891566	1.23724	41.675	154.082
223	1	0.895582	1.25908	41.675	153.015
224	1	0.899598	1.28155	41.675	151.918
225	1	0.903614	1.30469	41.675	150.788
226	1.04	0.907631	1.32854	41.782	149.623
227	1.04	0.911647	1.35317	41.782	148.42
228	1.12	0.915663	1.37866	41.996	147.176
229	1.32	0.919679	1.40507	42.531	145.886
230	1.34	0.923695	1.4325	42.5845	144.546
231	1.39	0.927711	1.46106	42.7182	143.152
232	1.52	0.931727	1.49085	43.066	141.697
233	1.54	0.935743	1.52203	43.1195	140.174
234	1.54	0.939759	1.55477	43.1195	138.575

235	1.63	0.943775		1.58927	43.3603	136.891
236	1.83	0.947791		1.62576	43.8952	135.109
237	1.83	0.951807		1.66456	43.8952	133.214
238	1.89	0.955823		1.70604	44.0558	131.188
239	2.06	0.959839		1.75069	44.5105	129.008
240	2.5	0.963855		1.79912	45.6875	126.643
241	4	0.967871		1.85218	49.7	124.052
242	20	0.971888		1.91103	92.5	121.178
243	27	0.975904		1.97737	111.225	117.938
244	52	0.97992	2.05375	178.1	114.209	
245	58	0.983936		2.14441	194.15	109.781
246	68	0.987952		2.25713	220.9	104.277
247	90	0.991968		2.40892	279.75	96.8642
248	160	0.995984		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 = 248

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	-1.91103	34.3095	34.719
8	-2.25379	-1.85218	37.7401	38.8934
9	-2.25379	-1.79912	40.9769	42.9483
10	-2.25379	-1.75069	44.0418	46.894
11	-2.25379	-1.70604	46.9524	50.739
12	-2.25379	-1.66456	49.7231	54.4906
13	-2.25379	-1.62576	52.3662	58.1548
14	-2.25379	-1.58927	54.892	61.7367
15	-2.25379	-1.55477	57.3093	65.2408
16	-2.25379	-1.52203	59.6259	68.6711
17	-2.25379	-1.49085	61.8486	72.0312
18	-2.25379	-1.46106	63.9833	75.3241
19	-2.25379	-1.4325	66.0353	78.5527
20	-2.25379	-1.40507	68.0096	81.7195
21	-2.25379	-1.37866	69.9102	84.8267
22	-2.25379	-1.35317	71.7413	87.8765
23	-2.25379	-1.32854	73.5063	90.8707
24	-2.25379	-1.30469	75.2086	93.8112
25	-2.25379	-1.28155	76.8509	96.6996
26	-2.25379	-1.25908	78.4362	99.5373
27	-2.25379	-1.23724	79.967	102.326
28	-2.25379	-1.21596	81.4455	105.066
29	-2.25379	-1.19522	82.8741	107.76
30	-2.25379	-1.17499	84.2547	110.408
31	-2.25379	-1.15522	85.5892	113.012
32	-2.25379	-1.1359	86.8795	115.572
33	-2.25379	-1.11699	88.1271	118.089
34	-2.25379	-1.09847	89.3338	120.565
35	-2.25379	-1.08032	90.5009	123
36	-2.25379	-1.06252	91.6298	125.395
37	-2.25379	-1.04505	92.7219	127.75
38	-2.25379	-1.02789	93.7785	130.067
39	-2.25379	-1.01104	94.8007	132.345
40	-2.25379	-0.994457	95.7896	134.587
41	-2.25379	-0.97815	96.7464	136.791
42	-2.25379	-0.9621	97.6721	138.96
43	-2.25379	-0.946291	98.5675	141.092
44	-1.56065	-0.930718	99.4338	142.545
45	-1.56065	-0.915365	100.272	143.973
46	-1.56065	-0.900227	101.082	145.378
47	-1.51413	-0.885291	101.866	146.719
48	-1.51413	-0.87055	102.624	148.037
49	-1.38629	-0.855996	103.356	149.224
50	-1.38629	-0.841621	104.065	150.39
51	-1.34707	-0.827417	104.749	151.505

52	-1.30933	-0.813379	105.411	152.57
53	-1.27297	-0.7995	106.05	153.588
54	-0.967584	-0.785774	106.668	154.348
55	-0.616186	-0.772193	107.264	154.824
56	-0.616186	-0.758753	107.84	155.291
57	-0.430783	-0.745449	108.395	155.612
58	-0.415515	-0.732275	108.931	155.917
59	-0.162519	-0.719228	109.449	156.034
60	0	-0.706302	109.948	156.034
61	0	-0.693493	110.429	156.034
62	0	-0.680797	110.892	156.034
63	0	-0.665079	111.334	156.034
64	0	-0.652622	111.76	156.034
65	0	-0.640266	112.17	156.034
66	0	-0.628006	112.565	156.034
67	0	-0.615839	112.944	156.034
68	0	-0.603765	113.308	156.034
69	0	-0.591776	113.659	156.034
70	0	-0.579873	113.995	156.034
71	0	-0.568052	114.318	156.034
72	0	-0.556308	114.627	156.034
73	0	-0.544642	114.924	156.034
74	0	-0.533048	115.208	156.034
75	0	-0.521527	115.48	156.034
76	0	-0.510074	115.74	156.034
77	0	-0.498687	115.989	156.034
78	0	-0.487364	116.226	156.034
79	0	-0.476105	116.453	156.034
80	0	-0.464904	116.669	156.034
81	0	-0.453763	116.875	156.034
82	0	-0.442676	117.071	156.034
83	0	-0.431644	117.257	156.034
84	0	-0.420664	117.434	156.034
85	0	-0.409735	117.602	156.034
86	0	-0.398855	117.761	156.034
87	0	-0.388022	117.912	156.034
88	0	-0.377233	118.054	156.034
89	0	-0.36649	118.188	156.034
90	0	-0.355788	118.315	156.034
91	0	-0.345126	118.434	156.034
92	0	-0.334503	118.546	156.034
93	0	-0.323919	118.651	156.034
94	0	-0.31337	118.749	156.034
95	0	-0.302855	118.841	156.034
96	0	-0.292375	118.926	156.034
97	0	-0.281926	119.006	156.034
98	0	-0.271509	119.079	156.034
99	0	-0.26112	119.148	156.034
100	0	-0.250759	119.21	156.034
101	0	-0.240426	119.268	156.034
102	0	-0.230118	119.321	156.034
103	0	-0.219834	119.37	156.034
104	0	-0.209575	119.413	156.034
105	0	-0.199336	119.453	156.034
106	0	-0.189118	119.489	156.034
107	0	-0.17892	119.521	156.034
108	0	-0.168741	119.549	156.034
109	0	-0.158579	119.575	156.034
110	0	-0.148434	119.597	156.034
111	0	-0.138305	119.616	156.034
112	0	-0.128189	119.632	156.034
113	0	-0.118085	119.646	156.034

114	0	-0.107995	119.658	156.034
115	0	-0.0979139	119.667	156.034
116	0	-0.0878447	119.675	156.034
117	0	-0.0777834	119.681	156.034
118	0	-0.0677301	119.686	156.034
119	0	-0.0576847	119.689	156.034
120	0	-0.0476439	119.691	156.034
121	0	-0.0376076	119.693	156.034
122	0	-0.0275759	119.694	156.034
123	0	-0.0175476	119.694	156.034
124	0	-0.00751925	119.694	156.034
125	0	0.00751925	119.694	156.034
126	0	0.0175476	119.694	156.034
127	0	0.0275759	119.695	156.034
128	0	0.0376076	119.696	156.034
129	0	0.0476439	119.699	156.034
130	0	0.0576847	119.702	156.034
131	0	0.0677301	119.707	156.034
132	0	0.0777834	119.713	156.034
133	0	0.0878447	119.72	156.034
134	0	0.0979139	119.73	156.034
135	0	0.107995	119.742	156.034
136	0	0.118085	119.756	156.034
137	0	0.128189	119.772	156.034
138	0	0.138305	119.791	156.034
139	0	0.148434	119.813	156.034
140	0	0.158579	119.838	156.034
141	0	0.168741	119.867	156.034
142	0	0.17892	119.899	156.034
143	0	0.189118	119.935	156.034
144	0	0.199336	119.974	156.034
145	0	0.209575	120.018	156.034
146	0	0.219834	120.067	156.034
147	0	0.230118	120.119	156.034
148	0	0.240426	120.177	156.034
149	0	0.250759	120.24	156.034
150	0	0.26112	120.308	156.034
151	0	0.271509	120.382	156.034
152	0	0.281926	120.462	156.034
153	0	0.292375	120.547	156.034
154	0	0.302855	120.639	156.034
155	0	0.31337	120.737	156.034
156	0	0.323919	120.842	156.034
157	0	0.334503	120.954	156.034
158	0	0.345126	121.073	156.034
159	0	0.355788	121.199	156.034
160	0	0.36649	121.334	156.034
161	0	0.377233	121.476	156.034
162	0	0.388022	121.627	156.034
163	0	0.398855	121.786	156.034
164	0	0.409735	121.954	156.034
165	0	0.420664	122.131	156.034
166	0	0.431644	122.317	156.034
167	0	0.442676	122.513	156.034
168	0	0.453763	122.719	156.034
169	0	0.464904	122.935	156.034
170	0	0.476105	123.162	156.034
171	0	0.487364	123.399	156.034
172	0	0.498687	123.648	156.034
173	0	0.510074	123.908	156.034
174	0	0.521527	124.18	156.034
175	0	0.533048	124.464	156.034

176	0	0.544642	124.761	156.034
177	0	0.556308	125.07	156.034
178	0	0.568052	125.393	156.034
179	0	0.579873	125.729	156.034
180	0	0.591776	126.079	156.034
181	0	0.603765	126.444	156.034
182	0	0.615839	126.823	156.034
183	0	0.628006	127.218	156.034
184	0	0.640266	127.627	156.034
185	0	0.652622	128.053	156.034
186	0	0.665079	128.496	156.034
187	0	0.680797	128.959	156.034
188	0	0.693493	129.44	156.034
189	0	0.706302	129.939	156.034
190	0	0.719228	130.456	156.034
191	0	0.732275	130.993	156.034
192	0	0.745449	131.548	156.034
193	0	0.758753	132.124	156.034
194	0	0.772193	132.72	156.034
195	0	0.785774	133.338	156.034
196	0	0.7995	133.977	156.034
197	0	0.813379	134.638	156.034
198	0	0.827417	135.323	156.034
199	0	0.841621	136.031	156.034
200	0	0.855996	136.764	156.034
201	0	0.87055	137.522	156.034
202	0	0.885291	138.306	156.034
203	0	0.900227	139.116	156.034
204	0	0.915365	139.954	156.034
205	0	0.930718	140.82	156.034
206	0	0.946291	141.716	156.034
207	0	0.9621	142.641	156.034
208	0	0.97815	143.598	156.034
209	0	0.994457	144.587	156.034
210	0	1.01104	145.609	156.034
211	0	1.02789	146.666	156.034
212	0	1.04505	147.758	156.034
213	0	1.06252	148.887	156.034
214	0	1.08032	150.054	156.034
215	0	1.09847	151.261	156.034
216	0	1.11699	152.508	156.034
217	0	1.1359	153.799	156.034
218	0	1.15522	155.133	156.034
219	0	1.17499	156.514	156.034
220	0	1.19522	157.942	156.034
221	0	1.21596	159.421	156.034
222	0	1.23724	160.952	156.034
223	0	1.25908	162.537	156.034
224	0	1.28155	164.179	156.034
225	0	1.30469	165.881	156.034
226	0.0392207	1.32854	167.646	156.086
227	0.0392207	1.35317	169.477	156.139
228	0.113329	1.37866	171.378	156.295
229	0.277632	1.40507	173.352	156.685
230	0.29267	1.4325	175.404	157.104
231	0.329304	1.46106	177.539	157.585
232	0.41871	1.49085	179.762	158.21
233	0.431782	1.52203	182.078	158.867
234	0.431782	1.55477	184.496	159.538
235	0.48858	1.58927	187.022	160.315
236	0.604316	1.62576	189.665	161.297
237	0.604316	1.66456	192.435	162.303

238	0.636577	1.70604	195.346	163.389
239	0.722706	1.75069	198.411	164.654
240	0.916291	1.79912	201.648	166.303
241	1.38629	1.85218	205.078	168.87
242	2.99573	1.91103	208.73	174.595
243	3.29584	1.97737	212.64	181.112
244	3.95124	2.05375	216.858	189.227
245	4.06044	2.14441	221.457	197.935
246	4.21951	2.25713	226.551	207.459
247	4.49981	2.40892	232.354	218.298
248	5.07517	2.65209	239.388	231.758

Data Set Standard Deviation = 1.16919
Numerator = 53711.8
Denominator = 80829.4
W Statistic = 0.664508 = 53711.8 / 80829.4

5% Critical value of 0.976 exceeds 0.664508
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.664508
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 = 0.818697
0.818697 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.25379	0.00401606	-2.65209	83.3577	344.01
2	-2.25379	0.00803213	-2.40892	83.3577	332.136
3	-2.25379	0.0120482	-2.25713	83.3577	324.723
4	-2.25379	0.0160643	-2.14441	83.3577	319.219
5	-2.25379	0.0200803	-2.05375	83.3577	314.791
6	-2.25379	0.0240964	-1.97737	83.3577	311.062
7	-2.25379	0.0281124	-1.91103	83.3577	307.822
8	-2.25379	0.0321285	-1.85218	83.3577	304.948
9	-2.25379	0.0361446	-1.79912	83.3577	302.357
10	-2.25379	0.0401606	-1.75069	83.3577	299.992
11	-2.25379	0.0441767	-1.70604	83.3577	297.812
12	-2.25379	0.0481928	-1.66456	83.3577	295.786
13	-2.25379	0.0522088	-1.62576	83.3577	293.891
14	-2.25379	0.0562249	-1.58927	83.3577	292.109
15	-2.25379	0.060241	-1.55477	83.3577	290.425
16	-2.25379	0.064257	-1.52203	83.3577	288.826
17	-2.25379	0.0682731	-1.49085	83.3577	287.303
18	-2.25379	0.0722892	-1.46106	83.3577	285.848
19	-2.25379	0.0763052	-1.4325	83.3577	284.454
20	-2.25379	0.0803213	-1.40507	83.3577	283.114
21	-2.25379	0.0843373	-1.37866	83.3577	281.824
22	-2.25379	0.0883534	-1.35317	83.3577	280.58
23	-2.25379	0.0923695	-1.32854	83.3577	279.377
24	-2.25379	0.0963855	-1.30469	83.3577	278.212
25	-2.25379	0.100402	-1.28155	83.3577	277.082
26	-2.25379	0.104418	-1.25908	83.3577	275.985
27	-2.25379	0.108434	-1.23724	83.3577	274.918
28	-2.25379	0.11245	-1.21596	83.3577	273.879
29	-2.25379	0.116466	-1.19522	83.3577	272.867
30	-2.25379	0.120482	-1.17499	83.3577	271.879
31	-2.25379	0.124498	-1.15522	83.3577	270.913
32	-2.25379	0.128514	-1.1359	83.3577	269.97
33	-2.25379	0.13253	-1.11699	83.3577	269.046
34	-2.25379	0.136546	-1.09847	83.3577	268.142
35	-2.25379	0.140562	-1.08032	83.3577	267.256
36	-2.25379	0.144578	-1.06252	83.3577	266.386
37	-2.25379	0.148594	-1.04505	83.3577	265.533
38	-2.25379	0.15261	-1.02789	83.3577	264.695
39	-2.25379	0.156627	-1.01104	83.3577	263.872
40	-2.25379	0.160643	-0.994457	83.3577	263.063
41	-2.25379	0.164659	-0.97815	83.3577	262.266
42	-2.25379	0.168675	-0.9621	83.3577	261.483
43	-2.25379	0.172691	-0.946291	83.3577	260.711
44	-1.56065	0.176707	-0.930718	124.561	259.95
45	-1.56065	0.180723	-0.915365	124.561	259.2
46	-1.56065	0.184739	-0.900227	124.561	258.461
47	-1.51413	0.188755	-0.885291	127.327	257.732
48	-1.51413	0.192771	-0.87055	127.327	257.012

49	-1.38629	0.196787	-0.855996	134.926	256.301	
50	-1.38629	0.200803	-0.841621	134.926	255.599	
51	-1.34707	0.204819	-0.827417	137.257	254.906	
52	-1.30933	0.208835	-0.813379	139.501	254.22	
53	-1.27297	0.212851	-0.7995	141.663	253.542	
54	-0.967584	0.216867	-0.785774	159.816	252.872	
55	-0.616186	0.220884	-0.772193	180.704	252.209	
56	-0.616186	0.2249	-0.758753	180.704	251.552	
57	-0.430783	0.228916	-0.745449	191.726	250.903	
58	-0.415515	0.232932	-0.732275	192.633	250.259	
59	-0.162519	0.236948	-0.719228	207.672	249.622	
60	0	0.240964	-0.706302	217.333	248.991	
61	0	0.24498	-0.693493	217.333	248.366	
62	0	0.248996	-0.680797	217.333	247.746	
63	0	0.253012	-0.665079	217.333	246.978	
64	0	0.257028	-0.652622	217.333	246.37	
65	0	0.261044	-0.640266	217.333	245.766	
66	0	0.26506	-0.628006	217.333	245.168	
67	0	0.269076	-0.615839	217.333	244.573	
68	0	0.273092	-0.603765	217.333	243.984	
69	0	0.277108	-0.591776	217.333	243.398	
70	0	0.281124	-0.579873	217.333	242.817	
71	0	0.285141	-0.568052	217.333	242.24	
72	0	0.289157	-0.556308	217.333	241.666	
73	0	0.293173	-0.544642	217.333	241.097	
74	0	0.297189	-0.533048	217.333	240.531	
75	0	0.301205	-0.521527	217.333	239.968	
76	0	0.305221	-0.510074	217.333	239.409	
77	0	0.309237	-0.498687	217.333	238.853	
78	0	0.313253	-0.487364	217.333	238.3	
79	0	0.317269	-0.476105	217.333	237.75	
80	0	0.321285	-0.464904	217.333	237.203	
81	0	0.325301	-0.453763	217.333	236.659	
82	0	0.329317	-0.442676	217.333	236.117	
83	0	0.333333	-0.431644	217.333	235.579	
84	0	0.337349	-0.420664	217.333	235.042	
85	0	0.341365	-0.409735	217.333	234.509	
86	0	0.345382	-0.398855	217.333	233.977	
87	0	0.349398	-0.388022	217.333	233.448	
88	0	0.353414	-0.377233	217.333	232.922	
89	0	0.35743	-0.36649	217.333	232.397	
90	0	0.361446	-0.355788	217.333	231.874	
91	0	0.365462	-0.345126	217.333	231.354	
92	0	0.369478	-0.334503	217.333	230.835	
93	0	0.373494	-0.323919	217.333	230.318	
94	0	0.37751	-0.31337	217.333	229.803	
95	0	0.381526	-0.302855	217.333	229.289	
96	0	0.385542	-0.292375	217.333	228.778	
97	0	0.389558	-0.281926	217.333	228.267	
98	0	0.393574	-0.271509	217.333	227.759	
99	0	0.39759	-0.26112	217.333	227.251	
100	0	0.401606	-0.250759	217.333	226.745	
101	0	0.405622	-0.240426	217.333	226.241	
102	0	0.409639	-0.230118	217.333	225.737	
103	0	0.413655	-0.219834	217.333	225.235	
104	0	0.417671	-0.209575	217.333	224.734	
105	0	0.421687	-0.199336	217.333	224.234	
106	0	0.425703	-0.189118	217.333	223.735	
107	0	0.429719	-0.17892	217.333	223.237	
108	0	0.433735	-0.168741	217.333	222.74	
109	0	0.437751	-0.158579	217.333	222.244	
110	0	0.441767	-0.148434	217.333	221.749	

111	0	0.445783	-0.138305	217.333	221.254
112	0	0.449799	-0.128189	217.333	220.76
113	0	0.453815	-0.118085	217.333	220.267
114	0	0.457831	-0.107995	217.333	219.774
115	0	0.461847	-0.0979139	217.333	219.281
116	0	0.465863	-0.0878447	217.333	218.79
117	0	0.46988	-0.0777834	217.333	218.298
118	0	0.473896	-0.0677301	217.333	217.807
119	0	0.477912	-0.0576847	217.333	217.317
120	0	0.481928	-0.0476439	217.333	216.827
121	0	0.485944	-0.0376076	217.333	216.337
122	0	0.48996	-0.0275759	217.333	215.847
123	0	0.493976	-0.0175476	217.333	215.357
124	0	0.497992	-0.00751925	217.333	214.867
125	0	0.502008	0.00751925	217.333	214.133
126	0	0.506024	0.0175476	217.333	213.643
127	0	0.51004	0.0275759	217.333	213.153
128	0	0.514056	0.0376076	217.333	212.663
129	0	0.518072	0.0476439	217.333	212.173
130	0	0.522088	0.0576847	217.333	211.683
131	0	0.526104	0.0677301	217.333	211.193
132	0	0.53012	0.0777834	217.333	210.702
133	0	0.534137	0.0878447	217.333	210.21
134	0	0.538153	0.0979139	217.333	209.719
135	0	0.542169	0.107995	217.333	209.226
136	0	0.546185	0.118085	217.333	208.733
137	0	0.550201	0.128189	217.333	208.24
138	0	0.554217	0.138305	217.333	207.746
139	0	0.558233	0.148434	217.333	207.251
140	0	0.562249	0.158579	217.333	206.756
141	0	0.566265	0.168741	217.333	206.26
142	0	0.570281	0.17892	217.333	205.763
143	0	0.574297	0.189118	217.333	205.265
144	0	0.578313	0.199336	217.333	204.766
145	0	0.582329	0.209575	217.333	204.266
146	0	0.586345	0.219834	217.333	203.765
147	0	0.590361	0.230118	217.333	203.263
148	0	0.594378	0.240426	217.333	202.759
149	0	0.598394	0.250759	217.333	202.255
150	0	0.60241	0.26112	217.333	201.749
151	0	0.606426	0.271509	217.333	201.241
152	0	0.610442	0.281926	217.333	200.733
153	0	0.614458	0.292375	217.333	200.222
154	0	0.618474	0.302855	217.333	199.711
155	0	0.62249	0.31337	217.333	199.197
156	0	0.626506	0.323919	217.333	198.682
157	0	0.630522	0.334503	217.333	198.165
158	0	0.634538	0.345126	217.333	197.646
159	0	0.638554	0.355788	217.333	197.126
160	0	0.64257	0.36649	217.333	196.603
161	0	0.646586	0.377233	217.333	196.078
162	0	0.650602	0.388022	217.333	195.552
163	0	0.654618	0.398855	217.333	195.023
164	0	0.658635	0.409735	217.333	194.491
165	0	0.662651	0.420664	217.333	193.958
166	0	0.666667	0.431644	217.333	193.421
167	0	0.670683	0.442676	217.333	192.883
168	0	0.674699	0.453763	217.333	192.341
169	0	0.678715	0.464904	217.333	191.797
170	0	0.682731	0.476105	217.333	191.25
171	0	0.686747	0.487364	217.333	190.7
172	0	0.690763	0.498687	217.333	190.147

173	0	0.694779	0.510074	217.333	189.591
174	0	0.698795	0.521527	217.333	189.032
175	0	0.702811	0.533048	217.333	188.469
176	0	0.706827	0.544642	217.333	187.903
177	0	0.710843	0.556308	217.333	187.334
178	0	0.714859	0.568052	217.333	186.76
179	0	0.718876	0.579873	217.333	186.183
180	0	0.722892	0.591776	217.333	185.602
181	0	0.726908	0.603765	217.333	185.016
182	0	0.730924	0.615839	217.333	184.427
183	0	0.73494	0.628006	217.333	183.832
184	0	0.738956	0.640266	217.333	183.234
185	0	0.742972	0.652622	217.333	182.63
186	0	0.746988	0.665079	217.333	182.022
187	0	0.751004	0.680797	217.333	181.254
188	0	0.75502	0.693493	217.333	180.634
189	0	0.759036	0.706302	217.333	180.009
190	0	0.763052	0.719228	217.333	179.378
191	0	0.767068	0.732275	217.333	178.741
192	0	0.771084	0.745449	217.333	178.097
193	0	0.7751	0.758753	217.333	177.448
194	0	0.779116	0.772193	217.333	176.791
195	0	0.783133	0.785774	217.333	176.128
196	0	0.787149	0.7995	217.333	175.458
197	0	0.791165	0.813379	217.333	174.78
198	0	0.795181	0.827417	217.333	174.094
199	0	0.799197	0.841621	217.333	173.401
200	0	0.803213	0.855996	217.333	172.699
201	0	0.807229	0.87055	217.333	171.988
202	0	0.811245	0.885291	217.333	171.268
203	0	0.815261	0.900227	217.333	170.539
204	0	0.819277	0.915365	217.333	169.8
205	0	0.823293	0.930718	217.333	169.05
206	0	0.827309	0.946291	217.333	168.289
207	0	0.831325	0.9621	217.333	167.517
208	0	0.835341	0.97815	217.333	166.734
209	0	0.839357	0.994457	217.333	165.937
210	0	0.843373	1.01104	217.333	165.128
211	0	0.84739	1.02789	217.333	164.305
212	0	0.851406	1.04505	217.333	163.467
213	0	0.855422	1.06252	217.333	162.614
214	0	0.859438	1.08032	217.333	161.744
215	0	0.863454	1.09847	217.333	160.858
216	0	0.86747	1.11699	217.333	159.954
217	0	0.871486	1.1359	217.333	159.03
218	0	0.875502	1.15522	217.333	158.087
219	0	0.879518	1.17499	217.333	157.121
220	0	0.883534	1.19522	217.333	156.133
221	0	0.88755	1.21596	217.333	155.121
222	0	0.891566	1.23724	217.333	154.082
223	0	0.895582	1.25908	217.333	153.015
224	0	0.899598	1.28155	217.333	151.918
225	0	0.903614	1.30469	217.333	150.788
226	0.0392207	0.907631	1.32854	219.665	149.623
227	0.0392207	0.911647	1.35317	219.665	148.42
228	0.113329	0.915663	1.37866	224.07	147.176
229	0.277632	0.919679	1.40507	233.837	145.886
230	0.29267	0.923695	1.4325	234.731	144.546
231	0.329304	0.927711	1.46106	236.909	143.152
232	0.41871	0.931727	1.49085	242.223	141.697
233	0.431782	0.935743	1.52203	243	140.174
234	0.431782	0.939759	1.55477	243	138.575

235	0.48858	0.943775		1.58927	246.377	136.891
236	0.604316		0.947791		1.62576	253.257	135.109
237	0.604316		0.951807		1.66456	253.257	133.214
238	0.636577		0.955823		1.70604	255.174	131.188
239	0.722706		0.959839		1.75069	260.294	129.008
240	0.916291		0.963855		1.79912	271.802	126.643
241	1.38629	0.967871		1.85218	299.741	124.052
242	2.99573	0.971888		1.91103	395.413	121.178
243	3.29584	0.975904		1.97737	413.253	117.938
244	3.95124	0.97992	2.05375	452.213	114.209	
245	4.06044	0.983936		2.14441	458.704	109.781
246	4.21951	0.987952		2.25713	468.16	104.277
247	4.49981	0.991968		2.40892	484.822	96.8642
248	5.07517	0.995984		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	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<-2.25379	104.5
	11/16/2009	ND<-2.25379	104.5
	6/30/2010	ND<-2.25379	104.5
	11/12/2010	ND<-2.25379 U	104.5
	7/5/2011	ND<-2.25379 U Q	104.5

Rank Sum = 1985.5
Rank Mean = 104.5

Background Rank Sum = 1985.5
Background Rank Mean = 104.5

Compliance Locations

Loc. ID	Date	Value	Rank
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	3.95124	244
	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	0.48858 J	235
	10/25/2005	0.41871 J	232
	4/29/2006	0.0392207 J	226
	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<-2.25379		104.5
	6/30/2010	ND<-2.25379		104.5
	11/12/2010	-1.51413 J		212
	7/5/2011	0	225	
	11/22/2011	-0.616186		220
	6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 3997.5
Rank Mean = 133.25

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	4.06044	245	
	9/23/1998	ND<0	104.5	
	3/16/1999	4.49981		247
	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	0.29267 J		230
	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	-1.30933 J		217
	11/16/2009	ND<-2.25379		104.5
	6/30/2010	ND<-2.25379		104.5
	11/12/2010	ND<-2.25379 U		104.5
	7/5/2011	0.916291	240	
	11/22/2011	ND<-2.25379 U		104.5
	6/5/2012	-1.51413 J	213	

Rank Sum = 4004.5
Rank Mean = 129.177

MW-10	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	5.07517	248	
	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	0.039220	7 J	227
	5/23/2007	ND<0	104.5	
	11/28/2007	ND<0	104.5	
	6/5/2008	0.722706	239	
	11/20/2008	ND<0	104.5	
	6/11/2009	-1.38629 J	214	
	11/16/2009	-1.38629 J	215	
	6/30/2010	-1.27297 J H	218	
	11/12/2010	-0.967584 J	219	
	7/5/2011	1.38629 J	241	
	11/22/2011	-0.616186	221	
	6/5/2012	-0.430783	222	

Rank Sum = 4458.5
Rank Mean = 143.823

MW-9	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	3.29584		243
	9/24/1997	ND<0	104.5	
	4/7/1998	4.21951	246	
	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	0.431782 J	233	
	10/25/2005	0.604316 J	236	
	4/29/2006	0.277632 J	229	
	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<-2.25379		104.5
	11/16/2009	ND<-2.25379		104.5
	6/30/2010	ND<-2.25379		104.5
	11/12/2010	ND<-2.25379 U		104.5
	7/5/2011	-0.162519	224	
	11/22/2011	ND<-2.25379 U		104.5
	11/22/2011	ND<-2.25379 U		104.5
	6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 4128
Rank Mean = 129

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<-2.25379		104.5
	11/16/2009	ND<-2.25379		104.5
	6/30/2010	ND<-2.25379		104.5
	11/12/2010	ND<-2.25379 U		104.5
	7/5/2011	-1.56065 U Q J	209	
	11/22/2011	ND<-2.25379 U		104.5
	6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 3344
Rank Mean = 107.871

MW-11R	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	2.99573	242	
	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	0.329304 J		231
	11/18/2006	0.113329 J		228
	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<-2.25379		104.5
	11/16/2009	ND<-2.25379		104.5
	6/30/2010	ND<-2.25379		104.5
	11/12/2010	ND<-2.25379 U		104.5
	7/5/2011	-1.34707 J	216	
	11/22/2011	-1.56065 U J		210
	11/22/2011	-1.56065 U J		211
	6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 4055
Rank Mean = 126.719

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	0.636577 J	238	
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<-2.25379	104.5	
11/16/2009	ND<-2.25379	104.5	
6/30/2010	ND<-2.25379	104.5	
11/12/2010	ND<-2.25379 U	104.5	
7/5/2011	ND<-2.25379 U Q	104.5	
11/22/2011	ND<-2.25379 U	104.5	
6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 2328
Rank Mean = 110.857

MW-12AR	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	0.431782 J	234	
4/29/2006	0.604316 J	237	
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<-2.25379	104.5	
11/16/2009	ND<-2.25379	104.5	
6/30/2010	ND<-2.25379	104.5	
11/12/2010	ND<-2.25379 U	104.5	
7/5/2011	ND<-2.25379 U	104.5	
11/22/2011	-0.415515	223	
6/5/2012	ND<-2.25379 U	104.5	

Rank Sum = 2575
Rank Mean = 122.619

Calculation Results:

Kruskal-Wallis H Statistic = 6.90052
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 16.8294
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
6.90052 < 15.5073 indicating no significant group difference at 5% significance level
16.8294 > 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-8	**133.25**	**28.75**	**48.9293**
MW-7	**129.177**	**24.6774**	**48.6223**

MW-10	**143.823**	**39.3226**	**48.6223**	
MW-9	**129**	**24.5**	**48.3328**	
MW-6	**107.871**	**3.37097**	**48.6223**	
MW-11R	**126.719**	**22.2188**	**48.3328**	
MW-12BR		**110.857**	**6.35714**	**52.8387**
MW-12AR		**122.619**	**18.119**	**52.8387**

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-8	**133.25**	**28.75**	**52.837**
MW-7	**129.177**	**24.6774**	**52.5055**
MW-10	**143.823**	**39.3226**	**52.5055**
MW-9	**129**	**24.5**	**52.1928**
MW-6	**107.871**	**3.37097**	**52.5055**
MW-11R	**126.719**	**22.2188**	**52.1928**
MW-12BR		**110.857**	**6.35714**	**57.0586**
MW-12AR		**122.619**	**18.119**	**57.0586**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Selenium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 83.871%
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-8	6/5/2012	1	-2.25379	FALSE
MW-7	6/5/2012	1	-1.51413	FALSE
MW-10	6/5/2012	1	-0.430783	FALSE
MW-9	6/5/2012	1	-2.25379	FALSE
MW-6	6/5/2012	1	-2.25379	FALSE
MW-11R	6/5/2012	1	-2.25379	FALSE
MW-12BR	6/5/2012	1	-2.25379	FALSE
MW-12AR	6/5/2012	1	-2.25379	FALSE

Concentrations (ppb)
Parameter: Tetrachloroethene
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 254
Total Non-Detect: 177
Percent Non-Detects: 69.685%
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-10	32	22 (68.75%)	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
			6/5/2012	ND<0.15 U	ND<0.15 U	
MW-7	32	28 (87.5%)	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
			6/5/2012	ND<0.15 U	ND<0.15 U	
MW-11R	32	16 (50%)	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
			6/5/2012	0.33 J	0.33 J
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<0.15	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
			6/5/2012	ND<0.15 U	ND<0.15 U
MW-9	32	14 (43.75%)	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	
			6/5/2012	0.23 J	0.23 J	
MW-8	31	8 (25.8065%)	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	
			6/5/2012	0.33 J	0.33 J	
MW-12BR	22	21 (95.4545%)	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	
		6/5/2012	ND<0.15 U	ND<0.15 U		
MW-12AR	22	17 (77.2727%)	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	
		6/5/2012	ND<0.15 U	ND<0.15 U		

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.075	-2.747777	7.55021	-0.206082
2	0.075	-2.457271	13.5884	-0.390378
3	0.075	-2.290361	18.8342	-0.562155
4	0.075	-2.170092	23.5435	-0.724912
5	0.075	-2.074852	7.8485	-0.880525
6	0.075	-1.995393	1.8301	-1.03018
7	0.075	-1.926843	5.5428	-1.17469
8	0.075	-1.866293	9.0258	-1.31466
9	0.075	-1.811914	2.3088	-1.45056
10	0.075	-1.762414	5.4149	-1.58274
11	0.075	-1.716884	8.3626	-1.71151
12	0.075	-1.674665	1.1671	-1.83711
13	0.075	-1.644855	3.8726	-1.96047
14	0.075	-1.607255	6.4559	-2.08101
15	0.075	-1.571795	8.9264	-2.1989
16	0.075	-1.5382	61.2925	-2.31426
17	0.075	-1.506263	3.5613	-2.42723
18	0.075	-1.475796	5.7393	-2.53792
19	0.075	-1.446636	7.832	-2.64641
20	0.075	-1.418656	9.8446	-2.75281
21	0.075	-1.391757	1.7815	-2.85719
22	0.075	-1.365817	3.647	-2.95963
23	0.075	-1.340757	5.4446	-3.06019
24	0.075	-1.316527	7.1778	-3.15892
25	0.075	-1.293037	8.8498	-3.2559
26	0.075	-1.275888	0.4776	-3.35159
27	0.075	-1.253578	2.049	-3.44561
28	0.075	-1.231878	3.5665	-3.538
29	0.075	-1.210738	5.0324	-3.6288
30	0.075	-1.190128	6.4488	-3.71806
31	0.075	-1.17	87.8177	-3.80581
32	0.075	-1.150358	9.141	-3.89209
33	0.075	-1.131139	0.4204	-3.97692
34	0.075	-1.112329	1.6577	-4.06035
35	0.075	-1.0939	92.8543	-4.14239
36	0.075	-1.075849	4.0117	-4.22308
37	0.075	-1.058129	5.1314	-4.30244
38	0.075	-1.040739	6.2145	-4.38049
39	0.075	-1.027899	7.271	-4.45758
40	0.075	-1.011049	8.2932	-4.53341
41	0.075	-0.994457	99.2822	-4.608
42	0.075	-0.978151	00.239	-4.68136
43	0.075	-0.9621	101.165	-4.75352
44	0.075	-0.946291	102.06	-4.82449
45	0.075	-0.930718	102.926	-4.89429
46	0.075	-0.915365	103.764	-4.96294
47	0.16	-0.900227	104.575	-5.10698
48	0.21	-0.885291	105.358	-5.29289
49	0.21	-0.870551	06.116	-5.47571
50	0.21	-0.855996	106.849	-5.65547
51	0.23	-0.841621	107.557	-5.84904

52	0.24	-0.830953	108.248	-6.04847
53	0.28	-0.816874	108.915	-6.27719
54	0.28	-0.802956	109.56	-6.50202
55	0.29	-0.789191	110.183	-6.73089
56	0.29	-0.775574	110.784	-6.9558
57	0.3	-0.7621	111.365	-7.18443
58	0.3	-0.748762	111.926	-7.40906
59	0.31	-0.735557	112.467	-7.63708
60	0.32	-0.722479	112.989	-7.86828
61	0.32	-0.709522	113.492	-8.09532
62	0.33	-0.696684	113.977	-8.32523
63	0.33	-0.68396	114.445	-8.55094
64	0.33	-0.67449	114.9	-8.77352
65	0.33	-0.661955	115.338	-8.99196
66	0.33	-0.649522	115.76	-9.20631
67	0.34	-0.637192	116.166	-9.42295
68	0.34	-0.624956	116.557	-9.63544
69	0.35	-0.612813	116.932	-9.84992
70	0.36	-0.60076	117.293	-10.0662
71	0.38	-0.588793	117.64	-10.2899
72	0.39	-0.576911	117.973	-10.5149
73	0.4	-0.565108	118.292	-10.741
74	0.41	-0.553384	118.598	-10.9679
75	0.41	-0.541736	118.892	-11.19
76	0.42	-0.530162	119.173	-11.4126
77	0.43	-0.521527	119.445	-11.6369
78	0.46	-0.510074	119.705	-11.8715
79	0.49	-0.498687	119.954	-12.1159
80	0.51	-0.487364	120.191	-12.3644
81	0.53	-0.476105	120.418	-12.6168
82	0.54	-0.464904	120.634	-12.8678
83	0.55	-0.453763	120.84	-13.1174
84	0.58	-0.442676	121.036	-13.3741
85	0.65	-0.431644	121.222	-13.6547
86	0.67	-0.420664	121.399	-13.9366
87	0.68	-0.409735	121.567	-14.2152
88	0.71	-0.398855	121.726	-14.4984
89	0.71	-0.388022	121.877	-14.7739
90	0.75	-0.379927	122.021	-15.0588
91	0.8	-0.369171	122.157	-15.3541
92	0.8	-0.358459	122.286	-15.6409
93	0.8	-0.347787	122.407	-15.9191
94	0.84	-0.337155	122.52	-16.2024
95	0.86	-0.326561	122.627	-16.4832
96	0.9	-0.316004	122.727	-16.7676
97	0.9	-0.305481	122.82	-17.0425
98	0.96	-0.294992	122.907	-17.3257
99	1	-0.284535	122.988	-17.6103
100	1	-0.27411	123.063	-17.8844
101	1	-0.263715	123.133	-18.1481
102	1	-0.253347	123.197	-18.4014
103	1	-0.24559	123.257	-18.647
104	1	-0.235269	123.313	-18.8823
105	1	-0.224974	123.363	-19.1073
106	1	-0.214702	123.409	-19.322
107	1	-0.204452	123.451	-19.5264
108	1	-0.194225	123.489	-19.7206
109	1	-0.184017	123.523	-19.9047
110	1	-0.173829	123.553	-20.0785
111	1	-0.163659	123.58	-20.2422
112	1	-0.153505	123.603	-20.3957
113	1	-0.143367	123.624	-20.539

114	1	-0.133244	123.642	-20.6723
115	1	-0.125661	123.658	-20.7979
116	1	-0.115562	123.671	-20.9135
117	1	-0.105474	123.682	-21.019
118	1	-0.0953969	123.691	-21.1144
119	1	-0.0853288	123.698	-21.1997
120	1	-0.0752698	123.704	-21.275
121	1	-0.0652187	123.708	-21.3402
122	1	-0.0551734	123.711	-21.3954
123	1	-0.0451348	123.713	-21.4405
124	1	-0.0350997	123.715	-21.4756
125	1	-0.0250691	123.715	-21.5007
126	1	-0.0150408	123.715	-21.5157
127	1	-0.00501359	123.715	-21.5207
128	1	0.00501359	123.716	-21.5157
129	1	0.0150408	123.716	-21.5007
130	1	0.0250691	123.716	-21.4756
131	1	0.0350997	123.718	-21.4405
132	1	0.0451348	123.72	-21.3954
133	1	0.0551734	123.723	-21.3402
134	1	0.0652187	123.727	-21.275
135	1	0.0752698	123.733	-21.1997
136	1	0.0853288	123.74	-21.1144
137	1	0.0953969	123.749	-21.019
138	1	0.105474	123.76	-20.9135
139	1	0.115562	123.773	-20.7979
140	1	0.125661	123.789	-20.6723
141	1	0.133244	123.807	-20.539
142	1	0.143367	123.828	-20.3957
143	1	0.153505	123.851	-20.2422
144	1	0.163659	123.878	-20.0785
145	1	0.173829	123.908	-19.9047
146	1	0.184017	123.942	-19.7206
147	1	0.194225	123.98	-19.5264
148	1	0.204452	124.022	-19.322
149	1	0.214702	124.068	-19.1073
150	1	0.224974	124.118	-18.8823
151	1	0.235269	124.174	-18.647
152	1	0.24559	124.234	-18.4014
153	1	0.253347	124.298	-18.1481
154	1	0.263715	124.368	-17.8844
155	1	0.27411	124.443	-17.6103
156	1	0.284535	124.524	-17.3257
157	1	0.294992	124.611	-17.0307
158	1	0.305481	124.704	-16.7253
159	1	0.316004	124.804	-16.4092
160	1	0.326561	124.911	-16.0827
161	1	0.337155	125.024	-15.7455
162	1	0.347787	125.145	-15.3977
163	1	0.358459	125.274	-15.0393
164	1	0.369171	125.41	-14.6701
165	1	0.379927	125.554	-14.2902
166	1	0.388022	125.705	-13.9022
167	1	0.398855	125.864	-13.5033
168	1	0.409735	126.032	-13.0936
169	1	0.420664	126.209	-12.6729
170	1	0.431644	126.395	-12.2413
171	1	0.442676	126.591	-11.7986
172	1	0.453763	126.797	-11.3448
173	1	0.464904	127.013	-10.8799
174	1	0.476105	127.24	-10.4038
175	1	0.487364	127.477	-9.91646

176	1	0.498687		127.726	-9.41777
177	1	0.510074		127.986	-8.90769
178	1	0.521527		128.258	-8.38617
179	1	0.530162		128.539	-7.85601
180	1	0.541736		128.833	-7.31427
181	1	0.553384		129.139	-6.76089
182	1	0.565108		129.458	-6.19578
183	1	0.576911		129.791	-5.61887
184	1	0.588793		130.138	-5.03007
185	1	0.60076	130.499	-4.42931	
186	1	0.612813		130.874	-3.8165
187	1	0.624956		131.265	-3.19155
188	1	0.637192		131.671	-2.55435
189	1	0.649522		132.093	-1.90483
190	1	0.661955		132.531	-1.24288
191	1	0.67449	132.986	-0.568385	
192	1	0.68396	133.454	0.115575	
193	1	0.696684		133.939	0.812259
194	1	0.709522		134.442	1.52178
195	1	0.722479		134.964	2.24426
196	1	0.735557		135.505	2.97982
197	1	0.748762		136.066	3.72858
198	1	0.7621	136.647	4.49068	
199	1	0.775574		137.248	5.26625
200	1	0.789191		137.871	6.05544
201	1	0.802956		138.516	6.8584
202	1	0.816874		139.183	7.67527
203	1	0.830953		139.874	8.50623
204	1	0.841621		140.582	9.34785
205	1	0.855996		141.315	10.2038
206	1	0.87055	142.073	11.0744	
207	1	0.885291		142.856	11.9597
208	1	0.900227		143.667	12.8599
209	1	0.915365		144.505	13.7753
210	1	0.930718		145.371	14.706
211	1	0.946291		146.266	15.6523
212	1	0.9621	147.192	16.6144	
213	1	0.97815	148.149	17.5925	
214	1	0.994457		149.138	18.587
215	1	1.01104	150.16	19.598	
216	1	1.02789	151.217	20.6259	
217	1	1.04073	152.3	21.6667	
218	1	1.05812	153.419	22.7248	
219	1	1.07584	154.577	23.8006	
220	1	1.0939	155.773	24.8945	
221	1	1.11232	157.011	26.0068	
222	1	1.13113	158.29	27.138	
223	1	1.15035	159.613	28.2883	
224	1	1.17	160.982	29.4583	
225	1	1.19012	162.399	30.6484	
226	1	1.21073	163.864	31.8592	
227	1	1.23187	165.382	33.091	
228	1	1.25357	166.953	34.3446	
229	1	1.27588	168.581	35.6205	
230	1.2	1.29303	170.253	37.1721	
231	1.6	1.31652	171.986	39.2785	
232	2	1.34075	173.784	41.96	
233	2	1.36581	175.649	44.6917	
234	2.1	1.39175	177.586	47.6143	
235	2.18	1.41865	179.599	50.707	
236	2.3	1.44663	181.692	54.0342	
237	2.4	1.47579	183.87	57.5761	

238	2.64	1.50626	186.139	61.5527
239	2.69	1.5382	188.505	65.6904
240	2.7	1.57179	190.975	69.9343
241	3.2	1.60725	193.558	75.0775
242	4	1.64485	196.264	81.6569
243	4.4	1.67466	199.068	89.0254
244	5.34	1.71688	202.016	98.1936
245	6	1.76241	205.122	108.768
246	8	1.81191	208.405	123.263
247	30.4	1.86629	211.888	179.999
248	31	1.92684	215.601	239.731
249	32.2	1.99539	219.583	303.982
250	34	2.07485	223.888	374.527
251	49	2.17009	228.597	480.862
252	59	2.29036	233.843	615.993
253	88	2.45727	239.881	832.233
254	99	2.74777	247.431	1104.26

Data Set Standard Deviation = 10.1926
Numerator = 1.21939e+006
Denominator = 6.50347e+006
W Statistic = 0.187499 = 1.21939e+006 / 6.50347e+006

5% Critical value of 0.976 exceeds 0.187499
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.187499
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 = 0.438257
0.438257 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.075	0.00392157	-2.747	77	39.4012	348.683
2	0.075	0.00784314	-2.457	27	39.4012	334.497
3	0.075	0.0117647	-2.290	36	39.4012	326.346
4	0.075	0.0156863	-2.170	09	39.4012	320.473
5	0.075	0.0196078	-2.074	85	39.4012	315.822
6	0.075	0.0235294	-1.995	39	39.4012	311.942
7	0.075	0.027451	-1.926	84	39.4012	308.594
8	0.075	0.0313725	-1.866	29	39.4012	305.637
9	0.075	0.0352941	-1.811	91	39.4012	302.982
10	0.075	0.0392157	-1.762	41	39.4012	300.564
11	0.075	0.0431373	-1.716	88	39.4012	298.341
12	0.075	0.0470588	-1.674	66	39.4012	296.279
13	0.075	0.0509804	-1.644	85	39.4012	294.824
14	0.075	0.054902	-1.607	25	39.4012	292.987
15	0.075	0.0588235	-1.571	79	39.4012	291.256
16	0.075	0.0627451	-1.538	2	39.4012	289.615
17	0.075	0.0666667	-1.506	26	39.4012	288.056
18	0.075	0.0705882	-1.475	79	39.4012	286.568
19	0.075	0.0745098	-1.446	63	39.4012	285.144
20	0.075	0.0784314	-1.418	65	39.4012	283.778
21	0.075	0.0823529	-1.391	75	39.4012	282.464
22	0.075	0.0862745	-1.365	81	39.4012	281.197
23	0.075	0.0901961	-1.340	75	39.4012	279.974
24	0.075	0.0941176	-1.316	52	39.4012	278.79
25	0.075	0.0980392	-1.293	03	39.4012	277.643
26	0.075	0.101961	-1.275	88	39.4012	276.805
27	0.075	0.105882	-1.253	57	39.4012	275.716
28	0.075	0.109804	-1.231	87	39.4012	274.656
29	0.075	0.113725	-1.210	73	39.4012	273.624
30	0.075	0.117647	-1.190	12	39.4012	272.617
31	0.075	0.121569	-1.17		39.4012	271.635
32	0.075	0.12549	-1.150	35	39.4012	270.675
33	0.075	0.129412	-1.131	13	39.4012	269.737
34	0.075	0.133333	-1.112	32	39.4012	268.818
35	0.075	0.137255	-1.093	9	39.4012	267.919
36	0.075	0.141176	-1.075	84	39.4012	267.037
37	0.075	0.145098	-1.058	12	39.4012	266.172
38	0.075	0.14902	-1.040	73	39.4012	265.322
39	0.075	0.152941	-1.027	89	39.4012	264.695
40	0.075	0.156863	-1.011	04	39.4012	263.872
41	0.075	0.160784	-0.994457		39.4012	263.063
42	0.075	0.164706	-0.978	15	39.4012	262.266
43	0.075	0.168627	-0.962	1	39.4012	261.483
44	0.075	0.172549	-0.946291		39.4012	260.711
45	0.075	0.176471	-0.930718		39.4012	259.95
46	0.075	0.180392	-0.915365		39.4012	259.2
47	0.16	0.184314	-0.900227		39.856	258.461
48	0.21	0.188235	-0.885291		40.1235	257.732

49	0.21	0.192157	-0.870554	0.1235	257.012
50	0.21	0.196078	-0.855996	40.1235	256.301
51	0.23	0.2	-0.841621	40.2305	255.599
52	0.24	0.203922	-0.830953	40.284	255.078
53	0.28	0.207843	-0.816874	40.498	254.391
54	0.28	0.211765	-0.802956	40.498	253.711
55	0.29	0.215686	-0.789191	40.5515	253.039
56	0.29	0.219608	-0.775574	40.5515	252.374
57	0.3	0.223529	-0.7621	40.605	251.716
58	0.3	0.227451	-0.748762	40.605	251.065
59	0.31	0.231373	-0.735557	40.6585	250.42
60	0.32	0.235294	-0.722479	40.712	249.781
61	0.32	0.239216	-0.709522	40.712	249.148
62	0.33	0.243137	-0.696684	40.7655	248.521
63	0.33	0.247059	-0.683964	0.7655	247.9
64	0.33	0.25098	-0.674494	0.7655	247.438
65	0.33	0.254902	-0.661955	40.7655	246.825
66	0.33	0.258824	-0.649522	40.7655	246.218
67	0.34	0.262745	-0.637192	40.819	245.616
68	0.34	0.266667	-0.624956	40.819	245.019
69	0.35	0.270588	-0.612813	40.8725	244.426
70	0.36	0.27451	-0.600764	0.926	243.837
71	0.38	0.278431	-0.588793	41.033	243.253
72	0.39	0.282353	-0.576911	41.0865	242.672
73	0.4	0.286275	-0.565108	41.14	242.096
74	0.41	0.290196	-0.553384	41.1935	241.524
75	0.41	0.294118	-0.541736	41.1935	240.955
76	0.42	0.298039	-0.530162	41.247	240.39
77	0.43	0.301961	-0.521527	41.3005	239.968
78	0.46	0.305882	-0.510074	41.461	239.409
79	0.49	0.309804	-0.498687	41.6215	238.853
80	0.51	0.313725	-0.487364	41.7285	238.3
81	0.53	0.317647	-0.476105	41.8355	237.75
82	0.54	0.321569	-0.464904	41.889	237.203
83	0.55	0.32549	-0.453763	41.9425	236.659
84	0.58	0.329412	-0.442676	42.103	236.117
85	0.65	0.333333	-0.431644	42.4775	235.579
86	0.67	0.337255	-0.420664	42.5845	235.042
87	0.68	0.341176	-0.409735	42.638	234.509
88	0.71	0.345098	-0.398855	42.7985	233.977
89	0.71	0.34902	-0.388022	42.7985	233.448
90	0.75	0.352941	-0.379927	43.0125	233.053
91	0.8	0.356863	-0.369171	43.28	232.528
92	0.8	0.360784	-0.358459	43.28	232.005
93	0.8	0.364706	-0.347787	43.28	231.484
94	0.84	0.368627	-0.337155	43.494	230.964
95	0.86	0.372549	-0.326561	43.601	230.447
96	0.9	0.376471	-0.316004	43.815	229.932
97	0.9	0.380392	-0.305481	43.815	229.418
98	0.96	0.384314	-0.294992	44.136	228.905
99	1	0.388235	-0.284535	44.35	228.395
100	1	0.392157	-0.274114	4.35	227.886
101	1	0.396078	-0.263715	44.35	227.378
102	1	0.4	-0.253347	44.35	226.872
103	1	0.403922	-0.245594	4.35	226.493
104	1	0.407843	-0.235269	44.35	225.989
105	1	0.411765	-0.224974	44.35	225.486
106	1	0.415686	-0.214702	44.35	224.985
107	1	0.419608	-0.204452	44.35	224.484
108	1	0.423529	-0.194225	44.35	223.985
109	1	0.427451	-0.184017	44.35	223.486
110	1	0.431373	-0.173829	44.35	222.989

111	1	0.435294	-0.163659	44.35	222.492
112	1	0.439216	-0.153505	44.35	221.996
113	1	0.443137	-0.143367	44.35	221.501
114	1	0.447059	-0.133244	44.35	221.007
115	1	0.45098	-0.125661	44.35	220.636
116	1	0.454902	-0.115562	44.35	220.143
117	1	0.458824	-0.105474	44.35	219.651
118	1	0.462745	-0.0953969	44.35	219.159
119	1	0.466667	-0.0853288	44.35	218.667
120	1	0.470588	-0.0752698	44.35	218.176
121	1	0.47451	-0.0652187	44.35	217.685
122	1	0.478431	-0.0551734	44.35	217.194
123	1	0.482353	-0.0451348	44.35	216.704
124	1	0.486275	-0.0350997	44.35	216.214
125	1	0.490196	-0.0250691	44.35	215.724
126	1	0.494118	-0.0150408	44.35	215.234
127	1	0.498039	-0.00501359	44.35	214.745
128	1	0.501961	0.00501359	44.35	214.255
129	1	0.505882	0.0150408	44.35	213.766
130	1	0.509804	0.0250691	44.35	213.276
131	1	0.513725	0.0350997	44.35	212.786
132	1	0.517647	0.0451348	44.35	212.296
133	1	0.521569	0.0551734	44.35	211.806
134	1	0.52549	0.0652187	44.35	211.315
135	1	0.529412	0.0752698	44.35	210.824
136	1	0.533333	0.0853288	44.35	210.333
137	1	0.537255	0.0953969	44.35	209.841
138	1	0.541176	0.105474	44.35	209.349
139	1	0.545098	0.115562	44.35	208.857
140	1	0.54902	0.125661	44.35	208.364
141	1	0.552941	0.133244	44.35	207.993
142	1	0.556863	0.143367	44.35	207.499
143	1	0.560784	0.153505	44.35	207.004
144	1	0.564706	0.163659	44.35	206.508
145	1	0.568627	0.173829	44.35	206.011
146	1	0.572549	0.184017	44.35	205.514
147	1	0.576471	0.194225	44.35	205.015
148	1	0.580392	0.204452	44.35	204.516
149	1	0.584314	0.214702	44.35	204.015
150	1	0.588235	0.224974	44.35	203.514
151	1	0.592157	0.235269	44.35	203.011
152	1	0.596078	0.24559	44.35	202.507
153	1	0.6	0.253347	44.35	202.128
154	1	0.603922	0.263715	44.35	201.622
155	1	0.607843	0.27411	44.35	201.114
156	1	0.611765	0.284535	44.35	200.605
157	1	0.615686	0.294992	44.35	200.095
158	1	0.619608	0.305481	44.35	199.582
159	1	0.623529	0.316004	44.35	199.068
160	1	0.627451	0.326561	44.35	198.553
161	1	0.631373	0.337155	44.35	198.036
162	1	0.635294	0.347787	44.35	197.516
163	1	0.639216	0.358459	44.35	196.995
164	1	0.643137	0.369171	44.35	196.472
165	1	0.647059	0.379927	44.35	195.947
166	1	0.65098	0.388022	44.35	195.552
167	1	0.654902	0.398855	44.35	195.023
168	1	0.658824	0.409735	44.35	194.491
169	1	0.662745	0.420664	44.35	193.958
170	1	0.666667	0.431644	44.35	193.421
171	1	0.670588	0.442676	44.35	192.883
172	1	0.67451	0.453763	44.35	192.341

173	1	0.678431	0.464904	44.35	191.797
174	1	0.682353	0.476105	44.35	191.25
175	1	0.686275	0.487364	44.35	190.7
176	1	0.690196	0.498687	44.35	190.147
177	1	0.694118	0.510074	44.35	189.591
178	1	0.698039	0.521527	44.35	189.032
179	1	0.701961	0.530162	44.35	188.61
180	1	0.705882	0.541736	44.35	188.045
181	1	0.709804	0.553384	44.35	187.476
182	1	0.713725	0.565108	44.35	186.904
183	1	0.717647	0.576911	44.35	186.328
184	1	0.721569	0.588793	44.35	185.747
185	1	0.72549	0.60076	44.35	185.163
186	1	0.729412	0.612813	44.35	184.574
187	1	0.733333	0.624956	44.35	183.981
188	1	0.737255	0.637192	44.35	183.384
189	1	0.741176	0.649522	44.35	182.782
190	1	0.745098	0.661955	44.35	182.175
191	1	0.74902	0.67449	44.35	181.562
192	1	0.752941	0.68396	44.35	181.1
193	1	0.756863	0.696684	44.35	180.479
194	1	0.760784	0.709522	44.35	179.852
195	1	0.764706	0.722479	44.35	179.219
196	1	0.768627	0.735557	44.35	178.58
197	1	0.772549	0.748762	44.35	177.935
198	1	0.776471	0.7621	44.35	177.284
199	1	0.780392	0.775574	44.35	176.626
200	1	0.784314	0.789191	44.35	175.961
201	1	0.788235	0.802956	44.35	175.289
202	1	0.792157	0.816874	44.35	174.609
203	1	0.796078	0.830953	44.35	173.922
204	1	0.8	0.841621	44.35	173.401
205	1	0.803922	0.855996	44.35	172.699
206	1	0.807843	0.87055	44.35	171.988
207	1	0.811765	0.885291	44.35	171.268
208	1	0.815686	0.900227	44.35	170.539
209	1	0.819608	0.915365	44.35	169.8
210	1	0.823529	0.930718	44.35	169.05
211	1	0.827451	0.946291	44.35	168.289
212	1	0.831373	0.9621	44.35	167.517
213	1	0.835294	0.97815	44.35	166.734
214	1	0.839216	0.994457	44.35	165.937
215	1	0.843137	1.01104	44.35	165.128
216	1	0.847059	1.02789	44.35	164.305
217	1	0.85098	1.04073	44.35	163.678
218	1	0.854902	1.05812	44.35	162.828
219	1	0.858824	1.07584	44.35	161.963
220	1	0.862745	1.0939	44.35	161.081
221	1	0.866667	1.11232	44.35	160.182
222	1	0.870588	1.13113	44.35	159.263
223	1	0.87451	1.15035	44.35	158.325
224	1	0.878431	1.17	44.35	157.365
225	1	0.882353	1.19012	44.35	156.383
226	1	0.886275	1.21073	44.35	155.376
227	1	0.890196	1.23187	44.35	154.344
228	1	0.894118	1.25357	44.35	153.284
229	1	0.898039	1.27588	44.35	152.195
230	1.2	0.901961	1.29303	45.42	151.357
231	1.6	0.905882	1.31652	47.56	150.21
232	2	0.909804	1.34075	49.7	149.026
233	2	0.913725	1.36581	49.7	147.803
234	2.1	0.917647	1.39175	50.235	146.536

235	2.18	0.921569		1.41865	50.663	145.222
236	2.3	0.92549	1.44663	51.305	143.856	
237	2.4	0.929412		1.47579	51.84	142.432
238	2.64	0.933333		1.50626	53.124	140.944
239	2.69	0.937255		1.5382	53.3915	139.385
240	2.7	0.941176		1.57179	53.445	137.744
241	3.2	0.945098		1.60725	56.12	136.013
242	4	0.94902	1.64485	60.4	134.176	
243	4.4	0.952941		1.67466	62.54	132.721
244	5.34	0.956863		1.71688	67.569	130.659
245	6	0.960784		1.76241	71.1	128.436
246	8	0.964706		1.81191	81.8	126.018
247	30.4	0.968627		1.86629	201.64	123.363
248	31	0.972549		1.92684	204.85	120.406
249	32.2	0.976471		1.99539	211.27	117.058
250	34	0.980392		2.07485	220.9	113.178
251	49	0.984314		2.17009	301.15	108.527
252	59	0.988235		2.29036	354.65	102.654
253	88	0.992157		2.45727	509.8	94.5032
254	99	0.996078		2.74777	568.65	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.59027	-2.74777	7.55021	7.11745
2	-2.59027	-2.45727	13.5884	13.4824
3	-2.59027	-2.29036	18.8342	19.4151
4	-2.59027	-2.17009	23.5435	25.0362
5	-2.59027	-2.07485	27.8485	30.4106
6	-2.59027	-1.99539	31.8301	35.5792
7	-2.59027	-1.92684	35.5428	40.5702
8	-2.59027	-1.86629	39.0258	45.4044
9	-2.59027	-1.81191	42.3088	50.0978
10	-2.59027	-1.76241	45.4149	54.6629
11	-2.59027	-1.71688	48.3626	59.1101
12	-2.59027	-1.67466	51.1671	63.4479
13	-2.59027	-1.64485	53.8726	67.7085
14	-2.59027	-1.60725	56.4559	71.8717
15	-2.59027	-1.57179	58.9264	75.9431
16	-2.59027	-1.5382	61.2925	79.9274
17	-2.59027	-1.50626	63.5613	83.829
18	-2.59027	-1.47579	65.7393	87.6517
19	-2.59027	-1.44663	67.832	91.3989
20	-2.59027	-1.41865	69.8446	95.0736
21	-2.59027	-1.39175	71.7815	98.6786
22	-2.59027	-1.36581	73.647	102.216
23	-2.59027	-1.34075	75.4446	105.689
24	-2.59027	-1.31652	77.1778	109.099
25	-2.59027	-1.29303	78.8498	112.449
26	-2.59027	-1.27588	80.4776	115.754
27	-2.59027	-1.25357	82.049	119.001
28	-2.59027	-1.23187	83.5665	122.192
29	-2.59027	-1.21073	85.0324	125.328
30	-2.59027	-1.19012	86.4488	128.41
31	-2.59027	-1.17	87.8177	131.441
32	-2.59027	-1.15035	89.141	134.421
33	-2.59027	-1.13113	90.4204	137.351
34	-2.59027	-1.11232	91.6577	140.232
35	-2.59027	-1.0939	92.8543	143.065
36	-2.59027	-1.07584	94.0117	145.852
37	-2.59027	-1.05812	95.1314	148.593
38	-2.59027	-1.04073	96.2145	151.289
39	-2.59027	-1.02789	97.271	153.951
40	-2.59027	-1.01104	98.2932	156.57
41	-2.59027	-0.994457	99.2822	159.146
42	-2.59027	-0.97815	100.239	161.68
43	-2.59027	-0.9621	101.165	164.172
44	-2.59027	-0.946291	102.06	166.623
45	-2.59027	-0.930718	102.926	169.034
46	-2.59027	-0.915365	103.764	171.405
47	-1.83258	-0.900227	104.575	173.054
48	-1.56065	-0.885291	105.358	174.436
49	-1.56065	-0.87055	106.116	175.795
50	-1.56065	-0.855996	106.849	177.131
51	-1.46968	-0.841621	107.557	178.367

52	-1.42712	-0.830953	108.248	179.553
53	-1.27297	-0.816874	108.915	180.593
54	-1.27297	-0.802956	109.56	181.615
55	-1.23787	-0.789191	110.183	182.592
56	-1.23787	-0.775574	110.784	183.552
57	-1.20397	-0.7621	111.365	184.47
58	-1.20397	-0.748762	111.926	185.371
59	-1.17118	-0.735557	112.467	186.233
60	-1.13943	-0.722479	112.989	187.056
61	-1.13943	-0.709522	113.492	187.864
62	-1.10866	-0.696684	113.977	188.637
63	-1.10866	-0.68396	114.445	189.395
64	-1.10866	-0.67449	114.9	190.143
65	-1.10866	-0.661955	115.338	190.877
66	-1.10866	-0.649522	115.76	191.597
67	-1.07881	-0.637192	116.166	192.284
68	-1.07881	-0.624956	116.557	192.959
69	-1.04982	-0.612813	116.932	193.602
70	-1.02165	-0.60076	117.293	194.216
71	-0.967584	-0.588793	117.64	194.785
72	-0.941609	-0.576911	117.973	195.329
73	-0.916291	-0.565108	118.292	195.846
74	-0.891598	-0.553384	118.598	196.34
75	-0.891598	-0.541736	118.892	196.823
76	-0.867501	-0.530162	119.173	197.283
77	-0.84397	-0.521527	119.445	197.723
78	-0.776529	-0.510074	119.705	198.119
79	-0.71335	-0.498687	119.954	198.475
80	-0.673345	-0.487364	120.191	198.803
81	-0.634878	-0.476105	120.418	199.105
82	-0.616186	-0.464904	120.634	199.392
83	-0.597837	-0.453763	120.84	199.663
84	-0.544727	-0.442676	121.036	199.904
85	-0.430783	-0.431644	121.222	200.09
86	-0.400478	-0.420664	121.399	200.258
87	-0.385662	-0.409735	121.567	200.416
88	-0.34249	-0.398855	121.726	200.553
89	-0.34249	-0.388022	121.877	200.686
90	-0.287682	-0.379927	122.021	200.795
91	-0.223144	-0.369171	122.157	200.878
92	-0.223144	-0.358459	122.286	200.958
93	-0.223144	-0.347787	122.407	201.035
94	-0.174353	-0.337155	122.52	201.094
95	-0.150823	-0.326561	122.627	201.143
96	-0.105361	-0.316004	122.727	201.177
97	-0.105361	-0.305481	122.82	201.209
98	-0.040822	-0.294992	122.907	201.221
99	0	-0.284535	122.988	201.221
100	0	-0.27411	123.063	201.221
101	0	-0.263715	123.133	201.221
102	0	-0.253347	123.197	201.221
103	0	-0.24559	123.257	201.221
104	0	-0.235269	123.313	201.221
105	0	-0.224974	123.363	201.221
106	0	-0.214702	123.409	201.221
107	0	-0.204452	123.451	201.221
108	0	-0.194225	123.489	201.221
109	0	-0.184017	123.523	201.221
110	0	-0.173829	123.553	201.221
111	0	-0.163659	123.58	201.221
112	0	-0.153505	123.603	201.221
113	0	-0.143367	123.624	201.221

114	0	-0.133244	123.642	201.221
115	0	-0.125661	123.658	201.221
116	0	-0.115562	123.671	201.221
117	0	-0.105474	123.682	201.221
118	0	-0.0953969	123.691	201.221
119	0	-0.0853288	123.698	201.221
120	0	-0.0752698	123.704	201.221
121	0	-0.0652187	123.708	201.221
122	0	-0.0551734	123.711	201.221
123	0	-0.0451348	123.713	201.221
124	0	-0.0350997	123.715	201.221
125	0	-0.0250691	123.715	201.221
126	0	-0.0150408	123.715	201.221
127	0	-0.00501359	123.715	201.221
128	0	0.00501359	123.716	201.221
129	0	0.0150408	123.716	201.221
130	0	0.0250691	123.716	201.221
131	0	0.0350997	123.718	201.221
132	0	0.0451348	123.72	201.221
133	0	0.0551734	123.723	201.221
134	0	0.0652187	123.727	201.221
135	0	0.0752698	123.733	201.221
136	0	0.0853288	123.74	201.221
137	0	0.0953969	123.749	201.221
138	0	0.105474	123.76	201.221
139	0	0.115562	123.773	201.221
140	0	0.125661	123.789	201.221
141	0	0.133244	123.807	201.221
142	0	0.143367	123.828	201.221
143	0	0.153505	123.851	201.221
144	0	0.163659	123.878	201.221
145	0	0.173829	123.908	201.221
146	0	0.184017	123.942	201.221
147	0	0.194225	123.98	201.221
148	0	0.204452	124.022	201.221
149	0	0.214702	124.068	201.221
150	0	0.224974	124.118	201.221
151	0	0.235269	124.174	201.221
152	0	0.24559	124.234	201.221
153	0	0.253347	124.298	201.221
154	0	0.263715	124.368	201.221
155	0	0.27411	124.443	201.221
156	0	0.284535	124.524	201.221
157	0	0.294992	124.611	201.221
158	0	0.305481	124.704	201.221
159	0	0.316004	124.804	201.221
160	0	0.326561	124.911	201.221
161	0	0.337155	125.024	201.221
162	0	0.347787	125.145	201.221
163	0	0.358459	125.274	201.221
164	0	0.369171	125.41	201.221
165	0	0.379927	125.554	201.221
166	0	0.388022	125.705	201.221
167	0	0.398855	125.864	201.221
168	0	0.409735	126.032	201.221
169	0	0.420664	126.209	201.221
170	0	0.431644	126.395	201.221
171	0	0.442676	126.591	201.221
172	0	0.453763	126.797	201.221
173	0	0.464904	127.013	201.221
174	0	0.476105	127.24	201.221
175	0	0.487364	127.477	201.221

176	0	0.498687	127.726	201.221
177	0	0.510074	127.986	201.221
178	0	0.521527	128.258	201.221
179	0	0.530162	128.539	201.221
180	0	0.541736	128.833	201.221
181	0	0.553384	129.139	201.221
182	0	0.565108	129.458	201.221
183	0	0.576911	129.791	201.221
184	0	0.588793	130.138	201.221
185	0	0.60076	130.499	201.221
186	0	0.612813	130.874	201.221
187	0	0.624956	131.265	201.221
188	0	0.637192	131.671	201.221
189	0	0.649522	132.093	201.221
190	0	0.661955	132.531	201.221
191	0	0.67449	132.986	201.221
192	0	0.68396	133.454	201.221
193	0	0.696684	133.939	201.221
194	0	0.709522	134.442	201.221
195	0	0.722479	134.964	201.221
196	0	0.735557	135.505	201.221
197	0	0.748762	136.066	201.221
198	0	0.7621	136.647	201.221
199	0	0.775574	137.248	201.221
200	0	0.789191	137.871	201.221
201	0	0.802956	138.516	201.221
202	0	0.816874	139.183	201.221
203	0	0.830953	139.874	201.221
204	0	0.841621	140.582	201.221
205	0	0.855996	141.315	201.221
206	0	0.87055	142.073	201.221
207	0	0.885291	142.856	201.221
208	0	0.900227	143.667	201.221
209	0	0.915365	144.505	201.221
210	0	0.930718	145.371	201.221
211	0	0.946291	146.266	201.221
212	0	0.9621	147.192	201.221
213	0	0.97815	148.149	201.221
214	0	0.994457	149.138	201.221
215	0	1.01104	150.16	201.221
216	0	1.02789	151.217	201.221
217	0	1.04073	152.3	201.221
218	0	1.05812	153.419	201.221
219	0	1.07584	154.577	201.221
220	0	1.0939	155.773	201.221
221	0	1.11232	157.011	201.221
222	0	1.13113	158.29	201.221
223	0	1.15035	159.613	201.221
224	0	1.17	160.982	201.221
225	0	1.19012	162.399	201.221
226	0	1.21073	163.864	201.221
227	0	1.23187	165.382	201.221
228	0	1.25357	166.953	201.221
229	0	1.27588	168.581	201.221
230	0.182322	1.29303	170.253	201.457
231	0.470004	1.31652	171.986	202.075
232	0.693147	1.34075	173.784	203.005
233	0.693147	1.36581	175.649	203.951
234	0.741937	1.39175	177.586	204.984
235	0.779325	1.41865	179.599	206.089
236	0.832909	1.44663	181.692	207.294
237	0.875469	1.47579	183.87	208.586

238	0.970779		1.50626	186.139	210.049
239	0.989541		1.5382	188.505	211.571
240	0.993252		1.57179	190.975	213.132
241	1.16315	1.60725	193.558	215.001	
242	1.38629	1.64485	196.264	217.282	
243	1.4816	1.67466	199.068	219.763	
244	1.67523	1.71688	202.016	222.639	
245	1.79176	1.76241	205.122	225.797	
246	2.07944	1.81191	208.405	229.565	
247	3.41444	1.86629	211.888	235.937	
248	3.43399	1.92684	215.601	242.554	
249	3.47197	1.99539	219.583	249.482	
250	3.52636	2.07485	223.888	256.798	
251	3.89182	2.17009	228.597	265.244	
252	4.07754	2.29036	233.843	274.583	
253	4.47734	2.45727	239.881	285.585	
254	4.59512	2.74777	247.431	298.211	

Data Set Standard Deviation = 1.33152
Numerator = 88930
Denominator = 110986
W Statistic = 0.801274 = 88930 / 110986

5% Critical value of 0.976 exceeds 0.801274
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.801274
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 = 0.895813
0.895813 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.00392157	-2.74777	66.4009	348.683
2	-2.59027	0.00784314	-2.45727	66.4009	334.497
3	-2.59027	0.0117647	-2.29036	66.4009	326.346
4	-2.59027	0.0156863	-2.17009	66.4009	320.473
5	-2.59027	0.0196078	-2.07485	66.4009	315.822
6	-2.59027	0.0235294	-1.99539	66.4009	311.942
7	-2.59027	0.027451	-1.92684	66.4009	308.594
8	-2.59027	0.0313725	-1.86629	66.4009	305.637
9	-2.59027	0.0352941	-1.81191	66.4009	302.982
10	-2.59027	0.0392157	-1.76241	66.4009	300.564
11	-2.59027	0.0431373	-1.71688	66.4009	298.341
12	-2.59027	0.0470588	-1.67466	66.4009	296.279
13	-2.59027	0.0509804	-1.64485	66.4009	294.824
14	-2.59027	0.054902	-1.60725	66.4009	292.987
15	-2.59027	0.0588235	-1.57179	66.4009	291.256
16	-2.59027	0.0627451	-1.5382	66.4009	289.615
17	-2.59027	0.0666667	-1.50626	66.4009	288.056
18	-2.59027	0.0705882	-1.47579	66.4009	286.568
19	-2.59027	0.0745098	-1.44663	66.4009	285.144
20	-2.59027	0.0784314	-1.41865	66.4009	283.778
21	-2.59027	0.0823529	-1.39175	66.4009	282.464
22	-2.59027	0.0862745	-1.36581	66.4009	281.197
23	-2.59027	0.0901961	-1.34075	66.4009	279.974
24	-2.59027	0.0941176	-1.31652	66.4009	278.79
25	-2.59027	0.0980392	-1.29303	66.4009	277.643
26	-2.59027	0.101961	-1.27588	66.4009	276.805
27	-2.59027	0.105882	-1.25357	66.4009	275.716
28	-2.59027	0.109804	-1.23187	66.4009	274.656
29	-2.59027	0.113725	-1.21073	66.4009	273.624
30	-2.59027	0.117647	-1.19012	66.4009	272.617
31	-2.59027	0.121569	-1.17	66.4009	271.635
32	-2.59027	0.12549	-1.15035	66.4009	270.675
33	-2.59027	0.129412	-1.13113	66.4009	269.737
34	-2.59027	0.133333	-1.11232	66.4009	268.818
35	-2.59027	0.137255	-1.0939	66.4009	267.919
36	-2.59027	0.141176	-1.07584	66.4009	267.037
37	-2.59027	0.145098	-1.05812	66.4009	266.172
38	-2.59027	0.14902	-1.04073	66.4009	265.322
39	-2.59027	0.152941	-1.02789	66.4009	264.695
40	-2.59027	0.156863	-1.01104	66.4009	263.872
41	-2.59027	0.160784	-0.994457	66.4009	263.063
42	-2.59027	0.164706	-0.97815	66.4009	262.266
43	-2.59027	0.168627	-0.9621	66.4009	261.483
44	-2.59027	0.172549	-0.946291	66.4009	260.711
45	-2.59027	0.176471	-0.930718	66.4009	259.95
46	-2.59027	0.180392	-0.915365	66.4009	259.2
47	-1.83258	0.184314	-0.900227	117.071	258.461
48	-1.56065	0.188235	-0.885291	135.257	257.732

49	-1.56065	0.192157	-0.87055	135.257	257.012	
50	-1.56065	0.196078	-0.855996	135.257	256.301	
51	-1.46968	0.2	-0.841621	141.34	255.599	
52	-1.42712	0.203922	-0.830953	144.187	255.078	
53	-1.27297	0.207843	-0.816874	154.495	254.391	
54	-1.27297	0.211765	-0.802956	154.495	253.711	
55	-1.23787	0.215686	-0.789191	156.842	253.039	
56	-1.23787	0.219608	-0.775574	156.842	252.374	
57	-1.20397	0.223529	-0.7621	159.109	251.716	
58	-1.20397	0.227451	-0.748762	159.109	251.065	
59	-1.17118	0.231373	-0.735557	161.302	250.42	
60	-1.13943	0.235294	-0.722479	163.425	249.781	
61	-1.13943	0.239216	-0.709522	163.425	249.148	
62	-1.10866	0.243137	-0.696684	165.483	248.521	
63	-1.10866	0.247059	-0.68396	165.483	247.9	
64	-1.10866	0.25098	-0.67449	165.483	247.438	
65	-1.10866	0.254902	-0.661955	165.483	246.825	
66	-1.10866	0.258824	-0.649522	165.483	246.218	
67	-1.07881	0.262745	-0.637192	167.48	245.616	
68	-1.07881	0.266667	-0.624956	167.48	245.019	
69	-1.04982	0.270588	-0.612813	169.418	244.426	
70	-1.02165	0.27451	-0.60076	171.302	243.837	
71	-0.967584	0.278431	-0.588793	174.918	243.253	
72	-0.941609	0.282353	-0.576911	176.655	242.672	
73	-0.916291	0.286275	-0.565108	178.348	242.096	
74	-0.891598	0.290196	-0.553384	179.999	241.524	
75	-0.891598	0.294118	-0.541736	179.999	240.955	
76	-0.867501	0.298039	-0.530162	181.611	240.39	
77	-0.84397	0.301961	-0.521527	183.185	239.968	
78	-0.776529	0.305882	-0.510074	187.695	239.409	
79	-0.71335	0.309804	-0.498687	191.92	238.853	
80	-0.673345	0.313725	-0.487364	194.595	238.3	
81	-0.634878	0.317647	-0.476105	197.168	237.75	
82	-0.616186	0.321569	-0.464904	198.418	237.203	
83	-0.597837	0.32549	-0.453763	199.645	236.659	
84	-0.544727	0.329412	-0.442676	203.196	236.117	
85	-0.430783	0.333333	-0.431644	210.816	235.579	
86	-0.400478	0.337255	-0.420664	212.843	235.042	
87	-0.385662	0.341176	-0.409735	213.834	234.509	
88	-0.34249	0.345098	-0.398855	216.721	233.977	
89	-0.34249	0.34902	-0.388022	216.721	233.448	
90	-0.287682	0.352941	-0.379927	220.386	233.053	
91	-0.223144	0.356863	-0.369171	224.702	232.528	
92	-0.223144	0.360784	-0.358459	224.702	232.005	
93	-0.223144	0.364706	-0.347787	224.702	231.484	
94	-0.174353	0.368627	-0.337155	227.965	230.964	
95	-0.150823	0.372549	-0.326561	229.539	230.447	
96	-0.105361	0.376471	-0.316004	232.579	229.932	
97	-0.105361	0.380392	-0.305481	232.579	229.418	
98	-0.040822	0.384314	-0.294992	236.895	228.905	
99	0	0.388235	-0.284535	239.625	228.395	
100	0	0.392157	-0.27411	239.625	227.886	
101	0	0.396078	-0.263715	239.625	227.378	
102	0	0.4	-0.253347	239.625	226.872	
103	0	0.403922	-0.24559	239.625	226.493	
104	0	0.407843	-0.235269	239.625	225.989	
105	0	0.411765	-0.224974	239.625	225.486	
106	0	0.415686	-0.214702	239.625	224.985	
107	0	0.419608	-0.204452	239.625	224.484	
108	0	0.423529	-0.194225	239.625	223.985	
109	0	0.427451	-0.184017	239.625	223.486	
110	0	0.431373	-0.173829	239.625	222.989	

111	0	0.435294	-0.163659	239.625	222.492
112	0	0.439216	-0.153505	239.625	221.996
113	0	0.443137	-0.143367	239.625	221.501
114	0	0.447059	-0.133244	239.625	221.007
115	0	0.45098	-0.125661	239.625	220.636
116	0	0.454902	-0.115562	239.625	220.143
117	0	0.458824	-0.105474	239.625	219.651
118	0	0.462745	-0.0953969	239.625	219.159
119	0	0.466667	-0.0853288	239.625	218.667
120	0	0.470588	-0.0752698	239.625	218.176
121	0	0.47451	-0.0652187	239.625	217.685
122	0	0.478431	-0.0551734	239.625	217.194
123	0	0.482353	-0.0451348	239.625	216.704
124	0	0.486275	-0.0350997	239.625	216.214
125	0	0.490196	-0.0250691	239.625	215.724
126	0	0.494118	-0.0150408	239.625	215.234
127	0	0.498039	-0.00501359	239.625	214.745
128	0	0.501961	0.00501359	239.625	214.255
129	0	0.505882	0.0150408	239.625	213.766
130	0	0.509804	0.0250691	239.625	213.276
131	0	0.513725	0.0350997	239.625	212.786
132	0	0.517647	0.0451348	239.625	212.296
133	0	0.521569	0.0551734	239.625	211.806
134	0	0.52549	0.0652187	239.625	211.315
135	0	0.529412	0.0752698	239.625	210.824
136	0	0.533333	0.0853288	239.625	210.333
137	0	0.537255	0.0953969	239.625	209.841
138	0	0.541176	0.105474	239.625	209.349
139	0	0.545098	0.115562	239.625	208.857
140	0	0.54902	0.125661	239.625	208.364
141	0	0.552941	0.133244	239.625	207.993
142	0	0.556863	0.143367	239.625	207.499
143	0	0.560784	0.153505	239.625	207.004
144	0	0.564706	0.163659	239.625	206.508
145	0	0.568627	0.173829	239.625	206.011
146	0	0.572549	0.184017	239.625	205.514
147	0	0.576471	0.194225	239.625	205.015
148	0	0.580392	0.204452	239.625	204.516
149	0	0.584314	0.214702	239.625	204.015
150	0	0.588235	0.224974	239.625	203.514
151	0	0.592157	0.235269	239.625	203.011
152	0	0.596078	0.24559	239.625	202.507
153	0	0.6	0.253347	239.625	202.128
154	0	0.603922	0.263715	239.625	201.622
155	0	0.607843	0.27411	239.625	201.114
156	0	0.611765	0.284535	239.625	200.605
157	0	0.615686	0.294992	239.625	200.095
158	0	0.619608	0.305481	239.625	199.582
159	0	0.623529	0.316004	239.625	199.068
160	0	0.627451	0.326561	239.625	198.553
161	0	0.631373	0.337155	239.625	198.036
162	0	0.635294	0.347787	239.625	197.516
163	0	0.639216	0.358459	239.625	196.995
164	0	0.643137	0.369171	239.625	196.472
165	0	0.647059	0.379927	239.625	195.947
166	0	0.65098	0.388022	239.625	195.552
167	0	0.654902	0.398855	239.625	195.023
168	0	0.658824	0.409735	239.625	194.491
169	0	0.662745	0.420664	239.625	193.958
170	0	0.666667	0.431644	239.625	193.421
171	0	0.670588	0.442676	239.625	192.883
172	0	0.67451	0.453763	239.625	192.341

173	0	0.678431	0.464904	239.625	191.797
174	0	0.682353	0.476105	239.625	191.25
175	0	0.686275	0.487364	239.625	190.7
176	0	0.690196	0.498687	239.625	190.147
177	0	0.694118	0.510074	239.625	189.591
178	0	0.698039	0.521527	239.625	189.032
179	0	0.701961	0.530162	239.625	188.61
180	0	0.705882	0.541736	239.625	188.045
181	0	0.709804	0.553384	239.625	187.476
182	0	0.713725	0.565108	239.625	186.904
183	0	0.717647	0.576911	239.625	186.328
184	0	0.721569	0.588793	239.625	185.747
185	0	0.72549	0.60076	239.625	185.163
186	0	0.729412	0.612813	239.625	184.574
187	0	0.733333	0.624956	239.625	183.981
188	0	0.737255	0.637192	239.625	183.384
189	0	0.741176	0.649522	239.625	182.782
190	0	0.745098	0.661955	239.625	182.175
191	0	0.74902	0.67449	239.625	181.562
192	0	0.752941	0.68396	239.625	181.1
193	0	0.756863	0.696684	239.625	180.479
194	0	0.760784	0.709522	239.625	179.852
195	0	0.764706	0.722479	239.625	179.219
196	0	0.768627	0.735557	239.625	178.58
197	0	0.772549	0.748762	239.625	177.935
198	0	0.776471	0.7621	239.625	177.284
199	0	0.780392	0.775574	239.625	176.626
200	0	0.784314	0.789191	239.625	175.961
201	0	0.788235	0.802956	239.625	175.289
202	0	0.792157	0.816874	239.625	174.609
203	0	0.796078	0.830953	239.625	173.922
204	0	0.8	0.841621	239.625	173.401
205	0	0.803922	0.855996	239.625	172.699
206	0	0.807843	0.87055	239.625	171.988
207	0	0.811765	0.885291	239.625	171.268
208	0	0.815686	0.900227	239.625	170.539
209	0	0.819608	0.915365	239.625	169.8
210	0	0.823529	0.930718	239.625	169.05
211	0	0.827451	0.946291	239.625	168.289
212	0	0.831373	0.9621	239.625	167.517
213	0	0.835294	0.97815	239.625	166.734
214	0	0.839216	0.994457	239.625	165.937
215	0	0.843137	1.01104	239.625	165.128
216	0	0.847059	1.02789	239.625	164.305
217	0	0.85098	1.04073	239.625	163.678
218	0	0.854902	1.05812	239.625	162.828
219	0	0.858824	1.07584	239.625	161.963
220	0	0.862745	1.0939	239.625	161.081
221	0	0.866667	1.11232	239.625	160.182
222	0	0.870588	1.13113	239.625	159.263
223	0	0.87451	1.15035	239.625	158.325
224	0	0.878431	1.17	239.625	157.365
225	0	0.882353	1.19012	239.625	156.383
226	0	0.886275	1.21073	239.625	155.376
227	0	0.890196	1.23187	239.625	154.344
228	0	0.894118	1.25357	239.625	153.284
229	0	0.898039	1.27588	239.625	152.195
230	0.182322	0.901961	1.29303	251.818	151.357
231	0.470004	0.905882	1.31652	271.056	150.21
232	0.693147	0.909804	1.34075	285.979	149.026
233	0.693147	0.913725	1.36581	285.979	147.803
234	0.741937	0.917647	1.39175	289.242	146.536

235	0.779325	0.921569	1.41865	291.742	145.222	
236	0.832909	0.92549	1.44663	295.326	143.856	
237	0.875469	0.929412	1.47579	298.172	142.432	
238	0.970779	0.933333	1.50626	304.546	140.944	
239	0.989541	0.937255	1.5382	305.801	139.385	
240	0.993252	0.941176	1.57179	306.049	137.744	
241	1.16315	0.945098	1.60725	317.411	136.013	
242	1.38629	0.94902	1.64485	332.333	134.176	
243	1.4816	0.952941	1.67466	338.707	132.721	
244	1.67523	0.956863	1.71688	351.656	130.659	
245	1.79176	0.960784	1.76241	359.449	128.436	
246	2.07944	0.964706	1.81191	378.688	126.018	
247	3.41444	0.968627	1.86629	467.966	123.363	
248	3.43399	0.972549	1.92684	469.273	120.406	
249	3.47197	0.976471	1.99539	471.813	117.058	
250	3.52636	0.980392	2.07485	475.45	113.178	
251	3.89182	0.984314	2.17009	499.89	108.527	
252	4.07754	0.988235	2.29036	512.31	102.654	
253	4.47734	0.992157	2.45727	539.047	94.5032	
254	4.59512	0.996078	2.74777	546.924	80.3175	

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	89
	9/23/1999	ND<0	89
	3/15/2000	ND<0	89
	9/24/2003	ND<0	89
	3/11/2004	ND<0	89
	10/12/2004	ND<0	89
	4/1/2005	ND<0	89
	10/25/2005	ND<0	89
	4/29/2006	ND<0	89
	11/18/2006	ND<0	89
	5/23/2007	ND<0	89
	11/28/2007	ND<0	89
	6/5/2008	ND<0	89
	11/20/2008	ND<0	89
	6/11/2009	ND<-2.59027	89
	11/16/2009	ND<-2.59027	89
	6/30/2010	ND<-2.59027	89
	11/12/2010	ND<-2.59027 U	89
	7/5/2011	ND<-2.59027 U	89

Rank Sum = 1691
Rank Mean = 89

Background Rank Sum = 1691
Background Rank Mean = 89

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	-0.34249 J	219
	8/24/1995	0.470004	231
	9/28/1995	ND<0	89
	10/26/1995	0.693147	232
	11/19/1996	ND<0	89
	12/19/1996	ND<0	89
	3/24/1997	ND<0	89
	9/24/1997	ND<0	89
	4/7/1998	ND<0	89
	9/23/1998	ND<0	89
	3/16/1999	ND<0	89
	9/23/1999	ND<0	89
	3/15/2000	ND<0	89
	9/24/2003	ND<0	89
	3/11/2004	ND<0	89
	10/12/2004	ND<0	89
	4/1/2005	-0.287682 J	221
	10/25/2005	-0.34249 J	220
	4/29/2006	-0.040822 J	229
	11/18/2006	-0.597837 J	214
	5/23/2007	ND<0	89

	11/28/2007	-1.17118	J	190
	6/5/2008	-1.02165	J	201
	11/20/2008	ND<0		89
	6/11/2009	ND<-2.59027		89
	11/16/2009	-1.23787	J	186
	6/30/2010	ND<-2.59027		89
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	6/5/2012	ND<-2.59027	U	89

Rank Sum = 4101
Rank Mean = 128.156

MW-7	7/20/1995	-0.150823	J	226
	8/24/1995	-0.400478	J	217
	9/28/1995	-0.223144	J	222
	10/26/1995	-0.105361	J	227
	11/19/1996	ND<0		89
	12/19/1996	ND<0		89
	3/24/1997	ND<0		89
	9/24/1997	ND<0		89
	4/7/1998	ND<0		89
	9/23/1998	ND<0		89
	3/16/1999	ND<0		89
	9/23/1999	ND<0		89
	3/15/2000	ND<0		89
	9/24/2003	ND<0		89
	3/11/2004	ND<0		89
	10/12/2004	ND<0		89
	4/1/2005	ND<0		89
	10/25/2005	ND<0		89
	4/29/2006	ND<0		89
	11/18/2006	ND<0		89
	5/23/2007	ND<0		89
	11/28/2007	ND<0		89
	6/5/2008	ND<0		89
	11/20/2008	ND<0		89
	6/11/2009	ND<-2.59027		89
	11/16/2009	ND<-2.59027		89
	6/30/2010	ND<-2.59027		89
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	6/5/2012	ND<-2.59027	U	89

Rank Sum = 3384
Rank Mean = 105.75

MW-11R	7/20/1995	0.741937		234
	8/24/1995	1.4816		243
	9/28/1995	0.693147		233
	10/26/1995	1.38629		242
	11/19/1996	ND<0		89
	12/19/1996	ND<0		89
	3/24/1997	ND<0		89
	9/24/1997	ND<0		89
	4/7/1998	ND<0		89
	9/23/1998	ND<0		89
	3/16/1999	0.993252		240
	9/23/1999	ND<0		89
	3/15/2000	ND<0		89

	9/24/2003	ND<0	89	
	3/11/2004	ND<0	89	
	10/12/2004	ND<0	89	
	4/1/2005	0.970779	238	
	10/25/2005	-0.776529	J	209
	4/29/2006	ND<0	89	
	11/18/2006	-0.71335	J	210
	5/23/2007	ND<0	89	
	11/28/2007	-0.967584	J	202
	6/5/2008	ND<0	89	
	11/20/2008	-0.916291	J	204
	6/11/2009	0.832909		236
	11/16/2009	-1.20397	J	188
	6/30/2010	0.182322		230
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	-1.56065	J	179
	11/22/2011	-1.56065	J	180
	6/5/2012	-1.10866	J	193

Rank Sum = 4885
Rank Mean = 152.656

MW-6	7/20/1995	ND<0	89	
	8/24/1995	ND<0	89	
	9/28/1995	ND<0	89	
	10/26/1995	ND<0	89	
	11/19/1996	ND<0	89	
	12/19/1996	ND<0	89	
	3/24/1997	ND<0	89	
	9/24/1997	ND<0	89	
	4/7/1998	ND<0	89	
	9/23/1998	ND<0	89	
	3/16/1999	ND<0	89	
	9/23/1999	ND<0	89	
	3/15/2000	ND<0	89	
	9/24/2003	ND<0	89	
	3/11/2004	ND<0	89	
	10/12/2004	ND<0	89	
	4/1/2005	ND<0	89	
	10/25/2005	ND<0	89	
	4/29/2006	ND<0	89	
	11/18/2006	ND<0	89	
	5/23/2007	ND<0	89	
	11/28/2007	ND<0	89	
	6/5/2008	ND<0	89	
	11/20/2008	ND<0	89	
	6/11/2009	ND<-2.59027		89
	11/16/2009	ND<-2.59027		89
	6/30/2010	ND<-2.59027		89
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	6/5/2012	ND<-2.59027	U	89

Rank Sum = 2848
Rank Mean = 89

MW-9	7/20/1995	-0.84397	J	208
	8/24/1995	-0.673345	J	211
	9/28/1995	-0.223144	J	223
	10/26/1995	-0.105361	J	228
	11/19/1996	ND<0	89	

	12/19/1996	ND<0		89
	3/24/1997	ND<0		89
	9/24/1997	ND<0		89
	4/7/1998	ND<0		89
	9/23/1998	ND<0		89
	3/16/1999	ND<0		89
	9/23/1999	ND<0		89
	3/15/2000	ND<0		89
	9/24/2003	ND<0		89
	3/11/2004	ND<0		89
	10/12/2004	ND<0		89
	4/1/2005	-1.13943	J	191
	10/25/2005	ND<0		89
	4/29/2006	-1.23787	J	187
	11/18/2006	-1.56065	J	181
	5/23/2007	ND<0		89
	11/28/2007	-1.27297	J	184
	6/5/2008	-0.891598	J	205
	11/20/2008	-0.891598	J	206
	6/11/2009	-0.941609	J	203
	11/16/2009	-0.544727	J	215
	6/30/2010	-0.385662	J	218
	11/12/2010	-0.634878	J	212
	7/5/2011	-1.27297	J	185
	11/22/2011	-1.10866	J	194
	11/22/2011	-1.10866	J	195
	6/5/2012	-1.46968	J	182

Rank Sum = 4874
Rank Mean = 152.313

MW-8	7/20/1995	1.16315		241
	8/24/1995	4.59512		254
	9/28/1995	4.47734		253
	10/26/1995	2.07944		246
	11/19/1996	ND<0		89
	12/19/1996	4.07754		252
	3/24/1997	3.89182		251
	9/24/1997	3.52636		250
	4/7/1998	ND<0		89
	9/23/1998	3.43399		248
	3/16/1999	3.41444		247
	9/23/1999	3.47197		249
	3/15/2000	ND<0		89
	9/24/2003	ND<0		89
	3/11/2004	1.79176		245
	10/12/2004	ND<0		89
	4/1/2005	1.67523		244
	10/25/2005	0.779325		235
	4/29/2006	0.875469		237
	11/18/2006	0.989541		239
	5/23/2007	ND<0		89
	11/28/2007	-0.616186	J	213
	6/5/2008	-0.174353	J	225
	11/20/2008	-0.430783	J	216
	6/11/2009	-0.223144	J	224
	6/30/2010	-1.42712	J	183
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	-1.07881	J	198
	11/22/2011	-1.07881	J	199
	6/5/2012	-1.10866	J	196

Rank Sum = 6057

Rank Mean = 195.387

MW-12BR	3/16/1999	ND<0		89
	9/23/1999	ND<0		89
	3/15/2000	ND<0		89
	9/24/2003	ND<0		89
	3/11/2004	ND<0		89
	10/12/2004	ND<0		89
	4/1/2005	-0.867501	J	207
	10/25/2005	ND<0		89
	4/29/2006	ND<0		89
	11/18/2006	ND<0		89
	5/23/2007	ND<0		89
	11/28/2007	ND<0		89
	6/5/2008	ND<0		89
	11/20/2008	ND<0		89
	6/11/2009	ND<-2.59027		89
	11/16/2009	ND<-2.59027		89
	6/30/2010	ND<-2.59027		89
	11/12/2010	ND<-2.59027	U	89
	7/5/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	6/5/2012	ND<-2.59027	U	89

Rank Sum = 2076
Rank Mean = 94.3636

MW-12AR	3/16/1999	ND<0		89
	9/23/1999	ND<0		89
	3/15/2000	ND<0		89
	9/24/2003	ND<0		89
	3/11/2004	ND<0		89
	10/12/2004	ND<0		89
	4/1/2005	ND<0		89
	10/25/2005	-1.13943	J	192
	4/29/2006	-1.04982	J	200
	11/18/2006	ND<0		89
	5/23/2007	ND<0		89
	11/28/2007	ND<0		89
	6/5/2008	-1.20397	J	189
	11/20/2008	ND<0		89
	6/11/2009	ND<-2.59027		89
	11/16/2009	ND<-2.59027		89
	6/30/2010	ND<-2.59027		89
	11/12/2010	-1.83258	J	178
	7/5/2011	-1.10866	J	197
	11/22/2011	ND<-2.59027	U	89
	11/22/2011	ND<-2.59027	U	89
	6/5/2012	ND<-2.59027	U	89

Rank Sum = 2469
Rank Mean = 112.227

Calculation Results:

Kruskal-Wallis H Statistic = 56.1102
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 84.808
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
56.1102 > 15.5073 indicating a significant group difference at 5% significance level
84.808 > 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

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	128.156	39.1563	49.4998
MW-7	105.75	16.75	49.4998
MW-11R	152.656	63.6563	49.4998
MW-6	89	0	49.4998
MW-9	152.313	63.3125	49.4998
MW-8	195.387	106.387	49.7963
MW-12BR	94.3636	5.36364	53.5271
MW-12AR	112.227	23.2273	53.5271

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

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	128.156	39.1563	53.453
MW-7	105.75	16.75	53.453
MW-11R	152.656	63.6563	53.453
MW-6	89	0	53.453
MW-9	152.313	63.3125	53.453
MW-8	195.387	106.387	53.7733
MW-12BR	94.3636	5.36364	57.802
MW-12AR	112.227	23.2273	57.802

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		-2.22761
11/18/2006	-0.713350		-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		-2.99161
11/16/2009	-1.203970		-2.99161
6/30/2010	0.182322	0	-0.832861
6/30/2010	0.182322	0	-0.832861
11/12/2010	-2.590270		-5.15036
11/12/2010	-2.590270		-5.15036
7/5/2011	-2.590270		-5.15036

7/5/2011	-2.590270	-5.15036	
11/22/2011	-1.560650	-5.01625	
11/22/2011	-1.560650	-5.01625	
6/5/2012	-1.108660	-2.84319	
6/5/2012	-1.108660	-2.84319	

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	-1.139430	-2.29165	
4/1/2005	-1.139430	-2.29165	
10/25/2005	0	0	0.847557
10/25/2005	0	0	0.847557
4/29/2006	-1.237870	-2.56286	
4/29/2006	-1.237870	-2.56286	
11/18/2006	-1.560650	-3.45212	
11/18/2006	-1.560650	-3.45212	
5/23/2007	0	0	0.847557
5/23/2007	0	0	0.847557
11/28/2007	-1.272970	-2.65954	
11/28/2007	-1.272970	-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	-1.272970	-2.65954	

7/5/2011	-1.272970	-2.65954
11/22/2011	-1.108660	-3.12099
11/22/2011	-1.108660	-3.12099
6/5/2012	-1.469680	-3.20149
6/5/2012	-1.469680	-3.20149

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	-1.427120	-2.1519	
6/30/2010	-1.427120	-2.1519	
11/12/2010	-2.590270	-2.75369	
11/12/2010	-2.590270	-2.75369	
7/5/2011	-2.590270	-2.75369	
7/5/2011	-2.590270	-2.75369	
11/22/2011	-1.078810	-2.78839	

11/22/2011	-1.078810	-2.78839
6/5/2012	-1.108660	-1.98713
6/5/2012	-1.108660	-1.98713

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
-1.10866 J (6/5/2012)	0.741937 (7/20/1995)	(-1.10866 - 0.741937)/(31 - 1)	-0.0616867
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)
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-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
-1.10866 J (6/5/2012) 1.4816 (8/24/1995) (-1.10866 - 1.4816)/(31 - 2)
-0.0893196

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)
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ND<0 (3/15/2000) 0.693147 (9/28/1995) (0 - 0.693147)/(13 - 3)
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ND<0 (3/11/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(15 - 3)
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ND<0 (10/12/2004) 0.693147 (9/28/1995) (0 - 0.693147)/(16 - 3)
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0.970779 (4/1/2005) 0.693147 (9/28/1995) (0.970779 - 0.693147)/(17 - 3)
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-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)
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-1.20397 J (11/16/2009) 0.693147 (9/28/1995) (-1.20397 - 0.693147)/(26 - 3)
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0.182322 (6/30/2010) 0.693147 (9/28/1995) (0.182322 - 0.693147)/(27 - 3)
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ND<-2.59027 U (11/12/2010) 0.693147 (9/28/1995) (-2.59027 - 0.693147)/(28 - 3)
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ND<-2.59027 U (7/5/2011) 0.693147 (9/28/1995) (-2.59027 - 0.693147)/(29 - 3)
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-0.0834739
-1.56065 J (11/22/2011) 0.693147 (9/28/1995) (-1.56065 - 0.693147)/(30 - 3)
-0.0834739
-1.10866 J (6/5/2012) 0.693147 (9/28/1995) (-1.10866 - 0.693147)/(31 - 3)
-0.0643504

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)
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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)
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0.970779 (4/1/2005) 1.38629 (10/26/1995) (0.970779 - 1.38629)/(17 - 4)
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ND<0 (4/29/2006) 1.38629 (10/26/1995) (0 - 1.38629)/(19 - 4)
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-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)
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-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)
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0.832909 (6/11/2009) 1.38629 (10/26/1995) (0.832909 - 1.38629)/(25 - 4)
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-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)
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-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

-1.10866 J (6/5/2012) 1.38629 (10/26/1995) (-1.10866 - 1.38629)/(31 - 4)
-0.0924058

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)
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-0.776529 J (10/25/2005) ND<0 (11/19/1996) (-0.776529 - 0)/(18 - 5)
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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
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ND<0 (6/5/2008) ND<0 (11/19/1996) (0 - 0)/(23 - 5) 0
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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
-1.10866 J (6/5/2012) ND<0 (11/19/1996) (-1.10866 - 0)/(31 - 5)
-0.0426409

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			
-1.10866 J (6/5/2012)	ND<0 (12/19/1996)	(-1.10866 - 0)/(31 - 6)	
-0.0443465			
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			
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-0.0678542			
-1.10866 J (6/5/2012)	ND<0 (3/24/1997)	(-1.10866 - 0)/(31 - 7)	
-0.0461943			

ND<0 (4/7/1998) ND<0 (9/24/1997) (0 - 0)/(9 - 8) 0
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ND<0 (4/29/2006) -0.776529 J (10/25/2005) (0 - -0.776529)/(19 - 18)
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-0.71335 J (11/18/2006) -0.776529 J (10/25/2005) (-0.71335 - -0.776529)/(20 - 18)
0.0315895
ND<0 (5/23/2007) -0.776529 J (10/25/2005) (0 - -0.776529)/(21 - 18)
0.258843
-0.967584 J (11/28/2007) -0.776529 J (10/25/2005) (-0.967584 - -0.776529)/(22 - 18)
-0.0477638
ND<0 (6/5/2008) -0.776529 J (10/25/2005) (0 - -0.776529)/(23 - 18)
0.155306
-0.916291 J (11/20/2008) -0.776529 J (10/25/2005) (-0.916291 - -0.776529)/(24 - 18)
-0.0232937
0.832909 (6/11/2009) -0.776529 J (10/25/2005) (0.832909 - -0.776529)/(25 - 18)
0.22992
-1.20397 J (11/16/2009) -0.776529 J (10/25/2005) (-1.20397 - -0.776529)/(26 - 18)
-0.0534305
0.182322 (6/30/2010) -0.776529 J (10/25/2005) (0.182322 - -0.776529)/(27 - 18)
0.106539
ND<-2.59027 U (11/12/2010) -0.776529 J (10/25/2005) (-2.59027 - -0.776529)/(28 - 18)
-0.181374
ND<-2.59027 U (7/5/2011) -0.776529 J (10/25/2005) (-2.59027 - -0.776529)/(29 - 18)
-0.164885
-1.56065 J (11/22/2011) -0.776529 J (10/25/2005) (-1.56065 - -0.776529)/(30 - 18)
-0.0653432
-1.56065 J (11/22/2011) -0.776529 J (10/25/2005) (-1.56065 - -0.776529)/(30 - 18)
-0.0653432

-1.10866 J (6/5/2012) -0.776529 J (10/25/2005) (-1.10866 - -0.776529)/(31 - 18)
-0.0255488

-0.71335 J (11/18/2006) ND<0 (4/29/2006) (-0.71335 - 0)/(20 - 19) -0.71335
ND<0 (5/23/2007) ND<0 (4/29/2006) (0 - 0)/(21 - 19) 0
-0.967584 J (11/28/2007) ND<0 (4/29/2006) (-0.967584 - 0)/(22 - 19)
-0.322528
ND<0 (6/5/2008) ND<0 (4/29/2006) (0 - 0)/(23 - 19) 0
-0.916291 J (11/20/2008) ND<0 (4/29/2006) (-0.916291 - 0)/(24 - 19)
-0.183258
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
-1.10866 J (6/5/2012) ND<0 (4/29/2006) (-1.10866 - 0)/(31 - 19)
-0.0923886

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
-1.10866 J (6/5/2012) -0.71335 J (11/18/2006) (-1.10866 - -0.71335)/(31 - 20)
-0.0359375

-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
-1.10866 J (6/5/2012) ND<0 (5/23/2007) (-1.10866 - 0)/(31 - 21)
-0.110866

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
-1.10866 J (6/5/2012) -0.967584 J (11/28/2007) (-1.10866 - -0.967584)/(31 - 22)
-0.0156754

-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
-1.10866 J (6/5/2012) ND<0 (6/5/2008) (-1.10866 - 0)/(31 - 23)
-0.138583

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
-1.10866 J (6/5/2012) -0.916291 J (11/20/2008) (-1.10866 - -0.916291)/(31 - 24)
-0.0274817

-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
-1.10866 J (6/5/2012) 0.832909 (6/11/2009) (-1.10866 - 0.832909)/(31 - 25)
-0.323595

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
-1.10866 J (6/5/2012) -1.20397 J (11/16/2009) (-1.10866 - -1.20397)/(31 - 26)
0.019062

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
-1.10866 J (6/5/2012) 0.182322 (6/30/2010) (-1.10866 - 0.182322)/(31 - 27)
-0.322746

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
-1.10866 J (6/5/2012) ND<-2.59027 U (11/12/2010) (-1.10866 - -2.59027)/(31 - 28)
0.493868

-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
-1.10866 J (6/5/2012) ND<-2.59027 U (7/5/2011) (-1.10866 - -2.59027)/(31 - 29)
0.740802

-1.56065 J (11/22/2011)	-1.56065 J (11/22/2011)	(-1.56065 - -1.56065)/(30 - 30)
Same Date		
-1.10866 J (6/5/2012)	-1.56065 J (11/22/2011)	(-1.10866 - -1.56065)/(31 - 30)
0.451985		
-1.10866 J (6/5/2012)	-1.56065 J (11/22/2011)	(-1.10866 - -1.56065)/(31 - 30)
0.451985		

Number of Q values = 495

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	-0.323595
41	-0.322746
42	-0.322528
43	-0.30543
44	-0.296754
45	-0.296321
46	-0.287807
47	-0.277259
48	-0.270447

49	-0.269581
50	-0.259027
51	-0.258843
52	-0.252826
53	-0.248313
54	-0.246934
55	-0.242695
56	-0.241639
57	-0.240795
58	-0.234615
59	-0.231812
60	-0.231049
61	-0.231049
62	-0.22295
63	-0.22295
64	-0.215856
65	-0.211658
66	-0.210795
67	-0.208546
68	-0.199251
69	-0.199251
70	-0.199084
71	-0.19865
72	-0.194725
73	-0.194725
74	-0.194132
75	-0.189622
76	-0.185484
77	-0.185201
78	-0.185019
79	-0.185019
80	-0.183258
81	-0.181374
82	-0.178337
83	-0.178258
84	-0.173405
85	-0.173405
86	-0.173287
87	-0.173287
88	-0.172684
89	-0.172684
90	-0.171996
91	-0.16569
92	-0.164885
93	-0.161892
94	-0.161892
95	-0.161796
96	-0.161264
97	-0.159062
98	-0.15661
99	-0.155306
100	-0.154487
101	-0.154033
102	-0.152369
103	-0.15081
104	-0.148532
105	-0.148387
106	-0.14816
107	-0.146888
108	-0.146482
109	-0.143904
110	-0.143841

111	-0.14267
112	-0.141877
113	-0.141877
114	-0.141133
115	-0.138629
116	-0.138629
117	-0.138583
118	-0.138226
119	-0.13633
120	-0.13633
121	-0.134691
122	-0.134416
123	-0.134416
124	-0.131337
125	-0.131228
126	-0.130771
127	-0.129513
128	-0.129513
129	-0.129421
130	-0.127117
131	-0.126285
132	-0.126027
133	-0.124156
134	-0.123656
135	-0.123467
136	-0.123415
137	-0.123346
138	-0.123346
139	-0.122459
140	-0.121942
141	-0.120948
142	-0.120397
143	-0.119007
144	-0.118892
145	-0.117739
146	-0.117739
147	-0.117739
148	-0.115525
149	-0.115525
150	-0.115129
151	-0.114536
152	-0.11397
153	-0.113344
154	-0.113344
155	-0.11262
156	-0.11262
157	-0.111899
158	-0.111475
159	-0.111475
160	-0.110866
161	-0.109452
162	-0.108995
163	-0.108652
164	-0.108652
165	-0.107928
166	-0.107509
167	-0.107393
168	-0.107393
169	-0.105991
170	-0.105829
171	-0.105096
172	-0.104043

173	-0.104043
174	-0.101907
175	-0.10181
176	-0.100331
177	-0.0993252
178	-0.099021
179	-0.0979784
180	-0.0975405
181	-0.0975405
182	-0.0970661
183	-0.0967584
184	-0.0927422
185	-0.0926133
186	-0.0924196
187	-0.0924058
188	-0.0923886
189	-0.0918028
190	-0.0918028
191	-0.0916291
192	-0.0893215
193	-0.0893196
194	-0.0891687
195	-0.0891687
196	-0.0891687
197	-0.0874069
198	-0.0871532
199	-0.0867027
200	-0.0867027
201	-0.086281
202	-0.0859981
203	-0.0847298
204	-0.0847298
205	-0.0834739
206	-0.0834739
207	-0.0832992
208	-0.082771
209	-0.0827351
210	-0.0824835
211	-0.0824375
212	-0.0817705
213	-0.0815467
214	-0.0814058
215	-0.080632
216	-0.0793995
217	-0.0793995
218	-0.0788457
219	-0.0780324
220	-0.0780324
221	-0.0779792
222	-0.0778364
223	-0.0776529
224	-0.0770164
225	-0.0766399
226	-0.0765941
227	-0.0763576
228	-0.0752483
229	-0.0744295
230	-0.0743166
231	-0.0743166
232	-0.074133
233	-0.074133
234	-0.0739108

235	-0.0729629
236	-0.0720969
237	-0.071335
238	-0.0709385
239	-0.0709385
240	-0.0708219
241	-0.0705935
242	-0.0705526
243	-0.0693147
244	-0.0692914
245	-0.0691131
246	-0.0678542
247	-0.0678542
248	-0.0674488
249	-0.0668874
250	-0.0654493
251	-0.0653432
252	-0.0653432
253	-0.0652154
254	-0.065027
255	-0.065027
256	-0.06485
257	-0.0647107
258	-0.0645056
259	-0.0643504
260	-0.063367
261	-0.0630134
262	-0.0624259
263	-0.0624259
264	-0.0618281
265	-0.0616867
266	-0.0615924
267	-0.061086
268	-0.060474
269	-0.0601986
270	-0.059733
271	-0.0594458
272	-0.0590972
273	-0.0583507
274	-0.0577623
275	-0.057332
276	-0.0572682
277	-0.0570721
278	-0.0569167
279	-0.0561489
280	-0.0548731
281	-0.0542614
282	-0.0538995
283	-0.0534305
284	-0.053319
285	-0.0529955
286	-0.0527935
287	-0.0523466
288	-0.0519713
289	-0.0509536
290	-0.050905
291	-0.0507352
292	-0.0506831
293	-0.0503938
294	-0.0494625
295	-0.0482258
296	-0.0482027

297	-0.0477638
298	-0.0476551
299	-0.0475567
300	-0.0461943
301	-0.0443465
302	-0.0433217
303	-0.0426409
304	-0.0412187
305	-0.0385082
306	-0.0370969
307	-0.0359375
308	-0.0346574
309	-0.034055
310	-0.0337244
311	-0.0319627
312	-0.0282041
313	-0.0274817
314	-0.0263517
315	-0.0255488
316	-0.0243951
317	-0.0232937
318	-0.0215237
319	-0.0212844
320	-0.0172337
321	-0.0156754
322	-0.011453
323	-0.00374548
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
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
407	0
408	0
409	0
410	0
411	0
412	0
413	0
414	0
415	0
416	0.00379049
417	0.00635282
418	0.00828734
419	0.00868198
420	0.00911608

421	0.00959587
422	0.010129
423	0.0107248
424	0.0121548
425	0.013023
426	0.0140247
427	0.0143026
428	0.0151935
429	0.0165747
430	0.019062
431	0.0198308
432	0.0227902
433	0.0251314
434	0.0256466
435	0.0303869
436	0.0315895
437	0.0375131
438	0.0416455
439	0.0438373
440	0.0455804
441	0.0462727
442	0.0489947
443	0.0520568
444	0.0555273
445	0.0640699
446	0.0694091
447	0.075719
448	0.0808982
449	0.0832909
450	0.0882526
451	0.0925455
452	0.0970779
453	0.106539
454	0.107864
455	0.121347
456	0.127953
457	0.138683
458	0.138818
459	0.155306
460	0.165542
461	0.194156
462	0.19865
463	0.208227
464	0.214786
465	0.22992
466	0.229981
467	0.237783
468	0.242695
469	0.248313
470	0.258843
471	0.309252
472	0.323593
473	0.331084
474	0.366204
475	0.416455
476	0.451985
477	0.451985
478	0.485389
479	0.493868
480	0.496626
481	0.51481
482	0.51481

483	0.600164
484	0.693147
485	0.71335
486	0.739667
487	0.740802
488	0.776529
489	0.967584
490	0.970779
491	0.993252
492	1.02962
493	1.02962
494	1.38629
495	1.7492

Sen's Estimator (Median Q) is -0.0674488

Tied Group	Value	Members
1	0	14
2	-2.590272	
3	-1.560652	

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 6042
B = 18
C = 2184
D = 0
E = 186
F = 2
a = 68448

b = 267840
c = 1984
Group Variance = 3466.19
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.8396
M1 = (495 - 96.8396)/2.0 = 199.08
M2 = (495 + 96.8396)/2.0 + 1 = 296.92
Lower limit is -0.0867027 = Q(199)
Upper limit is -0.0477638 = Q(297)
-0.0477638 < 0 indicating a downward trend in data.

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
-1.46968 J (6/5/2012)	-0.84397 J (7/20/1995)	(-1.46968 - -0.84397)/(31 - 1)	-0.0208569
-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
-1.46968 J (6/5/2012)	-0.673345 J (8/24/1995)	(-1.46968 - -0.673345)/(31 - 2)	-0.0274597
-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		
-1.46968 J (6/5/2012)	-0.223144 J (9/28/1995)	(-1.46968 - -0.223144)/(31 - 3)
-0.044519		
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			
-1.46968 J (6/5/2012)	-0.105361 J (10/26/1995)	(-1.46968 - -0.105361)/(31 - 4)	
-0.0505302			
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			
-1.46968 J (6/5/2012)	ND<0 (11/19/1996)	(-1.46968 - 0)/(31 - 5)	
-0.056526			
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				
-1.46968 J (6/5/2012)	ND<0 (12/19/1996)	(-1.46968 - 0)/(31 - 6)		
-0.058787				
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				
-1.46968 J (6/5/2012)	ND<0	(3/24/1997)	(-1.46968 - 0)/(31 - 7)	
-0.0612365				
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				
-1.46968 J (6/5/2012)	ND<0	(9/24/1997)	(-1.46968 - 0)/(31 - 8)	
-0.063899				
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				
-1.46968 J (6/5/2012)	ND<0 (4/7/1998)	(-1.46968 - 0)/(31 - 9)		
-0.0668035				
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				
-1.46968 J (6/5/2012)	ND<0 (9/23/1998)	(-1.46968 - 0)/(31 - 10)		
-0.0699846				
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				
-1.46968 J (6/5/2012)	ND<0	(3/16/1999)	(-1.46968 - 0)/(31 - 11)	
-0.0734838				
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					
-1.46968 J (6/5/2012)	ND<0	(9/23/1999)	(-1.46968 - 0)/(31 - 12)		
-0.0773514					
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					
-1.46968 J (6/5/2012)	ND<0	(3/15/2000)	(-1.46968 - 0)/(31 - 13)		
-0.0816487					
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					
-1.46968 J (6/5/2012)	ND<0	(9/24/2003)	(-1.46968 - 0)/(31 - 14)		
-0.0864515					
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					
-1.46968 J (6/5/2012)	ND<0	(3/11/2004)	(-1.46968 - 0)/(31 - 15)		
-0.0918547					
-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)	
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-1.46968 J (6/5/2012)	ND<0 (10/12/2004)	(-1.46968 - 0)/(31 - 16)	
-0.0979784			
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			
-1.46968 J (6/5/2012)	-1.13943 J (4/1/2005)	(-1.46968 - -1.13943)/(31 - 17)	
-0.0235887			
-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)	
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-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)	
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-1.46968 J (6/5/2012)	ND<0 (10/25/2005)	(-1.46968 - 0)/(31 - 18)	
-0.113052			

-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)	
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-1.27297 J (11/28/2007)	-1.23787 J (4/29/2006)	(-1.27297 - -1.23787)/(22 - 19)	
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-0.891598 J (6/5/2008)	-1.23787 J (4/29/2006)	(-0.891598 - -1.23787)/(23 - 19)	
0.0865691			
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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)	
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-0.385662 J (6/30/2010)	-1.23787 J (4/29/2006)	(-0.385662 - -1.23787)/(27 - 19)	
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-0.634878 J (11/12/2010)	-1.23787 J (4/29/2006)	(-0.634878 - -1.23787)/(28 - 19)	
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-1.27297 J (7/5/2011)	-1.23787 J (4/29/2006)	(-1.27297 - -1.23787)/(29 - 19)	
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-1.10866 J (11/22/2011)	-1.23787 J (4/29/2006)	(-1.10866 - -1.23787)/(30 - 19)	
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-1.10866 J (11/22/2011)	-1.23787 J (4/29/2006)	(-1.10866 - -1.23787)/(30 - 19)	
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-1.46968 J (6/5/2012)	-1.23787 J (4/29/2006)	(-1.46968 - -1.23787)/(31 - 19)	
-0.0193168			
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)	
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-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)	
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-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)	
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-1.10866 J (11/22/2011)	-1.56065 J (11/18/2006)	(-1.10866 - -1.56065)/(30 - 20)	
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-1.46968 J (6/5/2012)	-1.56065 J (11/18/2006)	(-1.46968 - -1.56065)/(31 - 20)	
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-1.27297 J (11/28/2007)	ND<0 (5/23/2007)	(-1.27297 - 0)/(22 - 21)	-1.27297
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-0.445799			
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-0.941609 J (6/11/2009)	ND<0 (5/23/2007)	(-0.941609 - 0)/(25 - 21)	
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-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
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-1.46968 J (6/5/2012)	ND<0 (5/23/2007)	(-1.46968 - 0)/(31 - 21)	-0.146968
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-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
-1.46968 J (6/5/2012)	-1.27297 J (11/28/2007)	(-1.46968 - -1.27297)/(31 - 22)	-0.0218567
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-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
-1.46968 J (6/5/2012)	-0.891598 J (6/5/2008)	(-1.46968 - -0.891598)/(31 - 23)	-0.0722597
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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
-1.46968 J (6/5/2012)	-0.891598 J (11/20/2008)	(-1.46968 - -0.891598)/(31 - 24)	-0.0825826
-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
-1.46968 J (6/5/2012)	-0.941609 J (6/11/2009)	(-1.46968 - -0.941609)/(31 - 25)	-0.0880112
-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
-1.46968 J (6/5/2012)	-0.544727 J (11/16/2009)	(-1.46968 - -0.544727)/(31 - 26)	-0.18499
-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
-1.46968 J (6/5/2012)	-0.385662 J (6/30/2010)	(-1.46968 - -0.385662)/(31 - 27)	-0.271003
-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
-1.46968 J (6/5/2012)	-0.634878 J (11/12/2010)	(-1.46968 - -0.634878)/(31 - 28)	-0.278266
-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
-1.46968 J (6/5/2012)	-1.27297 J (7/5/2011)	(-1.46968 - -1.27297)/(31 - 29)	-0.0983551

-1.10866 J (11/22/2011)	-1.10866 J (11/22/2011)	(-1.10866 - -1.10866)/(30 - 30)
Same Date		
-1.46968 J (6/5/2012)	-1.10866 J (11/22/2011)	(-1.46968 - -1.10866)/(31 - 30)
-0.361013		
-1.46968 J (6/5/2012)	-1.10866 J (11/22/2011)	(-1.46968 - -1.10866)/(31 - 30)
-0.361013		

Number of Q values = 495

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	-0.361013
13	-0.361013
14	-0.322773
15	-0.318241
16	-0.31213
17	-0.309469
18	-0.297199
19	-0.284859
20	-0.278266
21	-0.271003
22	-0.260108
23	-0.249216
24	-0.247575
25	-0.242746
26	-0.241
27	-0.241
28	-0.236892
29	-0.236892
30	-0.235402
31	-0.227887
32	-0.22295
33	-0.212161
34	-0.206312
35	-0.195081
36	-0.189906
37	-0.18499
38	-0.181852
39	-0.17832
40	-0.176839
41	-0.173405
42	-0.162776
43	-0.159121
44	-0.159121
45	-0.156065
46	-0.154734
47	-0.1486

48	-0.146968
49	-0.142429
50	-0.141877
51	-0.141441
52	-0.140984
53	-0.140984
54	-0.140404
55	-0.137542
56	-0.134516
57	-0.130054
58	-0.127371
59	-0.127297
60	-0.126604
61	-0.123787
62	-0.123185
63	-0.123185
64	-0.12005
65	-0.115724
66	-0.115724
67	-0.113943
68	-0.113052
69	-0.112534
70	-0.111475
71	-0.11145
72	-0.11145
73	-0.108945
74	-0.10608
75	-0.104623
76	-0.104043
77	-0.103585
78	-0.103156
79	-0.0990665
80	-0.0990665
81	-0.0983551
82	-0.0979784
83	-0.0979204
84	-0.0979204
85	-0.0952211
86	-0.0949529
87	-0.0941609
88	-0.0923886
89	-0.0923886
90	-0.0918547
91	-0.0909555
92	-0.0909261
93	-0.0909261
94	-0.0906969
95	-0.0891598
96	-0.0891598
97	-0.0884196
98	-0.0880112
99	-0.0864515
100	-0.0856008
101	-0.0848644
102	-0.0848644
103	-0.0828393
104	-0.0825826
105	-0.0816487
106	-0.0810544
107	-0.0810544
108	-0.0795604
109	-0.0795604

110	-0.0795441
111	-0.0791902
112	-0.0791902
113	-0.0786767
114	-0.0784674
115	-0.0773514
116	-0.0762735
117	-0.0755009
118	-0.0748803
119	-0.0748803
120	-0.0742998
121	-0.0742998
122	-0.0739108
123	-0.0739108
124	-0.0734838
125	-0.0724314
126	-0.0722597
127	-0.0707203
128	-0.0699846
129	-0.0692914
130	-0.0692914
131	-0.0685845
132	-0.0685845
133	-0.0680909
134	-0.0672578
135	-0.0669982
136	-0.0668035
137	-0.0654493
138	-0.0652154
139	-0.0652154
140	-0.064867
141	-0.0642771
142	-0.063899
143	-0.0636856
144	-0.0636856
145	-0.0636483
146	-0.0635613
147	-0.0634878
148	-0.0634207
149	-0.0627739
150	-0.0615924
151	-0.0615924
152	-0.0612365
153	-0.0606174
154	-0.0594399
155	-0.0594399
156	-0.0588505
157	-0.058787
158	-0.0583507
159	-0.0583507
160	-0.0578621
161	-0.056526
162	-0.0557249
163	-0.0557249
164	-0.0554331
165	-0.0554331
166	-0.0553887
167	-0.0553463
168	-0.0552538
169	-0.0544727
170	-0.0530402
171	-0.0529065

172	-0.0527935
173	-0.0527935
174	-0.0524469
175	-0.0524469
176	-0.0523116
177	-0.0505302
178	-0.0503938
179	-0.0503938
180	-0.0500104
181	-0.0495583
182	-0.0495332
183	-0.0495332
184	-0.0495207
185	-0.0492946
186	-0.04922
187	-0.0488368
188	-0.0482027
189	-0.0482027
190	-0.0470804
191	-0.0469262
192	-0.0467042
193	-0.0461943
194	-0.0461943
195	-0.0453939
196	-0.0453484
197	-0.0450755
198	-0.044519
199	-0.0443465
200	-0.0443465
201	-0.0428514
202	-0.0423252
203	-0.0419021
204	-0.0413809
205	-0.0403778
206	-0.0398213
207	-0.0396799
208	-0.0393119
209	-0.0389091
210	-0.0385885
211	-0.0385885
212	-0.0377199
213	-0.0373458
214	-0.0363151
215	-0.0361774
216	-0.0361774
217	-0.035271
218	-0.0350602
219	-0.0340454
220	-0.0334227
221	-0.0334146
222	-0.0334108
223	-0.0334108
224	-0.0332076
225	-0.032797
226	-0.032797
227	-0.0326575
228	-0.0321385
229	-0.0320428
230	-0.0318312
231	-0.0317439
232	-0.0310726
233	-0.0310092

234	-0.0310092
235	-0.0302626
236	-0.0302323
237	-0.0299811
238	-0.0296663
239	-0.0288581
240	-0.0286699
241	-0.0276034
242	-0.0275473
243	-0.0274597
244	-0.0272364
245	-0.0267063
246	-0.0259394
247	-0.0257108
248	-0.0250052
249	-0.0241039
250	-0.0235887
251	-0.022686
252	-0.0222082
253	-0.0220632
254	-0.0218836
255	-0.0218567
256	-0.0214257
257	-0.0208569
258	-0.0204284
259	-0.020298
260	-0.0199712
261	-0.0193168
262	-0.0192831
263	-0.0184665
264	-0.0183649
265	-0.0175301
266	-0.0164694
267	-0.0155471
268	-0.0155471
269	-0.0153213
270	-0.0139819
271	-0.012187
272	-0.0116971
273	-0.0116637
274	-0.0111276
275	-0.010393
276	-0.00992062
277	-0.00912733
278	-0.00912733
279	-0.00677162
280	-0.00406827
281	-0.00350913
282	-0.00216491
283	-0.00207078
284	0
285	0
286	0
287	0
288	0
289	0
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
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355	0
356	0
357	0

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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	0.00147947
378	0.00236705
379	0.00236705
380	0.00535906
381	0.00619768
382	0.00752575
383	0.00774414
384	0.00827016
385	0.00878004
386	0.00957823
387	0.0105361
388	0.0115073
389	0.0117067
390	0.0117465
391	0.0117465
392	0.0119697
393	0.0123969
394	0.0131701
395	0.0148762
396	0.0150515
397	0.0171649
398	0.0175601
399	0.0176272
400	0.0185953
401	0.0202858
402	0.0205379
403	0.0205379
404	0.0210721
405	0.0223144
406	0.0247282
407	0.0247937
408	0.0263401
409	0.0278929
410	0.0318777
411	0.0319647
412	0.0351202
413	0.0354052
414	0.0354392
415	0.0371906
416	0.041306
417	0.042084
418	0.0421985
419	0.0446287

420	0.0451985
421	0.0451985
422	0.0458687
423	0.048096
424	0.0493776
425	0.0496453
426	0.051344
427	0.0517957
428	0.0526803
429	0.0557859
430	0.056112
431	0.0562647
432	0.0602836
433	0.0612131
434	0.06418
435	0.0649208
436	0.0660786
437	0.0669996
438	0.0673345
439	0.0692552
440	0.0703308
441	0.0743812
442	0.0748161
443	0.0753772
444	0.0767246
445	0.0841681
446	0.084397
447	0.0865691
448	0.0937745
449	0.0961921
450	0.099021
451	0.102243
452	0.105361
453	0.105496
454	0.106348
455	0.106526
456	0.110452
457	0.111572
458	0.112224
459	0.115624
460	0.115721
461	0.117783
462	0.120567
463	0.123808
464	0.126484
465	0.134669
466	0.140662
467	0.143841
468	0.159065
469	0.164303
470	0.164303
471	0.167262
472	0.167855
473	0.168336
474	0.168645
475	0.168794
476	0.16932
477	0.170626
478	0.173435
479	0.177461
480	0.18206
481	0.190684

482	0.210993
483	0.223017
484	0.224448
485	0.246203
486	0.277973
487	0.283992
488	0.284859
489	0.310413
490	0.381368
491	0.396881
492	0.450201
493	0.618937
494	1.13943
495	1.56065

Sen's Estimator (Median Q) is -0.0250052

Tied Group	Value	Members
1	0	14
2	-1.272972	
3	-0.891598	2
4	-1.108662	

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 6060
B = 18
C = 2184
D = 0
E = 188

F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3465.19
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.8257
M1 = (495 - 96.8257)/2.0 = 199.087
M2 = (495 + 96.8257)/2.0 + 1 = 296.913
Lower limit is -0.0443465 = Q(199)
Upper limit is 0 = Q(297)
-0.0443465 < 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
-1.10866 J (6/5/2012) 1.16315 (7/20/1995) (-1.10866 - 1.16315)/(30 - 1)
-0.0783384

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
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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	
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3.41444 (3/16/1999)	4.07754 (12/19/1996)	(3.41444 - 4.07754)/(11 - 6)		-0.132619
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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
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ND<0 (5/23/2007)	4.07754 (12/19/1996)	(0 - 4.07754)/(21 - 6)		-0.271836
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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
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1.67523 (4/1/2005) ND<0 (4/7/1998) (1.67523 - 0)/(17 - 9)
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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	
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-1.07881 J (11/22/2011)	ND<0 (4/7/1998)	(-1.07881 - 0)/(29 - 9)		-0.0539405
-1.10866 J (6/5/2012)	ND<0 (4/7/1998)	(-1.10866 - 0)/(30 - 9)		-0.0527935

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
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-1.07881 J (11/22/2011) 3.43399 (9/23/1998) (-1.07881 - 3.43399)/(29 - 10)
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ND<0 (9/24/2003) 3.41444 (3/16/1999) (0 - 3.41444)/(14 - 11) -1.13815
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ND<0 (5/23/2007) 3.41444 (3/16/1999) (0 - 3.41444)/(21 - 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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ND<0 (3/15/2000) 3.47197 (9/23/1999) (0 - 3.47197)/(13 - 12) -3.47197
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1.79176 (3/11/2004) 3.47197 (9/23/1999) (1.79176 - 3.47197)/(15 - 12)
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ND<0 (10/12/2004) 3.47197 (9/23/1999) (0 - 3.47197)/(16 - 12)
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-0.359348
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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)
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ND<0 (5/23/2007) 3.47197 (9/23/1999) (0 - 3.47197)/(21 - 12)
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-1.42712 J (6/30/2010) 3.47197 (9/23/1999) (-1.42712 - 3.47197)/(26 - 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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-1.07881 J (11/22/2011) 3.47197 (9/23/1999) (-1.07881 - 3.47197)/(29 - 12)
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-1.10866 J (6/5/2012) 3.47197 (9/23/1999) (-1.10866 - 3.47197)/(30 - 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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0.779325 (10/25/2005) ND<0 (3/15/2000) (0.779325 - 0)/(18 - 13)
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0.875469 (4/29/2006) ND<0 (3/15/2000) (0.875469 - 0)/(19 - 13)
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ND<0 (5/23/2007) ND<0 (3/15/2000) (0 - 0)/(21 - 13) 0
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-0.174353 J (6/5/2008) ND<0 (3/15/2000) (-0.174353 - 0)/(23 - 13)
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-0.430783 J (11/20/2008) ND<0 (3/15/2000) (-0.430783 - 0)/(24 - 13)
-0.0391621
-0.223144 J (6/11/2009) ND<0 (3/15/2000) (-0.223144 - 0)/(25 - 13)
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-1.42712 J (6/30/2010) ND<0 (3/15/2000) (-1.42712 - 0)/(26 - 13)
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ND<-2.59027 U (11/12/2010) ND<0 (3/15/2000) (-2.59027 - 0)/(27 - 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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-1.07881 J (11/22/2011) ND<0 (3/15/2000) (-1.07881 - 0)/(29 - 13)
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-1.10866 J (6/5/2012) ND<0 (3/15/2000) (-1.10866 - 0)/(30 - 13)
-0.0652154

1.79176 (3/11/2004) ND<0 (9/24/2003) (1.79176 - 0)/(15 - 14) 1.79176
ND<0 (10/12/2004) ND<0 (9/24/2003) (0 - 0)/(16 - 14) 0
1.67523 (4/1/2005) ND<0 (9/24/2003) (1.67523 - 0)/(17 - 14)
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0.779325 (10/25/2005) ND<0 (9/24/2003) (0.779325 - 0)/(18 - 14)
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0.875469 (4/29/2006) ND<0 (9/24/2003) (0.875469 - 0)/(19 - 14)
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0.989541 (11/18/2006) ND<0 (9/24/2003) (0.989541 - 0)/(20 - 14)
0.164924

ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0
-0.616186 J (11/28/2007)	ND<0 (9/24/2003)	(-0.616186 - 0)/(22 - 14)	-0.0770233
-0.174353 J (6/5/2008)	ND<0 (9/24/2003)	(-0.174353 - 0)/(23 - 14)	-0.0193726
-0.430783 J (11/20/2008)	ND<0 (9/24/2003)	(-0.430783 - 0)/(24 - 14)	-0.0430783
-0.223144 J (6/11/2009)	ND<0 (9/24/2003)	(-0.223144 - 0)/(25 - 14)	-0.0202858
-1.42712 J (6/30/2010)	ND<0 (9/24/2003)	(-1.42712 - 0)/(26 - 14)	-0.118926
ND<-2.59027 U (11/12/2010)	ND<0 (9/24/2003)	(-2.59027 - 0)/(27 - 14)	-0.199251
ND<-2.59027 U (7/5/2011)	ND<0 (9/24/2003)	(-2.59027 - 0)/(28 - 14)	-0.185019
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-1.07881 J (11/22/2011)	ND<0 (9/24/2003)	(-1.07881 - 0)/(29 - 14)	-0.0719206
-1.10866 J (6/5/2012)	ND<0 (9/24/2003)	(-1.10866 - 0)/(30 - 14)	-0.0692914

ND<0 (10/12/2004)	1.79176 (3/11/2004)	(0 - 1.79176)/(16 - 15)	-1.79176
1.67523 (4/1/2005)	1.79176 (3/11/2004)	(1.67523 - 1.79176)/(17 - 15)	-0.0582669
0.779325 (10/25/2005)	1.79176 (3/11/2004)	(0.779325 - 1.79176)/(18 - 15)	-0.337478
0.875469 (4/29/2006)	1.79176 (3/11/2004)	(0.875469 - 1.79176)/(19 - 15)	-0.229073
0.989541 (11/18/2006)	1.79176 (3/11/2004)	(0.989541 - 1.79176)/(20 - 15)	-0.160444
ND<0 (5/23/2007)	1.79176 (3/11/2004)	(0 - 1.79176)/(21 - 15)	-0.298627
-0.616186 J (11/28/2007)	1.79176 (3/11/2004)	(-0.616186 - 1.79176)/(22 - 15)	-0.343992
-0.174353 J (6/5/2008)	1.79176 (3/11/2004)	(-0.174353 - 1.79176)/(23 - 15)	-0.245764
-0.430783 J (11/20/2008)	1.79176 (3/11/2004)	(-0.430783 - 1.79176)/(24 - 15)	-0.246949
-0.223144 J (6/11/2009)	1.79176 (3/11/2004)	(-0.223144 - 1.79176)/(25 - 15)	-0.20149
-1.42712 J (6/30/2010)	1.79176 (3/11/2004)	(-1.42712 - 1.79176)/(26 - 15)	-0.292625
ND<-2.59027 U (11/12/2010)	1.79176 (3/11/2004)	(-2.59027 - 1.79176)/(27 - 15)	-0.365169
ND<-2.59027 U (7/5/2011)	1.79176 (3/11/2004)	(-2.59027 - 1.79176)/(28 - 15)	-0.337079
-1.07881 J (11/22/2011)	1.79176 (3/11/2004)	(-1.07881 - 1.79176)/(29 - 15)	-0.205041
-1.07881 J (11/22/2011)	1.79176 (3/11/2004)	(-1.07881 - 1.79176)/(29 - 15)	-0.205041
-1.10866 J (6/5/2012)	1.79176 (3/11/2004)	(-1.10866 - 1.79176)/(30 - 15)	-0.193361

1.67523 (4/1/2005)	ND<0 (10/12/2004)	(1.67523 - 0)/(17 - 16)	1.67523
0.779325 (10/25/2005)	ND<0 (10/12/2004)	(0.779325 - 0)/(18 - 16)	0.389662
0.875469 (4/29/2006)	ND<0 (10/12/2004)	(0.875469 - 0)/(19 - 16)	0.291823
0.989541 (11/18/2006)	ND<0 (10/12/2004)	(0.989541 - 0)/(20 - 16)	0.247385
ND<0 (5/23/2007)	ND<0 (10/12/2004)	(0 - 0)/(21 - 16)	0

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-0.430783 J (11/20/2008) ND<0 (10/12/2004) (-0.430783 - 0)/(24 - 16)
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-0.223144 J (6/11/2009) ND<0 (10/12/2004) (-0.223144 - 0)/(25 - 16)
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-1.42712 J (6/30/2010) ND<0 (10/12/2004) (-1.42712 - 0)/(26 - 16)
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ND<-2.59027 U (11/12/2010) ND<0 (10/12/2004) (-2.59027 - 0)/(27 - 16)
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ND<-2.59027 U (7/5/2011) ND<0 (10/12/2004) (-2.59027 - 0)/(28 - 16)
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ND<0 (5/23/2007) 1.67523 (4/1/2005) (0 - 1.67523)/(21 - 17)
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-0.174353 J (6/5/2008) 1.67523 (4/1/2005) (-0.174353 - 1.67523)/(23 - 17)
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-0.430783 J (11/20/2008) 1.67523 (4/1/2005) (-0.430783 - 1.67523)/(24 - 17)
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-0.223144 J (6/11/2009) 1.67523 (4/1/2005) (-0.223144 - 1.67523)/(25 - 17)
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-1.42712 J (6/30/2010) 1.67523 (4/1/2005) (-1.42712 - 1.67523)/(26 - 17)
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ND<-2.59027 U (11/12/2010) 1.67523 (4/1/2005) (-2.59027 - 1.67523)/(27 - 17)
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ND<-2.59027 U (7/5/2011) 1.67523 (4/1/2005) (-2.59027 - 1.67523)/(28 - 17)
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-1.07881 J (11/22/2011) 1.67523 (4/1/2005) (-1.07881 - 1.67523)/(29 - 17)
-0.229503
-1.10866 J (6/5/2012) 1.67523 (4/1/2005) (-1.10866 - 1.67523)/(30 - 17)
-0.214145

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ND<0 (5/23/2007) 0.779325 (10/25/2005) (0 - 0.779325)/(21 - 18)
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-0.616186 J (11/28/2007) 0.779325 (10/25/2005) (-0.616186 - 0.779325)/(22 - 18)
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-0.174353 J (6/5/2008) 0.779325 (10/25/2005) (-0.174353 - 0.779325)/(23 - 18)
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ND<-2.59027 U (7/5/2011) 0.779325 (10/25/2005) (-2.59027 - 0.779325)/(28 - 18)
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-0.168921
-1.07881 J (11/22/2011) 0.779325 (10/25/2005) (-1.07881 - 0.779325)/(29 - 18)
-0.168921
-1.10866 J (6/5/2012) 0.779325 (10/25/2005) (-1.10866 - 0.779325)/(30 - 18)
-0.157332

0.989541 (11/18/2006) 0.875469 (4/29/2006) (0.989541 - 0.875469)/(20 - 19)
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ND<0 (5/23/2007) 0.875469 (4/29/2006) (0 - 0.875469)/(21 - 19)
-0.437734
-0.616186 J (11/28/2007) 0.875469 (4/29/2006) (-0.616186 - 0.875469)/(22 - 19)
-0.497218
-0.174353 J (6/5/2008) 0.875469 (4/29/2006) (-0.174353 - 0.875469)/(23 - 19)
-0.262456
-0.430783 J (11/20/2008) 0.875469 (4/29/2006) (-0.430783 - 0.875469)/(24 - 19)
-0.26125
-0.223144 J (6/11/2009) 0.875469 (4/29/2006) (-0.223144 - 0.875469)/(25 - 19)
-0.183102
-1.42712 J (6/30/2010) 0.875469 (4/29/2006) (-1.42712 - 0.875469)/(26 - 19)
-0.328941
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-0.433217
ND<-2.59027 U (7/5/2011) 0.875469 (4/29/2006) (-2.59027 - 0.875469)/(28 - 19)
-0.385082
-1.07881 J (11/22/2011) 0.875469 (4/29/2006) (-1.07881 - 0.875469)/(29 - 19)
-0.195428
-1.07881 J (11/22/2011) 0.875469 (4/29/2006) (-1.07881 - 0.875469)/(29 - 19)
-0.195428
-1.10866 J (6/5/2012) 0.875469 (4/29/2006) (-1.10866 - 0.875469)/(30 - 19)
-0.180376

ND<0 (5/23/2007) 0.989541 (11/18/2006) (0 - 0.989541)/(21 - 20)
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-0.174353 J (6/5/2008) 0.989541 (11/18/2006) (-0.174353 - 0.989541)/(23 - 20)
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-0.430783 J (11/20/2008) 0.989541 (11/18/2006) (-0.430783 - 0.989541)/(24 - 20)
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-0.402776
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ND<-2.59027 U (7/5/2011) 0.989541 (11/18/2006) (-2.59027 - 0.989541)/(28 - 20)
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-1.07881 J (11/22/2011) 0.989541 (11/18/2006) (-1.07881 - 0.989541)/(29 - 20)
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ND<-2.59027 U (7/5/2011) ND<0 (5/23/2007) (-2.59027 - 0)/(28 - 21)
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-1.07881 J (11/22/2011) ND<0 (5/23/2007) (-1.07881 - 0)/(29 - 21)
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-1.07881 J (11/22/2011) ND<0 (5/23/2007) (-1.07881 - 0)/(29 - 21)
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-1.42712 J (6/30/2010) -0.616186 J (11/28/2007) (-1.42712 - -0.616186)/(26 - 22)
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ND<-2.59027 U (7/5/2011) -0.616186 J (11/28/2007) (-2.59027 - -0.616186)/(28 - 22)
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-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
-1.10866 J (6/5/2012) -0.616186 J (11/28/2007) (-1.10866 - -0.616186)/(30 - 22)
-0.0615596

-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)
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-1.10866 J (6/5/2012) -0.174353 J (6/5/2008) (-1.10866 - -0.174353)/(30 - 23)
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-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
-1.10866 J (6/5/2012)	-0.430783 J (11/20/2008)	(-1.10866 - -0.430783)/(30 - 24)	-0.11298
-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
-1.10866 J (6/5/2012)	-0.223144 J (6/11/2009)	(-1.10866 - -0.223144)/(30 - 25)	-0.177104
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
-1.10866 J (6/5/2012)	-1.42712 J (6/30/2010)	(-1.10866 - -1.42712)/(30 - 26)	0.0796134
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
-1.10866 J (6/5/2012)	ND<-2.59027 U (11/12/2010)	(-1.10866 - -2.59027)/(30 - 27)	0.493868
-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
-1.10866 J (6/5/2012)	ND<-2.59027 U (7/5/2011)	(-1.10866 - -2.59027)/(30 - 28)	0.740802
-1.07881 J (11/22/2011)	-1.07881 J (11/22/2011)	(-1.07881 - -1.07881)/(29 - 29)	Same Date
-1.10866 J (6/5/2012)	-1.07881 J (11/22/2011)	(-1.10866 - -1.07881)/(30 - 29)	-0.029853
-1.10866 J (6/5/2012)	-1.07881 J (11/22/2011)	(-1.10866 - -1.07881)/(30 - 29)	-0.029853

Number of Q values = 464

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
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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
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113	-0.303082
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115	-0.300534
116	-0.299066
117	-0.298627
118	-0.295896
119	-0.295787
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121	-0.293358

122	-0.292625
123	-0.290788
124	-0.289869
125	-0.287415
126	-0.285423
127	-0.28428
128	-0.284239
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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
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148	-0.262508
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155	-0.25643
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159	-0.253975
160	-0.251363
161	-0.251252
162	-0.250927
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167	-0.248741
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327	-0.0770233
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329	-0.0719206
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344	-0.0577623
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346	-0.0539405
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402	0.0625335
403	0.0659694
404	0.0796134
405	0.0865917
406	0.0875469
407	0.0899583
408	0.0927016
409	0.0961439
410	0.105108
411	0.114072
412	0.116102
413	0.116102
414	0.131014
415	0.139602
416	0.141363
417	0.145911
418	0.155865
419	0.164924
420	0.174066
421	0.175094
422	0.179176
423	0.190714
424	0.194831
425	0.207639
426	0.209403
427	0.209892
428	0.225129
429	0.225758
430	0.247385
431	0.252315

432	0.291823
433	0.298627
434	0.30543
435	0.337601
436	0.36173
437	0.389662
438	0.418806
439	0.441833
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441	0.493868
442	0.495995
443	0.558409
444	0.569074
445	0.582877
446	0.604126
447	0.686797
448	0.740802
449	0.755729
450	0.755729
451	0.89588
452	0.999048
453	1.15732
454	1.17545
455	1.51146
456	1.51146
457	1.65709
458	1.67523
459	1.70722
460	1.79176
461	1.94591
462	3.43197
463	3.43399
464	4.07754

Sen's Estimator (Median Q) is -0.205423

Tied Group	Value	Members
1	0	6
2	-2.590272	
3	-1.078812	

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 546
B = 18
C = 120
D = 0
E = 34
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3430.37
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.338
M1 = (464 - 96.338)/2.0 = 183.831
M2 = (464 + 96.338)/2.0 + 1 = 281.169
Lower limit is -0.237296 = Q(184)
Upper limit is -0.13633 = Q(281)
-0.13633 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 242
Percent Non-Detects: 97.5806%
Total Background Measurements: 19
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
MW-13	19	19 (100%)	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<0.1	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-10	31	31 (100%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-9	32	32 (100%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-7	31	30 (96.7742%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	ND<1	ND<1
			3/15/2000	ND<1	ND<1
			9/24/2003	ND<1	ND<1
			3/11/2004	10	10
			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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-6	31	30 (96.7742%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	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<0.1	ND<0.1
			11/16/2009	ND<0.1	ND<0.1
			6/30/2010	ND<0.1	ND<0.1
			11/12/2010	0.15 J	0.15 J
			7/5/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-11R	32	32 (100%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-8	30	30 (100%)	7/20/1995	ND<1	ND<1
			8/24/1995	ND<1	ND<1
			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	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<0.1	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
			6/5/2012	ND<0.1 U	ND<0.1 U
MW-12BR	21	19 (90.4762%)	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<0.1	ND<0.1
			11/16/2009	0.1 J	0.1 J
			6/30/2010	ND<0.1	ND<0.1

		11/12/2010	ND<0.1 U		ND<0.1 U	
		7/5/2011	0.15 J	0.15 J		
		11/22/2011	ND<0.1 U		ND<0.1 U	
		6/5/2012	ND<0.1 U	ND<0.1 U		
MW-12AR	21	19 (90.4762%)	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<0.1	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	0.22	0.22		
		11/22/2011	ND<0.1 U		ND<0.1 U	
		6/5/2012	0.12 J	0.12 J		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Thallium

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 248

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	-1.37866	69.9102	-1.88186
22	0.05	-1.35317	71.7413	-1.94952
23	0.05	-1.32854	73.5063	-2.01595
24	0.05	-1.30469	75.2086	-2.08118
25	0.05	-1.28155	76.8509	-2.14526
26	0.05	-1.25908	78.4362	-2.20821
27	0.05	-1.23724	79.967	-2.27008
28	0.05	-1.21596	81.4455	-2.33087
29	0.05	-1.19522	82.8741	-2.39064
30	0.05	-1.17499	84.2547	-2.44939
31	0.05	-1.15522	85.5892	-2.50715
32	0.05	-1.1359	86.8795	-2.56394
33	0.05	-1.11699	88.1271	-2.61979
34	0.05	-1.09847	89.3338	-2.67471
35	0.05	-1.08032	90.5009	-2.72873
36	0.05	-1.06252	91.6298	-2.78186
37	0.05	-1.04505	92.7219	-2.83411
38	0.05	-1.02789	93.7785	-2.8855
39	0.05	-1.01104	94.8007	-2.93605
40	0.05	-0.994457	95.7896	-2.98578
41	0.05	-0.97815	96.7464	-3.03469
42	0.05	-0.9621	97.6721	-3.08279
43	0.05	-0.946291	98.5675	-3.1301
44	0.05	-0.930718	99.4338	-3.17664
45	0.05	-0.915365	100.272	-3.22241
46	0.05	-0.900227	101.082	-3.26742
47	0.05	-0.885291	101.866	-3.31168
48	0.05	-0.87055	102.624	-3.35521
49	0.05	-0.855996	103.356	-3.39801
50	0.05	-0.841621	104.065	-3.44009
51	0.05	-0.827417	104.749	-3.48146

52	0.05	-0.813379	105.411	-3.52213
53	0.05	-0.7995	106.05	-3.56211
54	0.05	-0.785774	106.668	-3.6014
55	0.05	-0.772193	107.264	-3.64001
56	0.05	-0.758753	107.84	-3.67794
57	0.05	-0.745449	108.395	-3.71522
58	0.1	-0.732275	108.931	-3.78844
59	0.12	-0.719228	109.449	-3.87475
60	0.15	-0.706302	109.948	-3.9807
61	0.15	-0.693493	110.429	-4.08472
62	0.22	-0.680797	110.892	-4.2345
63	0.5	-0.665079	111.334	-4.56704
64	0.5	-0.652622	111.76	-4.89335
65	0.5	-0.640266	112.17	-5.21348
66	0.5	-0.628006	112.565	-5.52748
67	0.5	-0.615839	112.944	-5.8354
68	0.5	-0.603765	113.308	-6.13728
69	0.5	-0.591776	113.659	-6.43317
70	0.5	-0.579873	113.995	-6.72311
71	0.5	-0.568052	114.318	-7.00714
72	0.5	-0.556308	114.627	-7.28529
73	0.5	-0.544642	114.924	-7.55761
74	0.5	-0.533048	115.208	-7.82413
75	0.5	-0.521527	115.48	-8.0849
76	0.5	-0.510074	115.74	-8.33994
77	0.5	-0.498687	115.989	-8.58928
78	0.5	-0.487364	116.226	-8.83296
79	0.5	-0.476105	116.453	-9.07101
80	0.5	-0.464904	116.669	-9.30347
81	0.5	-0.453763	116.875	-9.53035
82	0.5	-0.442676	117.071	-9.75168
83	0.5	-0.431644	117.257	-9.96751
84	0.5	-0.420664	117.434	-10.1778
85	0.5	-0.409735	117.602	-10.3827
86	0.5	-0.398855	117.761	-10.5821
87	0.5	-0.388022	117.912	-10.7761
88	0.5	-0.377233	118.054	-10.9648
89	0.5	-0.36649	118.188	-11.148
90	0.5	-0.355788	118.315	-11.3259
91	0.5	-0.345126	118.434	-11.4985
92	0.5	-0.334503	118.546	-11.6657
93	0.5	-0.323919	118.651	-11.8277
94	0.5	-0.31337	118.749	-11.9844
95	0.5	-0.302855	118.841	-12.1358
96	0.5	-0.292375	118.926	-12.282
97	0.5	-0.281926	119.006	-12.4229
98	0.5	-0.271509	119.079	-12.5587
99	0.5	-0.26112	119.148	-12.6893
100	0.5	-0.250759	119.21	-12.8146
101	0.5	-0.240426	119.268	-12.9348
102	0.5	-0.230118	119.321	-13.0499
103	0.5	-0.219834	119.37	-13.1598
104	0.5	-0.209575	119.413	-13.2646
105	0.5	-0.199336	119.453	-13.3643
106	0.5	-0.189118	119.489	-13.4588
107	0.5	-0.17892	119.521	-13.5483
108	0.5	-0.168741	119.549	-13.6327
109	0.5	-0.158579	119.575	-13.712
110	0.5	-0.148434	119.597	-13.7862
111	0.5	-0.138305	119.616	-13.8553
112	0.5	-0.128189	119.632	-13.9194
113	0.5	-0.118085	119.646	-13.9785

114	0.5	-0.107995	119.658	-14.0325
115	0.5	-0.0979139	119.667	-14.0814
116	0.5	-0.0878447	119.675	-14.1253
117	0.5	-0.0777834	119.681	-14.1642
118	0.5	-0.0677301	119.686	-14.1981
119	0.5	-0.0576847	119.689	-14.2269
120	0.5	-0.0476439	119.691	-14.2508
121	0.5	-0.0376076	119.693	-14.2696
122	0.5	-0.0275759	119.694	-14.2834
123	0.5	-0.0175476	119.694	-14.2921
124	0.5	-0.00751925	119.694	-14.2959
125	0.5	0.00751925	119.694	-14.2921
126	0.5	0.0175476	119.694	-14.2834
127	0.5	0.0275759	119.695	-14.2696
128	0.5	0.0376076	119.696	-14.2508
129	0.5	0.0476439	119.699	-14.2269
130	0.5	0.0576847	119.702	-14.1981
131	0.5	0.0677301	119.707	-14.1642
132	0.5	0.0777834	119.713	-14.1253
133	0.5	0.0878447	119.72	-14.0814
134	0.5	0.0979139	119.73	-14.0325
135	0.5	0.107995	119.742	-13.9785
136	0.5	0.118085	119.756	-13.9194
137	0.5	0.128189	119.772	-13.8553
138	0.5	0.138305	119.791	-13.7862
139	0.5	0.148434	119.813	-13.712
140	0.5	0.158579	119.838	-13.6327
141	0.5	0.168741	119.867	-13.5483
142	0.5	0.17892	119.899	-13.4588
143	0.5	0.189118	119.935	-13.3643
144	0.5	0.199336	119.974	-13.2646
145	0.5	0.209575	120.018	-13.1598
146	0.5	0.219834	120.067	-13.0499
147	0.5	0.230118	120.119	-12.9348
148	0.5	0.240426	120.177	-12.8146
149	0.5	0.250759	120.24	-12.6893
150	0.5	0.26112	120.308	-12.5587
151	0.5	0.271509	120.382	-12.4229
152	0.5	0.281926	120.462	-12.282
153	0.5	0.292375	120.547	-12.1358
154	0.5	0.302855	120.639	-11.9844
155	0.5	0.31337	120.737	-11.8277
156	0.5	0.323919	120.842	-11.6657
157	0.5	0.334503	120.954	-11.4985
158	0.5	0.345126	121.073	-11.3259
159	0.5	0.355788	121.199	-11.148
160	0.5	0.36649	121.334	-10.9648
161	0.5	0.377233	121.476	-10.7761
162	0.5	0.388022	121.627	-10.5821
163	0.5	0.398855	121.786	-10.3827
164	0.5	0.409735	121.954	-10.1778
165	0.5	0.420664	122.131	-9.96751
166	0.5	0.431644	122.317	-9.75168
167	0.5	0.442676	122.513	-9.53035
168	0.5	0.453763	122.719	-9.30347
169	0.5	0.464904	122.935	-9.07101
170	0.5	0.476105	123.162	-8.83296
171	0.5	0.487364	123.399	-8.58928
172	0.5	0.498687	123.648	-8.33994
173	0.5	0.510074	123.908	-8.0849
174	0.5	0.521527	124.18	-7.82413
175	0.5	0.533048	124.464	-7.55761

176	0.5	0.544642		124.761	-7.28529
177	0.5	0.556308		125.07	-7.00714
178	0.5	0.568052		125.393	-6.72311
179	0.5	0.579873		125.729	-6.43317
180	0.5	0.591776		126.079	-6.13728
181	0.5	0.603765		126.444	-5.8354
182	0.5	0.615839		126.823	-5.52748
183	0.5	0.628006		127.218	-5.21348
184	0.5	0.640266		127.627	-4.89335
185	0.5	0.652622		128.053	-4.56704
186	0.5	0.665079		128.496	-4.2345
187	0.5	0.680797		128.959	-3.8941
188	0.5	0.693493		129.44	-3.54735
189	0.5	0.706302		129.939	-3.1942
190	0.5	0.719228		130.456	-2.83459
191	0.5	0.732275		130.993	-2.46845
192	0.5	0.745449		131.548	-2.09572
193	0.5	0.758753		132.124	-1.71635
194	0.5	0.772193		132.72	-1.33025
195	0.5	0.785774		133.338	-0.937364
196	0.5	0.7995	133.977	-0.537614	
197	0.5	0.813379		134.638	-0.130924
198	0.5	0.827417		135.323	0.282785
199	0.5	0.841621		136.031	0.703595
200	0.5	0.855996		136.764	1.13159
201	0.5	0.87055	137.522	1.56687	
202	0.5	0.885291		138.306	2.00951
203	0.5	0.900227		139.116	2.45963
204	0.5	0.915365		139.954	2.91731
205	0.5	0.930718		140.82	3.38267
206	0.5	0.946291		141.716	3.85581
207	0.5	0.9621	142.641	4.33686	
208	0.5	0.97815	143.598	4.82594	
209	0.5	0.994457		144.587	5.32317
210	0.5	1.01104	145.609	5.82869	
211	0.5	1.02789	146.666	6.34263	
212	0.5	1.04505	147.758	6.86516	
213	0.5	1.06252	148.887	7.39642	
214	0.5	1.08032	150.054	7.93658	
215	0.5	1.09847	151.261	8.48581	
216	0.5	1.11699	152.508	9.04431	
217	0.5	1.1359	153.799	9.61225	
218	0.5	1.15522	155.133	10.1899	
219	0.5	1.17499	156.514	10.7774	
220	0.5	1.19522	157.942	11.375	
221	0.5	1.21596	159.421	11.9829	
222	0.5	1.23724	160.952	12.6016	
223	0.5	1.25908	162.537	13.2311	
224	0.5	1.28155	164.179	13.8719	
225	0.5	1.30469	165.881	14.5242	
226	0.5	1.32854	167.646	15.1885	
227	0.5	1.35317	169.477	15.8651	
228	0.5	1.37866	171.378	16.5544	
229	0.5	1.40507	173.352	17.2569	
230	0.5	1.4325	175.404	17.9732	
231	0.5	1.46106	177.539	18.7037	
232	0.5	1.49085	179.762	19.4492	
233	0.5	1.52203	182.078	20.2102	
234	0.5	1.55477	184.496	20.9876	
235	0.5	1.58927	187.022	21.7822	
236	0.5	1.62576	189.665	22.5951	
237	0.5	1.66456	192.435	23.4274	

238	0.5	1.70604	195.346	24.2804
239	0.5	1.75069	198.411	25.1557
240	0.5	1.79912	201.648	26.0553
241	0.5	1.85218	205.078	26.9814
242	0.5	1.91103	208.73	27.9369
243	0.5	1.97737	212.64	28.9256
244	0.5	2.05375	216.858	29.9524
245	0.5	2.14441	221.457	31.0246
246	0.5	2.25713	226.551	32.1532
247	0.5	2.40892	232.354	33.3577
248	10	2.65209	239.388	59.8785

Data Set Standard Deviation = 0.63986
Numerator = 3585.44
Denominator = 24208.5
W Statistic = 0.148106 = 3585.44 / 24208.5

5% Critical value of 0.976 exceeds 0.148106
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.148106
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Thallium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.395109
0.395109 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.05	0.00401606	-2.65209	41.675	344.01	
2	0.05	0.00803213	-2.40892	41.675	332.136	
3	0.05	0.0120482	-2.25713	41.675	324.723	
4	0.05	0.0160643	-2.14441	41.675	319.219	
5	0.05	0.0200803	-2.05375	41.675	314.791	
6	0.05	0.0240964	-1.97737	41.675	311.062	
7	0.05	0.0281124	-1.91103	41.675	307.822	
8	0.05	0.0321285	-1.85218	41.675	304.948	
9	0.05	0.0361446	-1.79912	41.675	302.357	
10	0.05	0.0401606	-1.75069	41.675	299.992	
11	0.05	0.0441767	-1.70604	41.675	297.812	
12	0.05	0.0481928	-1.66456	41.675	295.786	
13	0.05	0.0522088	-1.62576	41.675	293.891	
14	0.05	0.0562249	-1.58927	41.675	292.109	
15	0.05	0.060241	-1.55477	41.675	290.425	
16	0.05	0.064257	-1.52203	41.675	288.826	
17	0.05	0.0682731	-1.49085	41.675	287.303	
18	0.05	0.0722892	-1.46106	41.675	285.848	
19	0.05	0.0763052	-1.4325	41.675	284.454	
20	0.05	0.0803213	-1.40507	41.675	283.114	
21	0.05	0.0843373	-1.37866	41.675	281.824	
22	0.05	0.0883534	-1.35317	41.675	280.58	
23	0.05	0.0923695	-1.32854	41.675	279.377	
24	0.05	0.0963855	-1.30469	41.675	278.212	
25	0.05	0.100402	-1.28155	41.675	277.082	
26	0.05	0.104418	-1.25908	41.675	275.985	
27	0.05	0.108434	-1.23724	41.675	274.918	
28	0.05	0.11245	-1.21596	41.675	273.879	
29	0.05	0.116466	-1.19522	41.675	272.867	
30	0.05	0.120482	-1.17499	41.675	271.879	
31	0.05	0.124498	-1.15522	41.675	270.913	
32	0.05	0.128514	-1.1359	41.675	269.97	
33	0.05	0.13253	-1.11699	41.675	269.046	
34	0.05	0.136546	-1.09847	41.675	268.142	
35	0.05	0.140562	-1.08032	41.675	267.256	
36	0.05	0.144578	-1.06252	41.675	266.386	
37	0.05	0.148594	-1.04505	41.675	265.533	
38	0.05	0.15261	-1.02789	41.675	264.695	
39	0.05	0.156627	-1.01104	41.675	263.872	
40	0.05	0.160643	-0.994457	41.675	263.063	
41	0.05	0.164659	-0.97815	41.675	262.266	
42	0.05	0.168675	-0.9621	41.675	261.483	
43	0.05	0.172691	-0.946291	41.675	260.711	
44	0.05	0.176707	-0.930718	41.675	259.95	
45	0.05	0.180723	-0.915365	41.675	259.2	
46	0.05	0.184739	-0.900227	41.675	258.461	
47	0.05	0.188755	-0.885291	41.675	257.732	
48	0.05	0.192771	-0.87055	41.675	257.012	

49	0.05	0.196787	-0.855996	41.675	256.301
50	0.05	0.200803	-0.841621	41.675	255.599
51	0.05	0.204819	-0.827417	41.675	254.906
52	0.05	0.208835	-0.813379	41.675	254.22
53	0.05	0.212851	-0.7995	41.675	253.542
54	0.05	0.216867	-0.785774	41.675	252.872
55	0.05	0.220884	-0.772193	41.675	252.209
56	0.05	0.2249	-0.758753	41.675	251.552
57	0.05	0.228916	-0.745449	41.675	250.903
58	0.1	0.232932	-0.732275	44.35	250.259
59	0.12	0.236948	-0.719228	45.42	249.622
60	0.15	0.240964	-0.706302	47.025	248.991
61	0.15	0.24498	-0.693493	47.025	248.366
62	0.22	0.248996	-0.680797	50.77	247.746
63	0.5	0.253012	-0.665079	65.75	246.978
64	0.5	0.257028	-0.652622	65.75	246.37
65	0.5	0.261044	-0.640266	65.75	245.766
66	0.5	0.26506	-0.628006	65.75	245.168
67	0.5	0.269076	-0.615839	65.75	244.573
68	0.5	0.273092	-0.603765	65.75	243.984
69	0.5	0.277108	-0.591776	65.75	243.398
70	0.5	0.281124	-0.579873	65.75	242.817
71	0.5	0.285141	-0.568052	65.75	242.24
72	0.5	0.289157	-0.556308	65.75	241.666
73	0.5	0.293173	-0.544642	65.75	241.097
74	0.5	0.297189	-0.533048	65.75	240.531
75	0.5	0.301205	-0.521527	65.75	239.968
76	0.5	0.305221	-0.510074	65.75	239.409
77	0.5	0.309237	-0.498687	65.75	238.853
78	0.5	0.313253	-0.487364	65.75	238.3
79	0.5	0.317269	-0.476105	65.75	237.75
80	0.5	0.321285	-0.464904	65.75	237.203
81	0.5	0.325301	-0.453763	65.75	236.659
82	0.5	0.329317	-0.442676	65.75	236.117
83	0.5	0.333333	-0.431644	65.75	235.579
84	0.5	0.337349	-0.420664	65.75	235.042
85	0.5	0.341365	-0.409735	65.75	234.509
86	0.5	0.345382	-0.398855	65.75	233.977
87	0.5	0.349398	-0.388022	65.75	233.448
88	0.5	0.353414	-0.377233	65.75	232.922
89	0.5	0.35743	-0.3664	65.75	232.397
90	0.5	0.361446	-0.355788	65.75	231.874
91	0.5	0.365462	-0.345126	65.75	231.354
92	0.5	0.369478	-0.334503	65.75	230.835
93	0.5	0.373494	-0.323919	65.75	230.318
94	0.5	0.37751	-0.3133	65.75	229.803
95	0.5	0.381526	-0.302855	65.75	229.289
96	0.5	0.385542	-0.292375	65.75	228.778
97	0.5	0.389558	-0.281926	65.75	228.267
98	0.5	0.393574	-0.271509	65.75	227.759
99	0.5	0.39759	-0.2611	65.75	227.251
100	0.5	0.401606	-0.250759	65.75	226.745
101	0.5	0.405622	-0.240426	65.75	226.241
102	0.5	0.409639	-0.230118	65.75	225.737
103	0.5	0.413655	-0.219834	65.75	225.235
104	0.5	0.417671	-0.209575	65.75	224.734
105	0.5	0.421687	-0.199336	65.75	224.234
106	0.5	0.425703	-0.189118	65.75	223.735
107	0.5	0.429719	-0.1789	65.75	223.237
108	0.5	0.433735	-0.168741	65.75	222.74
109	0.5	0.437751	-0.158579	65.75	222.244
110	0.5	0.441767	-0.148434	65.75	221.749

111	0.5	0.445783	-0.138305	65.75	221.254
112	0.5	0.449799	-0.128189	65.75	220.76
113	0.5	0.453815	-0.118085	65.75	220.267
114	0.5	0.457831	-0.107995	65.75	219.774
115	0.5	0.461847	-0.0979139	65.75	219.281
116	0.5	0.465863	-0.0878447	65.75	218.79
117	0.5	0.46988	-0.0777834	65.75	218.298
118	0.5	0.473896	-0.0677301	65.75	217.807
119	0.5	0.477912	-0.0576847	65.75	217.317
120	0.5	0.481928	-0.0476439	65.75	216.827
121	0.5	0.485944	-0.0376076	65.75	216.337
122	0.5	0.48996	-0.0275759	65.75	215.847
123	0.5	0.493976	-0.0175476	65.75	215.357
124	0.5	0.497992	-0.00751925	65.75	214.867
125	0.5	0.502008	0.00751925	65.75	214.133
126	0.5	0.506024	0.0175476	65.75	213.643
127	0.5	0.51004	0.0275759	65.75	213.153
128	0.5	0.514056	0.0376076	65.75	212.663
129	0.5	0.518072	0.0476439	65.75	212.173
130	0.5	0.522088	0.0576847	65.75	211.683
131	0.5	0.526104	0.0677301	65.75	211.193
132	0.5	0.53012	0.0777834	65.75	210.702
133	0.5	0.534137	0.0878447	65.75	210.21
134	0.5	0.538153	0.0979139	65.75	209.719
135	0.5	0.542169	0.107995	65.75	209.226
136	0.5	0.546185	0.118085	65.75	208.733
137	0.5	0.550201	0.128189	65.75	208.24
138	0.5	0.554217	0.138305	65.75	207.746
139	0.5	0.558233	0.148434	65.75	207.251
140	0.5	0.562249	0.158579	65.75	206.756
141	0.5	0.566265	0.168741	65.75	206.26
142	0.5	0.570281	0.17892	65.75	205.763
143	0.5	0.574297	0.189118	65.75	205.265
144	0.5	0.578313	0.199336	65.75	204.766
145	0.5	0.582329	0.209575	65.75	204.266
146	0.5	0.586345	0.219834	65.75	203.765
147	0.5	0.590361	0.230118	65.75	203.263
148	0.5	0.594378	0.240426	65.75	202.759
149	0.5	0.598394	0.250759	65.75	202.255
150	0.5	0.60241	0.26112	65.75	201.749
151	0.5	0.606426	0.271509	65.75	201.241
152	0.5	0.610442	0.281926	65.75	200.733
153	0.5	0.614458	0.292375	65.75	200.222
154	0.5	0.618474	0.302855	65.75	199.711
155	0.5	0.62249	0.31337	65.75	199.197
156	0.5	0.626506	0.323919	65.75	198.682
157	0.5	0.630522	0.334503	65.75	198.165
158	0.5	0.634538	0.345126	65.75	197.646
159	0.5	0.638554	0.355788	65.75	197.126
160	0.5	0.64257	0.36649	65.75	196.603
161	0.5	0.646586	0.377233	65.75	196.078
162	0.5	0.650602	0.388022	65.75	195.552
163	0.5	0.654618	0.398855	65.75	195.023
164	0.5	0.658635	0.409735	65.75	194.491
165	0.5	0.662651	0.420664	65.75	193.958
166	0.5	0.666667	0.431644	65.75	193.421
167	0.5	0.670683	0.442676	65.75	192.883
168	0.5	0.674699	0.453763	65.75	192.341
169	0.5	0.678715	0.464904	65.75	191.797
170	0.5	0.682731	0.476105	65.75	191.25
171	0.5	0.686747	0.487364	65.75	190.7
172	0.5	0.690763	0.498687	65.75	190.147

173	0.5	0.694779	0.510074	65.75	189.591
174	0.5	0.698795	0.521527	65.75	189.032
175	0.5	0.702811	0.533048	65.75	188.469
176	0.5	0.706827	0.544642	65.75	187.903
177	0.5	0.710843	0.556308	65.75	187.334
178	0.5	0.714859	0.568052	65.75	186.76
179	0.5	0.718876	0.579873	65.75	186.183
180	0.5	0.722892	0.591776	65.75	185.602
181	0.5	0.726908	0.603765	65.75	185.016
182	0.5	0.730924	0.615839	65.75	184.427
183	0.5	0.73494	0.628006	65.75	183.832
184	0.5	0.738956	0.640266	65.75	183.234
185	0.5	0.742972	0.652622	65.75	182.63
186	0.5	0.746988	0.665079	65.75	182.022
187	0.5	0.751004	0.680797	65.75	181.254
188	0.5	0.75502	0.693493	65.75	180.634
189	0.5	0.759036	0.706302	65.75	180.009
190	0.5	0.763052	0.719228	65.75	179.378
191	0.5	0.767068	0.732275	65.75	178.741
192	0.5	0.771084	0.745449	65.75	178.097
193	0.5	0.7751	0.758753	65.75	177.448
194	0.5	0.779116	0.772193	65.75	176.791
195	0.5	0.783133	0.785774	65.75	176.128
196	0.5	0.787149	0.7995	65.75	175.458
197	0.5	0.791165	0.813379	65.75	174.78
198	0.5	0.795181	0.827417	65.75	174.094
199	0.5	0.799197	0.841621	65.75	173.401
200	0.5	0.803213	0.855996	65.75	172.699
201	0.5	0.807229	0.87055	65.75	171.988
202	0.5	0.811245	0.885291	65.75	171.268
203	0.5	0.815261	0.900227	65.75	170.539
204	0.5	0.819277	0.915365	65.75	169.8
205	0.5	0.823293	0.930718	65.75	169.05
206	0.5	0.827309	0.946291	65.75	168.289
207	0.5	0.831325	0.9621	65.75	167.517
208	0.5	0.835341	0.97815	65.75	166.734
209	0.5	0.839357	0.994457	65.75	165.937
210	0.5	0.843373	1.01104	65.75	165.128
211	0.5	0.84739	1.02789	65.75	164.305
212	0.5	0.851406	1.04505	65.75	163.467
213	0.5	0.855422	1.06252	65.75	162.614
214	0.5	0.859438	1.08032	65.75	161.744
215	0.5	0.863454	1.09847	65.75	160.858
216	0.5	0.86747	1.11699	65.75	159.954
217	0.5	0.871486	1.1359	65.75	159.03
218	0.5	0.875502	1.15522	65.75	158.087
219	0.5	0.879518	1.17499	65.75	157.121
220	0.5	0.883534	1.19522	65.75	156.133
221	0.5	0.88755	1.21596	65.75	155.121
222	0.5	0.891566	1.23724	65.75	154.082
223	0.5	0.895582	1.25908	65.75	153.015
224	0.5	0.899598	1.28155	65.75	151.918
225	0.5	0.903614	1.30469	65.75	150.788
226	0.5	0.907631	1.32854	65.75	149.623
227	0.5	0.911647	1.35317	65.75	148.42
228	0.5	0.915663	1.37866	65.75	147.176
229	0.5	0.919679	1.40507	65.75	145.886
230	0.5	0.923695	1.4325	65.75	144.546
231	0.5	0.927711	1.46106	65.75	143.152
232	0.5	0.931727	1.49085	65.75	141.697
233	0.5	0.935743	1.52203	65.75	140.174
234	0.5	0.939759	1.55477	65.75	138.575

235	0.5	0.943775	1.58927	65.75	136.891
236	0.5	0.947791	1.62576	65.75	135.109
237	0.5	0.951807	1.66456	65.75	133.214
238	0.5	0.955823	1.70604	65.75	131.188
239	0.5	0.959839	1.75069	65.75	129.008
240	0.5	0.963855	1.79912	65.75	126.643
241	0.5	0.967871	1.85218	65.75	124.052
242	0.5	0.971888	1.91103	65.75	121.178
243	0.5	0.975904	1.97737	65.75	117.938
244	0.5	0.97992	2.05375	65.75	114.209
245	0.5	0.983936	2.14441	65.75	109.781
246	0.5	0.987952	2.25713	65.75	104.277
247	0.5	0.991968	2.40892	65.75	96.8642
248	10	0.995984	2.65209	574	84.9898

Shapiro-Francia Test of Normality

Parameter: Thallium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 248

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	-1.37866	69.9102	112.751
22	-2.99573	-1.35317	71.7413	116.805
23	-2.99573	-1.32854	73.5063	120.785
24	-2.99573	-1.30469	75.2086	124.693
25	-2.99573	-1.28155	76.8509	128.533
26	-2.99573	-1.25908	78.4362	132.304
27	-2.99573	-1.23724	79.967	136.011
28	-2.99573	-1.21596	81.4455	139.654
29	-2.99573	-1.19522	82.8741	143.234
30	-2.99573	-1.17499	84.2547	146.754
31	-2.99573	-1.15522	85.5892	150.215
32	-2.99573	-1.1359	86.8795	153.618
33	-2.99573	-1.11699	88.1271	156.964
34	-2.99573	-1.09847	89.3338	160.255
35	-2.99573	-1.08032	90.5009	163.491
36	-2.99573	-1.06252	91.6298	166.674
37	-2.99573	-1.04505	92.7219	169.805
38	-2.99573	-1.02789	93.7785	172.884
39	-2.99573	-1.01104	94.8007	175.913
40	-2.99573	-0.994457	95.7896	178.892
41	-2.99573	-0.97815	96.7464	181.822
42	-2.99573	-0.9621	97.6721	184.704
43	-2.99573	-0.946291	98.5675	187.539
44	-2.99573	-0.930718	99.4338	190.327
45	-2.99573	-0.915365	100.272	193.069
46	-2.99573	-0.900227	101.082	195.766
47	-2.99573	-0.885291	101.866	198.418
48	-2.99573	-0.87055	102.624	201.026
49	-2.99573	-0.855996	103.356	203.591
50	-2.99573	-0.841621	104.065	206.112
51	-2.99573	-0.827417	104.749	208.591

52	-2.99573	-0.813379	105.411	211.027
53	-2.99573	-0.7995	106.05	213.422
54	-2.99573	-0.785774	106.668	215.776
55	-2.99573	-0.772193	107.264	218.09
56	-2.99573	-0.758753	107.84	220.363
57	-2.99573	-0.745449	108.395	222.596
58	-2.30259	-0.732275	108.931	224.282
59	-2.12026	-0.719228	109.449	225.807
60	-1.89712	-0.706302	109.948	227.147
61	-1.89712	-0.693493	110.429	228.463
62	-1.51413	-0.680797	110.892	229.493
63	-0.693147	-0.665079	111.334	229.954
64	-0.693147	-0.652622	111.76	230.407
65	-0.693147	-0.640266	112.17	230.851
66	-0.693147	-0.628006	112.565	231.286
67	-0.693147	-0.615839	112.944	231.713
68	-0.693147	-0.603765	113.308	232.131
69	-0.693147	-0.591776	113.659	232.541
70	-0.693147	-0.579873	113.995	232.943
71	-0.693147	-0.568052	114.318	233.337
72	-0.693147	-0.556308	114.627	233.723
73	-0.693147	-0.544642	114.924	234.1
74	-0.693147	-0.533048	115.208	234.47
75	-0.693147	-0.521527	115.48	234.831
76	-0.693147	-0.510074	115.74	235.185
77	-0.693147	-0.498687	115.989	235.53
78	-0.693147	-0.487364	116.226	235.868
79	-0.693147	-0.476105	116.453	236.198
80	-0.693147	-0.464904	116.669	236.52
81	-0.693147	-0.453763	116.875	236.835
82	-0.693147	-0.442676	117.071	237.142
83	-0.693147	-0.431644	117.257	237.441
84	-0.693147	-0.420664	117.434	237.733
85	-0.693147	-0.409735	117.602	238.017
86	-0.693147	-0.398855	117.761	238.293
87	-0.693147	-0.388022	117.912	238.562
88	-0.693147	-0.377233	118.054	238.823
89	-0.693147	-0.36649	118.188	239.078
90	-0.693147	-0.355788	118.315	239.324
91	-0.693147	-0.345126	118.434	239.563
92	-0.693147	-0.334503	118.546	239.795
93	-0.693147	-0.323919	118.651	240.02
94	-0.693147	-0.31337	118.749	240.237
95	-0.693147	-0.302855	118.841	240.447
96	-0.693147	-0.292375	118.926	240.65
97	-0.693147	-0.281926	119.006	240.845
98	-0.693147	-0.271509	119.079	241.033
99	-0.693147	-0.26112	119.148	241.214
100	-0.693147	-0.250759	119.21	241.388
101	-0.693147	-0.240426	119.268	241.555
102	-0.693147	-0.230118	119.321	241.714
103	-0.693147	-0.219834	119.37	241.866
104	-0.693147	-0.209575	119.413	242.012
105	-0.693147	-0.199336	119.453	242.15
106	-0.693147	-0.189118	119.489	242.281
107	-0.693147	-0.17892	119.521	242.405
108	-0.693147	-0.168741	119.549	242.522
109	-0.693147	-0.158579	119.575	242.632
110	-0.693147	-0.148434	119.597	242.735
111	-0.693147	-0.138305	119.616	242.831
112	-0.693147	-0.128189	119.632	242.92
113	-0.693147	-0.118085	119.646	243.001

114	-0.693147	-0.107995	119.658	243.076
115	-0.693147	-0.0979139	119.667	243.144
116	-0.693147	-0.0878447	119.675	243.205
117	-0.693147	-0.0777834	119.681	243.259
118	-0.693147	-0.0677301	119.686	243.306
119	-0.693147	-0.0576847	119.689	243.346
120	-0.693147	-0.0476439	119.691	243.379
121	-0.693147	-0.0376076	119.693	243.405
122	-0.693147	-0.0275759	119.694	243.424
123	-0.693147	-0.0175476	119.694	243.436
124	-0.693147	-0.00751925	119.694	243.441
125	-0.693147	0.00751925	119.694	243.436
126	-0.693147	0.0175476	119.694	243.424
127	-0.693147	0.0275759	119.695	243.405
128	-0.693147	0.0376076	119.696	243.379
129	-0.693147	0.0476439	119.699	243.346
130	-0.693147	0.0576847	119.702	243.306
131	-0.693147	0.0677301	119.707	243.259
132	-0.693147	0.0777834	119.713	243.205
133	-0.693147	0.0878447	119.72	243.144
134	-0.693147	0.0979139	119.73	243.076
135	-0.693147	0.107995	119.742	243.001
136	-0.693147	0.118085	119.756	242.92
137	-0.693147	0.128189	119.772	242.831
138	-0.693147	0.138305	119.791	242.735
139	-0.693147	0.148434	119.813	242.632
140	-0.693147	0.158579	119.838	242.522
141	-0.693147	0.168741	119.867	242.405
142	-0.693147	0.17892	119.899	242.281
143	-0.693147	0.189118	119.935	242.15
144	-0.693147	0.199336	119.974	242.012
145	-0.693147	0.209575	120.018	241.866
146	-0.693147	0.219834	120.067	241.714
147	-0.693147	0.230118	120.119	241.555
148	-0.693147	0.240426	120.177	241.388
149	-0.693147	0.250759	120.24	241.214
150	-0.693147	0.26112	120.308	241.033
151	-0.693147	0.271509	120.382	240.845
152	-0.693147	0.281926	120.462	240.65
153	-0.693147	0.292375	120.547	240.447
154	-0.693147	0.302855	120.639	240.237
155	-0.693147	0.31337	120.737	240.02
156	-0.693147	0.323919	120.842	239.795
157	-0.693147	0.334503	120.954	239.563
158	-0.693147	0.345126	121.073	239.324
159	-0.693147	0.355788	121.199	239.078
160	-0.693147	0.36649	121.334	238.823
161	-0.693147	0.377233	121.476	238.562
162	-0.693147	0.388022	121.627	238.293
163	-0.693147	0.398855	121.786	238.017
164	-0.693147	0.409735	121.954	237.733
165	-0.693147	0.420664	122.131	237.441
166	-0.693147	0.431644	122.317	237.142
167	-0.693147	0.442676	122.513	236.835
168	-0.693147	0.453763	122.719	236.52
169	-0.693147	0.464904	122.935	236.198
170	-0.693147	0.476105	123.162	235.868
171	-0.693147	0.487364	123.399	235.53
172	-0.693147	0.498687	123.648	235.185
173	-0.693147	0.510074	123.908	234.831
174	-0.693147	0.521527	124.18	234.47
175	-0.693147	0.533048	124.464	234.1

176	-0.693147	0.544642		124.761	233.723
177	-0.693147	0.556308		125.07	233.337
178	-0.693147	0.568052		125.393	232.943
179	-0.693147	0.579873		125.729	232.541
180	-0.693147	0.591776		126.079	232.131
181	-0.693147	0.603765		126.444	231.713
182	-0.693147	0.615839		126.823	231.286
183	-0.693147	0.628006		127.218	230.851
184	-0.693147	0.640266		127.627	230.407
185	-0.693147	0.652622		128.053	229.954
186	-0.693147	0.665079		128.496	229.493
187	-0.693147	0.680797		128.959	229.021
188	-0.693147	0.693493		129.44	228.541
189	-0.693147	0.706302		129.939	228.051
190	-0.693147	0.719228		130.456	227.553
191	-0.693147	0.732275		130.993	227.045
192	-0.693147	0.745449		131.548	226.528
193	-0.693147	0.758753		132.124	226.002
194	-0.693147	0.772193		132.72	225.467
195	-0.693147	0.785774		133.338	224.923
196	-0.693147	0.7995	133.977	224.368	
197	-0.693147	0.813379		134.638	223.805
198	-0.693147	0.827417		135.323	223.231
199	-0.693147	0.841621		136.031	222.648
200	-0.693147	0.855996		136.764	222.054
201	-0.693147	0.87055	137.522	221.451	
202	-0.693147	0.885291		138.306	220.837
203	-0.693147	0.900227		139.116	220.213
204	-0.693147	0.915365		139.954	219.579
205	-0.693147	0.930718		140.82	218.934
206	-0.693147	0.946291		141.716	218.278
207	-0.693147	0.9621	142.641	217.611	
208	-0.693147	0.97815	143.598	216.933	
209	-0.693147	0.994457		144.587	216.244
210	-0.693147	1.01104	145.609	215.543	
211	-0.693147	1.02789	146.666	214.83	
212	-0.693147	1.04505	147.758	214.106	
213	-0.693147	1.06252	148.887	213.369	
214	-0.693147	1.08032	150.054	212.621	
215	-0.693147	1.09847	151.261	211.859	
216	-0.693147	1.11699	152.508	211.085	
217	-0.693147	1.1359	153.799	210.298	
218	-0.693147	1.15522	155.133	209.497	
219	-0.693147	1.17499	156.514	208.682	
220	-0.693147	1.19522	157.942	207.854	
221	-0.693147	1.21596	159.421	207.011	
222	-0.693147	1.23724	160.952	206.154	
223	-0.693147	1.25908	162.537	205.281	
224	-0.693147	1.28155	164.179	204.393	
225	-0.693147	1.30469	165.881	203.488	
226	-0.693147	1.32854	167.646	202.567	
227	-0.693147	1.35317	169.477	201.629	
228	-0.693147	1.37866	171.378	200.674	
229	-0.693147	1.40507	173.352	199.7	
230	-0.693147	1.4325	175.404	198.707	
231	-0.693147	1.46106	177.539	197.694	
232	-0.693147	1.49085	179.762	196.661	
233	-0.693147	1.52203	182.078	195.606	
234	-0.693147	1.55477	184.496	194.528	
235	-0.693147	1.58927	187.022	193.427	
236	-0.693147	1.62576	189.665	192.3	
237	-0.693147	1.66456	192.435	191.146	

238	-0.693147	1.70604	195.346	189.963
239	-0.693147	1.75069	198.411	188.75
240	-0.693147	1.79912	201.648	187.503
241	-0.693147	1.85218	205.078	186.219
242	-0.693147	1.91103	208.73	184.894
243	-0.693147	1.97737	212.64	183.524
244	-0.693147	2.05375	216.858	182.1
245	-0.693147	2.14441	221.457	180.614
246	-0.693147	2.25713	226.551	179.049
247	-0.693147	2.40892	232.354	177.38
248	2.30259	2.65209	239.388	183.486

Data Set Standard Deviation = 0.998824
Numerator = 33667.2
Denominator = 58989.8
W Statistic = 0.570729 = 33667.2 / 58989.8

5% Critical value of 0.976 exceeds 0.570729
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.570729
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Thallium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.754888
0.754888 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.99573	0.00401606	-2.65209	39.3805	344.01
2	-2.99573	0.00803213	-2.40892	39.3805	332.136
3	-2.99573	0.0120482	-2.25713	39.3805	324.723
4	-2.99573	0.0160643	-2.14441	39.3805	319.219
5	-2.99573	0.0200803	-2.05375	39.3805	314.791
6	-2.99573	0.0240964	-1.97737	39.3805	311.062
7	-2.99573	0.0281124	-1.91103	39.3805	307.822
8	-2.99573	0.0321285	-1.85218	39.3805	304.948
9	-2.99573	0.0361446	-1.79912	39.3805	302.357
10	-2.99573	0.0401606	-1.75069	39.3805	299.992
11	-2.99573	0.0441767	-1.70604	39.3805	297.812
12	-2.99573	0.0481928	-1.66456	39.3805	295.786
13	-2.99573	0.0522088	-1.62576	39.3805	293.891
14	-2.99573	0.0562249	-1.58927	39.3805	292.109
15	-2.99573	0.060241	-1.55477	39.3805	290.425
16	-2.99573	0.064257	-1.52203	39.3805	288.826
17	-2.99573	0.0682731	-1.49085	39.3805	287.303
18	-2.99573	0.0722892	-1.46106	39.3805	285.848
19	-2.99573	0.0763052	-1.4325	39.3805	284.454
20	-2.99573	0.0803213	-1.40507	39.3805	283.114
21	-2.99573	0.0843373	-1.37866	39.3805	281.824
22	-2.99573	0.0883534	-1.35317	39.3805	280.58
23	-2.99573	0.0923695	-1.32854	39.3805	279.377
24	-2.99573	0.0963855	-1.30469	39.3805	278.212
25	-2.99573	0.100402	-1.28155	39.3805	277.082
26	-2.99573	0.104418	-1.25908	39.3805	275.985
27	-2.99573	0.108434	-1.23724	39.3805	274.918
28	-2.99573	0.11245	-1.21596	39.3805	273.879
29	-2.99573	0.116466	-1.19522	39.3805	272.867
30	-2.99573	0.120482	-1.17499	39.3805	271.879
31	-2.99573	0.124498	-1.15522	39.3805	270.913
32	-2.99573	0.128514	-1.1359	39.3805	269.97
33	-2.99573	0.13253	-1.11699	39.3805	269.046
34	-2.99573	0.136546	-1.09847	39.3805	268.142
35	-2.99573	0.140562	-1.08032	39.3805	267.256
36	-2.99573	0.144578	-1.06252	39.3805	266.386
37	-2.99573	0.148594	-1.04505	39.3805	265.533
38	-2.99573	0.15261	-1.02789	39.3805	264.695
39	-2.99573	0.156627	-1.01104	39.3805	263.872
40	-2.99573	0.160643	-0.994457	39.3805	263.063
41	-2.99573	0.164659	-0.97815	39.3805	262.266
42	-2.99573	0.168675	-0.9621	39.3805	261.483
43	-2.99573	0.172691	-0.946291	39.3805	260.711
44	-2.99573	0.176707	-0.930718	39.3805	259.95
45	-2.99573	0.180723	-0.915365	39.3805	259.2
46	-2.99573	0.184739	-0.900227	39.3805	258.461
47	-2.99573	0.188755	-0.885291	39.3805	257.732
48	-2.99573	0.192771	-0.87055	39.3805	257.012

49	-2.995730.196787	-0.855996	39.3805	256.301	
50	-2.995730.200803	-0.841621	39.3805	255.599	
51	-2.995730.204819	-0.827417	39.3805	254.906	
52	-2.995730.208835	-0.813379	39.3805	254.22	
53	-2.995730.212851	-0.7995	39.3805	253.542	
54	-2.995730.216867	-0.785774	39.3805	252.872	
55	-2.995730.220884	-0.772193	39.3805	252.209	
56	-2.995730.2249	-0.758753	39.3805	251.552	
57	-2.995730.228916	-0.745449	39.3805	250.903	
58	-2.302590.232932	-0.732275	101.186	250.259	
59	-2.120260.236948	-0.719228	117.443	249.622	
60	-1.897120.240964	-0.706302	137.34	248.991	
61	-1.897120.24498	-0.693493	137.34	248.366	
62	-1.514130.248996	-0.680797	171.49	247.746	
63	-0.693147	0.253012	-0.665079	244.694	246.978
64	-0.693147	0.257028	-0.652622	244.694	246.37
65	-0.693147	0.261044	-0.640266	244.694	245.766
66	-0.693147	0.26506	-0.628006	244.694	245.168
67	-0.693147	0.269076	-0.615839	244.694	244.573
68	-0.693147	0.273092	-0.603765	244.694	243.984
69	-0.693147	0.277108	-0.591776	244.694	243.398
70	-0.693147	0.281124	-0.579873	244.694	242.817
71	-0.693147	0.285141	-0.568052	244.694	242.24
72	-0.693147	0.289157	-0.556308	244.694	241.666
73	-0.693147	0.293173	-0.544642	244.694	241.097
74	-0.693147	0.297189	-0.533048	244.694	240.531
75	-0.693147	0.301205	-0.521527	244.694	239.968
76	-0.693147	0.305221	-0.510074	244.694	239.409
77	-0.693147	0.309237	-0.498687	244.694	238.853
78	-0.693147	0.313253	-0.487364	244.694	238.3
79	-0.693147	0.317269	-0.476105	244.694	237.75
80	-0.693147	0.321285	-0.464904	244.694	237.203
81	-0.693147	0.325301	-0.453763	244.694	236.659
82	-0.693147	0.329317	-0.442676	244.694	236.117
83	-0.693147	0.333333	-0.431644	244.694	235.579
84	-0.693147	0.337349	-0.420664	244.694	235.042
85	-0.693147	0.341365	-0.409735	244.694	234.509
86	-0.693147	0.345382	-0.398855	244.694	233.977
87	-0.693147	0.349398	-0.388022	244.694	233.448
88	-0.693147	0.353414	-0.377233	244.694	232.922
89	-0.693147	0.35743	-0.36649	244.694	232.397
90	-0.693147	0.361446	-0.355788	244.694	231.874
91	-0.693147	0.365462	-0.345126	244.694	231.354
92	-0.693147	0.369478	-0.334503	244.694	230.835
93	-0.693147	0.373494	-0.323919	244.694	230.318
94	-0.693147	0.37751	-0.31337	244.694	229.803
95	-0.693147	0.381526	-0.302855	244.694	229.289
96	-0.693147	0.385542	-0.292375	244.694	228.778
97	-0.693147	0.389558	-0.281926	244.694	228.267
98	-0.693147	0.393574	-0.271509	244.694	227.759
99	-0.693147	0.39759	-0.26112	244.694	227.251
100	-0.693147	0.401606	-0.250759	244.694	226.745
101	-0.693147	0.405622	-0.240426	244.694	226.241
102	-0.693147	0.409639	-0.230118	244.694	225.737
103	-0.693147	0.413655	-0.219834	244.694	225.235
104	-0.693147	0.417671	-0.209575	244.694	224.734
105	-0.693147	0.421687	-0.199336	244.694	224.234
106	-0.693147	0.425703	-0.189118	244.694	223.735
107	-0.693147	0.429719	-0.17892	244.694	223.237
108	-0.693147	0.433735	-0.168741	244.694	222.74
109	-0.693147	0.437751	-0.158579	244.694	222.244
110	-0.693147	0.441767	-0.148434	244.694	221.749

111	-0.693147	0.445783	-0.138305	244.694	221.254
112	-0.693147	0.449799	-0.128189	244.694	220.76
113	-0.693147	0.453815	-0.118085	244.694	220.267
114	-0.693147	0.457831	-0.107995	244.694	219.774
115	-0.693147	0.461847	-0.0979139	244.694	219.281
116	-0.693147	0.465863	-0.0878447	244.694	218.79
117	-0.693147	0.46988	-0.0777834	244.694	218.298
118	-0.693147	0.473896	-0.0677301	244.694	217.807
119	-0.693147	0.477912	-0.0576847	244.694	217.317
120	-0.693147	0.481928	-0.0476439	244.694	216.827
121	-0.693147	0.485944	-0.0376076	244.694	216.337
122	-0.693147	0.48996	-0.0275759	244.694	215.847
123	-0.693147	0.493976	-0.0175476	244.694	215.357
124	-0.693147	0.497992	-0.00751925	244.694	214.867
125	-0.693147	0.502008	0.00751925	244.694	214.133
126	-0.693147	0.506024	0.0175476	244.694	213.643
127	-0.693147	0.51004	0.0275759	244.694	213.153
128	-0.693147	0.514056	0.0376076	244.694	212.663
129	-0.693147	0.518072	0.0476439	244.694	212.173
130	-0.693147	0.522088	0.0576847	244.694	211.683
131	-0.693147	0.526104	0.0677301	244.694	211.193
132	-0.693147	0.53012	0.0777834	244.694	210.702
133	-0.693147	0.534137	0.0878447	244.694	210.21
134	-0.693147	0.538153	0.0979139	244.694	209.719
135	-0.693147	0.542169	0.107995	244.694	209.226
136	-0.693147	0.546185	0.118085	244.694	208.733
137	-0.693147	0.550201	0.128189	244.694	208.24
138	-0.693147	0.554217	0.138305	244.694	207.746
139	-0.693147	0.558233	0.148434	244.694	207.251
140	-0.693147	0.562249	0.158579	244.694	206.756
141	-0.693147	0.566265	0.168741	244.694	206.26
142	-0.693147	0.570281	0.17892	244.694	205.763
143	-0.693147	0.574297	0.189118	244.694	205.265
144	-0.693147	0.578313	0.199336	244.694	204.766
145	-0.693147	0.582329	0.209575	244.694	204.266
146	-0.693147	0.586345	0.219834	244.694	203.765
147	-0.693147	0.590361	0.230118	244.694	203.263
148	-0.693147	0.594378	0.240426	244.694	202.759
149	-0.693147	0.598394	0.250759	244.694	202.255
150	-0.693147	0.60241	0.26112	244.694	201.749
151	-0.693147	0.606426	0.271509	244.694	201.241
152	-0.693147	0.610442	0.281926	244.694	200.733
153	-0.693147	0.614458	0.292375	244.694	200.222
154	-0.693147	0.618474	0.302855	244.694	199.711
155	-0.693147	0.62249	0.31337	244.694	199.197
156	-0.693147	0.626506	0.323919	244.694	198.682
157	-0.693147	0.630522	0.334503	244.694	198.165
158	-0.693147	0.634538	0.345126	244.694	197.646
159	-0.693147	0.638554	0.355788	244.694	197.126
160	-0.693147	0.64257	0.36649	244.694	196.603
161	-0.693147	0.646586	0.377233	244.694	196.078
162	-0.693147	0.650602	0.388022	244.694	195.552
163	-0.693147	0.654618	0.398855	244.694	195.023
164	-0.693147	0.658635	0.409735	244.694	194.491
165	-0.693147	0.662651	0.420664	244.694	193.958
166	-0.693147	0.666667	0.431644	244.694	193.421
167	-0.693147	0.670683	0.442676	244.694	192.883
168	-0.693147	0.674699	0.453763	244.694	192.341
169	-0.693147	0.678715	0.464904	244.694	191.797
170	-0.693147	0.682731	0.476105	244.694	191.25
171	-0.693147	0.686747	0.487364	244.694	190.7
172	-0.693147	0.690763	0.498687	244.694	190.147

173	-0.693147	0.694779	0.510074	244.694	189.591
174	-0.693147	0.698795	0.521527	244.694	189.032
175	-0.693147	0.702811	0.533048	244.694	188.469
176	-0.693147	0.706827	0.544642	244.694	187.903
177	-0.693147	0.710843	0.556308	244.694	187.334
178	-0.693147	0.714859	0.568052	244.694	186.76
179	-0.693147	0.718876	0.579873	244.694	186.183
180	-0.693147	0.722892	0.591776	244.694	185.602
181	-0.693147	0.726908	0.603765	244.694	185.016
182	-0.693147	0.730924	0.615839	244.694	184.427
183	-0.693147	0.73494	0.628006	244.694	183.832
184	-0.693147	0.738956	0.640266	244.694	183.234
185	-0.693147	0.742972	0.652622	244.694	182.63
186	-0.693147	0.746988	0.665079	244.694	182.022
187	-0.693147	0.751004	0.680797	244.694	181.254
188	-0.693147	0.75502	0.693493	244.694	180.634
189	-0.693147	0.759036	0.706302	244.694	180.009
190	-0.693147	0.763052	0.719228	244.694	179.378
191	-0.693147	0.767068	0.732275	244.694	178.741
192	-0.693147	0.771084	0.745449	244.694	178.097
193	-0.693147	0.7751	0.758753	244.694	177.448
194	-0.693147	0.779116	0.772193	244.694	176.791
195	-0.693147	0.783133	0.785774	244.694	176.128
196	-0.693147	0.787149	0.7995	244.694	175.458
197	-0.693147	0.791165	0.813379	244.694	174.78
198	-0.693147	0.795181	0.827417	244.694	174.094
199	-0.693147	0.799197	0.841621	244.694	173.401
200	-0.693147	0.803213	0.855996	244.694	172.699
201	-0.693147	0.807229	0.87055	244.694	171.988
202	-0.693147	0.811245	0.885291	244.694	171.268
203	-0.693147	0.815261	0.900227	244.694	170.539
204	-0.693147	0.819277	0.915365	244.694	169.8
205	-0.693147	0.823293	0.930718	244.694	169.05
206	-0.693147	0.827309	0.946291	244.694	168.289
207	-0.693147	0.831325	0.9621	244.694	167.517
208	-0.693147	0.835341	0.97815	244.694	166.734
209	-0.693147	0.839357	0.994457	244.694	165.937
210	-0.693147	0.843373	1.01104	244.694	165.128
211	-0.693147	0.84739	1.02789	244.694	164.305
212	-0.693147	0.851406	1.04505	244.694	163.467
213	-0.693147	0.855422	1.06252	244.694	162.614
214	-0.693147	0.859438	1.08032	244.694	161.744
215	-0.693147	0.863454	1.09847	244.694	160.858
216	-0.693147	0.86747	1.11699	244.694	159.954
217	-0.693147	0.871486	1.1359	244.694	159.03
218	-0.693147	0.875502	1.15522	244.694	158.087
219	-0.693147	0.879518	1.17499	244.694	157.121
220	-0.693147	0.883534	1.19522	244.694	156.133
221	-0.693147	0.88755	1.21596	244.694	155.121
222	-0.693147	0.891566	1.23724	244.694	154.082
223	-0.693147	0.895582	1.25908	244.694	153.015
224	-0.693147	0.899598	1.28155	244.694	151.918
225	-0.693147	0.903614	1.30469	244.694	150.788
226	-0.693147	0.907631	1.32854	244.694	149.623
227	-0.693147	0.911647	1.35317	244.694	148.42
228	-0.693147	0.915663	1.37866	244.694	147.176
229	-0.693147	0.919679	1.40507	244.694	145.886
230	-0.693147	0.923695	1.4325	244.694	144.546
231	-0.693147	0.927711	1.46106	244.694	143.152
232	-0.693147	0.931727	1.49085	244.694	141.697
233	-0.693147	0.935743	1.52203	244.694	140.174
234	-0.693147	0.939759	1.55477	244.694	138.575

235	-0.693147	0.943775	1.58927	244.694	136.891
236	-0.693147	0.947791	1.62576	244.694	135.109
237	-0.693147	0.951807	1.66456	244.694	133.214
238	-0.693147	0.955823	1.70604	244.694	131.188
239	-0.693147	0.959839	1.75069	244.694	129.008
240	-0.693147	0.963855	1.79912	244.694	126.643
241	-0.693147	0.967871	1.85218	244.694	124.052
242	-0.693147	0.971888	1.91103	244.694	121.178
243	-0.693147	0.975904	1.97737	244.694	117.938
244	-0.693147	0.97992	2.05375	244.694	114.209
245	-0.693147	0.983936	2.14441	244.694	109.781
246	-0.693147	0.987952	2.25713	244.694	104.277
247	-0.693147	0.991968	2.40892	244.694	96.8642
248	2.30259	0.995984	2.65209	511.814	84.9898

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Thallium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 97.5806%
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-10	6/5/2012	1	-2.99573	FALSE
MW-9	6/5/2012	1	-2.99573	FALSE
MW-7	6/5/2012	1	-2.99573	FALSE
MW-6	6/5/2012	1	-2.99573	FALSE
MW-11R	6/5/2012	1	-2.99573	FALSE
MW-8	6/5/2012	1	-2.99573	FALSE
MW-12BR	6/5/2012	1	-2.99573	FALSE
MW-12AR	6/5/2012	1	-2.12026	FALSE

Concentrations (ppb)

Parameter: Tin

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 230
Percent Non-Detects: 92.7419%
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-10	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	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
			6/5/2012	0.88 J	0.88 J
MW-9	32	27 (84.375%)	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
			6/5/2012	0.68 J	0.68 J
MW-7	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	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	
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-8	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	
			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
			6/5/2012	ND<0.4 U	ND<0.4 U	
MW-6	31	30 (96.7742%)	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	
		6/5/2012	0.5 J	0.5 J	
MW-11R	32	28 (87.5%)	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	
		6/5/2012	0.52 J	0.52 J	
MW-12AR	21	20 (95.2381%)	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	
		6/5/2012	0.68 J	0.68 J	
MW-12BR	21	21 (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	
		6/5/2012	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 = 248

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	-1.91103	34.3095	-3.08094
8	0.2	-1.85218	37.7401	-3.45137
9	0.2	-1.79912	40.9769	-3.8112
10	0.2	-1.75069	44.0418	-4.16133
11	0.2	-1.70604	46.9524	-4.50254
12	0.2	-1.66456	49.7231	-4.83546
13	0.2	-1.62576	52.3662	-5.16061
14	0.2	-1.58927	54.892	-5.47846
15	0.2	-1.55477	57.3093	-5.78942
16	0.2	-1.52203	59.6259	-6.09382
17	0.2	-1.49085	61.8486	-6.39199
18	0.2	-1.46106	63.9833	-6.68421
19	0.2	-1.4325	66.0353	-6.97071
20	0.2	-1.40507	68.0096	-7.25172
21	0.2	-1.37866	69.9102	-7.52745
22	0.2	-1.35317	71.7413	-7.79809
23	0.2	-1.32854	73.5063	-8.0638
24	0.2	-1.30469	75.2086	-8.32473
25	0.2	-1.28155	76.8509	-8.58104
26	0.2	-1.25908	78.4362	-8.83286
27	0.2	-1.23724	79.967	-9.08031
28	0.2	-1.21596	81.4455	-9.3235
29	0.2	-1.19522	82.8741	-9.56254
30	0.2	-1.17499	84.2547	-9.79754
31	0.2	-1.15522	85.5892	-10.0286
32	0.2	-1.1359	86.8795	-10.2558
33	0.2	-1.11699	88.1271	-10.4792
34	0.2	-1.09847	89.3338	-10.6989
35	0.2	-1.08032	90.5009	-10.9149
36	0.2	-1.06252	91.6298	-11.1274
37	0.2	-1.04505	92.7219	-11.3364
38	0.2	-1.02789	93.7785	-11.542
39	0.2	-1.01104	94.8007	-11.7442
40	0.2	-0.994457	95.7896	-11.9431
41	0.2	-0.97815	96.7464	-12.1387
42	0.2	-0.9621	97.6721	-12.3312
43	0.2	-0.946291	98.5675	-12.5204
44	0.2	-0.930718	99.4338	-12.7066
45	0.2	-0.915365	100.272	-12.8896
46	0.2	-0.900227	101.082	-13.0697
47	0.2	-0.885291	101.866	-13.2467
48	0.4	-0.87055	102.624	-13.595
49	0.4	-0.855996	103.356	-13.9374
50	0.4	-0.841621	104.065	-14.274
51	0.45	-0.827417	104.749	-14.6463

52	0.5	-0.813379	105.411	-15.053
53	0.52	-0.7995	106.05	-15.4688
54	0.57	-0.785774	106.668	-15.9167
55	0.58	-0.772193	107.264	-16.3645
56	0.6	-0.758753	107.84	-16.8198
57	0.68	-0.745449	108.395	-17.3267
58	0.68	-0.732275	108.931	-17.8246
59	0.73	-0.719228	109.449	-18.3497
60	0.73	-0.706302	109.948	-18.8653
61	0.88	-0.693493	110.429	-19.4756
62	3	-0.680797	110.892	-21.5179
63	5.1	-0.665079	111.334	-24.9098
64	10	-0.652622	111.76	-31.4361
65	10	-0.640266	112.17	-37.8387
66	10	-0.628006	112.565	-44.1188
67	10	-0.615839	112.944	-50.2772
68	10	-0.603765	113.308	-56.3148
69	10	-0.591776	113.659	-62.2326
70	10	-0.579873	113.995	-68.0313
71	10	-0.568052	114.318	-73.7118
72	10	-0.556308	114.627	-79.2749
73	10	-0.544642	114.924	-84.7213
74	10	-0.533048	115.208	-90.0518
75	10	-0.521527	115.48	-95.2671
76	10	-0.510074	115.74	-100.368
77	10	-0.498687	115.989	-105.355
78	10	-0.487364	116.226	-110.228
79	10	-0.476105	116.453	-114.989
80	10	-0.464904	116.669	-119.638
81	10	-0.453763	116.875	-124.176
82	10	-0.442676	117.071	-128.603
83	10	-0.431644	117.257	-132.919
84	10	-0.420664	117.434	-137.126
85	10	-0.409735	117.602	-141.223
86	10	-0.398855	117.761	-145.212
87	10	-0.388022	117.912	-149.092
88	10	-0.377233	118.054	-152.864
89	10	-0.36649	118.188	-156.529
90	10	-0.355788	118.315	-160.087
91	10	-0.345126	118.434	-163.538
92	10	-0.334503	118.546	-166.883
93	10	-0.323919	118.651	-170.123
94	10	-0.31337	118.749	-173.256
95	10	-0.302855	118.841	-176.285
96	10	-0.292375	118.926	-179.209
97	10	-0.281926	119.006	-182.028
98	10	-0.271509	119.079	-184.743
99	10	-0.26112	119.148	-187.354
100	10	-0.250759	119.21	-189.862
101	10	-0.240426	119.268	-192.266
102	10	-0.230118	119.321	-194.567
103	10	-0.219834	119.37	-196.766
104	10	-0.209575	119.413	-198.861
105	10	-0.199336	119.453	-200.855
106	10	-0.189118	119.489	-202.746
107	10	-0.17892	119.521	-204.535
108	10	-0.168741	119.549	-206.222
109	10	-0.158579	119.575	-207.808
110	10	-0.148434	119.597	-209.293
111	10	-0.138305	119.616	-210.676
112	10	-0.128189	119.632	-211.958
113	10	-0.118085	119.646	-213.138

114	10	-0.107995	119.658	-214.218
115	10	-0.0979139	119.667	-215.197
116	10	-0.0878447	119.675	-216.076
117	10	-0.0777834	119.681	-216.854
118	10	-0.0677301	119.686	-217.531
119	10	-0.0576847	119.689	-218.108
120	10	-0.0476439	119.691	-218.584
121	10	-0.0376076	119.693	-218.96
122	10	-0.0275759	119.694	-219.236
123	10	-0.0175476	119.694	-219.412
124	10	-0.00751925	119.694	-219.487
125	10	0.00751925	119.694	-219.412
126	10	0.0175476	119.694	-219.236
127	10	0.0275759	119.695	-218.96
128	10	0.0376076	119.696	-218.584
129	10	0.0476439	119.699	-218.108
130	10	0.0576847	119.702	-217.531
131	10	0.0677301	119.707	-216.854
132	10	0.0777834	119.713	-216.076
133	10	0.0878447	119.72	-215.197
134	10	0.0979139	119.73	-214.218
135	10	0.107995	119.742	-213.138
136	10	0.118085	119.756	-211.958
137	10	0.128189	119.772	-210.676
138	10	0.138305	119.791	-209.293
139	10	0.148434	119.813	-207.808
140	10	0.158579	119.838	-206.222
141	10	0.168741	119.867	-204.535
142	10	0.17892	119.899	-202.746
143	10	0.189118	119.935	-200.855
144	10	0.199336	119.974	-198.861
145	10	0.209575	120.018	-196.766
146	10	0.219834	120.067	-194.567
147	10	0.230118	120.119	-192.266
148	10	0.240426	120.177	-189.862
149	10	0.250759	120.24	-187.354
150	10	0.26112	120.308	-184.743
151	10	0.271509	120.382	-182.028
152	10	0.281926	120.462	-179.209
153	10	0.292375	120.547	-176.285
154	10	0.302855	120.639	-173.256
155	10	0.31337	120.737	-170.123
156	10	0.323919	120.842	-166.883
157	10	0.334503	120.954	-163.538
158	10	0.345126	121.073	-160.087
159	10	0.355788	121.199	-156.529
160	10	0.36649	121.334	-152.864
161	10	0.377233	121.476	-149.092
162	10	0.388022	121.627	-145.212
163	10	0.398855	121.786	-141.223
164	10	0.409735	121.954	-137.126
165	10	0.420664	122.131	-132.919
166	10	0.431644	122.317	-128.603
167	10	0.442676	122.513	-124.176
168	10	0.453763	122.719	-119.638
169	10	0.464904	122.935	-114.989
170	10	0.476105	123.162	-110.228
171	10	0.487364	123.399	-105.355
172	10	0.498687	123.648	-100.368
173	10	0.510074	123.908	-95.2671
174	10	0.521527	124.18	-90.0518
175	10	0.533048	124.464	-84.7213

176	10	0.544642		124.761	-79.2749
177	10	0.556308		125.07	-73.7118
178	10	0.568052		125.393	-68.0313
179	10	0.579873		125.729	-62.2326
180	10	0.591776		126.079	-56.3148
181	10	0.603765		126.444	-50.2772
182	10	0.615839		126.823	-44.1188
183	10	0.628006		127.218	-37.8387
184	10	0.640266		127.627	-31.4361
185	10	0.652622		128.053	-24.9098
186	10	0.665079		128.496	-18.2591
187	10	0.680797		128.959	-11.4511
188	10	0.693493		129.44	-4.51616
189	10	0.706302		129.939	2.54687
190	10	0.719228		130.456	9.73915
191	10	0.732275		130.993	17.0619
192	10	0.745449		131.548	24.5164
193	10	0.758753		132.124	32.1039
194	10	0.772193		132.72	39.8258
195	10	0.785774		133.338	47.6836
196	10	0.7995	133.977	55.6786	
197	10	0.813379		134.638	63.8124
198	10	0.827417		135.323	72.0866
199	10	0.841621		136.031	80.5028
200	10	0.855996		136.764	89.0627
201	10	0.87055	137.522	97.7682	
202	10	0.885291		138.306	106.621
203	10	0.900227		139.116	115.623
204	10	0.915365		139.954	124.777
205	10	0.930718		140.82	134.084
206	10	0.946291		141.716	143.547
207	10	0.9621	142.641	153.168	
208	10	0.97815	143.598	162.95	
209	10	0.994457		144.587	172.894
210	10	1.01104	145.609	183.005	
211	10	1.02789	146.666	193.284	
212	10	1.04505	147.758	203.734	
213	10	1.06252	148.887	214.359	
214	10	1.08032	150.054	225.162	
215	10	1.09847	151.261	236.147	
216	10	1.11699	152.508	247.317	
217	10	1.1359	153.799	258.676	
218	10	1.15522	155.133	270.228	
219	10	1.17499	156.514	281.978	
220	10	1.19522	157.942	293.93	
221	10	1.21596	159.421	306.09	
222	10	1.23724	160.952	318.462	
223	10	1.25908	162.537	331.053	
224	10	1.28155	164.179	343.869	
225	10	1.30469	165.881	356.915	
226	10	1.32854	167.646	370.201	
227	10	1.35317	169.477	383.733	
228	10	1.37866	171.378	397.519	
229	10	1.40507	173.352	411.57	
230	10	1.4325	175.404	425.895	
231	10	1.46106	177.539	440.505	
232	10	1.49085	179.762	455.414	
233	10	1.52203	182.078	470.634	
234	10	1.55477	184.496	486.182	
235	10	1.58927	187.022	502.075	
236	10	1.62576	189.665	518.332	
237	10	1.66456	192.435	534.978	

238	10	1.70604	195.346	552.038
239	10	1.75069	198.411	569.545
240	10	1.79912	201.648	587.536
241	10	1.85218	205.078	606.058
242	10	1.91103	208.73	625.169
243	10	1.97737	212.64	644.942
244	10	2.05375	216.858	665.48
245	10	2.14441	221.457	686.924
246	10	2.25713	226.551	709.495
247	14	2.40892	232.354	743.22
248	35	2.65209	239.388	836.043

Data Set Standard Deviation = 4.55979
Numerator = 698968
Denominator = 1.22939e+006
W Statistic = 0.56855 = 698968 / 1.22939e+006

5% Critical value of 0.976 exceeds 0.56855
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.56855
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 = 0.755577
0.755577 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00401606	-2.65209	41.675	344.01	
2	0.2	0.00803213	-2.40892	41.675	332.136	
3	0.2	0.0120482	-2.25713	41.675	324.723	
4	0.2	0.0160643	-2.14441	41.675	319.219	
5	0.2	0.0200803	-2.05375	41.675	314.791	
6	0.2	0.0240964	-1.97737	41.675	311.062	
7	0.2	0.0281124	-1.91103	41.675	307.822	
8	0.2	0.0321285	-1.85218	41.675	304.948	
9	0.2	0.0361446	-1.79912	41.675	302.357	
10	0.2	0.0401606	-1.75069	41.675	299.992	
11	0.2	0.0441767	-1.70604	41.675	297.812	
12	0.2	0.0481928	-1.66456	41.675	295.786	
13	0.2	0.0522088	-1.62576	41.675	293.891	
14	0.2	0.0562249	-1.58927	41.675	292.109	
15	0.2	0.060241	-1.55477	41.675	290.425	
16	0.2	0.064257	-1.52203	41.675	288.826	
17	0.2	0.0682731	-1.49085	41.675	287.303	
18	0.2	0.0722892	-1.46106	41.675	285.848	
19	0.2	0.0763052	-1.4325	41.675	284.454	
20	0.2	0.0803213	-1.40507	41.675	283.114	
21	0.2	0.0843373	-1.37866	41.675	281.824	
22	0.2	0.0883534	-1.35317	41.675	280.58	
23	0.2	0.0923695	-1.32854	41.675	279.377	
24	0.2	0.0963855	-1.30469	41.675	278.212	
25	0.2	0.100402	-1.28155	41.675	277.082	
26	0.2	0.104418	-1.25908	41.675	275.985	
27	0.2	0.108434	-1.23724	41.675	274.918	
28	0.2	0.11245	-1.21596	41.675	273.879	
29	0.2	0.116466	-1.19522	41.675	272.867	
30	0.2	0.120482	-1.17499	41.675	271.879	
31	0.2	0.124498	-1.15522	41.675	270.913	
32	0.2	0.128514	-1.1359	41.675	269.97	
33	0.2	0.13253	-1.11699	41.675	269.046	
34	0.2	0.136546	-1.09847	41.675	268.142	
35	0.2	0.140562	-1.08032	41.675	267.256	
36	0.2	0.144578	-1.06252	41.675	266.386	
37	0.2	0.148594	-1.04505	41.675	265.533	
38	0.2	0.15261	-1.02789	41.675	264.695	
39	0.2	0.156627	-1.01104	41.675	263.872	
40	0.2	0.160643	-0.994457	41.675	263.063	
41	0.2	0.164659	-0.97815	41.675	262.266	
42	0.2	0.168675	-0.9621	41.675	261.483	
43	0.2	0.172691	-0.946291	41.675	260.711	
44	0.2	0.176707	-0.930718	41.675	259.95	
45	0.2	0.180723	-0.915365	41.675	259.2	
46	0.2	0.184739	-0.900227	41.675	258.461	
47	0.2	0.188755	-0.885291	41.675	257.732	
48	0.4	0.192771	-0.87055	44.35	257.012	

49	0.4	0.196787	-0.855996	44.35	256.301
50	0.4	0.200803	-0.841621	44.35	255.599
51	0.45	0.204819	-0.827417	45.0187	254.906
52	0.5	0.208835	-0.813379	45.6875	254.22
53	0.52	0.212851	-0.7995	45.955	253.542
54	0.57	0.216867	-0.785774	46.6238	252.872
55	0.58	0.220884	-0.772193	46.7575	252.209
56	0.6	0.2249	-0.758753	47.025	251.552
57	0.68	0.228916	-0.745449	48.095	250.903
58	0.68	0.232932	-0.732275	48.095	250.259
59	0.73	0.236948	-0.719228	48.7638	249.622
60	0.73	0.240964	-0.706302	48.7638	248.991
61	0.88	0.24498	-0.693493	50.77	248.366
62	3	0.248996	-0.680797	79.125	247.746
63	5.1	0.253012	-0.665079	107.213	246.978
64	10	0.257028	-0.652622	172.75	246.37
65	10	0.261044	-0.640266	172.75	245.766
66	10	0.26506	-0.628006	172.75	245.168
67	10	0.269076	-0.615839	172.75	244.573
68	10	0.273092	-0.603765	172.75	243.984
69	10	0.277108	-0.591776	172.75	243.398
70	10	0.281124	-0.579873	172.75	242.817
71	10	0.285141	-0.568052	172.75	242.24
72	10	0.289157	-0.556308	172.75	241.666
73	10	0.293173	-0.544642	172.75	241.097
74	10	0.297189	-0.533048	172.75	240.531
75	10	0.301205	-0.521527	172.75	239.968
76	10	0.305221	-0.510074	172.75	239.409
77	10	0.309237	-0.498687	172.75	238.853
78	10	0.313253	-0.487364	172.75	238.3
79	10	0.317269	-0.476105	172.75	237.75
80	10	0.321285	-0.464904	172.75	237.203
81	10	0.325301	-0.453763	172.75	236.659
82	10	0.329317	-0.442676	172.75	236.117
83	10	0.333333	-0.431644	172.75	235.579
84	10	0.337349	-0.420664	172.75	235.042
85	10	0.341365	-0.409735	172.75	234.509
86	10	0.345382	-0.398855	172.75	233.977
87	10	0.349398	-0.388022	172.75	233.448
88	10	0.353414	-0.377233	172.75	232.922
89	10	0.35743	-0.36649	172.75	232.397
90	10	0.361446	-0.355788	172.75	231.874
91	10	0.365462	-0.345126	172.75	231.354
92	10	0.369478	-0.334503	172.75	230.835
93	10	0.373494	-0.323919	172.75	230.318
94	10	0.37751	-0.31337	172.75	229.803
95	10	0.381526	-0.302855	172.75	229.289
96	10	0.385542	-0.292375	172.75	228.778
97	10	0.389558	-0.281926	172.75	228.267
98	10	0.393574	-0.271509	172.75	227.759
99	10	0.39759	-0.26112	172.75	227.251
100	10	0.401606	-0.250759	172.75	226.745
101	10	0.405622	-0.240426	172.75	226.241
102	10	0.409639	-0.230118	172.75	225.737
103	10	0.413655	-0.219834	172.75	225.235
104	10	0.417671	-0.209575	172.75	224.734
105	10	0.421687	-0.199336	172.75	224.234
106	10	0.425703	-0.189118	172.75	223.735
107	10	0.429719	-0.17892	172.75	223.237
108	10	0.433735	-0.168741	172.75	222.74
109	10	0.437751	-0.158579	172.75	222.244
110	10	0.441767	-0.148434	172.75	221.749

111	10	0.445783	-0.138305	172.75	221.254
112	10	0.449799	-0.128189	172.75	220.76
113	10	0.453815	-0.118085	172.75	220.267
114	10	0.457831	-0.107995	172.75	219.774
115	10	0.461847	-0.0979139	172.75	219.281
116	10	0.465863	-0.0878447	172.75	218.79
117	10	0.46988	-0.0777834	172.75	218.298
118	10	0.473896	-0.0677301	172.75	217.807
119	10	0.477912	-0.0576847	172.75	217.317
120	10	0.481928	-0.0476439	172.75	216.827
121	10	0.485944	-0.0376076	172.75	216.337
122	10	0.48996	-0.0275759	172.75	215.847
123	10	0.493976	-0.0175476	172.75	215.357
124	10	0.497992	-0.00751925	172.75	214.867
125	10	0.502008	0.00751925	172.75	214.133
126	10	0.506024	0.0175476	172.75	213.643
127	10	0.51004	0.0275759	172.75	213.153
128	10	0.514056	0.0376076	172.75	212.663
129	10	0.518072	0.0476439	172.75	212.173
130	10	0.522088	0.0576847	172.75	211.683
131	10	0.526104	0.0677301	172.75	211.193
132	10	0.53012	0.0777834	172.75	210.702
133	10	0.534137	0.0878447	172.75	210.21
134	10	0.538153	0.0979139	172.75	209.719
135	10	0.542169	0.107995	172.75	209.226
136	10	0.546185	0.118085	172.75	208.733
137	10	0.550201	0.128189	172.75	208.24
138	10	0.554217	0.138305	172.75	207.746
139	10	0.558233	0.148434	172.75	207.251
140	10	0.562249	0.158579	172.75	206.756
141	10	0.566265	0.168741	172.75	206.26
142	10	0.570281	0.17892	172.75	205.763
143	10	0.574297	0.189118	172.75	205.265
144	10	0.578313	0.199336	172.75	204.766
145	10	0.582329	0.209575	172.75	204.266
146	10	0.586345	0.219834	172.75	203.765
147	10	0.590361	0.230118	172.75	203.263
148	10	0.594378	0.240426	172.75	202.759
149	10	0.598394	0.250759	172.75	202.255
150	10	0.60241	0.26112	172.75	201.749
151	10	0.606426	0.271509	172.75	201.241
152	10	0.610442	0.281926	172.75	200.733
153	10	0.614458	0.292375	172.75	200.222
154	10	0.618474	0.302855	172.75	199.711
155	10	0.62249	0.31337	172.75	199.197
156	10	0.626506	0.323919	172.75	198.682
157	10	0.630522	0.334503	172.75	198.165
158	10	0.634538	0.345126	172.75	197.646
159	10	0.638554	0.355788	172.75	197.126
160	10	0.64257	0.36649	172.75	196.603
161	10	0.646586	0.377233	172.75	196.078
162	10	0.650602	0.388022	172.75	195.552
163	10	0.654618	0.398855	172.75	195.023
164	10	0.658635	0.409735	172.75	194.491
165	10	0.662651	0.420664	172.75	193.958
166	10	0.666667	0.431644	172.75	193.421
167	10	0.670683	0.442676	172.75	192.883
168	10	0.674699	0.453763	172.75	192.341
169	10	0.678715	0.464904	172.75	191.797
170	10	0.682731	0.476105	172.75	191.25
171	10	0.686747	0.487364	172.75	190.7
172	10	0.690763	0.498687	172.75	190.147

173	10	0.694779	0.510074	172.75	189.591
174	10	0.698795	0.521527	172.75	189.032
175	10	0.702811	0.533048	172.75	188.469
176	10	0.706827	0.544642	172.75	187.903
177	10	0.710843	0.556308	172.75	187.334
178	10	0.714859	0.568052	172.75	186.76
179	10	0.718876	0.579873	172.75	186.183
180	10	0.722892	0.591776	172.75	185.602
181	10	0.726908	0.603765	172.75	185.016
182	10	0.730924	0.615839	172.75	184.427
183	10	0.73494	0.628006	172.75	183.832
184	10	0.738956	0.640266	172.75	183.234
185	10	0.742972	0.652622	172.75	182.63
186	10	0.746988	0.665079	172.75	182.022
187	10	0.751004	0.680797	172.75	181.254
188	10	0.75502	0.693493	172.75	180.634
189	10	0.759036	0.706302	172.75	180.009
190	10	0.763052	0.719228	172.75	179.378
191	10	0.767068	0.732275	172.75	178.741
192	10	0.771084	0.745449	172.75	178.097
193	10	0.7751	0.758753	172.75	177.448
194	10	0.779116	0.772193	172.75	176.791
195	10	0.783133	0.785774	172.75	176.128
196	10	0.787149	0.7995	172.75	175.458
197	10	0.791165	0.813379	172.75	174.78
198	10	0.795181	0.827417	172.75	174.094
199	10	0.799197	0.841621	172.75	173.401
200	10	0.803213	0.855996	172.75	172.699
201	10	0.807229	0.87055	172.75	171.988
202	10	0.811245	0.885291	172.75	171.268
203	10	0.815261	0.900227	172.75	170.539
204	10	0.819277	0.915365	172.75	169.8
205	10	0.823293	0.930718	172.75	169.05
206	10	0.827309	0.946291	172.75	168.289
207	10	0.831325	0.9621	172.75	167.517
208	10	0.835341	0.97815	172.75	166.734
209	10	0.839357	0.994457	172.75	165.937
210	10	0.843373	1.01104	172.75	165.128
211	10	0.84739	1.02789	172.75	164.305
212	10	0.851406	1.04505	172.75	163.467
213	10	0.855422	1.06252	172.75	162.614
214	10	0.859438	1.08032	172.75	161.744
215	10	0.863454	1.09847	172.75	160.858
216	10	0.86747	1.11699	172.75	159.954
217	10	0.871486	1.1359	172.75	159.03
218	10	0.875502	1.15522	172.75	158.087
219	10	0.879518	1.17499	172.75	157.121
220	10	0.883534	1.19522	172.75	156.133
221	10	0.88755	1.21596	172.75	155.121
222	10	0.891566	1.23724	172.75	154.082
223	10	0.895582	1.25908	172.75	153.015
224	10	0.899598	1.28155	172.75	151.918
225	10	0.903614	1.30469	172.75	150.788
226	10	0.907631	1.32854	172.75	149.623
227	10	0.911647	1.35317	172.75	148.42
228	10	0.915663	1.37866	172.75	147.176
229	10	0.919679	1.40507	172.75	145.886
230	10	0.923695	1.4325	172.75	144.546
231	10	0.927711	1.46106	172.75	143.152
232	10	0.931727	1.49085	172.75	141.697
233	10	0.935743	1.52203	172.75	140.174
234	10	0.939759	1.55477	172.75	138.575

235	10	0.943775	1.58927	172.75	136.891
236	10	0.947791	1.62576	172.75	135.109
237	10	0.951807	1.66456	172.75	133.214
238	10	0.955823	1.70604	172.75	131.188
239	10	0.959839	1.75069	172.75	129.008
240	10	0.963855	1.79912	172.75	126.643
241	10	0.967871	1.85218	172.75	124.052
242	10	0.971888	1.91103	172.75	121.178
243	10	0.975904	1.97737	172.75	117.938
244	10	0.97992	2.05375	172.75	114.209
245	10	0.983936	2.14441	172.75	109.781
246	10	0.987952	2.25713	172.75	104.277
247	14	0.991968	2.40892	226.25	96.8642
248	35	0.995984	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 = 248

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	-1.91103	34.3095	24.7929	
8	-1.60944	-1.85218	37.7401	27.7739	
9	-1.60944	-1.79912	40.9769	30.6694	
10	-1.60944	-1.75069	44.0418	33.487	
11	-1.60944	-1.70604	46.9524	36.2328	
12	-1.60944	-1.66456	49.7231	38.9118	
13	-1.60944	-1.62576	52.3662	41.5284	
14	-1.60944	-1.58927	54.892	44.0862	
15	-1.60944	-1.55477	57.3093	46.5885	
16	-1.60944	-1.52203	59.6259	49.0382	
17	-1.60944	-1.49085	61.8486	51.4376	
18	-1.60944	-1.46106	63.9833	53.7891	
19	-1.60944	-1.4325	66.0353	56.0946	
20	-1.60944	-1.40507	68.0096	58.356	
21	-1.60944	-1.37866	69.9102	60.5748	
22	-1.60944	-1.35317	71.7413	62.7527	
23	-1.60944	-1.32854	73.5063	64.8909	
24	-1.60944	-1.30469	75.2086	66.9907	
25	-1.60944	-1.28155	76.8509	69.0533	
26	-1.60944	-1.25908	78.4362	71.0797	
27	-1.60944	-1.23724	79.967	73.071	
28	-1.60944	-1.21596	81.4455	75.028	
29	-1.60944	-1.19522	82.8741	76.9516	
30	-1.60944	-1.17499	84.2547	78.8427	
31	-1.60944	-1.15522	85.5892	80.7019	
32	-1.60944	-1.1359	86.8795	82.5301	
33	-1.60944	-1.11699	88.1271	84.3278	
34	-1.60944	-1.09847	89.3338	86.0957	
35	-1.60944	-1.08032	90.5009	87.8344	
36	-1.60944	-1.06252	91.6298	89.5445	
37	-1.60944	-1.04505	92.7219	91.2264	
38	-1.60944	-1.02789	93.7785	92.8808	
39	-1.60944	-1.01104	94.8007	94.508	
40	-1.60944	-0.994457		95.7896	96.1085
41	-1.60944	-0.97815	96.7464	97.6827	
42	-1.60944	-0.9621	97.6721	99.2312	
43	-1.60944	-0.946291		98.5675	100.754
44	-1.60944	-0.930718		99.4338	102.252
45	-1.60944	-0.915365		100.272	103.725
46	-1.60944	-0.900227		101.082	105.174
47	-1.60944	-0.885291		101.866	106.599
48	-0.916291		-0.87055	102.624	107.397
49	-0.916291		-0.855996		103.356 108.181
50	-0.916291		-0.841621		104.065 108.952
51	-0.798508		-0.827417		104.749 109.613

52	-0.693147	-0.813379	105.411	110.177
53	-0.653926	-0.7995	106.05	110.7
54	-0.562119	-0.785774	106.668	111.141
55	-0.544727	-0.772193	107.264	111.562
56	-0.510826	-0.758753	107.84	111.949
57	-0.385662	-0.745449	108.395	112.237
58	-0.385662	-0.732275	108.931	112.519
59	-0.314711	-0.719228	109.449	112.746
60	-0.314711	-0.706302	109.948	112.968
61	-0.127833	-0.693493	110.429	113.057
62	1.09861	-0.680797	110.892	112.309
63	1.62924	-0.665079	111.334	111.225
64	2.30259	-0.652622	111.76	109.722
65	2.30259	-0.640266	112.17	108.248
66	2.30259	-0.628006	112.565	106.802
67	2.30259	-0.615839	112.944	105.384
68	2.30259	-0.603765	113.308	103.994
69	2.30259	-0.591776	113.659	102.631
70	2.30259	-0.579873	113.995	101.296
71	2.30259	-0.568052	114.318	99.988
72	2.30259	-0.556308	114.627	98.7071
73	2.30259	-0.544642	114.924	97.453
74	2.30259	-0.533048	115.208	96.2256
75	2.30259	-0.521527	115.48	95.0248
76	2.30259	-0.510074	115.74	93.8503
77	2.30259	-0.498687	115.989	92.702
78	2.30259	-0.487364	116.226	91.5798
79	2.30259	-0.476105	116.453	90.4835
80	2.30259	-0.464904	116.669	89.413
81	2.30259	-0.453763	116.875	88.3682
82	2.30259	-0.442676	117.071	87.3489
83	2.30259	-0.431644	117.257	86.355
84	2.30259	-0.420664	117.434	85.3864
85	2.30259	-0.409735	117.602	84.443
86	2.30259	-0.398855	117.761	83.5246
87	2.30259	-0.388022	117.912	82.6311
88	2.30259	-0.377233	118.054	81.7625
89	2.30259	-0.36649	118.188	80.9186
90	2.30259	-0.355788	118.315	80.0994
91	2.30259	-0.345126	118.434	79.3047
92	2.30259	-0.334503	118.546	78.5345
93	2.30259	-0.323919	118.651	77.7886
94	2.30259	-0.31337	118.749	77.0671
95	2.30259	-0.302855	118.841	76.3697
96	2.30259	-0.292375	118.926	75.6965
97	2.30259	-0.281926	119.006	75.0473
98	2.30259	-0.271509	119.079	74.4222
99	2.30259	-0.26112	119.148	73.8209
100	2.30259	-0.250759	119.21	73.2435
101	2.30259	-0.240426	119.268	72.6899
102	2.30259	-0.230118	119.321	72.1601
103	2.30259	-0.219834	119.37	71.6539
104	2.30259	-0.209575	119.413	71.1713
105	2.30259	-0.199336	119.453	70.7123
106	2.30259	-0.189118	119.489	70.2769
107	2.30259	-0.17892	119.521	69.8649
108	2.30259	-0.168741	119.549	69.4763
109	2.30259	-0.158579	119.575	69.1112
110	2.30259	-0.148434	119.597	68.7694
111	2.30259	-0.138305	119.616	68.451
112	2.30259	-0.128189	119.632	68.1558
113	2.30259	-0.118085	119.646	67.8839

114	2.30259	-0.107995	119.658	67.6352
115	2.30259	-0.0979139	119.667	67.4098
116	2.30259	-0.0878447	119.675	67.2075
117	2.30259	-0.0777834	119.681	67.0284
118	2.30259	-0.0677301	119.686	66.8724
119	2.30259	-0.0576847	119.689	66.7396
120	2.30259	-0.0476439	119.691	66.6299
121	2.30259	-0.0376076	119.693	66.5433
122	2.30259	-0.0275759	119.694	66.4798
123	2.30259	-0.0175476	119.694	66.4394
124	2.30259	-0.00751925	119.694	66.4221
125	2.30259	0.00751925	119.694	66.4394
126	2.30259	0.0175476	119.694	66.4798
127	2.30259	0.0275759	119.695	66.5433
128	2.30259	0.0376076	119.696	66.6299
129	2.30259	0.0476439	119.699	66.7396
130	2.30259	0.0576847	119.702	66.8724
131	2.30259	0.0677301	119.707	67.0284
132	2.30259	0.0777834	119.713	67.2075
133	2.30259	0.0878447	119.72	67.4098
134	2.30259	0.0979139	119.73	67.6352
135	2.30259	0.107995	119.742	67.8839
136	2.30259	0.118085	119.756	68.1558
137	2.30259	0.128189	119.772	68.451
138	2.30259	0.138305	119.791	68.7694
139	2.30259	0.148434	119.813	69.1112
140	2.30259	0.158579	119.838	69.4763
141	2.30259	0.168741	119.867	69.8649
142	2.30259	0.17892	119.899	70.2769
143	2.30259	0.189118	119.935	70.7123
144	2.30259	0.199336	119.974	71.1713
145	2.30259	0.209575	120.018	71.6539
146	2.30259	0.219834	120.067	72.1601
147	2.30259	0.230118	120.119	72.6899
148	2.30259	0.240426	120.177	73.2435
149	2.30259	0.250759	120.24	73.8209
150	2.30259	0.26112	120.308	74.4222
151	2.30259	0.271509	120.382	75.0473
152	2.30259	0.281926	120.462	75.6965
153	2.30259	0.292375	120.547	76.3697
154	2.30259	0.302855	120.639	77.0671
155	2.30259	0.31337	120.737	77.7886
156	2.30259	0.323919	120.842	78.5345
157	2.30259	0.334503	120.954	79.3047
158	2.30259	0.345126	121.073	80.0994
159	2.30259	0.355788	121.199	80.9186
160	2.30259	0.36649	121.334	81.7625
161	2.30259	0.377233	121.476	82.6311
162	2.30259	0.388022	121.627	83.5246
163	2.30259	0.398855	121.786	84.443
164	2.30259	0.409735	121.954	85.3864
165	2.30259	0.420664	122.131	86.355
166	2.30259	0.431644	122.317	87.3489
167	2.30259	0.442676	122.513	88.3682
168	2.30259	0.453763	122.719	89.413
169	2.30259	0.464904	122.935	90.4835
170	2.30259	0.476105	123.162	91.5798
171	2.30259	0.487364	123.399	92.702
172	2.30259	0.498687	123.648	93.8503
173	2.30259	0.510074	123.908	95.0248
174	2.30259	0.521527	124.18	96.2256
175	2.30259	0.533048	124.464	97.453

176	2.30259	0.544642		124.761	98.7071
177	2.30259	0.556308		125.07	99.988
178	2.30259	0.568052		125.393	101.296
179	2.30259	0.579873		125.729	102.631
180	2.30259	0.591776		126.079	103.994
181	2.30259	0.603765		126.444	105.384
182	2.30259	0.615839		126.823	106.802
183	2.30259	0.628006		127.218	108.248
184	2.30259	0.640266		127.627	109.722
185	2.30259	0.652622		128.053	111.225
186	2.30259	0.665079		128.496	112.757
187	2.30259	0.680797		128.959	114.324
188	2.30259	0.693493		129.44	115.921
189	2.30259	0.706302		129.939	117.547
190	2.30259	0.719228		130.456	119.203
191	2.30259	0.732275		130.993	120.889
192	2.30259	0.745449		131.548	122.606
193	2.30259	0.758753		132.124	124.353
194	2.30259	0.772193		132.72	126.131
195	2.30259	0.785774		133.338	127.94
196	2.30259	0.7995	133.977	129.781	
197	2.30259	0.813379		134.638	131.654
198	2.30259	0.827417		135.323	133.559
199	2.30259	0.841621		136.031	135.497
200	2.30259	0.855996		136.764	137.468
201	2.30259	0.87055	137.522	139.473	
202	2.30259	0.885291		138.306	141.511
203	2.30259	0.900227		139.116	143.584
204	2.30259	0.915365		139.954	145.692
205	2.30259	0.930718		140.82	147.835
206	2.30259	0.946291		141.716	150.014
207	2.30259	0.9621	142.641	152.229	
208	2.30259	0.97815	143.598	154.481	
209	2.30259	0.994457		144.587	156.771
210	2.30259	1.01104	145.609	159.099	
211	2.30259	1.02789	146.666	161.466	
212	2.30259	1.04505	147.758	163.872	
213	2.30259	1.06252	148.887	166.319	
214	2.30259	1.08032	150.054	168.806	
215	2.30259	1.09847	151.261	171.336	
216	2.30259	1.11699	152.508	173.908	
217	2.30259	1.1359	153.799	176.523	
218	2.30259	1.15522	155.133	179.183	
219	2.30259	1.17499	156.514	181.889	
220	2.30259	1.19522	157.942	184.641	
221	2.30259	1.21596	159.421	187.441	
222	2.30259	1.23724	160.952	190.289	
223	2.30259	1.25908	162.537	193.189	
224	2.30259	1.28155	164.179	196.139	
225	2.30259	1.30469	165.881	199.144	
226	2.30259	1.32854	167.646	202.203	
227	2.30259	1.35317	169.477	205.318	
228	2.30259	1.37866	171.378	208.493	
229	2.30259	1.40507	173.352	211.728	
230	2.30259	1.4325	175.404	215.027	
231	2.30259	1.46106	177.539	218.391	
232	2.30259	1.49085	179.762	221.824	
233	2.30259	1.52203	182.078	225.328	
234	2.30259	1.55477	184.496	228.908	
235	2.30259	1.58927	187.022	232.568	
236	2.30259	1.62576	189.665	236.311	
237	2.30259	1.66456	192.435	240.144	

238	2.30259	1.70604	195.346	244.072
239	2.30259	1.75069	198.411	248.103
240	2.30259	1.79912	201.648	252.246
241	2.30259	1.85218	205.078	256.511
242	2.30259	1.91103	208.73	260.911
243	2.30259	1.97737	212.64	265.464
244	2.30259	2.05375	216.858	270.193
245	2.30259	2.14441	221.457	275.131
246	2.30259	2.25713	226.551	280.328
247	2.63906	2.40892	232.354	286.685
248	3.55535	2.65209	239.388	296.114

Data Set Standard Deviation = 1.60525
Numerator = 87683.8
Denominator = 152364
W Statistic = 0.575488 = 87683.8 / 152364

5% Critical value of 0.976 exceeds 0.575488
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.575488
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 = 0.756496
0.756496 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00401606	-2.65209	73.8251	344.01
2	-1.60944	0.00803213	-2.40892	73.8251	332.136
3	-1.60944	0.0120482	-2.25713	73.8251	324.723
4	-1.60944	0.0160643	-2.14441	73.8251	319.219
5	-1.60944	0.0200803	-2.05375	73.8251	314.791
6	-1.60944	0.0240964	-1.97737	73.8251	311.062
7	-1.60944	0.0281124	-1.91103	73.8251	307.822
8	-1.60944	0.0321285	-1.85218	73.8251	304.948
9	-1.60944	0.0361446	-1.79912	73.8251	302.357
10	-1.60944	0.0401606	-1.75069	73.8251	299.992
11	-1.60944	0.0441767	-1.70604	73.8251	297.812
12	-1.60944	0.0481928	-1.66456	73.8251	295.786
13	-1.60944	0.0522088	-1.62576	73.8251	293.891
14	-1.60944	0.0562249	-1.58927	73.8251	292.109
15	-1.60944	0.060241	-1.55477	73.8251	290.425
16	-1.60944	0.064257	-1.52203	73.8251	288.826
17	-1.60944	0.0682731	-1.49085	73.8251	287.303
18	-1.60944	0.0722892	-1.46106	73.8251	285.848
19	-1.60944	0.0763052	-1.4325	73.8251	284.454
20	-1.60944	0.0803213	-1.40507	73.8251	283.114
21	-1.60944	0.0843373	-1.37866	73.8251	281.824
22	-1.60944	0.0883534	-1.35317	73.8251	280.58
23	-1.60944	0.0923695	-1.32854	73.8251	279.377
24	-1.60944	0.0963855	-1.30469	73.8251	278.212
25	-1.60944	0.100402	-1.28155	73.8251	277.082
26	-1.60944	0.104418	-1.25908	73.8251	275.985
27	-1.60944	0.108434	-1.23724	73.8251	274.918
28	-1.60944	0.11245	-1.21596	73.8251	273.879
29	-1.60944	0.116466	-1.19522	73.8251	272.867
30	-1.60944	0.120482	-1.17499	73.8251	271.879
31	-1.60944	0.124498	-1.15522	73.8251	270.913
32	-1.60944	0.128514	-1.1359	73.8251	269.97
33	-1.60944	0.13253	-1.11699	73.8251	269.046
34	-1.60944	0.136546	-1.09847	73.8251	268.142
35	-1.60944	0.140562	-1.08032	73.8251	267.256
36	-1.60944	0.144578	-1.06252	73.8251	266.386
37	-1.60944	0.148594	-1.04505	73.8251	265.533
38	-1.60944	0.15261	-1.02789	73.8251	264.695
39	-1.60944	0.156627	-1.01104	73.8251	263.872
40	-1.60944	0.160643	-0.994457	73.8251	263.063
41	-1.60944	0.164659	-0.97815	73.8251	262.266
42	-1.60944	0.168675	-0.9621	73.8251	261.483
43	-1.60944	0.172691	-0.946291	73.8251	260.711
44	-1.60944	0.176707	-0.930718	73.8251	259.95
45	-1.60944	0.180723	-0.915365	73.8251	259.2
46	-1.60944	0.184739	-0.900227	73.8251	258.461
47	-1.60944	0.188755	-0.885291	73.8251	257.732
48	-0.916291	0.192771	-0.87055	135.631	257.012

49	-0.916291	0.196787	-0.855996	135.631	256.301
50	-0.916291	0.200803	-0.841621	135.631	255.599
51	-0.798508	0.204819	-0.827417	146.133	254.906
52	-0.693147	0.208835	-0.813379	155.528	254.22
53	-0.653926	0.212851	-0.7995	159.025	253.542
54	-0.562119	0.216867	-0.785774	167.211	252.872
55	-0.544727	0.220884	-0.772193	168.762	252.209
56	-0.510826	0.2249	-0.758753	171.785	251.552
57	-0.385662	0.228916	-0.745449	182.945	250.903
58	-0.385662	0.232932	-0.732275	182.945	250.259
59	-0.314711	0.236948	-0.719228	189.272	249.622
60	-0.314711	0.240964	-0.706302	189.272	248.991
61	-0.127833	0.24498	-0.693493	205.935	248.366
62	1.09861	0.248996	-0.680797	315.293	247.746
63	1.62924	0.253012	-0.665079	362.607	246.978
64	2.30259	0.257028	-0.652622	422.647	246.37
65	2.30259	0.261044	-0.640266	422.647	245.766
66	2.30259	0.26506	-0.628006	422.647	245.168
67	2.30259	0.269076	-0.615839	422.647	244.573
68	2.30259	0.273092	-0.603765	422.647	243.984
69	2.30259	0.277108	-0.591776	422.647	243.398
70	2.30259	0.281124	-0.579873	422.647	242.817
71	2.30259	0.285141	-0.568052	422.647	242.24
72	2.30259	0.289157	-0.556308	422.647	241.666
73	2.30259	0.293173	-0.544642	422.647	241.097
74	2.30259	0.297189	-0.533048	422.647	240.531
75	2.30259	0.301205	-0.521527	422.647	239.968
76	2.30259	0.305221	-0.510074	422.647	239.409
77	2.30259	0.309237	-0.498687	422.647	238.853
78	2.30259	0.313253	-0.487364	422.647	238.3
79	2.30259	0.317269	-0.476105	422.647	237.75
80	2.30259	0.321285	-0.464904	422.647	237.203
81	2.30259	0.325301	-0.453763	422.647	236.659
82	2.30259	0.329317	-0.442676	422.647	236.117
83	2.30259	0.333333	-0.431644	422.647	235.579
84	2.30259	0.337349	-0.420664	422.647	235.042
85	2.30259	0.341365	-0.409735	422.647	234.509
86	2.30259	0.345382	-0.398855	422.647	233.977
87	2.30259	0.349398	-0.388022	422.647	233.448
88	2.30259	0.353414	-0.377233	422.647	232.922
89	2.30259	0.35743	-0.36649	422.647	232.397
90	2.30259	0.361446	-0.355788	422.647	231.874
91	2.30259	0.365462	-0.345126	422.647	231.354
92	2.30259	0.369478	-0.334503	422.647	230.835
93	2.30259	0.373494	-0.323919	422.647	230.318
94	2.30259	0.37751	-0.31337	422.647	229.803
95	2.30259	0.381526	-0.302855	422.647	229.289
96	2.30259	0.385542	-0.292375	422.647	228.778
97	2.30259	0.389558	-0.281926	422.647	228.267
98	2.30259	0.393574	-0.271509	422.647	227.759
99	2.30259	0.39759	-0.26112	422.647	227.251
100	2.30259	0.401606	-0.250759	422.647	226.745
101	2.30259	0.405622	-0.240426	422.647	226.241
102	2.30259	0.409639	-0.230118	422.647	225.737
103	2.30259	0.413655	-0.219834	422.647	225.235
104	2.30259	0.417671	-0.209575	422.647	224.734
105	2.30259	0.421687	-0.199336	422.647	224.234
106	2.30259	0.425703	-0.189118	422.647	223.735
107	2.30259	0.429719	-0.17892	422.647	223.237
108	2.30259	0.433735	-0.168741	422.647	222.74
109	2.30259	0.437751	-0.158579	422.647	222.244
110	2.30259	0.441767	-0.148434	422.647	221.749

111	2.30259	0.445783	-0.138305	422.647	221.254
112	2.30259	0.449799	-0.128189	422.647	220.76
113	2.30259	0.453815	-0.118085	422.647	220.267
114	2.30259	0.457831	-0.107995	422.647	219.774
115	2.30259	0.461847	-0.0979139	422.647	219.281
116	2.30259	0.465863	-0.0878447	422.647	218.79
117	2.30259	0.46988	-0.0777834	422.647	218.298
118	2.30259	0.473896	-0.0677301	422.647	217.807
119	2.30259	0.477912	-0.0576847	422.647	217.317
120	2.30259	0.481928	-0.0476439	422.647	216.827
121	2.30259	0.485944	-0.0376076	422.647	216.337
122	2.30259	0.48996	-0.0275759	422.647	215.847
123	2.30259	0.493976	-0.0175476	422.647	215.357
124	2.30259	0.497992	-0.00751925	422.647	214.867
125	2.30259	0.502008	0.00751925	422.647	214.133
126	2.30259	0.506024	0.0175476	422.647	213.643
127	2.30259	0.51004	0.0275759	422.647	213.153
128	2.30259	0.514056	0.0376076	422.647	212.663
129	2.30259	0.518072	0.0476439	422.647	212.173
130	2.30259	0.522088	0.0576847	422.647	211.683
131	2.30259	0.526104	0.0677301	422.647	211.193
132	2.30259	0.53012	0.0777834	422.647	210.702
133	2.30259	0.534137	0.0878447	422.647	210.21
134	2.30259	0.538153	0.0979139	422.647	209.719
135	2.30259	0.542169	0.107995	422.647	209.226
136	2.30259	0.546185	0.118085	422.647	208.733
137	2.30259	0.550201	0.128189	422.647	208.24
138	2.30259	0.554217	0.138305	422.647	207.746
139	2.30259	0.558233	0.148434	422.647	207.251
140	2.30259	0.562249	0.158579	422.647	206.756
141	2.30259	0.566265	0.168741	422.647	206.26
142	2.30259	0.570281	0.17892	422.647	205.763
143	2.30259	0.574297	0.189118	422.647	205.265
144	2.30259	0.578313	0.199336	422.647	204.766
145	2.30259	0.582329	0.209575	422.647	204.266
146	2.30259	0.586345	0.219834	422.647	203.765
147	2.30259	0.590361	0.230118	422.647	203.263
148	2.30259	0.594378	0.240426	422.647	202.759
149	2.30259	0.598394	0.250759	422.647	202.255
150	2.30259	0.60241	0.26112	422.647	201.749
151	2.30259	0.606426	0.271509	422.647	201.241
152	2.30259	0.610442	0.281926	422.647	200.733
153	2.30259	0.614458	0.292375	422.647	200.222
154	2.30259	0.618474	0.302855	422.647	199.711
155	2.30259	0.62249	0.31337	422.647	199.197
156	2.30259	0.626506	0.323919	422.647	198.682
157	2.30259	0.630522	0.334503	422.647	198.165
158	2.30259	0.634538	0.345126	422.647	197.646
159	2.30259	0.638554	0.355788	422.647	197.126
160	2.30259	0.64257	0.36649	422.647	196.603
161	2.30259	0.646586	0.377233	422.647	196.078
162	2.30259	0.650602	0.388022	422.647	195.552
163	2.30259	0.654618	0.398855	422.647	195.023
164	2.30259	0.658635	0.409735	422.647	194.491
165	2.30259	0.662651	0.420664	422.647	193.958
166	2.30259	0.666667	0.431644	422.647	193.421
167	2.30259	0.670683	0.442676	422.647	192.883
168	2.30259	0.674699	0.453763	422.647	192.341
169	2.30259	0.678715	0.464904	422.647	191.797
170	2.30259	0.682731	0.476105	422.647	191.25
171	2.30259	0.686747	0.487364	422.647	190.7
172	2.30259	0.690763	0.498687	422.647	190.147

173	2.30259	0.694779	0.510074	422.647	189.591
174	2.30259	0.698795	0.521527	422.647	189.032
175	2.30259	0.702811	0.533048	422.647	188.469
176	2.30259	0.706827	0.544642	422.647	187.903
177	2.30259	0.710843	0.556308	422.647	187.334
178	2.30259	0.714859	0.568052	422.647	186.76
179	2.30259	0.718876	0.579873	422.647	186.183
180	2.30259	0.722892	0.591776	422.647	185.602
181	2.30259	0.726908	0.603765	422.647	185.016
182	2.30259	0.730924	0.615839	422.647	184.427
183	2.30259	0.73494	0.628006	422.647	183.832
184	2.30259	0.738956	0.640266	422.647	183.234
185	2.30259	0.742972	0.652622	422.647	182.63
186	2.30259	0.746988	0.665079	422.647	182.022
187	2.30259	0.751004	0.680797	422.647	181.254
188	2.30259	0.75502	0.693493	422.647	180.634
189	2.30259	0.759036	0.706302	422.647	180.009
190	2.30259	0.763052	0.719228	422.647	179.378
191	2.30259	0.767068	0.732275	422.647	178.741
192	2.30259	0.771084	0.745449	422.647	178.097
193	2.30259	0.7751	0.758753	422.647	177.448
194	2.30259	0.779116	0.772193	422.647	176.791
195	2.30259	0.783133	0.785774	422.647	176.128
196	2.30259	0.787149	0.7995	422.647	175.458
197	2.30259	0.791165	0.813379	422.647	174.78
198	2.30259	0.795181	0.827417	422.647	174.094
199	2.30259	0.799197	0.841621	422.647	173.401
200	2.30259	0.803213	0.855996	422.647	172.699
201	2.30259	0.807229	0.87055	422.647	171.988
202	2.30259	0.811245	0.885291	422.647	171.268
203	2.30259	0.815261	0.900227	422.647	170.539
204	2.30259	0.819277	0.915365	422.647	169.8
205	2.30259	0.823293	0.930718	422.647	169.05
206	2.30259	0.827309	0.946291	422.647	168.289
207	2.30259	0.831325	0.9621	422.647	167.517
208	2.30259	0.835341	0.97815	422.647	166.734
209	2.30259	0.839357	0.994457	422.647	165.937
210	2.30259	0.843373	1.01104	422.647	165.128
211	2.30259	0.84739	1.02789	422.647	164.305
212	2.30259	0.851406	1.04505	422.647	163.467
213	2.30259	0.855422	1.06252	422.647	162.614
214	2.30259	0.859438	1.08032	422.647	161.744
215	2.30259	0.863454	1.09847	422.647	160.858
216	2.30259	0.86747	1.11699	422.647	159.954
217	2.30259	0.871486	1.1359	422.647	159.03
218	2.30259	0.875502	1.15522	422.647	158.087
219	2.30259	0.879518	1.17499	422.647	157.121
220	2.30259	0.883534	1.19522	422.647	156.133
221	2.30259	0.88755	1.21596	422.647	155.121
222	2.30259	0.891566	1.23724	422.647	154.082
223	2.30259	0.895582	1.25908	422.647	153.015
224	2.30259	0.899598	1.28155	422.647	151.918
225	2.30259	0.903614	1.30469	422.647	150.788
226	2.30259	0.907631	1.32854	422.647	149.623
227	2.30259	0.911647	1.35317	422.647	148.42
228	2.30259	0.915663	1.37866	422.647	147.176
229	2.30259	0.919679	1.40507	422.647	145.886
230	2.30259	0.923695	1.4325	422.647	144.546
231	2.30259	0.927711	1.46106	422.647	143.152
232	2.30259	0.931727	1.49085	422.647	141.697
233	2.30259	0.935743	1.52203	422.647	140.174
234	2.30259	0.939759	1.55477	422.647	138.575

235	2.30259	0.943775	1.58927	422.647	136.891
236	2.30259	0.947791	1.62576	422.647	135.109
237	2.30259	0.951807	1.66456	422.647	133.214
238	2.30259	0.955823	1.70604	422.647	131.188
239	2.30259	0.959839	1.75069	422.647	129.008
240	2.30259	0.963855	1.79912	422.647	126.643
241	2.30259	0.967871	1.85218	422.647	124.052
242	2.30259	0.971888	1.91103	422.647	121.178
243	2.30259	0.975904	1.97737	422.647	117.938
244	2.30259	0.97992	2.05375	422.647	114.209
245	2.30259	0.983936	2.14441	422.647	109.781
246	2.30259	0.987952	2.25713	422.647	104.277
247	2.63906	0.991968	2.40892	452.649	96.8642
248	3.55535	0.995984	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 = 92.7419%
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-10	6/5/2012	1	-0.127833	FALSE
MW-9	6/5/2012	1	-0.385662	FALSE
MW-7	6/5/2012	1	-1.60944	FALSE
MW-8	6/5/2012	1	-1.60944	FALSE
MW-6	6/5/2012	1	-0.693147	FALSE
MW-11R	6/5/2012	1	-0.653926	FALSE
MW-12AR	6/5/2012	1	-0.385662	FALSE
MW-12BR	6/5/2012	1	-1.60944	FALSE

Concentrations (ppb)
Parameter: Toluene
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 222
Percent Non-Detects: 87.4016%
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<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	1.15 J	1.15 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<0.33	ND<0.33
			11/16/2009	ND<0.33	ND<0.33
			6/30/2010	ND<0.33	ND<0.33
			11/12/2010	ND<0.33 U	ND<0.33 U
			7/5/2011	0.7 J	0.7 J

There are 8 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-6	32	31 (96.875%)	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	0.43 J	0.43 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<0.33	ND<0.33
			11/16/2009	ND<0.33	ND<0.33
			6/30/2010	ND<0.33	ND<0.33
			11/12/2010	ND<0.33 U	ND<0.33 U
			7/5/2011	ND<0.33 U	ND<0.33 U
			11/22/2011	ND<0.33 U	ND<0.33 U
			11/22/2011	ND<0.33 U	ND<0.33 U
			6/5/2012	ND<0.33 U	ND<0.33 U
MW-10	32	31 (96.875%)	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	0.35 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	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.33	ND<0.33
			11/16/2009	ND<0.33	ND<0.33
			6/30/2010	ND<0.33	ND<0.33
			11/12/2010	ND<0.33 U	ND<0.33 U
			7/5/2011	ND<0.33 U	ND<0.33 U
			11/22/2011	ND<0.33 U	ND<0.33 U
			11/22/2011	ND<0.33 U	ND<0.33 U
			6/5/2012	ND<0.33 U	ND<0.33 U
MW-11R	32	29 (90.625%)	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	3.16	3.16
			11/18/2006	ND<2	ND<2

			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	ND<2	ND<2	
			6/11/2009	ND<0.33		ND<0.33
			11/16/2009	ND<0.33		ND<0.33
			6/30/2010	ND<0.33		ND<0.33
			11/12/2010	ND<0.33 U		ND<0.33 U
			7/5/2011	0.57 J	0.57 J	
			11/22/2011	ND<0.33 U		ND<0.33 U
			11/22/2011	ND<0.33 U		ND<0.33 U
			6/5/2012	ND<0.33 U	ND<0.33 U	
MW-8	31	18 (58.0645%)	7/20/1995		ND<2	ND<2
			8/24/1995	ND<2	ND<2	
			9/28/1995	5	5	
			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	0.22 J	0.22 J	
			10/25/2005	0.55 J	0.55 J	
			4/29/2006	0.58 J	0.58 J	
			11/18/2006	0.49 J	0.49 J	
			5/23/2007	1.2 J	1.2 J	
			11/28/2007	0.85 J	0.85 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	1.34 J	1.34 J	
			6/11/2009	1	1	
			6/30/2010	0.39 J	0.39 J	
			11/12/2010	0.44 J	0.44 J	
			7/5/2011	0.71 J	0.71 J	
			11/22/2011	ND<0.33 U		ND<0.33 U
			11/22/2011	ND<0.33 U		ND<0.33 U
			6/5/2012	0.34 J	0.34 J	
MW-7	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	0.26 J	0.26 J	
			4/29/2006	0.39 J	0.39 J	
			11/18/2006	0.51 J	0.51 J	
			5/23/2007	ND<2	ND<2	
			11/28/2007	0.27 J	0.27 J	
			6/5/2008	ND<2	ND<2	
			11/20/2008	0.29 J	0.29 J	
			6/11/2009	ND<0.33		ND<0.33
			11/16/2009	ND<0.33		ND<0.33
			6/30/2010	ND<0.33		ND<0.33
			11/12/2010	ND<0.33 U		ND<0.33 U
			7/5/2011	ND<0.33 U	ND<0.33 U	
			11/22/2011	ND<0.33 U		ND<0.33 U
			11/22/2011	ND<0.33 U		ND<0.33 U
			6/5/2012	ND<0.33 U	ND<0.33 U	
MW-9	32	27 (84.375%)	7/20/1995		0.26 J	0.26 J
			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	0.46 J	0.46 J	
			11/18/2006	ND<2	ND<2	
			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	0.33 J	0.33 J	
			6/11/2009	0.35 J	0.35 J	
			11/16/2009	ND<0.33		ND<0.33
			6/30/2010	ND<0.33		ND<0.33
			11/12/2010	ND<0.33 U		ND<0.33 U
			7/5/2011	ND<0.33 U	ND<0.33 U	
			11/22/2011	ND<0.33 U		ND<0.33 U
			11/22/2011	ND<0.33 U		ND<0.33 U
			6/5/2012	ND<0.33 U	ND<0.33 U	
MW-12BR	22	21 (95.4545%)	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	0.24 J	0.24 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<0.33		ND<0.33	
		11/16/2009	ND<0.33		ND<0.33	
		6/30/2010	ND<0.33		ND<0.33	
		11/12/2010	ND<0.33 U		ND<0.33 U	
		7/5/2011	ND<0.33 U	ND<0.33 U		
		11/22/2011	ND<0.33 U		ND<0.33 U	
		11/22/2011	ND<0.33 U		ND<0.33 U	
		6/5/2012	ND<0.33 U	ND<0.33 U		
MW-12AR	22	21 (95.4545%)	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	0.37 J	0.37 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<0.33		ND<0.33	
		11/16/2009	ND<0.33		ND<0.33	
		6/30/2010	ND<0.33		ND<0.33	
		11/12/2010	ND<0.33 U		ND<0.33 U	
		7/5/2011	ND<0.33 U	ND<0.33 U		
		11/22/2011	ND<0.33 U		ND<0.33 U	
		11/22/2011	ND<0.33 U		ND<0.33 U	
		6/5/2012	ND<0.33 U	ND<0.33 U		

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Toluene
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.165	-2.747777	7.55021	-0.453381
2	0.165	-2.457271	13.5884	-0.858831
3	0.165	-2.290361	18.8342	-1.23674
4	0.165	-2.170092	23.5435	-1.59481
5	0.165	-2.074852	7.8485	-1.93716
6	0.165	-1.995393	1.8301	-2.2664
7	0.165	-1.926843	5.5428	-2.58432
8	0.165	-1.866293	9.0258	-2.89226
9	0.165	-1.811914	2.3088	-3.19123
10	0.165	-1.762414	5.4149	-3.48203
11	0.165	-1.716884	8.3626	-3.76531
12	0.165	-1.674665	1.1671	-4.04163
13	0.165	-1.644855	3.8726	-4.31303
14	0.165	-1.607255	6.4559	-4.57823
15	0.165	-1.571795	8.9264	-4.83757
16	0.165	-1.5382	61.2925	-5.09138
17	0.165	-1.506263	3.5613	-5.33991
18	0.165	-1.475796	5.7393	-5.58341
19	0.165	-1.446636	7.832	-5.82211
20	0.165	-1.418656	9.8446	-6.05619
21	0.165	-1.391757	1.7815	-6.28582
22	0.165	-1.365817	3.647	-6.51118
23	0.165	-1.340757	5.4446	-6.73241
24	0.165	-1.316527	7.1778	-6.94963
25	0.165	-1.293037	8.8498	-7.16298
26	0.165	-1.275888	0.4776	-7.3735
27	0.165	-1.253578	2.049	-7.58034
28	0.165	-1.231878	3.5665	-7.7836
29	0.165	-1.210738	5.0324	-7.98337
30	0.165	-1.190128	6.4488	-8.17974
31	0.165	-1.17	87.8177	-8.37279
32	0.165	-1.150358	9.141	-8.5626
33	0.165	-1.131139	0.4204	-8.74923
34	0.165	-1.112329	1.6577	-8.93277
35	0.165	-1.0939	92.8543	-9.11326
36	0.165	-1.075849	4.0117	-9.29077
37	0.165	-1.058129	5.1314	-9.46536
38	0.165	-1.040739	6.2145	-9.63708
39	0.165	-1.027899	7.271	-9.80669
40	0.165	-1.011049	8.2932	-9.97351
41	0.165	-0.994457	99.2822	-10.1376
42	0.165	-0.978151	00.239	-10.299
43	0.165	-0.9621	101.165	-10.4577
44	0.165	-0.946291	102.06	-10.6139
45	0.165	-0.930718	102.926	-10.7674
46	0.165	-0.915365	103.764	-10.9185
47	0.165	-0.900227	104.575	-11.067
48	0.165	-0.885291	105.358	-11.2131
49	0.165	-0.870551	06.116	-11.3567
50	0.165	-0.855996	106.849	-11.498
51	0.165	-0.841621	107.557	-11.6368

52	0.165	-0.830953	108.248	-11.7739
53	0.165	-0.816874	108.915	-11.9087
54	0.165	-0.802956	109.56	-12.0412
55	0.165	-0.789191	110.183	-12.1714
56	0.165	-0.775574	110.784	-12.2994
57	0.165	-0.7621	111.365	-12.4251
58	0.165	-0.748762	111.926	-12.5487
59	0.165	-0.735557	112.467	-12.6701
60	0.165	-0.722479	112.989	-12.7893
61	0.2	-0.709522	113.492	-12.9312
62	0.22	-0.696684	113.977	-13.0844
63	0.24	-0.68396	114.445	-13.2486
64	0.26	-0.67449	114.9	-13.424
65	0.26	-0.661955	115.338	-13.5961
66	0.27	-0.649522	115.76	-13.7714
67	0.29	-0.637192	116.166	-13.9562
68	0.33	-0.624956	116.557	-14.1625
69	0.34	-0.612813	116.932	-14.3708
70	0.35	-0.60076	117.293	-14.5811
71	0.35	-0.588793	117.64	-14.7872
72	0.37	-0.576911	117.973	-15.0006
73	0.39	-0.565108	118.292	-15.221
74	0.39	-0.553384	118.598	-15.4368
75	0.43	-0.541736	118.892	-15.6698
76	0.44	-0.530162	119.173	-15.903
77	0.46	-0.521527	119.445	-16.1429
78	0.49	-0.510074	119.705	-16.3929
79	0.51	-0.498687	119.954	-16.6472
80	0.55	-0.487364	120.191	-16.9153
81	0.55	-0.476105	120.418	-17.1771
82	0.57	-0.464904	120.634	-17.4421
83	0.58	-0.453763	120.84	-17.7053
84	0.7	-0.442676	121.036	-18.0152
85	0.71	-0.431644	121.222	-18.3216
86	0.85	-0.420664	121.399	-18.6792
87	1	-0.409735	121.567	-19.0889
88	1	-0.398855	121.726	-19.4878
89	1	-0.388022	121.877	-19.8758
90	1	-0.379927	122.021	-20.2557
91	1	-0.369171	122.157	-20.6249
92	1	-0.358459	122.286	-20.9834
93	1	-0.347787	122.407	-21.3312
94	1	-0.337155	122.52	-21.6683
95	1	-0.326561	122.627	-21.9949
96	1	-0.316004	122.727	-22.3109
97	1	-0.305481	122.82	-22.6164
98	1	-0.294992	122.907	-22.9114
99	1	-0.284535	122.988	-23.1959
100	1	-0.27411	123.063	-23.47
101	1	-0.263715	123.133	-23.7337
102	1	-0.253347	123.197	-23.9871
103	1	-0.24559	123.257	-24.2327
104	1	-0.235269	123.313	-24.4679
105	1	-0.224974	123.363	-24.6929
106	1	-0.214702	123.409	-24.9076
107	1	-0.204452	123.451	-25.1121
108	1	-0.194225	123.489	-25.3063
109	1	-0.184017	123.523	-25.4903
110	1	-0.173829	123.553	-25.6641
111	1	-0.163659	123.58	-25.8278
112	1	-0.153505	123.603	-25.9813
113	1	-0.143367	123.624	-26.1247

114	1	-0.133244	123.642	-26.2579
115	1	-0.125661	123.658	-26.3836
116	1	-0.115562	123.671	-26.4991
117	1	-0.105474	123.682	-26.6046
118	1	-0.0953969	123.691	-26.7
119	1	-0.0853288	123.698	-26.7853
120	1	-0.0752698	123.704	-26.8606
121	1	-0.0652187	123.708	-26.9258
122	1	-0.0551734	123.711	-26.981
123	1	-0.0451348	123.713	-27.0261
124	1	-0.0350997	123.715	-27.0612
125	1	-0.0250691	123.715	-27.0863
126	1	-0.0150408	123.715	-27.1013
127	1	-0.00501359	123.715	-27.1063
128	1	0.00501359	123.716	-27.1013
129	1	0.0150408	123.716	-27.0863
130	1	0.0250691	123.716	-27.0612
131	1	0.0350997	123.718	-27.0261
132	1	0.0451348	123.72	-26.981
133	1	0.0551734	123.723	-26.9258
134	1	0.0652187	123.727	-26.8606
135	1	0.0752698	123.733	-26.7853
136	1	0.0853288	123.74	-26.7
137	1	0.0953969	123.749	-26.6046
138	1	0.105474	123.76	-26.4991
139	1	0.115562	123.773	-26.3836
140	1	0.125661	123.789	-26.2579
141	1	0.133244	123.807	-26.1247
142	1	0.143367	123.828	-25.9813
143	1	0.153505	123.851	-25.8278
144	1	0.163659	123.878	-25.6641
145	1	0.173829	123.908	-25.4903
146	1	0.184017	123.942	-25.3063
147	1	0.194225	123.98	-25.1121
148	1	0.204452	124.022	-24.9076
149	1	0.214702	124.068	-24.6929
150	1	0.224974	124.118	-24.4679
151	1	0.235269	124.174	-24.2327
152	1	0.24559	124.234	-23.9871
153	1	0.253347	124.298	-23.7337
154	1	0.263715	124.368	-23.47
155	1	0.27411	124.443	-23.1959
156	1	0.284535	124.524	-22.9114
157	1	0.294992	124.611	-22.6164
158	1	0.305481	124.704	-22.3109
159	1	0.316004	124.804	-21.9949
160	1	0.326561	124.911	-21.6683
161	1	0.337155	125.024	-21.3312
162	1	0.347787	125.145	-20.9834
163	1	0.358459	125.274	-20.6249
164	1	0.369171	125.41	-20.2557
165	1	0.379927	125.554	-19.8758
166	1	0.388022	125.705	-19.4878
167	1	0.398855	125.864	-19.0889
168	1	0.409735	126.032	-18.6792
169	1	0.420664	126.209	-18.2585
170	1	0.431644	126.395	-17.8269
171	1	0.442676	126.591	-17.3842
172	1	0.453763	126.797	-16.9305
173	1	0.464904	127.013	-16.4656
174	1	0.476105	127.24	-15.9895
175	1	0.487364	127.477	-15.5021

176	1	0.498687		127.726	-15.0034
177	1	0.510074		127.986	-14.4933
178	1	0.521527		128.258	-13.9718
179	1	0.530162		128.539	-13.4416
180	1	0.541736		128.833	-12.8999
181	1	0.553384		129.139	-12.3465
182	1	0.565108		129.458	-11.7814
183	1	0.576911		129.791	-11.2045
184	1	0.588793		130.138	-10.6157
185	1	0.60076	130.499	-10.0149	
186	1	0.612813		130.874	-9.40213
187	1	0.624956		131.265	-8.77718
188	1	0.637192		131.671	-8.13998
189	1	0.649522		132.093	-7.49046
190	1	0.661955		132.531	-6.82851
191	1	0.67449	132.986	-6.15402	
192	1	0.68396	133.454	-5.47006	
193	1	0.696684		133.939	-4.77337
194	1	0.709522		134.442	-4.06385
195	1	0.722479		134.964	-3.34137
196	1	0.735557		135.505	-2.60581
197	1	0.748762		136.066	-1.85705
198	1	0.7621	136.647	-1.09495	
199	1	0.775574		137.248	-0.319378
200	1	0.789191		137.871	0.469813
201	1	0.802956		138.516	1.27277
202	1	0.816874		139.183	2.08964
203	1	0.830953		139.874	2.9206
204	1	0.841621		140.582	3.76222
205	1	0.855996		141.315	4.61821
206	1	0.87055	142.073	5.48876	
207	1	0.885291		142.856	6.37405
208	1	0.900227		143.667	7.27428
209	1	0.915365		144.505	8.18965
210	1	0.930718		145.371	9.12037
211	1	0.946291		146.266	10.0667
212	1	0.9621	147.192	11.0288	
213	1	0.97815	148.149	12.0069	
214	1	0.994457		149.138	13.0014
215	1	1.01104	150.16	14.0124	
216	1	1.02789	151.217	15.0403	
217	1	1.04073	152.3	16.081	
218	1	1.05812	153.419	17.1391	
219	1	1.07584	154.577	18.215	
220	1	1.0939	155.773	19.3089	
221	1	1.11232	157.011	20.4212	
222	1	1.13113	158.29	21.5523	
223	1	1.15035	159.613	22.7027	
224	1	1.17	160.982	23.8727	
225	1	1.19012	162.399	25.0628	
226	1	1.21073	163.864	26.2735	
227	1	1.23187	165.382	27.5054	
228	1	1.25357	166.953	28.759	
229	1	1.27588	168.581	30.0348	
230	1	1.29303	170.253	31.3279	
231	1	1.31652	171.986	32.6444	
232	1	1.34075	173.784	33.9851	
233	1	1.36581	175.649	35.351	
234	1	1.39175	177.586	36.7427	
235	1	1.41865	179.599	38.1613	
236	1	1.44663	181.692	39.608	
237	1	1.47579	183.87	41.0838	

238	1	1.50626	186.139	42.59
239	1	1.5382	188.505	44.1282
240	1	1.57179	190.975	45.7
241	1	1.60725	193.558	47.3073
242	1	1.64485	196.264	48.9521
243	1	1.67466	199.068	50.6268
244	1	1.71688	202.016	52.3437
245	1	1.76241	205.122	54.1061
246	1	1.81191	208.405	55.918
247	1	1.86629	211.888	57.7843
248	1	1.92684	215.601	59.7111
249	1	1.99539	219.583	61.7065
250	1.15	2.07485	223.888	64.0926
251	1.2	2.17009	228.597	66.6967
252	1.34	2.29036	233.843	69.7658
253	3.16	2.45727	239.881	77.5308
254	5	2.74777	247.431	91.2696

Data Set Standard Deviation = 0.481214
Numerator = 8330.14
Denominator = 14496.1
W Statistic = 0.574646 = 8330.14 / 14496.1

5% Critical value of 0.976 exceeds 0.574646
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.574646
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Toluene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.760587
0.760587 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.165	0.00392157	-2.747	77	56.655	348.683
2	0.165	0.00784314	-2.457	27	56.655	334.497
3	0.165	0.0117647	-2.290	36	56.655	326.346
4	0.165	0.0156863	-2.170	09	56.655	320.473
5	0.165	0.0196078	-2.074	85	56.655	315.822
6	0.165	0.0235294	-1.995	39	56.655	311.942
7	0.165	0.027451	-1.926	84	56.655	308.594
8	0.165	0.0313725	-1.866	29	56.655	305.637
9	0.165	0.0352941	-1.811	91	56.655	302.982
10	0.165	0.0392157	-1.762	41	56.655	300.564
11	0.165	0.0431373	-1.716	88	56.655	298.341
12	0.165	0.0470588	-1.674	66	56.655	296.279
13	0.165	0.0509804	-1.644	85	56.655	294.824
14	0.165	0.054902	-1.607	25	56.655	292.987
15	0.165	0.0588235	-1.571	79	56.655	291.256
16	0.165	0.0627451	-1.538	2	56.655	289.615
17	0.165	0.0666667	-1.506	26	56.655	288.056
18	0.165	0.0705882	-1.475	79	56.655	286.568
19	0.165	0.0745098	-1.446	63	56.655	285.144
20	0.165	0.0784314	-1.418	65	56.655	283.778
21	0.165	0.0823529	-1.391	75	56.655	282.464
22	0.165	0.0862745	-1.365	81	56.655	281.197
23	0.165	0.0901961	-1.340	75	56.655	279.974
24	0.165	0.0941176	-1.316	52	56.655	278.79
25	0.165	0.0980392	-1.293	03	56.655	277.643
26	0.165	0.101961	-1.275	88	56.655	276.805
27	0.165	0.105882	-1.253	57	56.655	275.716
28	0.165	0.109804	-1.231	87	56.655	274.656
29	0.165	0.113725	-1.210	73	56.655	273.624
30	0.165	0.117647	-1.190	12	56.655	272.617
31	0.165	0.121569	-1.17		56.655	271.635
32	0.165	0.12549	-1.150	35	56.655	270.675
33	0.165	0.129412	-1.131	13	56.655	269.737
34	0.165	0.133333	-1.112	32	56.655	268.818
35	0.165	0.137255	-1.093	9	56.655	267.919
36	0.165	0.141176	-1.075	84	56.655	267.037
37	0.165	0.145098	-1.058	12	56.655	266.172
38	0.165	0.14902	-1.040	73	56.655	265.322
39	0.165	0.152941	-1.027	89	56.655	264.695
40	0.165	0.156863	-1.011	04	56.655	263.872
41	0.165	0.160784	-0.994457		56.655	263.063
42	0.165	0.164706	-0.978	15	56.655	262.266
43	0.165	0.168627	-0.962	1	56.655	261.483
44	0.165	0.172549	-0.946291		56.655	260.711
45	0.165	0.176471	-0.930718		56.655	259.95
46	0.165	0.180392	-0.915365		56.655	259.2
47	0.165	0.184314	-0.900227		56.655	258.461
48	0.165	0.188235	-0.885291		56.655	257.732

49	0.165	0.192157	-0.870556.655	257.012	
50	0.165	0.196078	-0.855996	56.655	256.301
51	0.165	0.2	-0.841621	56.655	255.599
52	0.165	0.203922	-0.830953	56.655	255.078
53	0.165	0.207843	-0.816874	56.655	254.391
54	0.165	0.211765	-0.802956	56.655	253.711
55	0.165	0.215686	-0.789191	56.655	253.039
56	0.165	0.219608	-0.775574	56.655	252.374
57	0.165	0.223529	-0.7621	56.655	251.716
58	0.165	0.227451	-0.748762	56.655	251.065
59	0.165	0.231373	-0.735557	56.655	250.42
60	0.165	0.235294	-0.722479	56.655	249.781
61	0.2	0.239216	-0.709522	60.4	249.148
62	0.22	0.243137	-0.696684	62.54	248.521
63	0.24	0.247059	-0.683964.68	247.9	
64	0.26	0.25098	-0.674496.82	247.438	
65	0.26	0.254902	-0.661955	66.82	246.825
66	0.27	0.258824	-0.649522	67.89	246.218
67	0.29	0.262745	-0.637192	70.03	245.616
68	0.33	0.266667	-0.624956	74.31	245.019
69	0.34	0.270588	-0.612813	75.38	244.426
70	0.35	0.27451	-0.600776.45	243.837	
71	0.35	0.278431	-0.588793	76.45	243.253
72	0.37	0.282353	-0.576911	78.59	242.672
73	0.39	0.286275	-0.565108	80.73	242.096
74	0.39	0.290196	-0.553384	80.73	241.524
75	0.43	0.294118	-0.541736	85.01	240.955
76	0.44	0.298039	-0.530162	86.08	240.39
77	0.46	0.301961	-0.521527	88.22	239.968
78	0.49	0.305882	-0.510074	91.43	239.409
79	0.51	0.309804	-0.498687	93.57	238.853
80	0.55	0.313725	-0.487364	97.85	238.3
81	0.55	0.317647	-0.476105	97.85	237.75
82	0.57	0.321569	-0.464904	99.99	237.203
83	0.58	0.32549	-0.453763	101.06	236.659
84	0.7	0.329412	-0.442676	113.9	236.117
85	0.71	0.333333	-0.431644	114.97	235.579
86	0.85	0.337255	-0.420664	129.95	235.042
87	1	0.341176	-0.409735	146	234.509
88	1	0.345098	-0.398855	146	233.977
89	1	0.34902	-0.388022	146	233.448
90	1	0.352941	-0.379927	146	233.053
91	1	0.356863	-0.369171	146	232.528
92	1	0.360784	-0.358459	146	232.005
93	1	0.364706	-0.347787	146	231.484
94	1	0.368627	-0.337155	146	230.964
95	1	0.372549	-0.326561	146	230.447
96	1	0.376471	-0.316004	146	229.932
97	1	0.380392	-0.305481	146	229.418
98	1	0.384314	-0.294992	146	228.905
99	1	0.388235	-0.284535	146	228.395
100	1	0.392157	-0.27411146	227.886	
101	1	0.396078	-0.263715	146	227.378
102	1	0.4	-0.253347	146	226.872
103	1	0.403922	-0.24559146	226.493	
104	1	0.407843	-0.235269	146	225.989
105	1	0.411765	-0.224974	146	225.486
106	1	0.415686	-0.214702	146	224.985
107	1	0.419608	-0.204452	146	224.484
108	1	0.423529	-0.194225	146	223.985
109	1	0.427451	-0.184017	146	223.486
110	1	0.431373	-0.173829	146	222.989

111	1	0.435294	-0.163659	146	222.492
112	1	0.439216	-0.153505	146	221.996
113	1	0.443137	-0.143367	146	221.501
114	1	0.447059	-0.133244	146	221.007
115	1	0.45098	-0.125661	146	220.636
116	1	0.454902	-0.115562	146	220.143
117	1	0.458824	-0.105474	146	219.651
118	1	0.462745	-0.0953969	146	219.159
119	1	0.466667	-0.0853288	146	218.667
120	1	0.470588	-0.0752698	146	218.176
121	1	0.47451	-0.0652187	146	217.685
122	1	0.478431	-0.0551734	146	217.194
123	1	0.482353	-0.0451348	146	216.704
124	1	0.486275	-0.0350997	146	216.214
125	1	0.490196	-0.0250691	146	215.724
126	1	0.494118	-0.0150408	146	215.234
127	1	0.498039	-0.00501359	146	214.745
128	1	0.501961	0.00501359	146	214.255
129	1	0.505882	0.0150408	146	213.766
130	1	0.509804	0.0250691	146	213.276
131	1	0.513725	0.0350997	146	212.786
132	1	0.517647	0.0451348	146	212.296
133	1	0.521569	0.0551734	146	211.806
134	1	0.52549	0.0652187	146	211.315
135	1	0.529412	0.0752698	146	210.824
136	1	0.533333	0.0853288	146	210.333
137	1	0.537255	0.0953969	146	209.841
138	1	0.541176	0.105474	146	209.349
139	1	0.545098	0.115562	146	208.857
140	1	0.54902	0.125661	146	208.364
141	1	0.552941	0.133244	146	207.993
142	1	0.556863	0.143367	146	207.499
143	1	0.560784	0.153505	146	207.004
144	1	0.564706	0.163659	146	206.508
145	1	0.568627	0.173829	146	206.011
146	1	0.572549	0.184017	146	205.514
147	1	0.576471	0.194225	146	205.015
148	1	0.580392	0.204452	146	204.516
149	1	0.584314	0.214702	146	204.015
150	1	0.588235	0.224974	146	203.514
151	1	0.592157	0.235269	146	203.011
152	1	0.596078	0.24559	146	202.507
153	1	0.6	0.253347	146	202.128
154	1	0.603922	0.263715	146	201.622
155	1	0.607843	0.27411	146	201.114
156	1	0.611765	0.284535	146	200.605
157	1	0.615686	0.294992	146	200.095
158	1	0.619608	0.305481	146	199.582
159	1	0.623529	0.316004	146	199.068
160	1	0.627451	0.326561	146	198.553
161	1	0.631373	0.337155	146	198.036
162	1	0.635294	0.347787	146	197.516
163	1	0.639216	0.358459	146	196.995
164	1	0.643137	0.369171	146	196.472
165	1	0.647059	0.379927	146	195.947
166	1	0.65098	0.388022	146	195.552
167	1	0.654902	0.398855	146	195.023
168	1	0.658824	0.409735	146	194.491
169	1	0.662745	0.420664	146	193.958
170	1	0.666667	0.431644	146	193.421
171	1	0.670588	0.442676	146	192.883
172	1	0.67451	0.453763	146	192.341

173	1	0.678431	0.464904	146	191.797
174	1	0.682353	0.476105	146	191.25
175	1	0.686275	0.487364	146	190.7
176	1	0.690196	0.498687	146	190.147
177	1	0.694118	0.510074	146	189.591
178	1	0.698039	0.521527	146	189.032
179	1	0.701961	0.530162	146	188.61
180	1	0.705882	0.541736	146	188.045
181	1	0.709804	0.553384	146	187.476
182	1	0.713725	0.565108	146	186.904
183	1	0.717647	0.576911	146	186.328
184	1	0.721569	0.588793	146	185.747
185	1	0.72549	0.60076	146	185.163
186	1	0.729412	0.612813	146	184.574
187	1	0.733333	0.624956	146	183.981
188	1	0.737255	0.637192	146	183.384
189	1	0.741176	0.649522	146	182.782
190	1	0.745098	0.661955	146	182.175
191	1	0.74902	0.67449	146	181.562
192	1	0.752941	0.68396	146	181.1
193	1	0.756863	0.696684	146	180.479
194	1	0.760784	0.709522	146	179.852
195	1	0.764706	0.722479	146	179.219
196	1	0.768627	0.735557	146	178.58
197	1	0.772549	0.748762	146	177.935
198	1	0.776471	0.7621	146	177.284
199	1	0.780392	0.775574	146	176.626
200	1	0.784314	0.789191	146	175.961
201	1	0.788235	0.802956	146	175.289
202	1	0.792157	0.816874	146	174.609
203	1	0.796078	0.830953	146	173.922
204	1	0.8	0.841621	146	173.401
205	1	0.803922	0.855996	146	172.699
206	1	0.807843	0.87055	146	171.988
207	1	0.811765	0.885291	146	171.268
208	1	0.815686	0.900227	146	170.539
209	1	0.819608	0.915365	146	169.8
210	1	0.823529	0.930718	146	169.05
211	1	0.827451	0.946291	146	168.289
212	1	0.831373	0.9621	146	167.517
213	1	0.835294	0.97815	146	166.734
214	1	0.839216	0.994457	146	165.937
215	1	0.843137	1.01104	146	165.128
216	1	0.847059	1.02789	146	164.305
217	1	0.85098	1.04073	146	163.678
218	1	0.854902	1.05812	146	162.828
219	1	0.858824	1.07584	146	161.963
220	1	0.862745	1.0939	146	161.081
221	1	0.866667	1.11232	146	160.182
222	1	0.870588	1.13113	146	159.263
223	1	0.87451	1.15035	146	158.325
224	1	0.878431	1.17	146	157.365
225	1	0.882353	1.19012	146	156.383
226	1	0.886275	1.21073	146	155.376
227	1	0.890196	1.23187	146	154.344
228	1	0.894118	1.25357	146	153.284
229	1	0.898039	1.27588	146	152.195
230	1	0.901961	1.29303	146	151.357
231	1	0.905882	1.31652	146	150.21
232	1	0.909804	1.34075	146	149.026
233	1	0.913725	1.36581	146	147.803
234	1	0.917647	1.39175	146	146.536

235	1	0.921569	1.41865	146	145.222
236	1	0.92549	1.44663	146	143.856
237	1	0.929412	1.47579	146	142.432
238	1	0.933333	1.50626	146	140.944
239	1	0.937255	1.5382	146	139.385
240	1	0.941176	1.57179	146	137.744
241	1	0.945098	1.60725	146	136.013
242	1	0.94902	1.64485	146	134.176
243	1	0.952941	1.67466	146	132.721
244	1	0.956863	1.71688	146	130.659
245	1	0.960784	1.76241	146	128.436
246	1	0.964706	1.81191	146	126.018
247	1	0.968627	1.86629	146	123.363
248	1	0.972549	1.92684	146	120.406
249	1	0.976471	1.99539	146	117.058
250	1.15	0.980392	2.07485	162.05	113.178
251	1.2	0.984314	2.17009	167.4	108.527
252	1.34	0.988235	2.29036	182.38	102.654
253	3.16	0.992157	2.45727	377.12	94.5032
254	5	0.996078	2.74777	574	80.3175

Shapiro-Francia Test of Normality

Parameter: Toluene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.80181	-2.74777	7.55021	4.95095
2	-1.80181	-2.45727	13.5884	9.37849
3	-1.80181	-2.29036	18.8342	13.5053
4	-1.80181	-2.17009	23.5435	17.4154
5	-1.80181	-2.07485	27.8485	21.1539
6	-1.80181	-1.99539	31.8301	24.7492
7	-1.80181	-1.92684	35.5428	28.221
8	-1.80181	-1.86629	39.0258	31.5837
9	-1.80181	-1.81191	42.3088	34.8484
10	-1.80181	-1.76241	45.4149	38.0239
11	-1.80181	-1.71688	48.3626	41.1174
12	-1.80181	-1.67466	51.1671	44.1349
13	-1.80181	-1.64485	53.8726	47.0986
14	-1.80181	-1.60725	56.4559	49.9945
15	-1.80181	-1.57179	58.9264	52.8266
16	-1.80181	-1.5382	61.2925	55.5981
17	-1.80181	-1.50626	63.5613	58.3121
18	-1.80181	-1.47579	65.7393	60.9712
19	-1.80181	-1.44663	67.832	63.5778
20	-1.80181	-1.41865	69.8446	66.1339
21	-1.80181	-1.39175	71.7815	68.6416
22	-1.80181	-1.36581	73.647	71.1025
23	-1.80181	-1.34075	75.4446	73.5183
24	-1.80181	-1.31652	77.1778	75.8904
25	-1.80181	-1.29303	78.8498	78.2202
26	-1.80181	-1.27588	80.4776	80.5191
27	-1.80181	-1.25357	82.049	82.7778
28	-1.80181	-1.23187	83.5665	84.9974
29	-1.80181	-1.21073	85.0324	87.1789
30	-1.80181	-1.19012	86.4488	89.3232
31	-1.80181	-1.17	87.8177	91.4314
32	-1.80181	-1.15035	89.141	93.5041
33	-1.80181	-1.13113	90.4204	95.5422
34	-1.80181	-1.11232	91.6577	97.5463
35	-1.80181	-1.0939	92.8543	99.5173
36	-1.80181	-1.07584	94.0117	101.456
37	-1.80181	-1.05812	95.1314	103.362
38	-1.80181	-1.04073	96.2145	105.238
39	-1.80181	-1.02789	97.271	107.09
40	-1.80181	-1.01104	98.2932	108.911
41	-1.80181	-0.994457	99.2822	110.703
42	-1.80181	-0.97815	100.239	112.466
43	-1.80181	-0.9621	101.165	114.199
44	-1.80181	-0.946291	102.06	115.904
45	-1.80181	-0.930718	102.926	117.581
46	-1.80181	-0.915365	103.764	119.23
47	-1.80181	-0.900227	104.575	120.852
48	-1.80181	-0.885291	105.358	122.448
49	-1.80181	-0.87055	106.116	124.016
50	-1.80181	-0.855996	106.849	125.558
51	-1.80181	-0.841621	107.557	127.075

52	-1.80181	-0.830953	108.248	128.572
53	-1.80181	-0.816874	108.915	130.044
54	-1.80181	-0.802956	109.56	131.491
55	-1.80181	-0.789191	110.183	132.913
56	-1.80181	-0.775574	110.784	134.31
57	-1.80181	-0.7621	111.365	135.683
58	-1.80181	-0.748762	111.926	137.032
59	-1.80181	-0.735557	112.467	138.358
60	-1.80181	-0.722479	112.989	139.66
61	-1.60944	-0.709522	113.492	140.801
62	-1.51413	-0.696684	113.977	141.856
63	-1.42712	-0.68396	114.445	142.832
64	-1.34707	-0.67449	114.9	143.741
65	-1.34707	-0.661955	115.338	144.633
66	-1.30933	-0.649522	115.76	145.483
67	-1.23787	-0.637192	116.166	146.272
68	-1.10866	-0.624956	116.557	146.965
69	-1.07881	-0.612813	116.932	147.626
70	-1.04982	-0.60076	117.293	148.257
71	-1.04982	-0.588793	117.64	148.875
72	-0.994252	-0.576911	117.973	149.448
73	-0.941609	-0.565108	118.292	149.98
74	-0.941609	-0.553384	118.598	150.502
75	-0.84397	-0.541736	118.892	150.959
76	-0.820981	-0.530162	119.173	151.394
77	-0.776529	-0.521527	119.445	151.799
78	-0.71335	-0.510074	119.705	152.163
79	-0.673345	-0.498687	119.954	152.499
80	-0.597837	-0.487364	120.191	152.79
81	-0.597837	-0.476105	120.418	153.075
82	-0.562119	-0.464904	120.634	153.336
83	-0.544727	-0.453763	120.84	153.583
84	-0.356675	-0.442676	121.036	153.741
85	-0.34249	-0.431644	121.222	153.889
86	-0.162519	-0.420664	121.399	153.957
87	0	-0.409735	121.567	153.957
88	0	-0.398855	121.726	153.957
89	0	-0.388022	121.877	153.957
90	0	-0.379927	122.021	153.957
91	0	-0.369171	122.157	153.957
92	0	-0.358459	122.286	153.957
93	0	-0.347787	122.407	153.957
94	0	-0.337155	122.52	153.957
95	0	-0.326561	122.627	153.957
96	0	-0.316004	122.727	153.957
97	0	-0.305481	122.82	153.957
98	0	-0.294992	122.907	153.957
99	0	-0.284535	122.988	153.957
100	0	-0.27411	123.063	153.957
101	0	-0.263715	123.133	153.957
102	0	-0.253347	123.197	153.957
103	0	-0.24559	123.257	153.957
104	0	-0.235269	123.313	153.957
105	0	-0.224974	123.363	153.957
106	0	-0.214702	123.409	153.957
107	0	-0.204452	123.451	153.957
108	0	-0.194225	123.489	153.957
109	0	-0.184017	123.523	153.957
110	0	-0.173829	123.553	153.957
111	0	-0.163659	123.58	153.957
112	0	-0.153505	123.603	153.957
113	0	-0.143367	123.624	153.957

114	0	-0.133244	123.642	153.957
115	0	-0.125661	123.658	153.957
116	0	-0.115562	123.671	153.957
117	0	-0.105474	123.682	153.957
118	0	-0.0953969	123.691	153.957
119	0	-0.0853288	123.698	153.957
120	0	-0.0752698	123.704	153.957
121	0	-0.0652187	123.708	153.957
122	0	-0.0551734	123.711	153.957
123	0	-0.0451348	123.713	153.957
124	0	-0.0350997	123.715	153.957
125	0	-0.0250691	123.715	153.957
126	0	-0.0150408	123.715	153.957
127	0	-0.00501359	123.715	153.957
128	0	0.00501359	123.716	153.957
129	0	0.0150408	123.716	153.957
130	0	0.0250691	123.716	153.957
131	0	0.0350997	123.718	153.957
132	0	0.0451348	123.72	153.957
133	0	0.0551734	123.723	153.957
134	0	0.0652187	123.727	153.957
135	0	0.0752698	123.733	153.957
136	0	0.0853288	123.74	153.957
137	0	0.0953969	123.749	153.957
138	0	0.105474	123.76	153.957
139	0	0.115562	123.773	153.957
140	0	0.125661	123.789	153.957
141	0	0.133244	123.807	153.957
142	0	0.143367	123.828	153.957
143	0	0.153505	123.851	153.957
144	0	0.163659	123.878	153.957
145	0	0.173829	123.908	153.957
146	0	0.184017	123.942	153.957
147	0	0.194225	123.98	153.957
148	0	0.204452	124.022	153.957
149	0	0.214702	124.068	153.957
150	0	0.224974	124.118	153.957
151	0	0.235269	124.174	153.957
152	0	0.24559	124.234	153.957
153	0	0.253347	124.298	153.957
154	0	0.263715	124.368	153.957
155	0	0.27411	124.443	153.957
156	0	0.284535	124.524	153.957
157	0	0.294992	124.611	153.957
158	0	0.305481	124.704	153.957
159	0	0.316004	124.804	153.957
160	0	0.326561	124.911	153.957
161	0	0.337155	125.024	153.957
162	0	0.347787	125.145	153.957
163	0	0.358459	125.274	153.957
164	0	0.369171	125.41	153.957
165	0	0.379927	125.554	153.957
166	0	0.388022	125.705	153.957
167	0	0.398855	125.864	153.957
168	0	0.409735	126.032	153.957
169	0	0.420664	126.209	153.957
170	0	0.431644	126.395	153.957
171	0	0.442676	126.591	153.957
172	0	0.453763	126.797	153.957
173	0	0.464904	127.013	153.957
174	0	0.476105	127.24	153.957
175	0	0.487364	127.477	153.957

176	0	0.498687		127.726	153.957
177	0	0.510074		127.986	153.957
178	0	0.521527		128.258	153.957
179	0	0.530162		128.539	153.957
180	0	0.541736		128.833	153.957
181	0	0.553384		129.139	153.957
182	0	0.565108		129.458	153.957
183	0	0.576911		129.791	153.957
184	0	0.588793		130.138	153.957
185	0	0.60076	130.499	153.957	
186	0	0.612813		130.874	153.957
187	0	0.624956		131.265	153.957
188	0	0.637192		131.671	153.957
189	0	0.649522		132.093	153.957
190	0	0.661955		132.531	153.957
191	0	0.67449	132.986	153.957	
192	0	0.68396	133.454	153.957	
193	0	0.696684		133.939	153.957
194	0	0.709522		134.442	153.957
195	0	0.722479		134.964	153.957
196	0	0.735557		135.505	153.957
197	0	0.748762		136.066	153.957
198	0	0.7621	136.647	153.957	
199	0	0.775574		137.248	153.957
200	0	0.789191		137.871	153.957
201	0	0.802956		138.516	153.957
202	0	0.816874		139.183	153.957
203	0	0.830953		139.874	153.957
204	0	0.841621		140.582	153.957
205	0	0.855996		141.315	153.957
206	0	0.87055	142.073	153.957	
207	0	0.885291		142.856	153.957
208	0	0.900227		143.667	153.957
209	0	0.915365		144.505	153.957
210	0	0.930718		145.371	153.957
211	0	0.946291		146.266	153.957
212	0	0.9621	147.192	153.957	
213	0	0.97815	148.149	153.957	
214	0	0.994457		149.138	153.957
215	0	1.01104	150.16	153.957	
216	0	1.02789	151.217	153.957	
217	0	1.04073	152.3	153.957	
218	0	1.05812	153.419	153.957	
219	0	1.07584	154.577	153.957	
220	0	1.0939	155.773	153.957	
221	0	1.11232	157.011	153.957	
222	0	1.13113	158.29	153.957	
223	0	1.15035	159.613	153.957	
224	0	1.17	160.982	153.957	
225	0	1.19012	162.399	153.957	
226	0	1.21073	163.864	153.957	
227	0	1.23187	165.382	153.957	
228	0	1.25357	166.953	153.957	
229	0	1.27588	168.581	153.957	
230	0	1.29303	170.253	153.957	
231	0	1.31652	171.986	153.957	
232	0	1.34075	173.784	153.957	
233	0	1.36581	175.649	153.957	
234	0	1.39175	177.586	153.957	
235	0	1.41865	179.599	153.957	
236	0	1.44663	181.692	153.957	
237	0	1.47579	183.87	153.957	

238	0	1.50626	186.139	153.957	
239	0	1.5382	188.505	153.957	
240	0	1.57179	190.975	153.957	
241	0	1.60725	193.558	153.957	
242	0	1.64485	196.264	153.957	
243	0	1.67466	199.068	153.957	
244	0	1.71688	202.016	153.957	
245	0	1.76241	205.122	153.957	
246	0	1.81191	208.405	153.957	
247	0	1.86629	211.888	153.957	
248	0	1.92684	215.601	153.957	
249	0	1.99539	219.583	153.957	
250	0.139762		2.07485	223.888	154.247
251	0.182322		2.17009	228.597	154.643
252	0.29267	2.29036	233.843	155.313	
253	1.15057	2.45727	239.881	158.14	
254	1.60944	2.74777	247.431	162.563	

Data Set Standard Deviation = 0.793636
Numerator = 26426.7
Denominator = 39429.1
W Statistic = 0.670232 = 26426.7 / 39429.1

5% Critical value of 0.976 exceeds 0.670232
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.670232
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Toluene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.817937
0.817937 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.80181	0.00392157	-2.74777	65.5079	348.683
2	-1.80181	0.00784314	-2.45727	65.5079	334.497
3	-1.80181	0.0117647	-2.29036	65.5079	326.346
4	-1.80181	0.0156863	-2.17009	65.5079	320.473
5	-1.80181	0.0196078	-2.07485	65.5079	315.822
6	-1.80181	0.0235294	-1.99539	65.5079	311.942
7	-1.80181	0.027451	-1.92684	65.5079	308.594
8	-1.80181	0.0313725	-1.86629	65.5079	305.637
9	-1.80181	0.0352941	-1.81191	65.5079	302.982
10	-1.80181	0.0392157	-1.76241	65.5079	300.564
11	-1.80181	0.0431373	-1.71688	65.5079	298.341
12	-1.80181	0.0470588	-1.67466	65.5079	296.279
13	-1.80181	0.0509804	-1.64485	65.5079	294.824
14	-1.80181	0.054902	-1.60725	65.5079	292.987
15	-1.80181	0.0588235	-1.57179	65.5079	291.256
16	-1.80181	0.0627451	-1.5382	65.5079	289.615
17	-1.80181	0.0666667	-1.50626	65.5079	288.056
18	-1.80181	0.0705882	-1.47579	65.5079	286.568
19	-1.80181	0.0745098	-1.44663	65.5079	285.144
20	-1.80181	0.0784314	-1.41865	65.5079	283.778
21	-1.80181	0.0823529	-1.39175	65.5079	282.464
22	-1.80181	0.0862745	-1.36581	65.5079	281.197
23	-1.80181	0.0901961	-1.34075	65.5079	279.974
24	-1.80181	0.0941176	-1.31652	65.5079	278.79
25	-1.80181	0.0980392	-1.29303	65.5079	277.643
26	-1.80181	0.101961	-1.27588	65.5079	276.805
27	-1.80181	0.105882	-1.25357	65.5079	275.716
28	-1.80181	0.109804	-1.23187	65.5079	274.656
29	-1.80181	0.113725	-1.21073	65.5079	273.624
30	-1.80181	0.117647	-1.19012	65.5079	272.617
31	-1.80181	0.121569	-1.17	65.5079	271.635
32	-1.80181	0.12549	-1.15035	65.5079	270.675
33	-1.80181	0.129412	-1.13113	65.5079	269.737
34	-1.80181	0.133333	-1.11232	65.5079	268.818
35	-1.80181	0.137255	-1.0939	65.5079	267.919
36	-1.80181	0.141176	-1.07584	65.5079	267.037
37	-1.80181	0.145098	-1.05812	65.5079	266.172
38	-1.80181	0.14902	-1.04073	65.5079	265.322
39	-1.80181	0.152941	-1.02789	65.5079	264.695
40	-1.80181	0.156863	-1.01104	65.5079	263.872
41	-1.80181	0.160784	-0.994457	65.5079	263.063
42	-1.80181	0.164706	-0.97815	65.5079	262.266
43	-1.80181	0.168627	-0.9621	65.5079	261.483
44	-1.80181	0.172549	-0.946291	65.5079	260.711
45	-1.80181	0.176471	-0.930718	65.5079	259.95
46	-1.80181	0.180392	-0.915365	65.5079	259.2
47	-1.80181	0.184314	-0.900227	65.5079	258.461
48	-1.80181	0.188235	-0.885291	65.5079	257.732

49	-1.80181	0.192157	-0.87055	65.5079	257.012
50	-1.80181	0.196078	-0.855996	65.5079	256.301
51	-1.80181	0.2	-0.841621	65.5079	255.599
52	-1.80181	0.203922	-0.830953	65.5079	255.078
53	-1.80181	0.207843	-0.816874	65.5079	254.391
54	-1.80181	0.211765	-0.802956	65.5079	253.711
55	-1.80181	0.215686	-0.789191	65.5079	253.039
56	-1.80181	0.219608	-0.775574	65.5079	252.374
57	-1.80181	0.223529	-0.7621	65.5079	251.716
58	-1.80181	0.227451	-0.748762	65.5079	251.065
59	-1.80181	0.231373	-0.735557	65.5079	250.42
60	-1.80181	0.235294	-0.722479	65.5079	249.781
61	-1.60944	0.239216	-0.709522	91.2377	249.148
62	-1.51413	0.243137	-0.696684	103.985	248.521
63	-1.42712	0.247059	-0.68396	115.623	247.9
64	-1.34707	0.25098	-0.67449	126.329	247.438
65	-1.34707	0.254902	-0.661955	126.329	246.825
66	-1.30933	0.258824	-0.649522	131.377	246.218
67	-1.23787	0.262745	-0.637192	140.934	245.616
68	-1.10866	0.266667	-0.624956	158.216	245.019
69	-1.07881	0.270588	-0.612813	162.209	244.426
70	-1.04982	0.27451	-0.60076	166.086	243.837
71	-1.04982	0.278431	-0.588793	166.086	243.253
72	-0.994252	0.282353	-0.576911	173.519	242.672
73	-0.941609	0.286275	-0.565108	180.56	242.096
74	-0.941609	0.290196	-0.553384	180.56	241.524
75	-0.84397	0.294118	-0.541736	193.619	240.955
76	-0.820981	0.298039	-0.530162	196.694	240.39
77	-0.776529	0.301961	-0.521527	202.639	239.968
78	-0.71335	0.305882	-0.510074	211.089	239.409
79	-0.673345	0.309804	-0.498687	216.44	238.853
80	-0.597837	0.313725	-0.487364	226.539	238.3
81	-0.597837	0.317647	-0.476105	226.539	237.75
82	-0.562119	0.321569	-0.464904	231.317	237.203
83	-0.544727	0.32549	-0.453763	233.643	236.659
84	-0.356675	0.329412	-0.442676	258.795	236.117
85	-0.34249	0.333333	-0.431644	260.692	235.579
86	-0.162519	0.337255	-0.420664	284.763	235.042
87	0	0.341176	-0.409735	306.5	234.509
88	0	0.345098	-0.398855	306.5	233.977
89	0	0.34902	-0.388022	306.5	233.448
90	0	0.352941	-0.379927	306.5	233.053
91	0	0.356863	-0.369171	306.5	232.528
92	0	0.360784	-0.358459	306.5	232.005
93	0	0.364706	-0.347787	306.5	231.484
94	0	0.368627	-0.337155	306.5	230.964
95	0	0.372549	-0.326561	306.5	230.447
96	0	0.376471	-0.316004	306.5	229.932
97	0	0.380392	-0.305481	306.5	229.418
98	0	0.384314	-0.294992	306.5	228.905
99	0	0.388235	-0.284535	306.5	228.395
100	0	0.392157	-0.27411	306.5	227.886
101	0	0.396078	-0.263715	306.5	227.378
102	0	0.4	-0.253347	306.5	226.872
103	0	0.403922	-0.24559	306.5	226.493
104	0	0.407843	-0.235269	306.5	225.989
105	0	0.411765	-0.224974	306.5	225.486
106	0	0.415686	-0.214702	306.5	224.985
107	0	0.419608	-0.204452	306.5	224.484
108	0	0.423529	-0.194225	306.5	223.985
109	0	0.427451	-0.184017	306.5	223.486
110	0	0.431373	-0.173829	306.5	222.989

111	0	0.435294	-0.163659	306.5	222.492
112	0	0.439216	-0.153505	306.5	221.996
113	0	0.443137	-0.143367	306.5	221.501
114	0	0.447059	-0.133244	306.5	221.007
115	0	0.45098	-0.125661	306.5	220.636
116	0	0.454902	-0.115562	306.5	220.143
117	0	0.458824	-0.105474	306.5	219.651
118	0	0.462745	-0.0953969	306.5	219.159
119	0	0.466667	-0.0853288	306.5	218.667
120	0	0.470588	-0.0752698	306.5	218.176
121	0	0.47451	-0.0652187	306.5	217.685
122	0	0.478431	-0.0551734	306.5	217.194
123	0	0.482353	-0.0451348	306.5	216.704
124	0	0.486275	-0.0350997	306.5	216.214
125	0	0.490196	-0.0250691	306.5	215.724
126	0	0.494118	-0.0150408	306.5	215.234
127	0	0.498039	-0.00501359	306.5	214.745
128	0	0.501961	0.00501359	306.5	214.255
129	0	0.505882	0.0150408	306.5	213.766
130	0	0.509804	0.0250691	306.5	213.276
131	0	0.513725	0.0350997	306.5	212.786
132	0	0.517647	0.0451348	306.5	212.296
133	0	0.521569	0.0551734	306.5	211.806
134	0	0.52549	0.0652187	306.5	211.315
135	0	0.529412	0.0752698	306.5	210.824
136	0	0.533333	0.0853288	306.5	210.333
137	0	0.537255	0.0953969	306.5	209.841
138	0	0.541176	0.105474	306.5	209.349
139	0	0.545098	0.115562	306.5	208.857
140	0	0.54902	0.125661	306.5	208.364
141	0	0.552941	0.133244	306.5	207.993
142	0	0.556863	0.143367	306.5	207.499
143	0	0.560784	0.153505	306.5	207.004
144	0	0.564706	0.163659	306.5	206.508
145	0	0.568627	0.173829	306.5	206.011
146	0	0.572549	0.184017	306.5	205.514
147	0	0.576471	0.194225	306.5	205.015
148	0	0.580392	0.204452	306.5	204.516
149	0	0.584314	0.214702	306.5	204.015
150	0	0.588235	0.224974	306.5	203.514
151	0	0.592157	0.235269	306.5	203.011
152	0	0.596078	0.24559	306.5	202.507
153	0	0.6	0.253347	306.5	202.128
154	0	0.603922	0.263715	306.5	201.622
155	0	0.607843	0.27411	306.5	201.114
156	0	0.611765	0.284535	306.5	200.605
157	0	0.615686	0.294992	306.5	200.095
158	0	0.619608	0.305481	306.5	199.582
159	0	0.623529	0.316004	306.5	199.068
160	0	0.627451	0.326561	306.5	198.553
161	0	0.631373	0.337155	306.5	198.036
162	0	0.635294	0.347787	306.5	197.516
163	0	0.639216	0.358459	306.5	196.995
164	0	0.643137	0.369171	306.5	196.472
165	0	0.647059	0.379927	306.5	195.947
166	0	0.65098	0.388022	306.5	195.552
167	0	0.654902	0.398855	306.5	195.023
168	0	0.658824	0.409735	306.5	194.491
169	0	0.662745	0.420664	306.5	193.958
170	0	0.666667	0.431644	306.5	193.421
171	0	0.670588	0.442676	306.5	192.883
172	0	0.67451	0.453763	306.5	192.341

173	0	0.678431	0.464904	306.5	191.797
174	0	0.682353	0.476105	306.5	191.25
175	0	0.686275	0.487364	306.5	190.7
176	0	0.690196	0.498687	306.5	190.147
177	0	0.694118	0.510074	306.5	189.591
178	0	0.698039	0.521527	306.5	189.032
179	0	0.701961	0.530162	306.5	188.61
180	0	0.705882	0.541736	306.5	188.045
181	0	0.709804	0.553384	306.5	187.476
182	0	0.713725	0.565108	306.5	186.904
183	0	0.717647	0.576911	306.5	186.328
184	0	0.721569	0.588793	306.5	185.747
185	0	0.72549	0.60076	306.5	185.163
186	0	0.729412	0.612813	306.5	184.574
187	0	0.733333	0.624956	306.5	183.981
188	0	0.737255	0.637192	306.5	183.384
189	0	0.741176	0.649522	306.5	182.782
190	0	0.745098	0.661955	306.5	182.175
191	0	0.74902	0.67449	306.5	181.562
192	0	0.752941	0.68396	306.5	181.1
193	0	0.756863	0.696684	306.5	180.479
194	0	0.760784	0.709522	306.5	179.852
195	0	0.764706	0.722479	306.5	179.219
196	0	0.768627	0.735557	306.5	178.58
197	0	0.772549	0.748762	306.5	177.935
198	0	0.776471	0.7621	306.5	177.284
199	0	0.780392	0.775574	306.5	176.626
200	0	0.784314	0.789191	306.5	175.961
201	0	0.788235	0.802956	306.5	175.289
202	0	0.792157	0.816874	306.5	174.609
203	0	0.796078	0.830953	306.5	173.922
204	0	0.8	0.841621	306.5	173.401
205	0	0.803922	0.855996	306.5	172.699
206	0	0.807843	0.87055	306.5	171.988
207	0	0.811765	0.885291	306.5	171.268
208	0	0.815686	0.900227	306.5	170.539
209	0	0.819608	0.915365	306.5	169.8
210	0	0.823529	0.930718	306.5	169.05
211	0	0.827451	0.946291	306.5	168.289
212	0	0.831373	0.9621	306.5	167.517
213	0	0.835294	0.97815	306.5	166.734
214	0	0.839216	0.994457	306.5	165.937
215	0	0.843137	1.01104	306.5	165.128
216	0	0.847059	1.02789	306.5	164.305
217	0	0.85098	1.04073	306.5	163.678
218	0	0.854902	1.05812	306.5	162.828
219	0	0.858824	1.07584	306.5	161.963
220	0	0.862745	1.0939	306.5	161.081
221	0	0.866667	1.11232	306.5	160.182
222	0	0.870588	1.13113	306.5	159.263
223	0	0.87451	1.15035	306.5	158.325
224	0	0.878431	1.17	306.5	157.365
225	0	0.882353	1.19012	306.5	156.383
226	0	0.886275	1.21073	306.5	155.376
227	0	0.890196	1.23187	306.5	154.344
228	0	0.894118	1.25357	306.5	153.284
229	0	0.898039	1.27588	306.5	152.195
230	0	0.901961	1.29303	306.5	151.357
231	0	0.905882	1.31652	306.5	150.21
232	0	0.909804	1.34075	306.5	149.026
233	0	0.913725	1.36581	306.5	147.803
234	0	0.917647	1.39175	306.5	146.536

235	0	0.921569		1.41865	306.5	145.222
236	0	0.92549	1.44663	306.5	143.856	
237	0	0.929412		1.47579	306.5	142.432
238	0	0.933333		1.50626	306.5	140.944
239	0	0.937255		1.5382	306.5	139.385
240	0	0.941176		1.57179	306.5	137.744
241	0	0.945098		1.60725	306.5	136.013
242	0	0.94902	1.64485	306.5	134.176	
243	0	0.952941		1.67466	306.5	132.721
244	0	0.956863		1.71688	306.5	130.659
245	0	0.960784		1.76241	306.5	128.436
246	0	0.964706		1.81191	306.5	126.018
247	0	0.968627		1.86629	306.5	123.363
248	0	0.972549		1.92684	306.5	120.406
249	0	0.976471		1.99539	306.5	117.058
250	0.139762		0.980392		2.07485	325.193 113.178
251	0.182322		0.984314		2.17009	330.886 108.527
252	0.29267	0.988235		2.29036	345.645	102.654
253	1.15057	0.992157		2.45727	460.389	94.5032
254	1.60944	0.996078		2.74777	521.762	80.3175

Kruskal-Wallis Non-Parametric Test

Parameter: Toluene

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	111.5
	9/23/1999	ND<0	111.5
	3/15/2000	ND<0	111.5
	9/24/2003	ND<0	111.5
	3/11/2004	ND<0	111.5
	10/12/2004	ND<0	111.5
	4/1/2005	ND<0	111.5
	10/25/2005	ND<0	111.5
	4/29/2006	0.139762 J	250
	11/18/2006	ND<0	111.5
	5/23/2007	ND<0	111.5
	11/28/2007	ND<0	111.5
	6/5/2008	ND<0	111.5
	11/20/2008	ND<0	111.5
	6/11/2009	ND<-1.80181	111.5
	11/16/2009	ND<-1.80181	111.5
	6/30/2010	ND<-1.80181	111.5
	11/12/2010	ND<-1.80181 U	111.5
	7/5/2011	-0.356675 J	246

Rank Sum = 2391.5
Rank Mean = 125.868

Background Rank Sum = 2391.5
Background Rank Mean = 125.868

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	111.5
	8/24/1995	ND<0	111.5
	9/28/1995	ND<0	111.5
	10/26/1995	ND<0	111.5
	11/19/1996	ND<0	111.5
	12/19/1996	ND<0	111.5
	3/24/1997	ND<0	111.5
	9/24/1997	ND<0	111.5
	4/7/1998	ND<0	111.5
	9/23/1998	ND<0	111.5
	3/16/1999	ND<0	111.5
	9/23/1999	ND<0	111.5
	3/15/2000	ND<0	111.5
	9/24/2003	ND<0	111.5
	3/11/2004	ND<0	111.5
	10/12/2004	ND<0	111.5
	4/1/2005	ND<0	111.5
	10/25/2005	ND<0	111.5
	4/29/2006	-0.84397 J	237
	11/18/2006	ND<0	111.5
	5/23/2007	ND<0	111.5

	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181 U		111.5
	7/5/2011	ND<-1.80181 U	111.5	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	ND<-1.80181 U	111.5	

Rank Sum = 3693.5
Rank Mean = 115.422

MW-10	7/20/1995	ND<0	111.5	
	8/24/1995	ND<0	111.5	
	9/28/1995	ND<0	111.5	
	10/26/1995	ND<0	111.5	
	11/19/1996	ND<0	111.5	
	12/19/1996	ND<0	111.5	
	3/24/1997	ND<0	111.5	
	9/24/1997	ND<0	111.5	
	4/7/1998	ND<0	111.5	
	9/23/1998	ND<0	111.5	
	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	-1.04982 J		232
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181 U		111.5
	7/5/2011	ND<-1.80181 U	111.5	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	ND<-1.80181 U	111.5	

Rank Sum = 3688.5
Rank Mean = 115.266

MW-11R	7/20/1995	ND<0	111.5	
	8/24/1995	ND<0	111.5	
	9/28/1995	ND<0	111.5	
	10/26/1995	ND<0	111.5	
	11/19/1996	ND<0	111.5	
	12/19/1996	ND<0	111.5	
	3/24/1997	ND<0	111.5	
	9/24/1997	ND<0	111.5	
	4/7/1998	ND<0	111.5	
	9/23/1998	ND<0	111.5	
	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	

	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	1.15057		253
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	-0.597837 J		242
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181 U		111.5
	7/5/2011	-0.562119 J	244	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	ND<-1.80181 U	111.5	

Rank Sum = 3972.5
Rank Mean = 124.141

MW-8	7/20/1995	ND<0	111.5	
	8/24/1995	ND<0	111.5	
	9/28/1995	1.60944		254
	10/26/1995	ND<0	111.5	
	11/19/1996	ND<0	111.5	
	12/19/1996	ND<0	111.5	
	3/24/1997	ND<0	111.5	
	9/24/1997	ND<0	111.5	
	4/7/1998	ND<0	111.5	
	9/23/1998	ND<0	111.5	
	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	-1.51413 J	224	
	10/25/2005	-0.597837 J		243
	4/29/2006	-0.544727 J		245
	11/18/2006	-0.71335 J		240
	5/23/2007	0.182322 J		251
	11/28/2007	-0.162519 J		248
	6/5/2008	ND<0	111.5	
	11/20/2008	0.29267 J		252
	6/11/2009	0	249	
	6/30/2010	-0.941609 J		235
	11/12/2010	-0.820981 J		238
	7/5/2011	-0.34249 J	247	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	-1.07881 J	231	

Rank Sum = 5164
Rank Mean = 166.581

MW-7	7/20/1995	ND<0	111.5	
	8/24/1995	ND<0	111.5	
	9/28/1995	ND<0	111.5	
	10/26/1995	ND<0	111.5	
	11/19/1996	ND<0	111.5	
	12/19/1996	ND<0	111.5	

	3/24/1997	ND<0	111.5	
	9/24/1997	ND<0	111.5	
	4/7/1998	ND<0	111.5	
	9/23/1998	ND<0	111.5	
	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	-1.34707 J		226
	4/29/2006	-0.941609 J		236
	11/18/2006	-0.673345 J		241
	5/23/2007	ND<0	111.5	
	11/28/2007	-1.30933 J		228
	6/5/2008	ND<0	111.5	
	11/20/2008	-1.23787 J		229
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181 U		111.5
	7/5/2011	ND<-1.80181 U	111.5	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	ND<-1.80181 U	111.5	

Rank Sum = 4170.5
Rank Mean = 130.328

MW-9	7/20/1995	-1.34707 J		227
	8/24/1995	ND<0	111.5	
	9/28/1995	ND<0	111.5	
	10/26/1995	ND<0	111.5	
	11/19/1996	ND<0	111.5	
	12/19/1996	ND<0	111.5	
	3/24/1997	ND<0	111.5	
	9/24/1997	ND<0	111.5	
	4/7/1998	ND<0	111.5	
	9/23/1998	ND<0	111.5	
	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	-0.776529 J		239
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	-1.60944 J		223
	6/5/2008	ND<0	111.5	
	11/20/2008	-1.10866 J		230
	6/11/2009	-1.04982 J		233
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181 U		111.5
	7/5/2011	ND<-1.80181 U	111.5	
	11/22/2011	ND<-1.80181 U		111.5
	11/22/2011	ND<-1.80181 U		111.5
	6/5/2012	ND<-1.80181 U	111.5	

Rank Sum = 4162.5

Rank Mean = 130.078

MW-12BR	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	-1.42712	J	225
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181	U	111.5
	7/5/2011	ND<-1.80181	U	111.5
	11/22/2011	ND<-1.80181	U	111.5
	11/22/2011	ND<-1.80181	U	111.5
	6/5/2012	ND<-1.80181	U	111.5

Rank Sum = 2566.5
Rank Mean = 116.659

MW-12AR	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	-0.994252	J	234
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-1.80181		111.5
	11/16/2009	ND<-1.80181		111.5
	6/30/2010	ND<-1.80181		111.5
	11/12/2010	ND<-1.80181	U	111.5
	7/5/2011	ND<-1.80181	U	111.5
	11/22/2011	ND<-1.80181	U	111.5
	11/22/2011	ND<-1.80181	U	111.5
	6/5/2012	ND<-1.80181	U	111.5

Rank Sum = 2575.5
Rank Mean = 117.068

Calculation Results:

Kruskal-Wallis H Statistic = 11.6099
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 34.9337
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
11.6099 < 15.5073 indicating no significant group difference at 5% significance level
34.9337 > 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 125.868

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**115.422**	**-10.4465**	**49.4998**
MW-10	**115.266**	**-10.6028**	**49.4998**
MW-11R	**124.141**	**-1.7278**	**49.4998**
MW-8	**166.581**	**40.7122**	**49.7963**
MW-7	**130.328**	**4.4597**	**49.4998**
MW-9	**130.078**	**4.2097**	**49.4998**
MW-12BR	**116.659**	**-9.2093**	**53.5271**
MW-12AR	**117.068**	**-8.8002**	**53.5271**

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 125.868

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	**115.422**	**-10.4465**	**53.453**
MW-10	**115.266**	**-10.6028**	**53.453**
MW-11R	**124.141**	**-1.7278**	**53.453**
MW-8	**166.581**	**40.7122**	**53.7733**
MW-7	**130.328**	**4.4597**	**53.453**
MW-9	**130.078**	**4.2097**	**53.453**
MW-12BR	**116.659**	**-9.2093**	**57.802**
MW-12AR	**117.068**	**-8.8002**	**57.802**

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Toluene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 87.4016%
Number of comparisons = 8
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 19
Maximum Background Value = 0.139762
Confidence Level = 70.4%
False Positive Rate = 29.6%

Location	Date	Count	Mean	Significant
MW-6	6/5/2012	1	-1.80181	FALSE
MW-10	6/5/2012	1	-1.80181	FALSE
MW-11R	6/5/2012	1	-1.80181	FALSE
MW-8	6/5/2012	1	-1.07881	FALSE
MW-7	6/5/2012	1	-1.80181	FALSE
MW-9	6/5/2012	1	-1.80181	FALSE
MW-12BR	6/5/2012	1	-1.80181	FALSE
MW-12AR	6/5/2012	1	-1.80181	FALSE

Concentrations (ppb)

Parameter: trans-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 254
Total Non-Detect: 222
Percent Non-Detects: 87.4016%
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-9	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<0.2	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
			6/5/2012	ND<0.2 U	ND<0.2 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<0.2	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
			6/5/2012	ND<0.2 U	ND<0.2 U
MW-10	32	18 (56.25%)	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	
			6/5/2012	0.21 J	0.21 J	
MW-8	31	15 (48.3871%)	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	
			6/5/2012	0.24 J	0.24 J	
MW-11R	32	31 (96.875%)	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	
			6/5/2012	ND<0.2 U	ND<0.2 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<0.2	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	
			6/5/2012	ND<0.2 U	ND<0.2 U	
MW-12BR	22	21 (95.4545%)	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	
		6/5/2012	ND<0.2 U	ND<0.2 U	
MW-12AR	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<0.2	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	
		6/5/2012	ND<0.2 U	ND<0.2 U	

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.1	-2.747777	7.55021	-0.274777
2	0.1	-2.457271	3.5884	-0.520504
3	0.1	-2.290361	8.8342	-0.74954
4	0.1	-2.170092	3.5435	-0.966549
5	0.1	-2.074852	7.8485	-1.17403
6	0.1	-1.995393	1.8301	-1.37357
7	0.1	-1.926843	5.5428	-1.56626
8	0.1	-1.866293	9.0258	-1.75289
9	0.1	-1.811914	2.3088	-1.93408
10	0.1	-1.762414	5.4149	-2.11032
11	0.1	-1.716884	8.3626	-2.28201
12	0.1	-1.674665	1.1671	-2.44947
13	0.1	-1.644855	3.8726	-2.61396
14	0.1	-1.607255	6.4559	-2.77468
15	0.1	-1.571795	8.9264	-2.93186
16	0.1	-1.5382	61.2925	-3.08568
17	0.1	-1.506263	3.5613	-3.23631
18	0.1	-1.475796	5.7393	-3.38389
19	0.1	-1.446636	7.832	-3.52855
20	0.1	-1.418656	9.8446	-3.67042
21	0.1	-1.391757	1.7815	-3.80959
22	0.1	-1.365817	3.647	-3.94617
23	0.1	-1.340757	5.4446	-4.08025
24	0.1	-1.316527	7.1778	-4.2119
25	0.1	-1.293037	8.8498	-4.3412
26	0.1	-1.275888	0.4776	-4.46879
27	0.1	-1.253578	2.049	-4.59415
28	0.1	-1.231878	3.5665	-4.71733
29	0.1	-1.210738	5.0324	-4.83841
30	0.1	-1.190128	6.4488	-4.95742
31	0.1	-1.17	87.8177	-5.07442
32	0.1	-1.150358	9.141	-5.18945
33	0.1	-1.131139	0.4204	-5.30257
34	0.1	-1.112329	1.6577	-5.4138
35	0.1	-1.0939	92.8543	-5.52319
36	0.1	-1.075849	4.0117	-5.63077
37	0.1	-1.058129	5.1314	-5.73658
38	0.1	-1.040739	6.2145	-5.84066
39	0.1	-1.027899	7.271	-5.94345
40	0.1	-1.011049	8.2932	-6.04455
41	0.1	-0.994457	99.2822	-6.144
42	0.1	-0.978151	00.239	-6.24181
43	0.1	-0.9621	101.165	-6.33802
44	0.1	-0.946291	102.06	-6.43265
45	0.1	-0.930718	102.926	-6.52572
46	0.1	-0.915365	103.764	-6.61726
47	0.1	-0.900227	104.575	-6.70728
48	0.1	-0.885291	105.358	-6.79581
49	0.1	-0.870551	06.116	-6.88286
50	0.1	-0.855996	106.849	-6.96846
51	0.1	-0.841621	107.557	-7.05263

52	0.1	-0.830953	108.248	-7.13572
53	0.1	-0.816874	108.915	-7.21741
54	0.1	-0.802956	109.56	-7.2977
55	0.1	-0.789191	110.183	-7.37662
56	0.1	-0.775574	110.784	-7.45418
57	0.1	-0.7621	111.365	-7.53039
58	0.21	-0.748762	111.926	-7.68763
59	0.21	-0.735557	112.467	-7.8421
60	0.22	-0.722479	112.989	-8.00104
61	0.23	-0.709522	113.492	-8.16423
62	0.24	-0.696684	113.977	-8.33144
63	0.24	-0.68396	114.445	-8.49559
64	0.24	-0.67449	114.9	-8.65747
65	0.24	-0.661955	115.338	-8.81634
66	0.25	-0.649522	115.76	-8.97872
67	0.27	-0.637192	116.166	-9.15076
68	0.27	-0.624956	116.557	-9.3195
69	0.28	-0.612813	116.932	-9.49108
70	0.28	-0.60076	117.293	-9.6593
71	0.28	-0.588793	117.64	-9.82416
72	0.29	-0.576911	117.973	-9.99146
73	0.31	-0.565108	118.292	-10.1666
74	0.31	-0.553384	118.598	-10.3382
75	0.34	-0.541736	118.892	-10.5224
76	0.35	-0.530162	119.173	-10.7079
77	0.39	-0.521527	119.445	-10.9113
78	0.39	-0.510074	119.705	-11.1103
79	0.4	-0.498687	119.954	-11.3097
80	0.4	-0.487364	120.191	-11.5047
81	0.52	-0.476105	120.418	-11.7523
82	0.55	-0.464904	120.634	-12.008
83	0.59	-0.453763	120.84	-12.2757
84	0.6	-0.442676	121.036	-12.5413
85	0.7	-0.431644	121.222	-12.8434
86	1	-0.420664	121.399	-13.2641
87	1	-0.409735	121.567	-13.6738
88	1	-0.398855	121.726	-14.0727
89	1	-0.388022	121.877	-14.4607
90	1	-0.379927	122.021	-14.8406
91	1	-0.369171	122.157	-15.2098
92	1	-0.358459	122.286	-15.5683
93	1	-0.347787	122.407	-15.9161
94	1	-0.337155	122.52	-16.2532
95	1	-0.326561	122.627	-16.5798
96	1	-0.316004	122.727	-16.8958
97	1	-0.305481	122.82	-17.2013
98	1	-0.294992	122.907	-17.4962
99	1	-0.284535	122.988	-17.7808
100	1	-0.27411	123.063	-18.0549
101	1	-0.263715	123.133	-18.3186
102	1	-0.253347	123.197	-18.572
103	1	-0.24559	123.257	-18.8175
104	1	-0.235269	123.313	-19.0528
105	1	-0.224974	123.363	-19.2778
106	1	-0.214702	123.409	-19.4925
107	1	-0.204452	123.451	-19.6969
108	1	-0.194225	123.489	-19.8912
109	1	-0.184017	123.523	-20.0752
110	1	-0.173829	123.553	-20.249
111	1	-0.163659	123.58	-20.4127
112	1	-0.153505	123.603	-20.5662
113	1	-0.143367	123.624	-20.7095

114	1	-0.133244	123.642	-20.8428
115	1	-0.125661	123.658	-20.9685
116	1	-0.115562	123.671	-21.084
117	1	-0.105474	123.682	-21.1895
118	1	-0.0953969	123.691	-21.2849
119	1	-0.0853288	123.698	-21.3702
120	1	-0.0752698	123.704	-21.4455
121	1	-0.0652187	123.708	-21.5107
122	1	-0.0551734	123.711	-21.5659
123	1	-0.0451348	123.713	-21.611
124	1	-0.0350997	123.715	-21.6461
125	1	-0.0250691	123.715	-21.6712
126	1	-0.0150408	123.715	-21.6862
127	1	-0.00501359	123.715	-21.6912
128	1	0.00501359	123.716	-21.6862
129	1	0.0150408	123.716	-21.6712
130	1	0.0250691	123.716	-21.6461
131	1	0.0350997	123.718	-21.611
132	1	0.0451348	123.72	-21.5659
133	1	0.0551734	123.723	-21.5107
134	1	0.0652187	123.727	-21.4455
135	1	0.0752698	123.733	-21.3702
136	1	0.0853288	123.74	-21.2849
137	1	0.0953969	123.749	-21.1895
138	1	0.105474	123.76	-21.084
139	1	0.115562	123.773	-20.9685
140	1	0.125661	123.789	-20.8428
141	1	0.133244	123.807	-20.7095
142	1	0.143367	123.828	-20.5662
143	1	0.153505	123.851	-20.4127
144	1	0.163659	123.878	-20.249
145	1	0.173829	123.908	-20.0752
146	1	0.184017	123.942	-19.8912
147	1	0.194225	123.98	-19.6969
148	1	0.204452	124.022	-19.4925
149	1	0.214702	124.068	-19.2778
150	1	0.224974	124.118	-19.0528
151	1	0.235269	124.174	-18.8175
152	1	0.24559	124.234	-18.572
153	1	0.253347	124.298	-18.3186
154	1	0.263715	124.368	-18.0549
155	1	0.27411	124.443	-17.7808
156	1	0.284535	124.524	-17.4962
157	1	0.294992	124.611	-17.2013
158	1	0.305481	124.704	-16.8958
159	1	0.316004	124.804	-16.5798
160	1	0.326561	124.911	-16.2532
161	1	0.337155	125.024	-15.9161
162	1	0.347787	125.145	-15.5683
163	1	0.358459	125.274	-15.2098
164	1	0.369171	125.41	-14.8406
165	1	0.379927	125.554	-14.4607
166	1	0.388022	125.705	-14.0727
167	1	0.398855	125.864	-13.6738
168	1	0.409735	126.032	-13.2641
169	1	0.420664	126.209	-12.8434
170	1	0.431644	126.395	-12.4118
171	1	0.442676	126.591	-11.9691
172	1	0.453763	126.797	-11.5154
173	1	0.464904	127.013	-11.0504
174	1	0.476105	127.24	-10.5743
175	1	0.487364	127.477	-10.087

176	1	0.498687		127.726	-9.58829
177	1	0.510074		127.986	-9.07822
178	1	0.521527		128.258	-8.55669
179	1	0.530162		128.539	-8.02653
180	1	0.541736		128.833	-7.48479
181	1	0.553384		129.139	-6.93141
182	1	0.565108		129.458	-6.3663
183	1	0.576911		129.791	-5.78939
184	1	0.588793		130.138	-5.2006
185	1	0.60076	130.499	-4.59984	
186	1	0.612813		130.874	-3.98702
187	1	0.624956		131.265	-3.36207
188	1	0.637192		131.671	-2.72488
189	1	0.649522		132.093	-2.07535
190	1	0.661955		132.531	-1.4134
191	1	0.67449	132.986	-0.738909	
192	1	0.68396	133.454	-0.054948	
193	1	0.696684		133.939	0.641736
194	1	0.709522		134.442	1.35126
195	1	0.722479		134.964	2.07374
196	1	0.735557		135.505	2.80929
197	1	0.748762		136.066	3.55806
198	1	0.7621	136.647	4.32016	
199	1	0.775574		137.248	5.09573
200	1	0.789191		137.871	5.88492
201	1	0.802956		138.516	6.68788
202	1	0.816874		139.183	7.50475
203	1	0.830953		139.874	8.3357
204	1	0.841621		140.582	9.17733
205	1	0.855996		141.315	10.0333
206	1	0.87055	142.073	10.9039	
207	1	0.885291		142.856	11.7892
208	1	0.900227		143.667	12.6894
209	1	0.915365		144.505	13.6048
210	1	0.930718		145.371	14.5355
211	1	0.946291		146.266	15.4818
212	1	0.9621	147.192	16.4439	
213	1	0.97815	148.149	17.422	
214	1	0.994457		149.138	18.4165
215	1	1.01104	150.16	19.4275	
216	1	1.02789	151.217	20.4554	
217	1	1.04073	152.3	21.4961	
218	1	1.05812	153.419	22.5543	
219	1	1.07584	154.577	23.6301	
220	1	1.0939	155.773	24.724	
221	1	1.11232	157.011	25.8363	
222	1	1.13113	158.29	26.9674	
223	1	1.15035	159.613	28.1178	
224	1	1.17	160.982	29.2878	
225	1	1.19012	162.399	30.4779	
226	1	1.21073	163.864	31.6886	
227	1	1.23187	165.382	32.9205	
228	1	1.25357	166.953	34.1741	
229	1	1.27588	168.581	35.4499	
230	1	1.29303	170.253	36.743	
231	1	1.31652	171.986	38.0595	
232	1	1.34075	173.784	39.4003	
233	1	1.36581	175.649	40.7661	
234	1	1.39175	177.586	42.1578	
235	1	1.41865	179.599	43.5765	
236	1	1.44663	181.692	45.0231	
237	1	1.47579	183.87	46.4989	

238	1	1.50626	186.139	48.0051
239	1	1.5382	188.505	49.5433
240	1	1.57179	190.975	51.1151
241	1	1.60725	193.558	52.7224
242	1	1.64485	196.264	54.3672
243	1	1.67466	199.068	56.0419
244	1	1.71688	202.016	57.7588
245	1	1.76241	205.122	59.5212
246	1	1.81191	208.405	61.3331
247	1	1.86629	211.888	63.1994
248	1	1.92684	215.601	65.1262
249	1	1.99539	219.583	67.1216
250	1	2.07485	223.888	69.1965
251	3.65	2.17009	228.597	77.1173
252	4	2.29036	233.843	86.2788
253	4.8	2.45727	239.881	98.0737
254	5	2.74777	247.431	111.812

Data Set Standard Deviation = 0.605471
Numerator = 12502
Denominator = 22948.9
W Statistic = 0.544778 = 12502 / 22948.9

5% Critical value of 0.976 exceeds 0.544778
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.544778
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 = 0.74069
0.74069 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.1	0.00392157	-2.74777	49.7	348.683	
2	0.1	0.00784314	-2.45727	49.7	334.497	
3	0.1	0.0117647	-2.29036	49.7	326.346	
4	0.1	0.0156863	-2.17009	49.7	320.473	
5	0.1	0.0196078	-2.07485	49.7	315.822	
6	0.1	0.0235294	-1.99539	49.7	311.942	
7	0.1	0.027451	-1.92684	49.7	308.594	
8	0.1	0.0313725	-1.86629	49.7	305.637	
9	0.1	0.0352941	-1.81191	49.7	302.982	
10	0.1	0.0392157	-1.76241	49.7	300.564	
11	0.1	0.0431373	-1.71688	49.7	298.341	
12	0.1	0.0470588	-1.67466	49.7	296.279	
13	0.1	0.0509804	-1.64485	49.7	294.824	
14	0.1	0.054902	-1.60725	49.7	292.987	
15	0.1	0.0588235	-1.57179	49.7	291.256	
16	0.1	0.0627451	-1.5382	49.7	289.615	
17	0.1	0.0666667	-1.50626	49.7	288.056	
18	0.1	0.0705882	-1.47579	49.7	286.568	
19	0.1	0.0745098	-1.44663	49.7	285.144	
20	0.1	0.0784314	-1.41865	49.7	283.778	
21	0.1	0.0823529	-1.39175	49.7	282.464	
22	0.1	0.0862745	-1.36581	49.7	281.197	
23	0.1	0.0901961	-1.34075	49.7	279.974	
24	0.1	0.0941176	-1.31652	49.7	278.79	
25	0.1	0.0980392	-1.29303	49.7	277.643	
26	0.1	0.101961	-1.27588	49.7	276.805	
27	0.1	0.105882	-1.25357	49.7	275.716	
28	0.1	0.109804	-1.23187	49.7	274.656	
29	0.1	0.113725	-1.21073	49.7	273.624	
30	0.1	0.117647	-1.19012	49.7	272.617	
31	0.1	0.121569	-1.17	49.7	271.635	
32	0.1	0.12549	-1.15035	49.7	270.675	
33	0.1	0.129412	-1.13113	49.7	269.737	
34	0.1	0.133333	-1.11232	49.7	268.818	
35	0.1	0.137255	-1.0939	49.7	267.919	
36	0.1	0.141176	-1.07584	49.7	267.037	
37	0.1	0.145098	-1.05812	49.7	266.172	
38	0.1	0.14902	-1.04073	49.7	265.322	
39	0.1	0.152941	-1.02789	49.7	264.695	
40	0.1	0.156863	-1.01104	49.7	263.872	
41	0.1	0.160784	-0.994457	49.7	263.063	
42	0.1	0.164706	-0.97815	49.7	262.266	
43	0.1	0.168627	-0.9621	49.7	261.483	
44	0.1	0.172549	-0.946291	49.7	260.711	
45	0.1	0.176471	-0.930718	49.7	259.95	
46	0.1	0.180392	-0.915365	49.7	259.2	
47	0.1	0.184314	-0.900227	49.7	258.461	
48	0.1	0.188235	-0.885291	49.7	257.732	

49	0.1	0.192157	-0.870549.7	257.012	
50	0.1	0.196078	-0.855996	49.7	256.301
51	0.1	0.2	-0.841621	49.7	255.599
52	0.1	0.203922	-0.830953	49.7	255.078
53	0.1	0.207843	-0.816874	49.7	254.391
54	0.1	0.211765	-0.802956	49.7	253.711
55	0.1	0.215686	-0.789191	49.7	253.039
56	0.1	0.219608	-0.775574	49.7	252.374
57	0.1	0.223529	-0.7621 49.7	251.716	
58	0.21	0.227451	-0.748762	61.47	251.065
59	0.21	0.231373	-0.735557	61.47	250.42
60	0.22	0.235294	-0.722479	62.54	249.781
61	0.23	0.239216	-0.709522	63.61	249.148
62	0.24	0.243137	-0.696684	64.68	248.521
63	0.24	0.247059	-0.683964.68	247.9	
64	0.24	0.25098	-0.674464.68	247.438	
65	0.24	0.254902	-0.661955	64.68	246.825
66	0.25	0.258824	-0.649522	65.75	246.218
67	0.27	0.262745	-0.637192	67.89	245.616
68	0.27	0.266667	-0.624956	67.89	245.019
69	0.28	0.270588	-0.612813	68.96	244.426
70	0.28	0.27451	-0.600768.96	243.837	
71	0.28	0.278431	-0.588793	68.96	243.253
72	0.29	0.282353	-0.576911	70.03	242.672
73	0.31	0.286275	-0.565108	72.17	242.096
74	0.31	0.290196	-0.553384	72.17	241.524
75	0.34	0.294118	-0.541736	75.38	240.955
76	0.35	0.298039	-0.530162	76.45	240.39
77	0.39	0.301961	-0.521527	80.73	239.968
78	0.39	0.305882	-0.510074	80.73	239.409
79	0.4	0.309804	-0.498687	81.8	238.853
80	0.4	0.313725	-0.487364	81.8	238.3
81	0.52	0.317647	-0.476105	94.64	237.75
82	0.55	0.321569	-0.464904	97.85	237.203
83	0.59	0.32549	-0.453763	102.13	236.659
84	0.6	0.329412	-0.442676	103.2	236.117
85	0.7	0.333333	-0.431644	113.9	235.579
86	1	0.337255	-0.420664	146	235.042
87	1	0.341176	-0.409735	146	234.509
88	1	0.345098	-0.398855	146	233.977
89	1	0.34902	-0.388022	146	233.448
90	1	0.352941	-0.379927	146	233.053
91	1	0.356863	-0.369171	146	232.528
92	1	0.360784	-0.358459	146	232.005
93	1	0.364706	-0.347787	146	231.484
94	1	0.368627	-0.337155	146	230.964
95	1	0.372549	-0.326561	146	230.447
96	1	0.376471	-0.316004	146	229.932
97	1	0.380392	-0.305481	146	229.418
98	1	0.384314	-0.294992	146	228.905
99	1	0.388235	-0.284535	146	228.395
100	1	0.392157	-0.27411146	227.886	
101	1	0.396078	-0.263715	146	227.378
102	1	0.4	-0.253347	146	226.872
103	1	0.403922	-0.24559146	226.493	
104	1	0.407843	-0.235269	146	225.989
105	1	0.411765	-0.224974	146	225.486
106	1	0.415686	-0.214702	146	224.985
107	1	0.419608	-0.204452	146	224.484
108	1	0.423529	-0.194225	146	223.985
109	1	0.427451	-0.184017	146	223.486
110	1	0.431373	-0.173829	146	222.989

111	1	0.435294	-0.163659	146	222.492
112	1	0.439216	-0.153505	146	221.996
113	1	0.443137	-0.143367	146	221.501
114	1	0.447059	-0.133244	146	221.007
115	1	0.45098	-0.125661	146	220.636
116	1	0.454902	-0.115562	146	220.143
117	1	0.458824	-0.105474	146	219.651
118	1	0.462745	-0.0953969	146	219.159
119	1	0.466667	-0.0853288	146	218.667
120	1	0.470588	-0.0752698	146	218.176
121	1	0.47451	-0.0652187	146	217.685
122	1	0.478431	-0.0551734	146	217.194
123	1	0.482353	-0.0451348	146	216.704
124	1	0.486275	-0.0350997	146	216.214
125	1	0.490196	-0.0250691	146	215.724
126	1	0.494118	-0.0150408	146	215.234
127	1	0.498039	-0.00501359	146	214.745
128	1	0.501961	0.00501359	146	214.255
129	1	0.505882	0.0150408	146	213.766
130	1	0.509804	0.0250691	146	213.276
131	1	0.513725	0.0350997	146	212.786
132	1	0.517647	0.0451348	146	212.296
133	1	0.521569	0.0551734	146	211.806
134	1	0.52549	0.0652187	146	211.315
135	1	0.529412	0.0752698	146	210.824
136	1	0.533333	0.0853288	146	210.333
137	1	0.537255	0.0953969	146	209.841
138	1	0.541176	0.105474	146	209.349
139	1	0.545098	0.115562	146	208.857
140	1	0.54902	0.125661	146	208.364
141	1	0.552941	0.133244	146	207.993
142	1	0.556863	0.143367	146	207.499
143	1	0.560784	0.153505	146	207.004
144	1	0.564706	0.163659	146	206.508
145	1	0.568627	0.173829	146	206.011
146	1	0.572549	0.184017	146	205.514
147	1	0.576471	0.194225	146	205.015
148	1	0.580392	0.204452	146	204.516
149	1	0.584314	0.214702	146	204.015
150	1	0.588235	0.224974	146	203.514
151	1	0.592157	0.235269	146	203.011
152	1	0.596078	0.24559	146	202.507
153	1	0.6	0.253347	146	202.128
154	1	0.603922	0.263715	146	201.622
155	1	0.607843	0.27411	146	201.114
156	1	0.611765	0.284535	146	200.605
157	1	0.615686	0.294992	146	200.095
158	1	0.619608	0.305481	146	199.582
159	1	0.623529	0.316004	146	199.068
160	1	0.627451	0.326561	146	198.553
161	1	0.631373	0.337155	146	198.036
162	1	0.635294	0.347787	146	197.516
163	1	0.639216	0.358459	146	196.995
164	1	0.643137	0.369171	146	196.472
165	1	0.647059	0.379927	146	195.947
166	1	0.65098	0.388022	146	195.552
167	1	0.654902	0.398855	146	195.023
168	1	0.658824	0.409735	146	194.491
169	1	0.662745	0.420664	146	193.958
170	1	0.666667	0.431644	146	193.421
171	1	0.670588	0.442676	146	192.883
172	1	0.67451	0.453763	146	192.341

173	1	0.678431	0.464904	146	191.797
174	1	0.682353	0.476105	146	191.25
175	1	0.686275	0.487364	146	190.7
176	1	0.690196	0.498687	146	190.147
177	1	0.694118	0.510074	146	189.591
178	1	0.698039	0.521527	146	189.032
179	1	0.701961	0.530162	146	188.61
180	1	0.705882	0.541736	146	188.045
181	1	0.709804	0.553384	146	187.476
182	1	0.713725	0.565108	146	186.904
183	1	0.717647	0.576911	146	186.328
184	1	0.721569	0.588793	146	185.747
185	1	0.72549	0.60076	146	185.163
186	1	0.729412	0.612813	146	184.574
187	1	0.733333	0.624956	146	183.981
188	1	0.737255	0.637192	146	183.384
189	1	0.741176	0.649522	146	182.782
190	1	0.745098	0.661955	146	182.175
191	1	0.74902	0.67449	146	181.562
192	1	0.752941	0.68396	146	181.1
193	1	0.756863	0.696684	146	180.479
194	1	0.760784	0.709522	146	179.852
195	1	0.764706	0.722479	146	179.219
196	1	0.768627	0.735557	146	178.58
197	1	0.772549	0.748762	146	177.935
198	1	0.776471	0.7621	146	177.284
199	1	0.780392	0.775574	146	176.626
200	1	0.784314	0.789191	146	175.961
201	1	0.788235	0.802956	146	175.289
202	1	0.792157	0.816874	146	174.609
203	1	0.796078	0.830953	146	173.922
204	1	0.8	0.841621	146	173.401
205	1	0.803922	0.855996	146	172.699
206	1	0.807843	0.87055	146	171.988
207	1	0.811765	0.885291	146	171.268
208	1	0.815686	0.900227	146	170.539
209	1	0.819608	0.915365	146	169.8
210	1	0.823529	0.930718	146	169.05
211	1	0.827451	0.946291	146	168.289
212	1	0.831373	0.9621	146	167.517
213	1	0.835294	0.97815	146	166.734
214	1	0.839216	0.994457	146	165.937
215	1	0.843137	1.01104	146	165.128
216	1	0.847059	1.02789	146	164.305
217	1	0.85098	1.04073	146	163.678
218	1	0.854902	1.05812	146	162.828
219	1	0.858824	1.07584	146	161.963
220	1	0.862745	1.0939	146	161.081
221	1	0.866667	1.11232	146	160.182
222	1	0.870588	1.13113	146	159.263
223	1	0.87451	1.15035	146	158.325
224	1	0.878431	1.17	146	157.365
225	1	0.882353	1.19012	146	156.383
226	1	0.886275	1.21073	146	155.376
227	1	0.890196	1.23187	146	154.344
228	1	0.894118	1.25357	146	153.284
229	1	0.898039	1.27588	146	152.195
230	1	0.901961	1.29303	146	151.357
231	1	0.905882	1.31652	146	150.21
232	1	0.909804	1.34075	146	149.026
233	1	0.913725	1.36581	146	147.803
234	1	0.917647	1.39175	146	146.536

235	1	0.921569	1.41865	146	145.222
236	1	0.92549	1.44663	146	143.856
237	1	0.929412	1.47579	146	142.432
238	1	0.933333	1.50626	146	140.944
239	1	0.937255	1.5382	146	139.385
240	1	0.941176	1.57179	146	137.744
241	1	0.945098	1.60725	146	136.013
242	1	0.94902	1.64485	146	134.176
243	1	0.952941	1.67466	146	132.721
244	1	0.956863	1.71688	146	130.659
245	1	0.960784	1.76241	146	128.436
246	1	0.964706	1.81191	146	126.018
247	1	0.968627	1.86629	146	123.363
248	1	0.972549	1.92684	146	120.406
249	1	0.976471	1.99539	146	117.058
250	1	0.980392	2.07485	146	113.178
251	3.65	0.984314	2.17009	429.55	108.527
252	4	0.988235	2.29036	467	102.654
253	4.8	0.992157	2.45727	552.6	94.5032
254	5	0.996078	2.74777	574	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.30259	-2.74777	7.55021	6.32696
2	-2.30259	-2.45727	13.5884	11.985
3	-2.30259	-2.29036	18.8342	17.2588
4	-2.30259	-2.17009	23.5435	22.2556
5	-2.30259	-2.07485	27.8485	27.0331
6	-2.30259	-1.99539	31.8301	31.6277
7	-2.30259	-1.92684	35.5428	36.0644
8	-2.30259	-1.86629	39.0258	40.3617
9	-2.30259	-1.81191	42.3088	44.5338
10	-2.30259	-1.76241	45.4149	48.5919
11	-2.30259	-1.71688	48.3626	52.5452
12	-2.30259	-1.67466	51.1671	56.4012
13	-2.30259	-1.64485	53.8726	60.1886
14	-2.30259	-1.60725	56.4559	63.8895
15	-2.30259	-1.57179	58.9264	67.5086
16	-2.30259	-1.5382	61.2925	71.0505
17	-2.30259	-1.50626	63.5613	74.5188
18	-2.30259	-1.47579	65.7393	77.9169
19	-2.30259	-1.44663	67.832	81.2479
20	-2.30259	-1.41865	69.8446	84.5145
21	-2.30259	-1.39175	71.7815	87.7191
22	-2.30259	-1.36581	73.647	90.864
23	-2.30259	-1.34075	75.4446	93.9512
24	-2.30259	-1.31652	77.1778	96.9826
25	-2.30259	-1.29303	78.8498	99.9599
26	-2.30259	-1.27588	80.4776	102.898
27	-2.30259	-1.25357	82.049	105.784
28	-2.30259	-1.23187	83.5665	108.621
29	-2.30259	-1.21073	85.0324	111.408
30	-2.30259	-1.19012	86.4488	114.149
31	-2.30259	-1.17	87.8177	116.843
32	-2.30259	-1.15035	89.141	119.492
33	-2.30259	-1.13113	90.4204	122.096
34	-2.30259	-1.11232	91.6577	124.657
35	-2.30259	-1.0939	92.8543	127.176
36	-2.30259	-1.07584	94.0117	129.653
37	-2.30259	-1.05812	95.1314	132.09
38	-2.30259	-1.04073	96.2145	134.486
39	-2.30259	-1.02789	97.271	136.853
40	-2.30259	-1.01104	98.2932	139.181
41	-2.30259	-0.994457	99.2822	141.471
42	-2.30259	-0.97815	100.239	143.723
43	-2.30259	-0.9621	101.165	145.938
44	-2.30259	-0.946291	102.06	148.117
45	-2.30259	-0.930718	102.926	150.26
46	-2.30259	-0.915365	103.764	152.368
47	-2.30259	-0.900227	104.575	154.441
48	-2.30259	-0.885291	105.358	156.479
49	-2.30259	-0.87055	106.116	158.484
50	-2.30259	-0.855996	106.849	160.455
51	-2.30259	-0.841621	107.557	162.393

52	-2.30259	-0.830953	108.248	164.306
53	-2.30259	-0.816874	108.915	166.187
54	-2.30259	-0.802956	109.56	168.036
55	-2.30259	-0.789191	110.183	169.853
56	-2.30259	-0.775574	110.784	171.639
57	-2.30259	-0.7621	111.365	173.394
58	-1.56065	-0.748762	111.926	174.562
59	-1.56065	-0.735557	112.467	175.71
60	-1.51413	-0.722479	112.989	176.804
61	-1.46968	-0.709522	113.492	177.847
62	-1.42712	-0.696684	113.977	178.841
63	-1.42712	-0.68396	114.445	179.817
64	-1.42712	-0.67449	114.9	180.78
65	-1.42712	-0.661955	115.338	181.724
66	-1.38629	-0.649522	115.76	182.625
67	-1.30933	-0.637192	116.166	183.459
68	-1.30933	-0.624956	116.557	184.277
69	-1.27297	-0.612813	116.932	185.058
70	-1.27297	-0.60076	117.293	185.822
71	-1.27297	-0.588793	117.64	186.572
72	-1.23787	-0.576911	117.973	187.286
73	-1.17118	-0.565108	118.292	187.948
74	-1.17118	-0.553384	118.598	188.596
75	-1.07881	-0.541736	118.892	189.18
76	-1.04982	-0.530162	119.173	189.737
77	-0.941609	-0.521527	119.445	190.228
78	-0.941609	-0.510074	119.705	190.708
79	-0.916291	-0.498687	119.954	191.165
80	-0.916291	-0.487364	120.191	191.612
81	-0.653926	-0.476105	120.418	191.923
82	-0.597837	-0.464904	120.634	192.201
83	-0.527633	-0.453763	120.84	192.44
84	-0.510826	-0.442676	121.036	192.667
85	-0.356675	-0.431644	121.222	192.821
86	0	-0.420664	121.399	192.821
87	0	-0.409735	121.567	192.821
88	0	-0.398855	121.726	192.821
89	0	-0.388022	121.877	192.821
90	0	-0.379927	122.021	192.821
91	0	-0.369171	122.157	192.821
92	0	-0.358459	122.286	192.821
93	0	-0.347787	122.407	192.821
94	0	-0.337155	122.52	192.821
95	0	-0.326561	122.627	192.821
96	0	-0.316004	122.727	192.821
97	0	-0.305481	122.82	192.821
98	0	-0.294992	122.907	192.821
99	0	-0.284535	122.988	192.821
100	0	-0.27411	123.063	192.821
101	0	-0.263715	123.133	192.821
102	0	-0.253347	123.197	192.821
103	0	-0.24559	123.257	192.821
104	0	-0.235269	123.313	192.821
105	0	-0.224974	123.363	192.821
106	0	-0.214702	123.409	192.821
107	0	-0.204452	123.451	192.821
108	0	-0.194225	123.489	192.821
109	0	-0.184017	123.523	192.821
110	0	-0.173829	123.553	192.821
111	0	-0.163659	123.58	192.821
112	0	-0.153505	123.603	192.821
113	0	-0.143367	123.624	192.821

114	0	-0.133244	123.642	192.821
115	0	-0.125661	123.658	192.821
116	0	-0.115562	123.671	192.821
117	0	-0.105474	123.682	192.821
118	0	-0.0953969	123.691	192.821
119	0	-0.0853288	123.698	192.821
120	0	-0.0752698	123.704	192.821
121	0	-0.0652187	123.708	192.821
122	0	-0.0551734	123.711	192.821
123	0	-0.0451348	123.713	192.821
124	0	-0.0350997	123.715	192.821
125	0	-0.0250691	123.715	192.821
126	0	-0.0150408	123.715	192.821
127	0	-0.00501359	123.715	192.821
128	0	0.00501359	123.716	192.821
129	0	0.0150408	123.716	192.821
130	0	0.0250691	123.716	192.821
131	0	0.0350997	123.718	192.821
132	0	0.0451348	123.72	192.821
133	0	0.0551734	123.723	192.821
134	0	0.0652187	123.727	192.821
135	0	0.0752698	123.733	192.821
136	0	0.0853288	123.74	192.821
137	0	0.0953969	123.749	192.821
138	0	0.105474	123.76	192.821
139	0	0.115562	123.773	192.821
140	0	0.125661	123.789	192.821
141	0	0.133244	123.807	192.821
142	0	0.143367	123.828	192.821
143	0	0.153505	123.851	192.821
144	0	0.163659	123.878	192.821
145	0	0.173829	123.908	192.821
146	0	0.184017	123.942	192.821
147	0	0.194225	123.98	192.821
148	0	0.204452	124.022	192.821
149	0	0.214702	124.068	192.821
150	0	0.224974	124.118	192.821
151	0	0.235269	124.174	192.821
152	0	0.24559	124.234	192.821
153	0	0.253347	124.298	192.821
154	0	0.263715	124.368	192.821
155	0	0.27411	124.443	192.821
156	0	0.284535	124.524	192.821
157	0	0.294992	124.611	192.821
158	0	0.305481	124.704	192.821
159	0	0.316004	124.804	192.821
160	0	0.326561	124.911	192.821
161	0	0.337155	125.024	192.821
162	0	0.347787	125.145	192.821
163	0	0.358459	125.274	192.821
164	0	0.369171	125.41	192.821
165	0	0.379927	125.554	192.821
166	0	0.388022	125.705	192.821
167	0	0.398855	125.864	192.821
168	0	0.409735	126.032	192.821
169	0	0.420664	126.209	192.821
170	0	0.431644	126.395	192.821
171	0	0.442676	126.591	192.821
172	0	0.453763	126.797	192.821
173	0	0.464904	127.013	192.821
174	0	0.476105	127.24	192.821
175	0	0.487364	127.477	192.821

176	0	0.498687		127.726	192.821
177	0	0.510074		127.986	192.821
178	0	0.521527		128.258	192.821
179	0	0.530162		128.539	192.821
180	0	0.541736		128.833	192.821
181	0	0.553384		129.139	192.821
182	0	0.565108		129.458	192.821
183	0	0.576911		129.791	192.821
184	0	0.588793		130.138	192.821
185	0	0.60076	130.499	192.821	
186	0	0.612813		130.874	192.821
187	0	0.624956		131.265	192.821
188	0	0.637192		131.671	192.821
189	0	0.649522		132.093	192.821
190	0	0.661955		132.531	192.821
191	0	0.67449	132.986	192.821	
192	0	0.68396	133.454	192.821	
193	0	0.696684		133.939	192.821
194	0	0.709522		134.442	192.821
195	0	0.722479		134.964	192.821
196	0	0.735557		135.505	192.821
197	0	0.748762		136.066	192.821
198	0	0.7621	136.647	192.821	
199	0	0.775574		137.248	192.821
200	0	0.789191		137.871	192.821
201	0	0.802956		138.516	192.821
202	0	0.816874		139.183	192.821
203	0	0.830953		139.874	192.821
204	0	0.841621		140.582	192.821
205	0	0.855996		141.315	192.821
206	0	0.87055	142.073	192.821	
207	0	0.885291		142.856	192.821
208	0	0.900227		143.667	192.821
209	0	0.915365		144.505	192.821
210	0	0.930718		145.371	192.821
211	0	0.946291		146.266	192.821
212	0	0.9621	147.192	192.821	
213	0	0.97815	148.149	192.821	
214	0	0.994457		149.138	192.821
215	0	1.01104	150.16	192.821	
216	0	1.02789	151.217	192.821	
217	0	1.04073	152.3	192.821	
218	0	1.05812	153.419	192.821	
219	0	1.07584	154.577	192.821	
220	0	1.0939	155.773	192.821	
221	0	1.11232	157.011	192.821	
222	0	1.13113	158.29	192.821	
223	0	1.15035	159.613	192.821	
224	0	1.17	160.982	192.821	
225	0	1.19012	162.399	192.821	
226	0	1.21073	163.864	192.821	
227	0	1.23187	165.382	192.821	
228	0	1.25357	166.953	192.821	
229	0	1.27588	168.581	192.821	
230	0	1.29303	170.253	192.821	
231	0	1.31652	171.986	192.821	
232	0	1.34075	173.784	192.821	
233	0	1.36581	175.649	192.821	
234	0	1.39175	177.586	192.821	
235	0	1.41865	179.599	192.821	
236	0	1.44663	181.692	192.821	
237	0	1.47579	183.87	192.821	

238	0	1.50626	186.139	192.821
239	0	1.5382	188.505	192.821
240	0	1.57179	190.975	192.821
241	0	1.60725	193.558	192.821
242	0	1.64485	196.264	192.821
243	0	1.67466	199.068	192.821
244	0	1.71688	202.016	192.821
245	0	1.76241	205.122	192.821
246	0	1.81191	208.405	192.821
247	0	1.86629	211.888	192.821
248	0	1.92684	215.601	192.821
249	0	1.99539	219.583	192.821
250	0	2.07485	223.888	192.821
251	1.29473	2.17009	228.597	195.63
252	1.38629	2.29036	233.843	198.805
253	1.56862	2.45727	239.881	202.66
254	1.60944	2.74777	247.431	207.082

Data Set Standard Deviation = 0.999647
Numerator = 42883.1
Denominator = 62555.9
W Statistic = 0.685516 = 42883.1 / 62555.9

5% Critical value of 0.976 exceeds 0.685516
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.685516
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 = 0.827214
0.827214 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.30259	0.00392157	-2.74777	113.623	348.683
2	-2.30259	0.00784314	-2.45727	113.623	334.497
3	-2.30259	0.0117647	-2.29036	113.623	326.346
4	-2.30259	0.0156863	-2.17009	113.623	320.473
5	-2.30259	0.0196078	-2.07485	113.623	315.822
6	-2.30259	0.0235294	-1.99539	113.623	311.942
7	-2.30259	0.027451	-1.92684	113.623	308.594
8	-2.30259	0.0313725	-1.86629	113.623	305.637
9	-2.30259	0.0352941	-1.81191	113.623	302.982
10	-2.30259	0.0392157	-1.76241	113.623	300.564
11	-2.30259	0.0431373	-1.71688	113.623	298.341
12	-2.30259	0.0470588	-1.67466	113.623	296.279
13	-2.30259	0.0509804	-1.64485	113.623	294.824
14	-2.30259	0.054902	-1.60725	113.623	292.987
15	-2.30259	0.0588235	-1.57179	113.623	291.256
16	-2.30259	0.0627451	-1.5382	113.623	289.615
17	-2.30259	0.0666667	-1.50626	113.623	288.056
18	-2.30259	0.0705882	-1.47579	113.623	286.568
19	-2.30259	0.0745098	-1.44663	113.623	285.144
20	-2.30259	0.0784314	-1.41865	113.623	283.778
21	-2.30259	0.0823529	-1.39175	113.623	282.464
22	-2.30259	0.0862745	-1.36581	113.623	281.197
23	-2.30259	0.0901961	-1.34075	113.623	279.974
24	-2.30259	0.0941176	-1.31652	113.623	278.79
25	-2.30259	0.0980392	-1.29303	113.623	277.643
26	-2.30259	0.101961	-1.27588	113.623	276.805
27	-2.30259	0.105882	-1.25357	113.623	275.716
28	-2.30259	0.109804	-1.23187	113.623	274.656
29	-2.30259	0.113725	-1.21073	113.623	273.624
30	-2.30259	0.117647	-1.19012	113.623	272.617
31	-2.30259	0.121569	-1.17	113.623	271.635
32	-2.30259	0.12549	-1.15035	113.623	270.675
33	-2.30259	0.129412	-1.13113	113.623	269.737
34	-2.30259	0.133333	-1.11232	113.623	268.818
35	-2.30259	0.137255	-1.0939	113.623	267.919
36	-2.30259	0.141176	-1.07584	113.623	267.037
37	-2.30259	0.145098	-1.05812	113.623	266.172
38	-2.30259	0.14902	-1.04073	113.623	265.322
39	-2.30259	0.152941	-1.02789	113.623	264.695
40	-2.30259	0.156863	-1.01104	113.623	263.872
41	-2.30259	0.160784	-0.994457	113.623	263.063
42	-2.30259	0.164706	-0.97815	113.623	262.266
43	-2.30259	0.168627	-0.9621	113.623	261.483
44	-2.30259	0.172549	-0.946291	113.623	260.711
45	-2.30259	0.176471	-0.930718	113.623	259.95
46	-2.30259	0.180392	-0.915365	113.623	259.2
47	-2.30259	0.184314	-0.900227	113.623	258.461
48	-2.30259	0.188235	-0.885291	113.623	257.732

49	-2.30259	0.192157	-0.87055	113.623	257.012	
50	-2.30259	0.196078	-0.855996	113.623	256.301	
51	-2.30259	0.2	-0.841621	113.623	255.599	
52	-2.30259	0.203922	-0.830953	113.623	255.078	
53	-2.30259	0.207843	-0.816874	113.623	254.391	
54	-2.30259	0.211765	-0.802956	113.623	253.711	
55	-2.30259	0.215686	-0.789191	113.623	253.039	
56	-2.30259	0.219608	-0.775574	113.623	252.374	
57	-2.30259	0.223529	-0.7621	113.623	251.716	
58	-1.56065	0.227451	-0.748762	193.011	251.065	
59	-1.56065	0.231373	-0.735557	193.011	250.42	
60	-1.51413	0.235294	-0.722479	197.988	249.781	
61	-1.46968	0.239216	-0.709522	202.745	249.148	
62	-1.42712	0.243137	-0.696684	207.299	248.521	
63	-1.42712	0.247059	-0.68396	207.299	247.9	
64	-1.42712	0.25098	-0.67449	207.299	247.438	
65	-1.42712	0.254902	-0.661955	207.299	246.825	
66	-1.38629	0.258824	-0.649522	211.667	246.218	
67	-1.30933	0.262745	-0.637192	219.901	245.616	
68	-1.30933	0.266667	-0.624956	219.901	245.019	
69	-1.27297	0.270588	-0.612813	223.793	244.426	
70	-1.27297	0.27451	-0.60076	223.793	243.837	
71	-1.27297	0.278431	-0.588793	223.793	243.253	
72	-1.23787	0.282353	-0.576911	227.547	242.672	
73	-1.17118	0.286275	-0.565108	234.683	242.096	
74	-1.17118	0.290196	-0.553384	234.683	241.524	
75	-1.07881	0.294118	-0.541736	244.567	240.955	
76	-1.04982	0.298039	-0.530162	247.669	240.39	
77	-0.941609	0.301961	-0.521527	259.248	239.968	
78	-0.941609	0.305882	-0.510074	259.248	239.409	
79	-0.916291	0.309804	-0.498687	261.957	238.853	
80	-0.916291	0.313725	-0.487364	261.957	238.3	
81	-0.653926	0.317647	-0.476105	290.03	237.75	
82	-0.597837	0.321569	-0.464904	296.031	237.203	
83	-0.527633	0.32549	-0.453763	303.543	236.659	
84	-0.510826	0.329412	-0.442676	305.342	236.117	
85	-0.356675	0.333333	-0.431644	321.836	235.579	
86	0	0.337255	-0.420664	360	235.042	
87	0	0.341176	-0.409735	360	234.509	
88	0	0.345098	-0.398855	360	233.977	
89	0	0.34902	-0.388022	360	233.448	
90	0	0.352941	-0.379927	360	233.053	
91	0	0.356863	-0.369171	360	232.528	
92	0	0.360784	-0.358459	360	232.005	
93	0	0.364706	-0.347787	360	231.484	
94	0	0.368627	-0.337155	360	230.964	
95	0	0.372549	-0.326561	360	230.447	
96	0	0.376471	-0.316004	360	229.932	
97	0	0.380392	-0.305481	360	229.418	
98	0	0.384314	-0.294992	360	228.905	
99	0	0.388235	-0.284535	360	228.395	
100	0	0.392157	-0.27411	360	227.886	
101	0	0.396078	-0.263715	360	227.378	
102	0	0.4	-0.253347	360	226.872	
103	0	0.403922	-0.24559	360	226.493	
104	0	0.407843	-0.235269	360	225.989	
105	0	0.411765	-0.224974	360	225.486	
106	0	0.415686	-0.214702	360	224.985	
107	0	0.419608	-0.204452	360	224.484	
108	0	0.423529	-0.194225	360	223.985	
109	0	0.427451	-0.184017	360	223.486	
110	0	0.431373	-0.173829	360	222.989	

111	0	0.435294	-0.163659	360	222.492
112	0	0.439216	-0.153505	360	221.996
113	0	0.443137	-0.143367	360	221.501
114	0	0.447059	-0.133244	360	221.007
115	0	0.45098	-0.125661	360	220.636
116	0	0.454902	-0.115562	360	220.143
117	0	0.458824	-0.105474	360	219.651
118	0	0.462745	-0.0953969	360	219.159
119	0	0.466667	-0.0853288	360	218.667
120	0	0.470588	-0.0752698	360	218.176
121	0	0.47451	-0.0652187	360	217.685
122	0	0.478431	-0.0551734	360	217.194
123	0	0.482353	-0.0451348	360	216.704
124	0	0.486275	-0.0350997	360	216.214
125	0	0.490196	-0.0250691	360	215.724
126	0	0.494118	-0.0150408	360	215.234
127	0	0.498039	-0.00501359	360	214.745
128	0	0.501961	0.00501359	360	214.255
129	0	0.505882	0.0150408	360	213.766
130	0	0.509804	0.0250691	360	213.276
131	0	0.513725	0.0350997	360	212.786
132	0	0.517647	0.0451348	360	212.296
133	0	0.521569	0.0551734	360	211.806
134	0	0.52549	0.0652187	360	211.315
135	0	0.529412	0.0752698	360	210.824
136	0	0.533333	0.0853288	360	210.333
137	0	0.537255	0.0953969	360	209.841
138	0	0.541176	0.105474	360	209.349
139	0	0.545098	0.115562	360	208.857
140	0	0.54902	0.125661	360	208.364
141	0	0.552941	0.133244	360	207.993
142	0	0.556863	0.143367	360	207.499
143	0	0.560784	0.153505	360	207.004
144	0	0.564706	0.163659	360	206.508
145	0	0.568627	0.173829	360	206.011
146	0	0.572549	0.184017	360	205.514
147	0	0.576471	0.194225	360	205.015
148	0	0.580392	0.204452	360	204.516
149	0	0.584314	0.214702	360	204.015
150	0	0.588235	0.224974	360	203.514
151	0	0.592157	0.235269	360	203.011
152	0	0.596078	0.24559	360	202.507
153	0	0.6	0.253347	360	202.128
154	0	0.603922	0.263715	360	201.622
155	0	0.607843	0.27411	360	201.114
156	0	0.611765	0.284535	360	200.605
157	0	0.615686	0.294992	360	200.095
158	0	0.619608	0.305481	360	199.582
159	0	0.623529	0.316004	360	199.068
160	0	0.627451	0.326561	360	198.553
161	0	0.631373	0.337155	360	198.036
162	0	0.635294	0.347787	360	197.516
163	0	0.639216	0.358459	360	196.995
164	0	0.643137	0.369171	360	196.472
165	0	0.647059	0.379927	360	195.947
166	0	0.65098	0.388022	360	195.552
167	0	0.654902	0.398855	360	195.023
168	0	0.658824	0.409735	360	194.491
169	0	0.662745	0.420664	360	193.958
170	0	0.666667	0.431644	360	193.421
171	0	0.670588	0.442676	360	192.883
172	0	0.67451	0.453763	360	192.341

173	0	0.678431	0.464904	360	191.797
174	0	0.682353	0.476105	360	191.25
175	0	0.686275	0.487364	360	190.7
176	0	0.690196	0.498687	360	190.147
177	0	0.694118	0.510074	360	189.591
178	0	0.698039	0.521527	360	189.032
179	0	0.701961	0.530162	360	188.61
180	0	0.705882	0.541736	360	188.045
181	0	0.709804	0.553384	360	187.476
182	0	0.713725	0.565108	360	186.904
183	0	0.717647	0.576911	360	186.328
184	0	0.721569	0.588793	360	185.747
185	0	0.72549	0.60076	360	185.163
186	0	0.729412	0.612813	360	184.574
187	0	0.733333	0.624956	360	183.981
188	0	0.737255	0.637192	360	183.384
189	0	0.741176	0.649522	360	182.782
190	0	0.745098	0.661955	360	182.175
191	0	0.74902	0.67449	360	181.562
192	0	0.752941	0.68396	360	181.1
193	0	0.756863	0.696684	360	180.479
194	0	0.760784	0.709522	360	179.852
195	0	0.764706	0.722479	360	179.219
196	0	0.768627	0.735557	360	178.58
197	0	0.772549	0.748762	360	177.935
198	0	0.776471	0.7621	360	177.284
199	0	0.780392	0.775574	360	176.626
200	0	0.784314	0.789191	360	175.961
201	0	0.788235	0.802956	360	175.289
202	0	0.792157	0.816874	360	174.609
203	0	0.796078	0.830953	360	173.922
204	0	0.8	0.841621	360	173.401
205	0	0.803922	0.855996	360	172.699
206	0	0.807843	0.87055	360	171.988
207	0	0.811765	0.885291	360	171.268
208	0	0.815686	0.900227	360	170.539
209	0	0.819608	0.915365	360	169.8
210	0	0.823529	0.930718	360	169.05
211	0	0.827451	0.946291	360	168.289
212	0	0.831373	0.9621	360	167.517
213	0	0.835294	0.97815	360	166.734
214	0	0.839216	0.994457	360	165.937
215	0	0.843137	1.01104	360	165.128
216	0	0.847059	1.02789	360	164.305
217	0	0.85098	1.04073	360	163.678
218	0	0.854902	1.05812	360	162.828
219	0	0.858824	1.07584	360	161.963
220	0	0.862745	1.0939	360	161.081
221	0	0.866667	1.11232	360	160.182
222	0	0.870588	1.13113	360	159.263
223	0	0.87451	1.15035	360	158.325
224	0	0.878431	1.17	360	157.365
225	0	0.882353	1.19012	360	156.383
226	0	0.886275	1.21073	360	155.376
227	0	0.890196	1.23187	360	154.344
228	0	0.894118	1.25357	360	153.284
229	0	0.898039	1.27588	360	152.195
230	0	0.901961	1.29303	360	151.357
231	0	0.905882	1.31652	360	150.21
232	0	0.909804	1.34075	360	149.026
233	0	0.913725	1.36581	360	147.803
234	0	0.917647	1.39175	360	146.536

235	0	0.921569	1.41865	360	145.222
236	0	0.92549	1.44663	360	143.856
237	0	0.929412	1.47579	360	142.432
238	0	0.933333	1.50626	360	140.944
239	0	0.937255	1.5382	360	139.385
240	0	0.941176	1.57179	360	137.744
241	0	0.945098	1.60725	360	136.013
242	0	0.94902	1.64485	360	134.176
243	0	0.952941	1.67466	360	132.721
244	0	0.956863	1.71688	360	130.659
245	0	0.960784	1.76241	360	128.436
246	0	0.964706	1.81191	360	126.018
247	0	0.968627	1.86629	360	123.363
248	0	0.972549	1.92684	360	120.406
249	0	0.976471	1.99539	360	117.058
250	0	0.980392	2.07485	360	113.178
251	1.29473	0.984314	2.17009	498.536	108.527
252	1.38629	0.988235	2.29036	508.333	102.654
253	1.56862	0.992157	2.45727	527.842	94.5032
254	1.60944	0.996078	2.74777	532.21	80.3175

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	111.5
	9/23/1999	ND<0	111.5
	3/15/2000	ND<0	111.5
	9/24/2003	ND<0	111.5
	3/11/2004	ND<0	111.5
	10/12/2004	ND<0	111.5
	4/1/2005	ND<0	111.5
	10/25/2005	ND<0	111.5
	4/29/2006	ND<0	111.5
	11/18/2006	ND<0	111.5
	5/23/2007	ND<0	111.5
	11/28/2007	ND<0	111.5
	6/5/2008	ND<0	111.5
	11/20/2008	ND<0	111.5
	6/11/2009	ND<-2.30259	111.5
	11/16/2009	ND<-2.30259	111.5
	6/30/2010	ND<-2.30259	111.5
	11/12/2010	ND<-2.30259 U	111.5
	7/5/2011	ND<-2.30259 U	111.5

Rank Sum = 2118.5
Rank Mean = 111.5

Background Rank Sum = 2118.5
Background Rank Mean = 111.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-9	7/20/1995	ND<0	111.5
	8/24/1995	ND<0	111.5
	9/28/1995	ND<0	111.5
	10/26/1995	ND<0	111.5
	11/19/1996	ND<0	111.5
	12/19/1996	ND<0	111.5
	3/24/1997	ND<0	111.5
	9/24/1997	ND<0	111.5
	4/7/1998	ND<0	111.5
	9/23/1998	ND<0	111.5
	3/16/1999	ND<0	111.5
	9/23/1999	ND<0	111.5
	3/15/2000	ND<0	111.5
	9/24/2003	ND<0	111.5
	3/11/2004	ND<0	111.5
	10/12/2004	ND<0	111.5
	4/1/2005	ND<0	111.5
	10/25/2005	ND<0	111.5
	4/29/2006	ND<0	111.5
	11/18/2006	ND<0	111.5
	5/23/2007	ND<0	111.5

	11/28/2007	ND<0	111.5		
	6/5/2008	ND<0	111.5		
	11/20/2008	ND<0	111.5		
	6/11/2009	ND<-2.30259		111.5	
	11/16/2009	ND<-2.30259		111.5	
	6/30/2010	ND<-2.30259		111.5	
	11/12/2010	ND<-2.30259	U	111.5	
	7/5/2011	ND<-2.30259	U	111.5	
	11/22/2011	ND<-2.30259	U Q		111.5
	11/22/2011	ND<-2.30259	U Q		111.5
	6/5/2012	ND<-2.30259	U	111.5	

Rank Sum = 3568
Rank Mean = 111.5

MW-6	7/20/1995	ND<0	111.5		
	8/24/1995	ND<0	111.5		
	9/28/1995	ND<0	111.5		
	10/26/1995	ND<0	111.5		
	11/19/1996	ND<0	111.5		
	12/19/1996	ND<0	111.5		
	3/24/1997	ND<0	111.5		
	9/24/1997	ND<0	111.5		
	4/7/1998	ND<0	111.5		
	9/23/1998	ND<0	111.5		
	3/16/1999	ND<0	111.5		
	9/23/1999	ND<0	111.5		
	3/15/2000	ND<0	111.5		
	9/24/2003	ND<0	111.5		
	3/11/2004	ND<0	111.5		
	10/12/2004	ND<0	111.5		
	4/1/2005	ND<0	111.5		
	10/25/2005	ND<0	111.5		
	4/29/2006	ND<0	111.5		
	11/18/2006	ND<0	111.5		
	5/23/2007	ND<0	111.5		
	11/28/2007	ND<0	111.5		
	6/5/2008	ND<0	111.5		
	11/20/2008	ND<0	111.5		
	6/11/2009	ND<-2.30259		111.5	
	11/16/2009	ND<-2.30259		111.5	
	6/30/2010	ND<-2.30259		111.5	
	11/12/2010	ND<-2.30259	U	111.5	
	7/5/2011	ND<-2.30259	U	111.5	
	11/22/2011	ND<-2.30259	U	111.5	
	11/22/2011	ND<-2.30259	U	111.5	
	6/5/2012	ND<-2.30259	U	111.5	

Rank Sum = 3568
Rank Mean = 111.5

MW-10	7/20/1995	ND<0	111.5		
	8/24/1995	-1.07881	J	240	
	9/28/1995	-0.356675	J	250	
	10/26/1995	-0.510826	J	249	
	11/19/1996	ND<0	111.5		
	12/19/1996	ND<0	111.5		
	3/24/1997	ND<0	111.5		
	9/24/1997	ND<0	111.5		
	4/7/1998	ND<0	111.5		
	9/23/1998	ND<0	111.5		
	3/16/1999	ND<0	111.5		
	9/23/1999	ND<0	111.5		
	3/15/2000	ND<0	111.5		

	9/24/2003	ND<0		111.5
	3/11/2004	ND<0		111.5
	10/12/2004	ND<0		111.5
	4/1/2005	-1.42712	J	227
	10/25/2005	-1.42712	J	228
	4/29/2006	-1.23787	J	237
	11/18/2006	-0.527633	J	248
	5/23/2007	ND<0		111.5
	11/28/2007	-1.27297	J	234
	6/5/2008	ND<0		111.5
	11/20/2008	-1.56065	J	223
	6/11/2009	ND<-2.30259		111.5
	11/16/2009	-1.30933	J	232
	6/30/2010	ND<-2.30259		111.5
	11/12/2010	ND<-2.30259	U	111.5
	7/5/2011	-1.30933	J	233
	11/22/2011	-1.17118	J	238
	11/22/2011	-1.17118	J	239
	6/5/2012	-1.56065	J	224

Rank Sum = 5309
Rank Mean = 165.906

MW-8	7/20/1995	ND<0		111.5
	8/24/1995	1.56862		253
	9/28/1995	1.38629		252
	10/26/1995	-0.916291	J	244
	11/19/1996	ND<0		111.5
	12/19/1996	ND<0		111.5
	3/24/1997	1.60944		254
	9/24/1997	ND<0		111.5
	4/7/1998	ND<0		111.5
	9/23/1998	ND<0		111.5
	3/16/1999	ND<0		111.5
	9/23/1999	ND<0		111.5
	3/15/2000	ND<0		111.5
	9/24/2003	ND<0		111.5
	3/11/2004	ND<0		111.5
	10/12/2004	ND<0		111.5
	4/1/2005	-1.27297	J	235
	10/25/2005	-0.653926	J	246
	4/29/2006	-1.27297	J	236
	11/18/2006	1.29473		251
	5/23/2007	ND<0		111.5
	11/28/2007	-0.597837	J	247
	6/5/2008	ND<0		111.5
	11/20/2008	-1.38629	J	231
	6/11/2009	ND<-2.30259		111.5
	6/30/2010	-1.42712	J	229
	11/12/2010	-1.46968	J	226
	7/5/2011	-1.04982	J	241
	11/22/2011	-0.941609	J	242
	11/22/2011	-0.941609	J	243
	6/5/2012	-1.42712	J	230

Rank Sum = 5532.5
Rank Mean = 178.468

MW-11R	7/20/1995	ND<0		111.5
	8/24/1995	ND<0		111.5
	9/28/1995	ND<0		111.5
	10/26/1995	-0.916291	J	245
	11/19/1996	ND<0		111.5
	12/19/1996	ND<0		111.5

	3/24/1997	ND<0	111.5		
	9/24/1997	ND<0	111.5		
	4/7/1998	ND<0	111.5		
	9/23/1998	ND<0	111.5		
	3/16/1999	ND<0	111.5		
	9/23/1999	ND<0	111.5		
	3/15/2000	ND<0	111.5		
	9/24/2003	ND<0	111.5		
	3/11/2004	ND<0	111.5		
	10/12/2004	ND<0	111.5		
	4/1/2005	ND<0	111.5		
	10/25/2005	ND<0	111.5		
	4/29/2006	ND<0	111.5		
	11/18/2006	ND<0	111.5		
	5/23/2007	ND<0	111.5		
	11/28/2007	ND<0	111.5		
	6/5/2008	ND<0	111.5		
	11/20/2008	ND<0	111.5		
	6/11/2009	ND<-2.30259	111.5		
	11/16/2009	ND<-2.30259	111.5		
	6/30/2010	ND<-2.30259	111.5		
	11/12/2010	ND<-2.30259 U	111.5		
	7/5/2011	ND<-2.30259 U	111.5		
	11/22/2011	ND<-2.30259 U Q		111.5	
	11/22/2011	ND<-2.30259 U Q		111.5	
	6/5/2012	ND<-2.30259 U	111.5		

Rank Sum = 3701.5
Rank Mean = 115.672

MW-7	7/20/1995	ND<0	111.5		
	8/24/1995	ND<0	111.5		
	9/28/1995	ND<0	111.5		
	10/26/1995	ND<0	111.5		
	11/19/1996	ND<0	111.5		
	12/19/1996	ND<0	111.5		
	3/24/1997	ND<0	111.5		
	9/24/1997	ND<0	111.5		
	4/7/1998	ND<0	111.5		
	9/23/1998	ND<0	111.5		
	3/16/1999	ND<0	111.5		
	9/23/1999	ND<0	111.5		
	3/15/2000	ND<0	111.5		
	9/24/2003	ND<0	111.5		
	3/11/2004	ND<0	111.5		
	10/12/2004	ND<0	111.5		
	4/1/2005	ND<0	111.5		
	10/25/2005	ND<0	111.5		
	4/29/2006	ND<0	111.5		
	11/18/2006	ND<0	111.5		
	5/23/2007	ND<0	111.5		
	11/28/2007	ND<0	111.5		
	6/5/2008	ND<0	111.5		
	11/20/2008	ND<0	111.5		
	6/11/2009	ND<-2.30259	111.5		
	11/16/2009	ND<-2.30259	111.5		
	6/30/2010	ND<-2.30259	111.5		
	11/12/2010	ND<-2.30259 U	111.5		
	7/5/2011	ND<-2.30259 U	111.5		
	11/22/2011	ND<-2.30259 U	111.5		
	11/22/2011	ND<-2.30259 U	111.5		
	6/5/2012	ND<-2.30259 U	111.5		

Rank Sum = 3568

Rank Mean = 111.5

MW-12BR	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	-1.51413 J	225	
	10/25/2005	ND<0	111.5	
	4/29/2006	ND<0	111.5	
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-2.30259	111.5	
	11/16/2009	ND<-2.30259	111.5	
	6/30/2010	ND<-2.30259	111.5	
	11/12/2010	ND<-2.30259 U	111.5	
	7/5/2011	ND<-2.30259 U	111.5	
	11/22/2011	ND<-2.30259 U	111.5	
	11/22/2011	ND<-2.30259 U	111.5	
	6/5/2012	ND<-2.30259 U	111.5	

Rank Sum = 2566.5
Rank Mean = 116.659

MW-12AR	3/16/1999	ND<0	111.5	
	9/23/1999	ND<0	111.5	
	3/15/2000	ND<0	111.5	
	9/24/2003	ND<0	111.5	
	3/11/2004	ND<0	111.5	
	10/12/2004	ND<0	111.5	
	4/1/2005	ND<0	111.5	
	10/25/2005	ND<0	111.5	
	4/29/2006	ND<0	111.5	
	11/18/2006	ND<0	111.5	
	5/23/2007	ND<0	111.5	
	11/28/2007	ND<0	111.5	
	6/5/2008	ND<0	111.5	
	11/20/2008	ND<0	111.5	
	6/11/2009	ND<-2.30259	111.5	
	11/16/2009	ND<-2.30259	111.5	
	6/30/2010	ND<-2.30259	111.5	
	11/12/2010	ND<-2.30259 U	111.5	
	7/5/2011	ND<-2.30259 U	111.5	
	11/22/2011	ND<-2.30259 U	111.5	
	11/22/2011	ND<-2.30259 U	111.5	
	6/5/2012	ND<-2.30259 U	111.5	

Rank Sum = 2453
Rank Mean = 111.5

Calculation Results:

Kruskal-Wallis H Statistic = 31.471
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 94.6954
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
31.471 > 15.5073 indicating a significant group difference at 5% significance level
94.6954 > 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 111.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-9	**111.5**	**0**	**49.4998**	
MW-6	**111.5**	**0**	**49.4998**	
MW-10	**165.906**	**54.4063**	**49.4998**	
MW-8	**178.468**	**66.9677**	**49.7963**	
MW-11R	**115.672**	**4.17188**	**49.4998**	
MW-7	**111.5**	**0**	**49.4998**	
MW-12BR		**116.659**	**5.15909**	**53.5271**
MW-12AR		**111.5**	**0**	**53.5271**

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 111.5

Well	Mean Rank		Dif from Bkg	Critical Value
MW-9	**111.5**	**0**	**53.453**	
MW-6	**111.5**	**0**	**53.453**	
MW-10	**165.906**	**54.4063**	**53.453**	
MW-8	**178.468**	**66.9677**	**53.7733**	
MW-11R	**115.672**	**4.17188**	**53.453**	
MW-7	**111.5**	**0**	**53.453**	
MW-12BR		**116.659**	**5.15909**	**57.802**
MW-12AR		**111.5**	**0**	**57.802**

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
6/5/2012	-1.427120		-1.85643
6/5/2012	-1.427120		-1.85643

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	-1.427120	-2.56987	
4/1/2005	-1.427120	-2.56987	
10/25/2005	-1.427120	-2.56987	
10/25/2005	-1.427120	-2.56987	
4/29/2006	-1.237870	-2.12885	
4/29/2006	-1.237870	-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	-1.272970	-2.21063	
11/28/2007	-1.272970	-2.21063	
6/5/2008	0	0	0.755965
6/5/2008	0	0	0.755965
11/20/2008	-1.560650	-2.88106	
11/20/2008	-1.560650	-2.88106	
6/11/2009	-2.302590	-4.61011	
6/11/2009	-2.302590	-4.61011	
11/16/2009	-1.309330	-2.29538	
11/16/2009	-1.309330	-2.29538	
6/30/2010	-2.302590	-4.61011	
6/30/2010	-2.302590	-4.61011	
11/12/2010	-2.302590	-4.61011	
11/12/2010	-2.302590	-4.61011	
7/5/2011	-1.309330	-2.29538	

7/5/2011	-1.309330	-2.29538
11/22/2011	-1.171180	-2.79085
11/22/2011	-1.171180	-2.79085
6/5/2012	-1.560650	-2.88106
6/5/2012	-1.560650	-2.88106

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
-1.42712 J (6/5/2012)	ND<0 (7/20/1995)	(-1.42712 - 0)/(30 - 1)	-0.0492109

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			
-1.42712 J (6/5/2012)	1.56862	(8/24/1995)	(-1.42712 - 1.56862)/(30 - 2)
-0.10699			
-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
-1.42712 J (6/5/2012)	1.38629 (9/28/1995)	(-1.42712 - 1.38629)/(30 - 3)	-0.1042

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			
-1.42712 J (6/5/2012)	-0.916291 J (10/26/1995)	(-1.42712 - -0.916291)/(30 - 4)	
-0.0196471			

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				
-1.42712 J (6/5/2012)	ND<0 (11/19/1996)	(-1.42712 - 0)/(30 - 5)		
-0.0570847				
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				
-1.42712 J (6/5/2012)	ND<0 (12/19/1996)	(-1.42712 - 0)/(30 - 6)		
-0.0594632				
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				
-1.42712 J (6/5/2012)	1.60944	(3/24/1997)	(-1.42712 - 1.60944)/(30 - 7)	
-0.132024				

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			
-1.42712 J (6/5/2012)	ND<0 (9/24/1997)	(-1.42712 - 0)/(30 - 8)	
-0.0648689			
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)	ND<0 (4/7/1998)	(-1.27297 - 0)/(17 - 9)	
-0.159121			
-0.653926 J (10/25/2005)	ND<0 (4/7/1998)	(-0.653926 - 0)/(18 - 9)	
-0.0726585			
-1.27297 J (4/29/2006)	ND<0 (4/7/1998)	(-1.27297 - 0)/(19 - 9)	
-0.127297			
1.29473 (11/18/2006)	ND<0 (4/7/1998)	(1.29473 - 0)/(20 - 9)	
0.117702			
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0
-0.597837 J (11/28/2007)	ND<0 (4/7/1998)	(-0.597837 - 0)/(22 - 9)	
-0.0459875			
ND<0 (6/5/2008)	ND<0 (4/7/1998)	(0 - 0)/(23 - 9)	0
-1.38629 J (11/20/2008)	ND<0 (4/7/1998)	(-1.38629 - 0)/(24 - 9)	
-0.0924196			
ND<-2.30259 (6/11/2009)	ND<0 (4/7/1998)	(-2.30259 - 0)/(25 - 9)	
-0.143912			
-1.42712 J (6/30/2010)	ND<0 (4/7/1998)	(-1.42712 - 0)/(26 - 9)	
-0.083948			
-1.46968 J (11/12/2010)	ND<0 (4/7/1998)	(-1.46968 - 0)/(27 - 9)	
-0.0816487			
-1.04982 J (7/5/2011)	ND<0 (4/7/1998)	(-1.04982 - 0)/(28 - 9)	
-0.0552538			
-0.941609 J (11/22/2011)	ND<0 (4/7/1998)	(-0.941609 - 0)/(29 - 9)	
-0.0470804			
-0.941609 J (11/22/2011)	ND<0 (4/7/1998)	(-0.941609 - 0)/(29 - 9)	
-0.0470804			
-1.42712 J (6/5/2012)	ND<0 (4/7/1998)	(-1.42712 - 0)/(30 - 9)	
-0.0679579			
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)	ND<0 (9/23/1998)	(-1.27297 - 0)/(17 - 10)	
-0.181852			
-0.653926 J (10/25/2005)	ND<0 (9/23/1998)	(-0.653926 - 0)/(18 - 10)	
-0.0817408			

-1.27297 J (4/29/2006)	ND<0	(9/23/1998)	(-1.27297 - 0)/(19 - 10)		
-0.141441					
1.29473 (11/18/2006)	ND<0	(9/23/1998)	(1.29473 - 0)/(20 - 10)		
0.129473					
ND<0 (5/23/2007)	ND<0	(9/23/1998)	(0 - 0)/(21 - 10)	0	
-0.597837 J (11/28/2007)	ND<0	(9/23/1998)	(-0.597837 - 0)/(22 - 10)		
-0.0498198					
ND<0 (6/5/2008)	ND<0	(9/23/1998)	(0 - 0)/(23 - 10)	0	
-1.38629 J (11/20/2008)	ND<0	(9/23/1998)	(-1.38629 - 0)/(24 - 10)		
-0.099021					
ND<-2.30259 (6/11/2009)	ND<0	(9/23/1998)	(-2.30259 - 0)/(25 - 10)		
-0.153506					
-1.42712 J (6/30/2010)	ND<0	(9/23/1998)	(-1.42712 - 0)/(26 - 10)		
-0.0891948					
-1.46968 J (11/12/2010)	ND<0	(9/23/1998)	(-1.46968 - 0)/(27 - 10)		
-0.0864515					
-1.04982 J (7/5/2011)	ND<0	(9/23/1998)	(-1.04982 - 0)/(28 - 10)		
-0.0583235					
-0.941609 J (11/22/2011)	ND<0	(9/23/1998)	(-0.941609 - 0)/(29 - 10)		
-0.0495583					
-0.941609 J (11/22/2011)	ND<0	(9/23/1998)	(-0.941609 - 0)/(29 - 10)		
-0.0495583					
-1.42712 J (6/5/2012)	ND<0	(9/23/1998)	(-1.42712 - 0)/(30 - 10)		
-0.0713558					
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					
-1.42712 J (6/5/2012)	ND<0	(3/16/1999)	(-1.42712 - 0)/(30 - 11)		
-0.0751114					
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)	ND<0	(9/23/1999)	(-0.941609 - 0)/(29 - 12)	
-0.0553887				
-1.42712 J (6/5/2012)	ND<0	(9/23/1999)	(-1.42712 - 0)/(30 - 12)	
-0.0792842				
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)	ND<0	(3/15/2000)	(-1.27297 - 0)/(17 - 13)	
-0.318241				
-0.653926 J (10/25/2005)	ND<0	(3/15/2000)	(-0.653926 - 0)/(18 - 13)	
-0.130785				
-1.27297 J (4/29/2006)	ND<0	(3/15/2000)	(-1.27297 - 0)/(19 - 13)	
-0.212161				
1.29473 (11/18/2006)	ND<0	(3/15/2000)	(1.29473 - 0)/(20 - 13)	
0.184961				
ND<0 (5/23/2007)	ND<0	(3/15/2000)	(0 - 0)/(21 - 13)	0
-0.597837 J (11/28/2007)	ND<0	(3/15/2000)	(-0.597837 - 0)/(22 - 13)	
-0.0664263				
ND<0 (6/5/2008)	ND<0	(3/15/2000)	(0 - 0)/(23 - 13)	0
-1.38629 J (11/20/2008)	ND<0	(3/15/2000)	(-1.38629 - 0)/(24 - 13)	
-0.126027				
ND<-2.30259 (6/11/2009)	ND<0	(3/15/2000)	(-2.30259 - 0)/(25 - 13)	
-0.191882				
-1.42712 J (6/30/2010)	ND<0	(3/15/2000)	(-1.42712 - 0)/(26 - 13)	
-0.109778				
-1.46968 J (11/12/2010)	ND<0	(3/15/2000)	(-1.46968 - 0)/(27 - 13)	
-0.104977				
-1.04982 J (7/5/2011)	ND<0	(3/15/2000)	(-1.04982 - 0)/(28 - 13)	
-0.0699881				
-0.941609 J (11/22/2011)	ND<0	(3/15/2000)	(-0.941609 - 0)/(29 - 13)	
-0.0588505				
-0.941609 J (11/22/2011)	ND<0	(3/15/2000)	(-0.941609 - 0)/(29 - 13)	
-0.0588505				
-1.42712 J (6/5/2012)	ND<0	(3/15/2000)	(-1.42712 - 0)/(30 - 13)	
-0.083948				
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)	ND<0 (9/24/2003)	(-1.27297 - 0)/(17 - 14)	
-0.424322			
-0.653926 J (10/25/2005)	ND<0 (9/24/2003)	(-0.653926 - 0)/(18 - 14)	
-0.163482			
-1.27297 J (4/29/2006)	ND<0 (9/24/2003)	(-1.27297 - 0)/(19 - 14)	
-0.254593			
1.29473 (11/18/2006)	ND<0 (9/24/2003)	(1.29473 - 0)/(20 - 14)	
0.215788			
ND<0 (5/23/2007)	ND<0 (9/24/2003)	(0 - 0)/(21 - 14)	0
-0.597837 J (11/28/2007)	ND<0 (9/24/2003)	(-0.597837 - 0)/(22 - 14)	
-0.0747296			
ND<0 (6/5/2008)	ND<0 (9/24/2003)	(0 - 0)/(23 - 14)	0
-1.38629 J (11/20/2008)	ND<0 (9/24/2003)	(-1.38629 - 0)/(24 - 14)	
-0.138629			
ND<-2.30259 (6/11/2009)	ND<0 (9/24/2003)	(-2.30259 - 0)/(25 - 14)	
-0.209326			
-1.42712 J (6/30/2010)	ND<0 (9/24/2003)	(-1.42712 - 0)/(26 - 14)	
-0.118926			
-1.46968 J (11/12/2010)	ND<0 (9/24/2003)	(-1.46968 - 0)/(27 - 14)	
-0.113052			
-1.04982 J (7/5/2011)	ND<0 (9/24/2003)	(-1.04982 - 0)/(28 - 14)	
-0.0749873			
-0.941609 J (11/22/2011)	ND<0 (9/24/2003)	(-0.941609 - 0)/(29 - 14)	
-0.0627739			
-0.941609 J (11/22/2011)	ND<0 (9/24/2003)	(-0.941609 - 0)/(29 - 14)	
-0.0627739			
-1.42712 J (6/5/2012)	ND<0 (9/24/2003)	(-1.42712 - 0)/(30 - 14)	
-0.0891948			
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			
-1.42712 J (6/5/2012)	ND<0 (3/11/2004)	(-1.42712 - 0)/(30 - 15)	
-0.0951411			
-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			
-1.42712 J (6/5/2012)	ND<0 (10/12/2004)	(-1.42712 - 0)/(30 - 16)	
-0.101937			
-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			
-1.42712 J (6/5/2012)	-1.27297 J (4/1/2005)	(-1.42712 - -1.27297)/(30 - 17)	
-0.0118577			
-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			
-1.42712 J (6/5/2012)	-0.653926 J (10/25/2005)	(-1.42712 - -0.653926)/(30 - 18)	
-0.0644325			
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			
-1.42712 J (6/5/2012)	-1.27297 J (4/29/2006)	(-1.42712 - -1.27297)/(30 - 19)	
-0.0140137			
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			
-1.42712 J (6/5/2012)	1.29473 (11/18/2006)	(-1.42712 - 1.29473)/(30 - 20)	
-0.272184			
-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			
-1.42712 J (6/5/2012)	ND<0 (5/23/2007)	(-1.42712 - 0)/(30 - 21)	
-0.158568			
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			
-1.42712 J (6/5/2012)	-0.597837 J (11/28/2007)	(-1.42712 - -0.597837)/(30 - 22)	
-0.10366			
-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			
-1.42712 J (6/5/2012)	ND<0 (6/5/2008)	(-1.42712 - 0)/(30 - 23)	
-0.203874			

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 (6/5/2012)	-1.38629 J (11/20/2008)	(-1.42712 - -1.38629)/(30 - 24)
-0.00680367		
-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		
-1.42712 J (6/5/2012)	ND<-2.30259 (6/11/2009)	(-1.42712 - -2.30259)/(30 - 25)
0.175094		
-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		
-1.42712 J (6/5/2012)	-1.42712 J (6/30/2010)	(-1.42712 - -1.42712)/(30 - 26)
0		
-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		
-1.42712 J (6/5/2012)	-1.46968 J (11/12/2010)	(-1.42712 - -1.46968)/(30 - 27)
0.0141865		
-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		
-1.42712 J (6/5/2012)	-1.04982 J (7/5/2011)	(-1.42712 - -1.04982)/(30 - 28)
-0.188647		
-0.941609 J (11/22/2011)	-0.941609 J (11/22/2011)	(-0.941609 - -0.941609)/(29 - 29)
Same Date		
-1.42712 J (6/5/2012)	-0.941609 J (11/22/2011)	(-1.42712 - -0.941609)/(30 - 29)
-0.485508		

-1.42712 J (6/5/2012) -0.941609 J (11/22/2011) (-1.42712 - -0.941609)/(30 - 29)
-0.485508

Number of Q values = 464

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	-0.485508
22	-0.485508
23	-0.475705
24	-0.462098
25	-0.462098
26	-0.453641
27	-0.431576
28	-0.424322
29	-0.424322
30	-0.402359
31	-0.394915
32	-0.394229
33	-0.392154
34	-0.367419
35	-0.326963
36	-0.321888
37	-0.318241
38	-0.318241
39	-0.30543
40	-0.293069
41	-0.28824
42	-0.285423
43	-0.277259
44	-0.272184
45	-0.26824
46	-0.261436
47	-0.255843
48	-0.254593
49	-0.254593
50	-0.248482
51	-0.248482
52	-0.244946
53	-0.2402

54	-0.235523
55	-0.231049
56	-0.230259
57	-0.22992
58	-0.224088
59	-0.217975
60	-0.217335
61	-0.212161
62	-0.212161
63	-0.209964
64	-0.209326
65	-0.20732
66	-0.20576
67	-0.203874
68	-0.20118
69	-0.198042
70	-0.196077
71	-0.191882
72	-0.189947
73	-0.189439
74	-0.188647
75	-0.182322
76	-0.181852
77	-0.181852
78	-0.178826
79	-0.177122
80	-0.17622
81	-0.174368
82	-0.174291
83	-0.173287
84	-0.173287
85	-0.171603
86	-0.168313
87	-0.167676
88	-0.167152
89	-0.166204
90	-0.16447
91	-0.163482
92	-0.159819
93	-0.159121
94	-0.159121
95	-0.158568
96	-0.156935
97	-0.156935
98	-0.156862
99	-0.154033
100	-0.154033
101	-0.153956
102	-0.153506
103	-0.149975
104	-0.147152
105	-0.143912
106	-0.142712
107	-0.142601
108	-0.141441
109	-0.141441
110	-0.138909
111	-0.138629
112	-0.138629
113	-0.136015
114	-0.135446
115	-0.134314

116	-0.133607
117	-0.132028
118	-0.132024
119	-0.130785
120	-0.130718
121	-0.129738
122	-0.128702
123	-0.127297
124	-0.126631
125	-0.126027
126	-0.126027
127	-0.124822
128	-0.122473
129	-0.122322
130	-0.122061
131	-0.121532
132	-0.121189
133	-0.120663
134	-0.118999
135	-0.118926
136	-0.117701
137	-0.117701
138	-0.115957
139	-0.115957
140	-0.115724
141	-0.115724
142	-0.115525
143	-0.115525
144	-0.115129
145	-0.11496
146	-0.113052
147	-0.112044
148	-0.109778
149	-0.108988
150	-0.108323
151	-0.10699
152	-0.106638
153	-0.106638
154	-0.10608
155	-0.104977
156	-0.104428
157	-0.1042
158	-0.10366
159	-0.101937
160	-0.101937
161	-0.100709
162	-0.10059
163	-0.0996395
164	-0.099021
165	-0.0979784
166	-0.0979204
167	-0.0974447
168	-0.0966487
169	-0.095941
170	-0.0951411
171	-0.0951411
172	-0.0934181
173	-0.0929713
174	-0.0929713
175	-0.0924196
176	-0.0918547
177	-0.0909261

178	-0.0906388
179	-0.0895347
180	-0.0895347
181	-0.0891948
182	-0.0891948
183	-0.0874852
184	-0.0866434
185	-0.0864515
186	-0.0854053
187	-0.083948
188	-0.083948
189	-0.0825587
190	-0.0817408
191	-0.0816487
192	-0.0807555
193	-0.0795604
194	-0.0792842
195	-0.0792842
196	-0.0773514
197	-0.0770164
198	-0.0770164
199	-0.0753309
200	-0.0751114
201	-0.0749873
202	-0.0747296
203	-0.074696
204	-0.0729629
205	-0.0726585
206	-0.0724314
207	-0.0724314
208	-0.0713558
209	-0.0713558
210	-0.0707203
211	-0.0699881
212	-0.0699846
213	-0.0693147
214	-0.0679579
215	-0.0679579
216	-0.0672578
217	-0.0672578
218	-0.0668035
219	-0.0664263
220	-0.066014
221	-0.0656139
222	-0.0653926
223	-0.0648689
224	-0.0644325
225	-0.0627739
226	-0.0627739
227	-0.0617542
228	-0.0602737
229	-0.0597837
230	-0.0594632
231	-0.0588505
232	-0.0588505
233	-0.0583235
234	-0.0570847
235	-0.0570847
236	-0.056526
237	-0.0553887
238	-0.0553887
239	-0.0552538

240	-0.0544939
241	-0.0543488
242	-0.0524911
243	-0.0523116
244	-0.0523116
245	-0.050302
246	-0.0498198
247	-0.0495583
248	-0.0495583
249	-0.0492109
250	-0.0491102
251	-0.0491102
252	-0.0477192
253	-0.0470804
254	-0.0470804
255	-0.0459875
256	-0.0456444
257	-0.0448385
258	-0.0448385
259	-0.0427026
260	-0.0425596
261	-0.0409395
262	-0.0409395
263	-0.0395896
264	-0.0392337
265	-0.0392337
266	-0.0388823
267	-0.0384663
268	-0.0373648
269	-0.0351669
270	-0.0336289
271	-0.0336289
272	-0.0284684
273	-0.0277939
274	-0.0274365
275	-0.0261529
276	-0.0261529
277	-0.0245888
278	-0.0242085
279	-0.0240602
280	-0.0237783
281	-0.0235002
282	-0.0232193
283	-0.0226657
284	-0.0220215
285	-0.020411
286	-0.019671
287	-0.0196471
288	-0.0171279
289	-0.0161898
290	-0.015216
291	-0.0140137
292	-0.0118577
293	-0.00680367
294	-0.00556381
295	-0.00538631
296	-0.00101271
297	-0.00101271
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

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	0.0081644
392	0.0140224
393	0.0141865
394	0.0176919
395	0.0187403
396	0.0202858
397	0.0247937
398	0.0276131
399	0.0276131
400	0.0331357
401	0.0331357
402	0.0482258
403	0.0538995
404	0.0557859
405	0.0681435
406	0.0763576
407	0.0832992
408	0.0841181
409	0.0863151
410	0.0889372
411	0.0889372
412	0.0916291
413	0.0924805
414	0.10181
415	0.107894
416	0.108214
417	0.108214
418	0.114536
419	0.117702
420	0.129473
421	0.130785
422	0.130899
423	0.135026
424	0.138189
425	0.143859

426	0.152715
427	0.161836
428	0.161836
429	0.161841
430	0.175094
431	0.183258
432	0.184961
433	0.188647
434	0.212161
435	0.215788
436	0.217975
437	0.225043
438	0.229073
439	0.258945
440	0.264034
441	0.264034
442	0.26824
443	0.318241
444	0.318241
445	0.323682
446	0.340244
447	0.340244
448	0.416455
449	0.417588
450	0.419854
451	0.458145
452	0.597837
453	0.619039
454	0.636483
455	0.693147
456	0.804719
457	0.84191
458	0.855898
459	0.875469
460	0.916291
461	0.974327
462	1.56862
463	1.60944
464	2.56769

Sen's Estimator (Median Q) is -0.058587

Tied Group	Value	Members
1	0	14
2	-1.272972	
3	-1.427122	
4	-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
6/5/2012	1	

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 -0.0854053 = Q(186)
Upper limit is -0.0240602 = Q(279)
-0.0240602 < 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
-1.56065 J (6/5/2012)	ND<0 (7/20/1995)	(-1.56065 - 0)/(31 - 1)	-0.0520216
-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
-1.56065 J (6/5/2012) -1.07881 J (8/24/1995) (-1.56065 - -1.07881)/(31 - 2)
-0.0166151

-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
-1.56065 J (6/5/2012) -0.356675 J (9/28/1995) (-1.56065 - -0.356675)/(31 - 3)
-0.042999

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		
-1.56065 J (6/5/2012)	-0.510826 J (10/26/1995)	(-1.56065 - -0.510826)/(31 - 4)
-0.0388823		

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
-1.56065 J (6/5/2012) ND<0 (11/19/1996) (-1.56065 - 0)/(31 - 5)
-0.0600249

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
-1.56065 J (6/5/2012)	ND<0 (12/19/1996)	(-1.56065 - 0)/(31 - 6)	-0.0624259

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)	-0.103156
-0.527633 J (11/18/2006)	ND<0 (3/24/1997)	(-0.527633 - 0)/(20 - 7)	-0.0405871
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
-1.56065 J (11/20/2008)	ND<0 (3/24/1997)	(-1.56065 - 0)/(24 - 7)	-0.0918028
ND<-2.30259 (6/11/2009)	ND<0 (3/24/1997)	(-2.30259 - 0)/(25 - 7)	-0.127921
-1.30933 J (11/16/2009)	ND<0 (3/24/1997)	(-1.30933 - 0)/(26 - 7)	-0.0689123
ND<-2.30259 (6/30/2010)	ND<0 (3/24/1997)	(-2.30259 - 0)/(27 - 7)	-0.115129
ND<-2.30259 U (11/12/2010)	ND<0 (3/24/1997)	(-2.30259 - 0)/(28 - 7)	-0.109647
-1.30933 J (7/5/2011)	ND<0 (3/24/1997)	(-1.30933 - 0)/(29 - 7)	-0.0595152
-1.17118 J (11/22/2011)	ND<0 (3/24/1997)	(-1.17118 - 0)/(30 - 7)	-0.050921
-1.17118 J (11/22/2011)	ND<0 (3/24/1997)	(-1.17118 - 0)/(30 - 7)	-0.050921
-1.56065 J (6/5/2012)	ND<0 (3/24/1997)	(-1.56065 - 0)/(31 - 7)	-0.065027

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

-1.42712 J (4/1/2005) ND<0 (9/24/1997) (-1.42712 - 0)/(17 - 8)
-0.158568
-1.42712 J (10/25/2005) ND<0 (9/24/1997) (-1.42712 - 0)/(18 - 8)
-0.142712
-1.23787 J (4/29/2006) ND<0 (9/24/1997) (-1.23787 - 0)/(19 - 8)
-0.112534
-0.527633 J (11/18/2006) ND<0 (9/24/1997) (-0.527633 - 0)/(20 - 8)
-0.0439694
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
ND<0 (6/5/2008) ND<0 (9/24/1997) (0 - 0)/(23 - 8) 0
-1.56065 J (11/20/2008) ND<0 (9/24/1997) (-1.56065 - 0)/(24 - 8)
-0.0975405
ND<-2.30259 (6/11/2009) ND<0 (9/24/1997) (-2.30259 - 0)/(25 - 8)
-0.135446
-1.30933 J (11/16/2009) ND<0 (9/24/1997) (-1.30933 - 0)/(26 - 8)
-0.0727407
ND<-2.30259 (6/30/2010) ND<0 (9/24/1997) (-2.30259 - 0)/(27 - 8)
-0.121189
ND<-2.30259 U (11/12/2010) ND<0 (9/24/1997) (-2.30259 - 0)/(28 - 8)
-0.115129
-1.30933 J (7/5/2011) ND<0 (9/24/1997) (-1.30933 - 0)/(29 - 8)
-0.0623492
-1.17118 J (11/22/2011) ND<0 (9/24/1997) (-1.17118 - 0)/(30 - 8)
-0.0532356
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ND<0 (6/5/2008) -1.23787 J (4/29/2006) (0 - -1.23787)/(23 - 19)
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-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
-1.56065 J (6/5/2012) -1.23787 J (4/29/2006) (-1.56065 - -1.23787)/(31 - 19)
-0.0268978

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)
0.175878
-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
-1.56065 J (6/5/2012) -0.527633 J (11/18/2006) (-1.56065 - -0.527633)/(31 - 20)
-0.0939105

-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
-1.56065 J (6/5/2012) ND<0 (5/23/2007) (-1.56065 - 0)/(31 - 21)
-0.156065

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 (6/5/2012) -1.27297 J (11/28/2007) (-1.56065 - -1.27297)/(31 - 22)
-0.0319647

-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
-1.56065 J (6/5/2012) ND<0 (6/5/2008) (-1.56065 - 0)/(31 - 23)
-0.195081

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
-1.56065 J (6/5/2012) -1.56065 J (11/20/2008) (-1.56065 - -1.56065)/(31 - 24)
0

-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
-1.56065 J (6/5/2012) ND<-2.30259 (6/11/2009) (-1.56065 - -2.30259)/(31 - 25)
0.123656

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
-1.56065 J (6/5/2012) -1.30933 J (11/16/2009) (-1.56065 - -1.30933)/(31 - 26)
-0.0502629

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
-1.56065 J (6/5/2012) ND<-2.30259 (6/30/2010) (-1.56065 - -2.30259)/(31 - 27)
0.185484

-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
-1.56065 J (6/5/2012) ND<-2.30259 U (11/12/2010) (-1.56065 - -2.30259)/(31 - 28)
0.247312

-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
-1.56065 J (6/5/2012) -1.30933 J (7/5/2011) (-1.56065 - -1.30933)/(31 - 29)
-0.125657

-1.17118 J (11/22/2011) -1.17118 J (11/22/2011) (-1.17118 - -1.17118)/(30 - 30)
Same Date
-1.56065 J (6/5/2012) -1.17118 J (11/22/2011) (-1.56065 - -1.17118)/(31 - 30)
-0.389465

-1.56065 J (6/5/2012) -1.17118 J (11/22/2011) (-1.56065 - -1.17118)/(31 - 30)
-0.389465

Number of Q values = 495

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	-0.389465
20	-0.389465
21	-0.383764
22	-0.372666
23	-0.356779
24	-0.356779
25	-0.35499
26	-0.343206
27	-0.328941
28	-0.309469
29	-0.285423
30	-0.285423
31	-0.261867
32	-0.258254
33	-0.255843
34	-0.253565
35	-0.247575
36	-0.247312
37	-0.237853
38	-0.237853
39	-0.230259
40	-0.221869
41	-0.218222
42	-0.212161
43	-0.209326
44	-0.209326
45	-0.206312
46	-0.205924
47	-0.203874
48	-0.203874
49	-0.195081
50	-0.195081
51	-0.191882
52	-0.191882
53	-0.191882
54	-0.185484
55	-0.181852
56	-0.17839
57	-0.17839
58	-0.178337
59	-0.177452
60	-0.177122
61	-0.177122

62	-0.177122
63	-0.176839
64	-0.173405
65	-0.171603
66	-0.170275
67	-0.167312
68	-0.167312
69	-0.16447
70	-0.16447
71	-0.16447
72	-0.163667
73	-0.159121
74	-0.158568
75	-0.158568
76	-0.156065
77	-0.156065
78	-0.154734
79	-0.154151
80	-0.153506
81	-0.153506
82	-0.153506
83	-0.143912
84	-0.143912
85	-0.143912
86	-0.143841
87	-0.142712
88	-0.142712
89	-0.141877
90	-0.141441
91	-0.137542
92	-0.135446
93	-0.135446
94	-0.135446
95	-0.133089
96	-0.131908
97	-0.130933
98	-0.130283
99	-0.130131
100	-0.130131
101	-0.130054
102	-0.129738
103	-0.129738
104	-0.127921
105	-0.127921
106	-0.127921
107	-0.127297
108	-0.125657
109	-0.125067
110	-0.123787
111	-0.121189
112	-0.121189
113	-0.121189
114	-0.12005
115	-0.11903
116	-0.118926
117	-0.118926
118	-0.118301
119	-0.115724
120	-0.115129
121	-0.115129
122	-0.115129
123	-0.112534

124	-0.111475
125	-0.109778
126	-0.109647
127	-0.109647
128	-0.109434
129	-0.109111
130	-0.10608
131	-0.105527
132	-0.104663
133	-0.104663
134	-0.104043
135	-0.104043
136	-0.103156
137	-0.100718
138	-0.100718
139	-0.100112
140	-0.0979204
141	-0.0975405
142	-0.0975405
143	-0.0972743
144	-0.095941
145	-0.0952211
146	-0.0939105
147	-0.0935238
148	-0.0935238
149	-0.0918028
150	-0.0918028
151	-0.0909261
152	-0.0891948
153	-0.088561
154	-0.0884505
155	-0.0884196
156	-0.0879388
157	-0.0875469
158	-0.0875469
159	-0.0872889
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161	-0.0868556
162	-0.0867027
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164	-0.0853219
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170	-0.0821394
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177	-0.0780789
178	-0.0780789
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211	-0.064355
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216	-0.0616412
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218	-0.0606174
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220	-0.0595152
221	-0.0586259
222	-0.0585591
223	-0.0585591
224	-0.057332
225	-0.0569275
226	-0.0557706
227	-0.0557706
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229	-0.0545556
230	-0.0532356
231	-0.0532356
232	-0.0532076
233	-0.0527633
234	-0.0524911
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236	-0.0520216
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254	-0.0405871
255	-0.0403856
256	-0.0403856
257	-0.0388823
258	-0.0376881
259	-0.0366407
260	-0.0362958
261	-0.0351755
262	-0.0319647
263	-0.0319403
264	-0.030167
265	-0.030167
266	-0.0277701
267	-0.0268978
268	-0.0253984
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284	-0.00909191
285	-0.00853791
286	-0.0071459
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290	-0.00105044
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394	0
395	0
396	0
397	0
398	0
399	0
400	0
401	0
402	0.00606285
403	0.00606285
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405	0.0107075
406	0.0127228
407	0.0127228
408	0.013087
409	0.0147229
410	0.0178337
411	0.0196872
412	0.0196872
413	0.0198153
414	0.0213278
415	0.0213278
416	0.0268856
417	0.0274365
418	0.0297229
419	0.0300486
420	0.0306209
421	0.0308301
422	0.032425
423	0.0345376
424	0.0345376
425	0.0356675
426	0.0385377
427	0.0396305
428	0.0425688
429	0.0445844
430	0.0464387
431	0.0502629
432	0.0509536
433	0.0510826

434	0.0513719
435	0.0567584
436	0.0567795
437	0.0594458
438	0.0638532
439	0.0649108
440	0.0649108
441	0.071335
442	0.0729751
443	0.0770578
444	0.0829854
445	0.0851376
446	0.0891687
447	0.0899008
448	0.094621
449	0.0980736
450	0.102165
451	0.107881
452	0.118892
453	0.119868
454	0.123656
455	0.125657
456	0.127706
457	0.134851
458	0.13815
459	0.13815
460	0.154116
461	0.170275
462	0.175878
463	0.178337
464	0.179802
465	0.185484
466	0.189242
467	0.215762
468	0.22628
469	0.22628
470	0.237853
471	0.247312
472	0.248313
473	0.255413
474	0.269702
475	0.283992
476	0.285423
477	0.299828
478	0.309469
479	0.356779
480	0.359603
481	0.377134
482	0.377134
483	0.449742
484	0.475705
485	0.496626
486	0.510826
487	0.527633
488	0.565701
489	0.565701
490	0.618937
491	0.710242
492	0.722135
493	0.993252
494	0.993252
495	1.27297

Sen's Estimator (Median Q) is -0.0468473

Tied Group	Value	Members
1	0	15
2	-1.42712	2
3	-1.56065	2
4	-2.30259	3
5	-1.30933	2
6	-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
6/5/2012	1	

There are 1 time periods with multiple data

A = 7488
B = 18
C = 2736
D = 0
E = 224
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3385.89
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 95.7114
M1 = (495 - 95.7114)/2.0 = 199.644
M2 = (495 + 95.7114)/2.0 + 1 = 296.356
Lower limit is -0.0687708 = Q(200)
Upper limit is 0 = Q(296)
-0.0687708 < 0 < 0 indicating no trend in data.

Concentrations (ppb)
Parameter: Trichloroethene
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 254
Total Non-Detect: 154
Percent Non-Detects: 60.6299%
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-7	32	28 (87.5%)	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
			6/5/2012	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
			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
			6/5/2012	ND<0.13 U		ND<0.13 U
MW-9	32	13 (40.625%)	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	
			6/5/2012	0.33 J	0.33 J	
MW-8	31	4 (12.9032%)	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	
			6/5/2012	2.3	2.3	
MW-10	32	13 (40.625%)	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	
			6/5/2012	0.88 J	0.88 J	
MW-11R	32	12 (37.5%)	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	
			6/5/2012	0.16 J	0.16 J	
MW-12BR	22	19 (86.3636%)	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	
		6/5/2012	ND<0.13 U	ND<0.13 U		
MW-12AR	22	14 (63.6364%)	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	
		6/5/2012	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: Trichloroethene
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.065	-2.747777	7.55021	-0.178605
2	0.065	-2.457271	13.5884	-0.338327
3	0.065	-2.290361	18.8342	-0.487201
4	0.065	-2.170092	23.5435	-0.628257
5	0.065	-2.074852	7.8485	-0.763122
6	0.065	-1.995393	1.8301	-0.892823
7	0.065	-1.926843	5.5428	-1.01807
8	0.065	-1.866293	9.0258	-1.13938
9	0.065	-1.811914	2.3088	-1.25715
10	0.065	-1.762414	5.4149	-1.37171
11	0.065	-1.716884	8.3626	-1.4833
12	0.065	-1.674665	1.1671	-1.59216
13	0.065	-1.644855	3.8726	-1.69907
14	0.065	-1.607255	6.4559	-1.80354
15	0.065	-1.571795	8.9264	-1.90571
16	0.065	-1.5382	61.2925	-2.00569
17	0.065	-1.506263	3.5613	-2.1036
18	0.065	-1.475796	5.7393	-2.19953
19	0.065	-1.446636	7.832	-2.29356
20	0.065	-1.418656	9.8446	-2.38577
21	0.065	-1.391757	1.7815	-2.47623
22	0.065	-1.365817	3.647	-2.56501
23	0.065	-1.340757	5.4446	-2.65216
24	0.065	-1.316527	7.1778	-2.73773
25	0.065	-1.293037	8.8498	-2.82178
26	0.065	-1.275888	0.4776	-2.90471
27	0.065	-1.253578	2.049	-2.9862
28	0.065	-1.231878	3.5665	-3.06627
29	0.065	-1.210738	5.0324	-3.14496
30	0.065	-1.190128	6.4488	-3.22232
31	0.065	-1.17	87.8177	-3.29837
32	0.065	-1.150358	9.141	-3.37314
33	0.065	-1.131139	0.4204	-3.44667
34	0.065	-1.112329	1.6577	-3.51897
35	0.065	-1.0939	92.8543	-3.59007
36	0.065	-1.075849	4.0117	-3.66
37	0.065	-1.058129	5.1314	-3.72878
38	0.065	-1.040739	6.2145	-3.79643
39	0.13	-1.027899	7.271	-3.93005
40	0.16	-1.011049	8.2932	-4.09182
41	0.2	-0.994457	99.2822	-4.29071
42	0.22	-0.978151	00.239	-4.5059
43	0.23	-0.9621	101.165	-4.72719
44	0.27	-0.946291	102.06	-4.98268
45	0.29	-0.930718	102.926	-5.25259
46	0.33	-0.915365	103.764	-5.55466
47	0.33	-0.900227	104.575	-5.85174
48	0.35	-0.885291	105.358	-6.16159
49	0.42	-0.870551	06.116	-6.52722
50	0.43	-0.855996	106.849	-6.8953
51	0.45	-0.841621	107.557	-7.27403

52	0.45	-0.830953	108.248	-7.64796
53	0.45	-0.816874	108.915	-8.01555
54	0.45	-0.802956	109.56	-8.37688
55	0.5	-0.789191	110.183	-8.77148
56	0.52	-0.775574	110.784	-9.17478
57	0.53	-0.7621	111.365	-9.57869
58	0.55	-0.748762	111.926	-9.99051
59	0.58	-0.735557	112.467	-10.4171
60	0.59	-0.722479	112.989	-10.8434
61	0.59	-0.709522	113.492	-11.262
62	0.6	-0.696684	113.977	-11.68
63	0.6	-0.68396	114.445	-12.0904
64	0.64	-0.67449	114.9	-12.5221
65	0.67	-0.661955	115.338	-12.9656
66	0.68	-0.649522	115.76	-13.4073
67	0.7	-0.637192	116.166	-13.8533
68	0.71	-0.624956	116.557	-14.297
69	0.73	-0.612813	116.932	-14.7444
70	0.74	-0.60076	117.293	-15.1889
71	0.8	-0.588793	117.64	-15.66
72	0.8	-0.576911	117.973	-16.1215
73	0.86	-0.565108	118.292	-16.6075
74	0.87	-0.553384	118.598	-17.0889
75	0.88	-0.541736	118.892	-17.5657
76	0.88	-0.530162	119.173	-18.0322
77	0.89	-0.521527	119.445	-18.4964
78	0.9	-0.510074	119.705	-18.9554
79	0.91	-0.498687	119.954	-19.4092
80	0.94	-0.487364	120.191	-19.8673
81	0.96	-0.476105	120.418	-20.3244
82	1	-0.464904	120.634	-20.7893
83	1	-0.453763	120.84	-21.2431
84	1	-0.442676	121.036	-21.6858
85	1	-0.431644	121.222	-22.1174
86	1	-0.420664	121.399	-22.5381
87	1	-0.409735	121.567	-22.9478
88	1	-0.398855	121.726	-23.3467
89	1	-0.388022	121.877	-23.7347
90	1	-0.379927	122.021	-24.1146
91	1	-0.369171	122.157	-24.4838
92	1	-0.358459	122.286	-24.8422
93	1	-0.347787	122.407	-25.19
94	1	-0.337155	122.52	-25.5272
95	1	-0.326561	122.627	-25.8537
96	1	-0.316004	122.727	-26.1697
97	1	-0.305481	122.82	-26.4752
98	1	-0.294992	122.907	-26.7702
99	1	-0.284535	122.988	-27.0547
100	1	-0.27411	123.063	-27.3289
101	1	-0.263715	123.133	-27.5926
102	1	-0.253347	123.197	-27.8459
103	1	-0.24559	123.257	-28.0915
104	1	-0.235269	123.313	-28.3268
105	1	-0.224974	123.363	-28.5518
106	1	-0.214702	123.409	-28.7665
107	1	-0.204452	123.451	-28.9709
108	1	-0.194225	123.489	-29.1651
109	1	-0.184017	123.523	-29.3491
110	1	-0.173829	123.553	-29.523
111	1	-0.163659	123.58	-29.6866
112	1	-0.153505	123.603	-29.8401
113	1	-0.143367	123.624	-29.9835

114	1	-0.133244	123.642	-30.1168
115	1	-0.125661	123.658	-30.2424
116	1	-0.115562	123.671	-30.358
117	1	-0.105474	123.682	-30.4634
118	1	-0.0953969	123.691	-30.5588
119	1	-0.0853288	123.698	-30.6442
120	1	-0.0752698	123.704	-30.7194
121	1	-0.0652187	123.708	-30.7847
122	1	-0.0551734	123.711	-30.8398
123	1	-0.0451348	123.713	-30.885
124	1	-0.0350997	123.715	-30.9201
125	1	-0.0250691	123.715	-30.9451
126	1	-0.0150408	123.715	-30.9602
127	1	-0.00501359	123.715	-30.9652
128	1	0.00501359	123.716	-30.9602
129	1	0.0150408	123.716	-30.9451
130	1	0.0250691	123.716	-30.9201
131	1	0.0350997	123.718	-30.885
132	1	0.0451348	123.72	-30.8398
133	1	0.0551734	123.723	-30.7847
134	1	0.0652187	123.727	-30.7194
135	1	0.0752698	123.733	-30.6442
136	1	0.0853288	123.74	-30.5588
137	1	0.0953969	123.749	-30.4634
138	1	0.105474	123.76	-30.358
139	1	0.115562	123.773	-30.2424
140	1	0.125661	123.789	-30.1168
141	1	0.133244	123.807	-29.9835
142	1	0.143367	123.828	-29.8401
143	1	0.153505	123.851	-29.6866
144	1	0.163659	123.878	-29.523
145	1	0.173829	123.908	-29.3491
146	1	0.184017	123.942	-29.1651
147	1	0.194225	123.98	-28.9709
148	1	0.204452	124.022	-28.7665
149	1	0.214702	124.068	-28.5518
150	1	0.224974	124.118	-28.3268
151	1	0.235269	124.174	-28.0915
152	1	0.24559	124.234	-27.8459
153	1	0.253347	124.298	-27.5926
154	1	0.263715	124.368	-27.3289
155	1	0.27411	124.443	-27.0547
156	1	0.284535	124.524	-26.7702
157	1	0.294992	124.611	-26.4752
158	1	0.305481	124.704	-26.1697
159	1	0.316004	124.804	-25.8537
160	1	0.326561	124.911	-25.5272
161	1	0.337155	125.024	-25.19
162	1	0.347787	125.145	-24.8422
163	1	0.358459	125.274	-24.4838
164	1	0.369171	125.41	-24.1146
165	1	0.379927	125.554	-23.7347
166	1	0.388022	125.705	-23.3467
167	1	0.398855	125.864	-22.9478
168	1	0.409735	126.032	-22.5381
169	1	0.420664	126.209	-22.1174
170	1	0.431644	126.395	-21.6858
171	1	0.442676	126.591	-21.2431
172	1	0.453763	126.797	-20.7893
173	1	0.464904	127.013	-20.3244
174	1	0.476105	127.24	-19.8483
175	1	0.487364	127.477	-19.3609

176	1	0.498687		127.726	-18.8623
177	1	0.510074		127.986	-18.3522
178	1	0.521527		128.258	-17.8307
179	1	0.530162		128.539	-17.3005
180	1	0.541736		128.833	-16.7588
181	1	0.553384		129.139	-16.2054
182	1	0.565108		129.458	-15.6403
183	1	0.576911		129.791	-15.0634
184	1	0.588793		130.138	-14.4746
185	1	0.60076	130.499	-13.8738	
186	1	0.612813		130.874	-13.261
187	1	0.624956		131.265	-12.636
188	1	0.637192		131.671	-11.9988
189	1	0.649522		132.093	-11.3493
190	1	0.661955		132.531	-10.6874
191	1	0.67449	132.986	-10.0129	
192	1	0.68396	133.454	-9.32891	
193	1	0.696684		133.939	-8.63223
194	1	0.709522		134.442	-7.9227
195	1	0.722479		134.964	-7.20023
196	1	0.735557		135.505	-6.46467
197	1	0.748762		136.066	-5.71591
198	1	0.7621	136.647	-4.95381	
199	1	0.775574		137.248	-4.17823
200	1	0.789191		137.871	-3.38904
201	1.01	0.802956		138.516	-2.57805
202	1.1	0.816874		139.183	-1.67949
203	1.15	0.830953		139.874	-0.723897
204	1.27	0.841621		140.582	0.344962
205	1.28	0.855996		141.315	1.44064
206	1.3	0.87055	142.073	2.57235	
207	1.3	0.885291		142.856	3.72323
208	1.4	0.900227		143.667	4.98355
209	1.4	0.915365		144.505	6.26506
210	1.4	0.930718		145.371	7.56806
211	1.4	0.946291		146.266	8.89287
212	1.5	0.9621	147.192	10.336	
213	1.6	0.97815	148.149	11.9011	
214	1.9	0.994457		149.138	13.7905
215	2	1.01104	150.16	15.8126	
216	2	1.02789	151.217	17.8684	
217	2	1.04073	152.3	19.9499	
218	2.14	1.05812	153.419	22.2142	
219	2.2	1.07584	154.577	24.5811	
220	2.22	1.0939	155.773	27.0095	
221	2.29	1.11232	157.011	29.5567	
222	2.3	1.13113	158.29	32.1583	
223	2.3	1.15035	159.613	34.8041	
224	2.6	1.17	160.982	37.8461	
225	3	1.19012	162.399	41.4165	
226	3	1.21073	163.864	45.0487	
227	3.01	1.23187	165.382	48.7566	
228	3.2	1.25357	166.953	52.768	
229	3.5	1.27588	168.581	57.2336	
230	3.54	1.29303	170.253	61.8109	
231	4.18	1.31652	171.986	67.314	
232	4.5	1.34075	173.784	73.3474	
233	5.1	1.36581	175.649	80.313	
234	5.2	1.39175	177.586	87.5501	
235	6	1.41865	179.599	96.062	
236	6.1	1.44663	181.692	104.886	
237	6.66	1.47579	183.87	114.715	

238	7	1.50626	186.139	125.259
239	8	1.5382	188.505	137.565
240	8.8	1.57179	190.975	151.396
241	8.9	1.60725	193.558	165.701
242	9	1.64485	196.264	180.505
243	15	1.67466	199.068	205.625
244	19	1.71688	202.016	238.245
245	77.4	1.76241	205.122	374.656
246	120	1.81191	208.405	592.085
247	120	1.86629	211.888	816.041
248	150	1.92684	215.601	1105.07
249	150	1.99539	219.583	1404.38
250	160	2.07485	223.888	1736.35
251	190	2.17009	228.597	2148.67
252	260	2.29036	233.843	2744.16
253	280	2.45727	239.881	3432.2
254	300	2.74777	247.431	4256.53

Data Set Standard Deviation = 37.7788
Numerator = 1.8118e+007
Denominator = 8.93451e+007
W Statistic = 0.202787 = 1.8118e+007 / 8.93451e+007

5% Critical value of 0.976 exceeds 0.202787
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.202787
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 = 0.454753
0.454753 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.065	0.00392157	-2.747	77	39.1159	348.683
2	0.065	0.00784314	-2.457	27	39.1159	334.497
3	0.065	0.0117647	-2.290	36	39.1159	326.346
4	0.065	0.0156863	-2.170	09	39.1159	320.473
5	0.065	0.0196078	-2.074	85	39.1159	315.822
6	0.065	0.0235294	-1.995	39	39.1159	311.942
7	0.065	0.027451	-1.926	84	39.1159	308.594
8	0.065	0.0313725	-1.866	29	39.1159	305.637
9	0.065	0.0352941	-1.811	91	39.1159	302.982
10	0.065	0.0392157	-1.762	41	39.1159	300.564
11	0.065	0.0431373	-1.716	88	39.1159	298.341
12	0.065	0.0470588	-1.674	66	39.1159	296.279
13	0.065	0.0509804	-1.644	85	39.1159	294.824
14	0.065	0.054902	-1.607	25	39.1159	292.987
15	0.065	0.0588235	-1.571	79	39.1159	291.256
16	0.065	0.0627451	-1.538	2	39.1159	289.615
17	0.065	0.0666667	-1.506	26	39.1159	288.056
18	0.065	0.0705882	-1.475	79	39.1159	286.568
19	0.065	0.0745098	-1.446	63	39.1159	285.144
20	0.065	0.0784314	-1.418	65	39.1159	283.778
21	0.065	0.0823529	-1.391	75	39.1159	282.464
22	0.065	0.0862745	-1.365	81	39.1159	281.197
23	0.065	0.0901961	-1.340	75	39.1159	279.974
24	0.065	0.0941176	-1.316	52	39.1159	278.79
25	0.065	0.0980392	-1.293	03	39.1159	277.643
26	0.065	0.101961	-1.275	88	39.1159	276.805
27	0.065	0.105882	-1.253	57	39.1159	275.716
28	0.065	0.109804	-1.231	87	39.1159	274.656
29	0.065	0.113725	-1.210	73	39.1159	273.624
30	0.065	0.117647	-1.190	12	39.1159	272.617
31	0.065	0.121569	-1.17		39.1159	271.635
32	0.065	0.12549	-1.150	35	39.1159	270.675
33	0.065	0.129412	-1.131	13	39.1159	269.737
34	0.065	0.133333	-1.112	32	39.1159	268.818
35	0.065	0.137255	-1.093	9	39.1159	267.919
36	0.065	0.141176	-1.075	84	39.1159	267.037
37	0.065	0.145098	-1.058	12	39.1159	266.172
38	0.065	0.14902	-1.040	73	39.1159	265.322
39	0.13	0.152941	-1.027	89	39.2318	264.695
40	0.16	0.156863	-1.011	04	39.2853	263.872
41	0.2	0.160784	-0.994457		39.3567	263.063
42	0.22	0.164706	-0.978	15	39.3923	262.266
43	0.23	0.168627	-0.962	1	39.4102	261.483
44	0.27	0.172549	-0.946291		39.4815	260.711
45	0.29	0.176471	-0.930718		39.5172	259.95
46	0.33	0.180392	-0.915365		39.5885	259.2
47	0.33	0.184314	-0.900227		39.5885	258.461
48	0.35	0.188235	-0.885291		39.6242	257.732

49	0.42	0.192157	-0.870553	9.749	257.012	
50	0.43	0.196078	-0.855996		39.7668	256.301
51	0.45	0.2	-0.841621	39.8025	255.599	
52	0.45	0.203922	-0.830953		39.8025	255.078
53	0.45	0.207843	-0.816874		39.8025	254.391
54	0.45	0.211765	-0.802956		39.8025	253.711
55	0.5	0.215686	-0.789191		39.8917	253.039
56	0.52	0.219608	-0.775574		39.9273	252.374
57	0.53	0.223529	-0.7621	39.9452	251.716	
58	0.55	0.227451	-0.748762		39.9808	251.065
59	0.58	0.231373	-0.735557		40.0343	250.42
60	0.59	0.235294	-0.722479		40.0522	249.781
61	0.59	0.239216	-0.709522		40.0522	249.148
62	0.6	0.243137	-0.696684		40.07	248.521
63	0.6	0.247059	-0.683964	0.07	247.9	
64	0.64	0.25098	-0.674494	0.1413	247.438	
65	0.67	0.254902	-0.661955		40.1948	246.825
66	0.68	0.258824	-0.649522		40.2127	246.218
67	0.7	0.262745	-0.637192		40.2483	245.616
68	0.71	0.266667	-0.624956		40.2662	245.019
69	0.73	0.270588	-0.612813		40.3018	244.426
70	0.74	0.27451	-0.600764	0.3197	243.837	
71	0.8	0.278431	-0.588793		40.4267	243.253
72	0.8	0.282353	-0.576911		40.4267	242.672
73	0.86	0.286275	-0.565108		40.5337	242.096
74	0.87	0.290196	-0.553384		40.5515	241.524
75	0.88	0.294118	-0.541736		40.5693	240.955
76	0.88	0.298039	-0.530162		40.5693	240.39
77	0.89	0.301961	-0.521527		40.5872	239.968
78	0.9	0.305882	-0.510074		40.605	239.409
79	0.91	0.309804	-0.498687		40.6228	238.853
80	0.94	0.313725	-0.487364		40.6763	238.3
81	0.96	0.317647	-0.476105		40.712	237.75
82	1	0.321569	-0.464904		40.7833	237.203
83	1	0.32549	-0.453763	40.7833	236.659	
84	1	0.329412	-0.442676		40.7833	236.117
85	1	0.333333	-0.431644		40.7833	235.579
86	1	0.337255	-0.420664		40.7833	235.042
87	1	0.341176	-0.409735		40.7833	234.509
88	1	0.345098	-0.398855		40.7833	233.977
89	1	0.34902	-0.388022	40.7833	233.448	
90	1	0.352941	-0.379927		40.7833	233.053
91	1	0.356863	-0.369171		40.7833	232.528
92	1	0.360784	-0.358459		40.7833	232.005
93	1	0.364706	-0.347787		40.7833	231.484
94	1	0.368627	-0.337155		40.7833	230.964
95	1	0.372549	-0.326561		40.7833	230.447
96	1	0.376471	-0.316004		40.7833	229.932
97	1	0.380392	-0.305481		40.7833	229.418
98	1	0.384314	-0.294992		40.7833	228.905
99	1	0.388235	-0.284535		40.7833	228.395
100	1	0.392157	-0.274114	0.7833	227.886	
101	1	0.396078	-0.263715		40.7833	227.378
102	1	0.4	-0.253347	40.7833	226.872	
103	1	0.403922	-0.245594	0.7833	226.493	
104	1	0.407843	-0.235269		40.7833	225.989
105	1	0.411765	-0.224974		40.7833	225.486
106	1	0.415686	-0.214702		40.7833	224.985
107	1	0.419608	-0.204452		40.7833	224.484
108	1	0.423529	-0.194225		40.7833	223.985
109	1	0.427451	-0.184017		40.7833	223.486
110	1	0.431373	-0.173829		40.7833	222.989

111	1	0.435294	-0.163659	40.7833	222.492
112	1	0.439216	-0.153505	40.7833	221.996
113	1	0.443137	-0.143367	40.7833	221.501
114	1	0.447059	-0.133244	40.7833	221.007
115	1	0.45098	-0.125661	40.7833	220.636
116	1	0.454902	-0.115562	40.7833	220.143
117	1	0.458824	-0.105474	40.7833	219.651
118	1	0.462745	-0.0953969	40.7833	219.159
119	1	0.466667	-0.0853288	40.7833	218.667
120	1	0.470588	-0.0752698	40.7833	218.176
121	1	0.47451	-0.0652187	40.7833	217.685
122	1	0.478431	-0.0551734	40.7833	217.194
123	1	0.482353	-0.0451348	40.7833	216.704
124	1	0.486275	-0.0350997	40.7833	216.214
125	1	0.490196	-0.0250691	40.7833	215.724
126	1	0.494118	-0.0150408	40.7833	215.234
127	1	0.498039	-0.00501359	40.7833	214.745
128	1	0.501961	0.00501359	40.7833	214.255
129	1	0.505882	0.0150408	40.7833	213.766
130	1	0.509804	0.0250691	40.7833	213.276
131	1	0.513725	0.0350997	40.7833	212.786
132	1	0.517647	0.0451348	40.7833	212.296
133	1	0.521569	0.0551734	40.7833	211.806
134	1	0.52549	0.0652187	40.7833	211.315
135	1	0.529412	0.0752698	40.7833	210.824
136	1	0.533333	0.0853288	40.7833	210.333
137	1	0.537255	0.0953969	40.7833	209.841
138	1	0.541176	0.105474	40.7833	209.349
139	1	0.545098	0.115562	40.7833	208.857
140	1	0.54902	0.125661	40.7833	208.364
141	1	0.552941	0.133244	40.7833	207.993
142	1	0.556863	0.143367	40.7833	207.499
143	1	0.560784	0.153505	40.7833	207.004
144	1	0.564706	0.163659	40.7833	206.508
145	1	0.568627	0.173829	40.7833	206.011
146	1	0.572549	0.184017	40.7833	205.514
147	1	0.576471	0.194225	40.7833	205.015
148	1	0.580392	0.204452	40.7833	204.516
149	1	0.584314	0.214702	40.7833	204.015
150	1	0.588235	0.224974	40.7833	203.514
151	1	0.592157	0.235269	40.7833	203.011
152	1	0.596078	0.24559	40.7833	202.507
153	1	0.6	0.253347	40.7833	202.128
154	1	0.603922	0.263715	40.7833	201.622
155	1	0.607843	0.27411	40.7833	201.114
156	1	0.611765	0.284535	40.7833	200.605
157	1	0.615686	0.294992	40.7833	200.095
158	1	0.619608	0.305481	40.7833	199.582
159	1	0.623529	0.316004	40.7833	199.068
160	1	0.627451	0.326561	40.7833	198.553
161	1	0.631373	0.337155	40.7833	198.036
162	1	0.635294	0.347787	40.7833	197.516
163	1	0.639216	0.358459	40.7833	196.995
164	1	0.643137	0.369171	40.7833	196.472
165	1	0.647059	0.379927	40.7833	195.947
166	1	0.65098	0.388022	40.7833	195.552
167	1	0.654902	0.398855	40.7833	195.023
168	1	0.658824	0.409735	40.7833	194.491
169	1	0.662745	0.420664	40.7833	193.958
170	1	0.666667	0.431644	40.7833	193.421
171	1	0.670588	0.442676	40.7833	192.883
172	1	0.67451	0.453763	40.7833	192.341

173	1	0.678431	0.464904	40.7833	191.797
174	1	0.682353	0.476105	40.7833	191.25
175	1	0.686275	0.487364	40.7833	190.7
176	1	0.690196	0.498687	40.7833	190.147
177	1	0.694118	0.510074	40.7833	189.591
178	1	0.698039	0.521527	40.7833	189.032
179	1	0.701961	0.530162	40.7833	188.61
180	1	0.705882	0.541736	40.7833	188.045
181	1	0.709804	0.553384	40.7833	187.476
182	1	0.713725	0.565108	40.7833	186.904
183	1	0.717647	0.576911	40.7833	186.328
184	1	0.721569	0.588793	40.7833	185.747
185	1	0.72549	0.60076	40.7833	185.163
186	1	0.729412	0.612813	40.7833	184.574
187	1	0.733333	0.624956	40.7833	183.981
188	1	0.737255	0.637192	40.7833	183.384
189	1	0.741176	0.649522	40.7833	182.782
190	1	0.745098	0.661955	40.7833	182.175
191	1	0.74902	0.67449	40.7833	181.562
192	1	0.752941	0.68396	40.7833	181.1
193	1	0.756863	0.696684	40.7833	180.479
194	1	0.760784	0.709522	40.7833	179.852
195	1	0.764706	0.722479	40.7833	179.219
196	1	0.768627	0.735557	40.7833	178.58
197	1	0.772549	0.748762	40.7833	177.935
198	1	0.776471	0.7621	40.7833	177.284
199	1	0.780392	0.775574	40.7833	176.626
200	1	0.784314	0.789191	40.7833	175.961
201	1.01	0.788235	0.802956	40.8012	175.289
202	1.1	0.792157	0.816874	40.9617	174.609
203	1.15	0.796078	0.830953	41.0508	173.922
204	1.27	0.8	0.841621	41.2648	173.401
205	1.28	0.803922	0.855996	41.2827	172.699
206	1.3	0.807843	0.87055	41.3183	171.988
207	1.3	0.811765	0.885291	41.3183	171.268
208	1.4	0.815686	0.900227	41.4967	170.539
209	1.4	0.819608	0.915365	41.4967	169.8
210	1.4	0.823529	0.930718	41.4967	169.05
211	1.4	0.827451	0.946291	41.4967	168.289
212	1.5	0.831373	0.9621	41.675	167.517
213	1.6	0.835294	0.97815	41.8533	166.734
214	1.9	0.839216	0.994457	42.3883	165.937
215	2	0.843137	1.01104	42.5667	165.128
216	2	0.847059	1.02789	42.5667	164.305
217	2	0.85098	1.04073	42.5667	163.678
218	2.14	0.854902	1.05812	42.8163	162.828
219	2.2	0.858824	1.07584	42.9233	161.963
220	2.22	0.862745	1.0939	42.959	161.081
221	2.29	0.866667	1.11232	43.0838	160.182
222	2.3	0.870588	1.13113	43.1017	159.263
223	2.3	0.87451	1.15035	43.1017	158.325
224	2.6	0.878431	1.17	43.6367	157.365
225	3	0.882353	1.19012	44.35	156.383
226	3	0.886275	1.21073	44.35	155.376
227	3.01	0.890196	1.23187	44.3678	154.344
228	3.2	0.894118	1.25357	44.7067	153.284
229	3.5	0.898039	1.27588	45.2417	152.195
230	3.54	0.901961	1.29303	45.313	151.357
231	4.18	0.905882	1.31652	46.4543	150.21
232	4.5	0.909804	1.34075	47.025	149.026
233	5.1	0.913725	1.36581	48.095	147.803
234	5.2	0.917647	1.39175	48.2733	146.536

235	6	0.921569		1.41865	49.7	145.222
236	6.1	0.92549	1.44663	49.8783	143.856	
237	6.66	0.929412		1.47579	50.877	142.432
238	7	0.933333		1.50626	51.4833	140.944
239	8	0.937255		1.5382	53.2667	139.385
240	8.8	0.941176		1.57179	54.6933	137.744
241	8.9	0.945098		1.60725	54.8717	136.013
242	9	0.94902	1.64485	55.05	134.176	
243	15	0.952941		1.67466	65.75	132.721
244	19	0.956863		1.71688	72.8833	130.659
245	77.4	0.960784		1.76241	177.03	128.436
246	120	0.964706		1.81191	253	126.018
247	120	0.968627		1.86629	253	123.363
248	150	0.972549		1.92684	306.5	120.406
249	150	0.976471		1.99539	306.5	117.058
250	160	0.980392		2.07485	324.333	113.178
251	190	0.984314		2.17009	377.833	108.527
252	260	0.988235		2.29036	502.667	102.654
253	280	0.992157		2.45727	538.333	94.5032
254	300	0.996078		2.74777	574	80.3175

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 = 254

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	-1.71688	48.3626	62.3757
12	-2.73337	-1.67466	51.1671	66.9531
13	-2.73337	-1.64485	53.8726	71.4491
14	-2.73337	-1.60725	56.4559	75.8423
15	-2.73337	-1.57179	58.9264	80.1386
16	-2.73337	-1.5382	61.2925	84.3431
17	-2.73337	-1.50626	63.5613	88.4602
18	-2.73337	-1.47579	65.7393	92.4941
19	-2.73337	-1.44663	67.832	96.4483
20	-2.73337	-1.41865	69.8446	100.326
21	-2.73337	-1.39175	71.7815	104.13
22	-2.73337	-1.36581	73.647	107.863
23	-2.73337	-1.34075	75.4446	111.528
24	-2.73337	-1.31652	77.1778	115.127
25	-2.73337	-1.29303	78.8498	118.661
26	-2.73337	-1.27588	80.4776	122.148
27	-2.73337	-1.25357	82.049	125.575
28	-2.73337	-1.23187	83.5665	128.942
29	-2.73337	-1.21073	85.0324	132.251
30	-2.73337	-1.19012	86.4488	135.504
31	-2.73337	-1.17	87.8177	138.703
32	-2.73337	-1.15035	89.141	141.847
33	-2.73337	-1.13113	90.4204	144.939
34	-2.73337	-1.11232	91.6577	147.979
35	-2.73337	-1.0939	92.8543	150.969
36	-2.73337	-1.07584	94.0117	153.91
37	-2.73337	-1.05812	95.1314	156.802
38	-2.73337	-1.04073	96.2145	159.647
39	-2.04022	-1.02789	97.271	161.744
40	-1.83258	-1.01104	98.2932	163.597
41	-1.60944	-0.994457	99.2822	165.197
42	-1.51413	-0.97815	100.239	166.678
43	-1.46968	-0.9621	101.165	168.092
44	-1.30933	-0.946291	102.06	169.331
45	-1.23787	-0.930718	102.926	170.483
46	-1.10866	-0.915365	103.764	171.498
47	-1.10866	-0.900227	104.575	172.496
48	-1.04982	-0.885291	105.358	173.426
49	-0.867501	-0.87055	106.116	174.181
50	-0.84397	-0.855996	106.849	174.903
51	-0.798508	-0.841621	107.557	175.575

52	-0.798508	-0.830953	108.248	176.239
53	-0.798508	-0.816874	108.915	176.891
54	-0.798508	-0.802956	109.56	177.532
55	-0.693147	-0.789191	110.183	178.079
56	-0.653926	-0.775574	110.784	178.586
57	-0.634878	-0.7621	111.365	179.07
58	-0.597837	-0.748762	111.926	179.518
59	-0.544727	-0.735557	112.467	179.919
60	-0.527633	-0.722479	112.989	180.3
61	-0.527633	-0.709522	113.492	180.674
62	-0.510826	-0.696684	113.977	181.03
63	-0.510826	-0.68396	114.445	181.379
64	-0.446287	-0.67449	114.9	181.68
65	-0.400478	-0.661955	115.338	181.945
66	-0.385662	-0.649522	115.76	182.196
67	-0.356675	-0.637192	116.166	182.423
68	-0.34249	-0.624956	116.557	182.637
69	-0.314711	-0.612813	116.932	182.83
70	-0.301105	-0.60076	117.293	183.011
71	-0.223144	-0.588793	117.64	183.142
72	-0.223144	-0.576911	117.973	183.271
73	-0.150823	-0.565108	118.292	183.356
74	-0.139262	-0.553384	118.598	183.433
75	-0.127833	-0.541736	118.892	183.503
76	-0.127833	-0.530162	119.173	183.57
77	-0.116534	-0.521527	119.445	183.631
78	-0.105361	-0.510074	119.705	183.685
79	-0.0943107	-0.498687	119.954	183.732
80	-0.0618754	-0.487364	120.191	183.762
81	-0.040822	-0.476105	120.418	183.782
82	0	-0.464904	120.634	183.782
83	0	-0.453763	120.84	183.782
84	0	-0.442676	121.036	183.782
85	0	-0.431644	121.222	183.782
86	0	-0.420664	121.399	183.782
87	0	-0.409735	121.567	183.782
88	0	-0.398855	121.726	183.782
89	0	-0.388022	121.877	183.782
90	0	-0.379927	122.021	183.782
91	0	-0.369171	122.157	183.782
92	0	-0.358459	122.286	183.782
93	0	-0.347787	122.407	183.782
94	0	-0.337155	122.52	183.782
95	0	-0.326561	122.627	183.782
96	0	-0.316004	122.727	183.782
97	0	-0.305481	122.82	183.782
98	0	-0.294992	122.907	183.782
99	0	-0.284535	122.988	183.782
100	0	-0.27411	123.063	183.782
101	0	-0.263715	123.133	183.782
102	0	-0.253347	123.197	183.782
103	0	-0.24559	123.257	183.782
104	0	-0.235269	123.313	183.782
105	0	-0.224974	123.363	183.782
106	0	-0.214702	123.409	183.782
107	0	-0.204452	123.451	183.782
108	0	-0.194225	123.489	183.782
109	0	-0.184017	123.523	183.782
110	0	-0.173829	123.553	183.782
111	0	-0.163659	123.58	183.782
112	0	-0.153505	123.603	183.782
113	0	-0.143367	123.624	183.782

114	0	-0.133244	123.642	183.782
115	0	-0.125661	123.658	183.782
116	0	-0.115562	123.671	183.782
117	0	-0.105474	123.682	183.782
118	0	-0.0953969	123.691	183.782
119	0	-0.0853288	123.698	183.782
120	0	-0.0752698	123.704	183.782
121	0	-0.0652187	123.708	183.782
122	0	-0.0551734	123.711	183.782
123	0	-0.0451348	123.713	183.782
124	0	-0.0350997	123.715	183.782
125	0	-0.0250691	123.715	183.782
126	0	-0.0150408	123.715	183.782
127	0	-0.00501359	123.715	183.782
128	0	0.00501359	123.716	183.782
129	0	0.0150408	123.716	183.782
130	0	0.0250691	123.716	183.782
131	0	0.0350997	123.718	183.782
132	0	0.0451348	123.72	183.782
133	0	0.0551734	123.723	183.782
134	0	0.0652187	123.727	183.782
135	0	0.0752698	123.733	183.782
136	0	0.0853288	123.74	183.782
137	0	0.0953969	123.749	183.782
138	0	0.105474	123.76	183.782
139	0	0.115562	123.773	183.782
140	0	0.125661	123.789	183.782
141	0	0.133244	123.807	183.782
142	0	0.143367	123.828	183.782
143	0	0.153505	123.851	183.782
144	0	0.163659	123.878	183.782
145	0	0.173829	123.908	183.782
146	0	0.184017	123.942	183.782
147	0	0.194225	123.98	183.782
148	0	0.204452	124.022	183.782
149	0	0.214702	124.068	183.782
150	0	0.224974	124.118	183.782
151	0	0.235269	124.174	183.782
152	0	0.24559	124.234	183.782
153	0	0.253347	124.298	183.782
154	0	0.263715	124.368	183.782
155	0	0.27411	124.443	183.782
156	0	0.284535	124.524	183.782
157	0	0.294992	124.611	183.782
158	0	0.305481	124.704	183.782
159	0	0.316004	124.804	183.782
160	0	0.326561	124.911	183.782
161	0	0.337155	125.024	183.782
162	0	0.347787	125.145	183.782
163	0	0.358459	125.274	183.782
164	0	0.369171	125.41	183.782
165	0	0.379927	125.554	183.782
166	0	0.388022	125.705	183.782
167	0	0.398855	125.864	183.782
168	0	0.409735	126.032	183.782
169	0	0.420664	126.209	183.782
170	0	0.431644	126.395	183.782
171	0	0.442676	126.591	183.782
172	0	0.453763	126.797	183.782
173	0	0.464904	127.013	183.782
174	0	0.476105	127.24	183.782
175	0	0.487364	127.477	183.782

176	0	0.498687		127.726	183.782
177	0	0.510074		127.986	183.782
178	0	0.521527		128.258	183.782
179	0	0.530162		128.539	183.782
180	0	0.541736		128.833	183.782
181	0	0.553384		129.139	183.782
182	0	0.565108		129.458	183.782
183	0	0.576911		129.791	183.782
184	0	0.588793		130.138	183.782
185	0	0.60076	130.499	183.782	
186	0	0.612813		130.874	183.782
187	0	0.624956		131.265	183.782
188	0	0.637192		131.671	183.782
189	0	0.649522		132.093	183.782
190	0	0.661955		132.531	183.782
191	0	0.67449	132.986	183.782	
192	0	0.68396	133.454	183.782	
193	0	0.696684		133.939	183.782
194	0	0.709522		134.442	183.782
195	0	0.722479		134.964	183.782
196	0	0.735557		135.505	183.782
197	0	0.748762		136.066	183.782
198	0	0.7621	136.647	183.782	
199	0	0.775574		137.248	183.782
200	0	0.789191		137.871	183.782
201	0.00995033		0.802956	138.516	183.79
202	0.0953102		0.816874	139.183	183.867
203	0.139762		0.830953	139.874	183.984
204	0.239017		0.841621	140.582	184.185
205	0.24686	0.855996		141.315	184.396
206	0.262364		0.87055	142.073	184.624
207	0.262364		0.885291	142.856	184.857
208	0.336472		0.900227	143.667	185.16
209	0.336472		0.915365	144.505	185.468
210	0.336472		0.930718	145.371	185.781
211	0.336472		0.946291	146.266	186.099
212	0.405465		0.9621	147.192	186.489
213	0.470004		0.97815	148.149	186.949
214	0.641854		0.994457	149.138	187.587
215	0.693147		1.01104	150.16	188.288
216	0.693147		1.02789	151.217	189.001
217	0.693147		1.04073	152.3	189.722
218	0.760806		1.05812	153.419	190.527
219	0.788457		1.07584	154.577	191.375
220	0.797507		1.0939	155.773	192.248
221	0.828552		1.11232	157.011	193.169
222	0.832909		1.13113	158.29	194.111
223	0.832909		1.15035	159.613	195.07
224	0.955511		1.17	160.982	196.187
225	1.09861	1.19012	162.399	197.495	
226	1.09861	1.21073	163.864	198.825	
227	1.10194	1.23187	165.382	200.183	
228	1.16315	1.25357	166.953	201.641	
229	1.25276	1.27588	168.581	203.239	
230	1.26413	1.29303	170.253	204.874	
231	1.43031	1.31652	171.986	206.757	
232	1.50408	1.34075	173.784	208.773	
233	1.62924	1.36581	175.649	210.998	
234	1.64866	1.39175	177.586	213.293	
235	1.79176	1.41865	179.599	215.835	
236	1.80829	1.44663	181.692	218.451	
237	1.89612	1.47579	183.87	221.249	

238	1.94591	1.50626	186.139	224.18
239	2.07944	1.5382	188.505	227.379
240	2.17475	1.57179	190.975	230.797
241	2.18605	1.60725	193.558	234.31
242	2.19722	1.64485	196.264	237.925
243	2.70805	1.67466	199.068	242.46
244	2.94444	1.71688	202.016	247.515
245	4.34899	1.76241	205.122	255.18
246	4.78749	1.81191	208.405	263.854
247	4.78749	1.86629	211.888	272.789
248	5.01064	1.92684	215.601	282.444
249	5.01064	1.99539	219.583	292.442
250	5.07517	2.07485	223.888	302.972
251	5.24702	2.17009	228.597	314.359
252	5.56068	2.29036	233.843	327.095
253	5.63479	2.45727	239.881	340.941
254	5.70378	2.74777	247.431	356.613

Data Set Standard Deviation = 1.59857
Numerator = 127173
Denominator = 159970
W Statistic = 0.79498 = 127173 / 159970

5% Critical value of 0.976 exceeds 0.79498
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.79498
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 = 0.892497
0.892497 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.73337	0.00392157	-2.74777	54.8498	348.683
2	-2.73337	0.00784314	-2.45727	54.8498	334.497
3	-2.73337	0.0117647	-2.29036	54.8498	326.346
4	-2.73337	0.0156863	-2.17009	54.8498	320.473
5	-2.73337	0.0196078	-2.07485	54.8498	315.822
6	-2.73337	0.0235294	-1.99539	54.8498	311.942
7	-2.73337	0.027451	-1.92684	54.8498	308.594
8	-2.73337	0.0313725	-1.86629	54.8498	305.637
9	-2.73337	0.0352941	-1.81191	54.8498	302.982
10	-2.73337	0.0392157	-1.76241	54.8498	300.564
11	-2.73337	0.0431373	-1.71688	54.8498	298.341
12	-2.73337	0.0470588	-1.67466	54.8498	296.279
13	-2.73337	0.0509804	-1.64485	54.8498	294.824
14	-2.73337	0.054902	-1.60725	54.8498	292.987
15	-2.73337	0.0588235	-1.57179	54.8498	291.256
16	-2.73337	0.0627451	-1.5382	54.8498	289.615
17	-2.73337	0.0666667	-1.50626	54.8498	288.056
18	-2.73337	0.0705882	-1.47579	54.8498	286.568
19	-2.73337	0.0745098	-1.44663	54.8498	285.144
20	-2.73337	0.0784314	-1.41865	54.8498	283.778
21	-2.73337	0.0823529	-1.39175	54.8498	282.464
22	-2.73337	0.0862745	-1.36581	54.8498	281.197
23	-2.73337	0.0901961	-1.34075	54.8498	279.974
24	-2.73337	0.0941176	-1.31652	54.8498	278.79
25	-2.73337	0.0980392	-1.29303	54.8498	277.643
26	-2.73337	0.101961	-1.27588	54.8498	276.805
27	-2.73337	0.105882	-1.25357	54.8498	275.716
28	-2.73337	0.109804	-1.23187	54.8498	274.656
29	-2.73337	0.113725	-1.21073	54.8498	273.624
30	-2.73337	0.117647	-1.19012	54.8498	272.617
31	-2.73337	0.121569	-1.17	54.8498	271.635
32	-2.73337	0.12549	-1.15035	54.8498	270.675
33	-2.73337	0.129412	-1.13113	54.8498	269.737
34	-2.73337	0.133333	-1.11232	54.8498	268.818
35	-2.73337	0.137255	-1.0939	54.8498	267.919
36	-2.73337	0.141176	-1.07584	54.8498	267.037
37	-2.73337	0.145098	-1.05812	54.8498	266.172
38	-2.73337	0.14902	-1.04073	54.8498	265.322
39	-2.04022	0.152941	-1.02789	96.0535	264.695
40	-1.83258	0.156863	-1.01104	108.397	263.872
41	-1.60944	0.160784	-0.994457	121.661	263.063
42	-1.51413	0.164706	-0.97815	127.327	262.266
43	-1.46968	0.168627	-0.9621	129.969	261.483
44	-1.30933	0.172549	-0.946291	139.501	260.711
45	-1.23787	0.176471	-0.930718	143.749	259.95
46	-1.10866	0.180392	-0.915365	151.429	259.2
47	-1.10866	0.184314	-0.900227	151.429	258.461
48	-1.04982	0.188235	-0.885291	154.927	257.732

49	-0.867501	0.192157	-0.87055	165.765	257.012
50	-0.843970.196078	-0.855996	167.164	256.301	
51	-0.798508	0.2	-0.841621	169.866	255.599
52	-0.798508	0.203922	-0.830953	169.866	255.078
53	-0.798508	0.207843	-0.816874	169.866	254.391
54	-0.798508	0.211765	-0.802956	169.866	253.711
55	-0.693147	0.215686	-0.789191	176.13	253.039
56	-0.653926	0.219608	-0.775574	178.461	252.374
57	-0.634878	0.223529	-0.7621	179.593	251.716
58	-0.597837	0.227451	-0.748762	181.795	251.065
59	-0.544727	0.231373	-0.735557	184.952	250.42
60	-0.527633	0.235294	-0.722479	185.968	249.781
61	-0.527633	0.239216	-0.709522	185.968	249.148
62	-0.510826	0.243137	-0.696684	186.968	248.521
63	-0.510826	0.247059	-0.68396	186.968	247.9
64	-0.446287	0.25098	-0.67449	190.804	247.438
65	-0.400478	0.254902	-0.661955	193.527	246.825
66	-0.385662	0.258824	-0.649522	194.408	246.218
67	-0.356675	0.262745	-0.637192	196.131	245.616
68	-0.342490.266667	-0.624956	196.974	245.019	
69	-0.314711	0.270588	-0.612813	198.626	244.426
70	-0.301105	0.27451	-0.60076	199.434	243.837
71	-0.223144	0.278431	-0.588793	204.069	243.253
72	-0.223144	0.282353	-0.576911	204.069	242.672
73	-0.150823	0.286275	-0.565108	208.368	242.096
74	-0.139262	0.290196	-0.553384	209.055	241.524
75	-0.127833	0.294118	-0.541736	209.734	240.955
76	-0.127833	0.298039	-0.530162	209.734	240.39
77	-0.116534	0.301961	-0.521527	210.406	239.968
78	-0.105361	0.305882	-0.510074	211.07	239.409
79	-0.0943107	0.309804	-0.498687	211.727	238.853
80	-0.0618754	0.313725	-0.487364	213.655	238.3
81	-0.040822	0.317647	-0.476105	214.907	237.75
82	0	0.321569	-0.464904	217.333	237.203
83	0	0.32549	-0.453763	217.333	236.659
84	0	0.329412	-0.442676	217.333	236.117
85	0	0.333333	-0.431644	217.333	235.579
86	0	0.337255	-0.420664	217.333	235.042
87	0	0.341176	-0.409735	217.333	234.509
88	0	0.345098	-0.398855	217.333	233.977
89	0	0.34902	-0.388022	217.333	233.448
90	0	0.352941	-0.379927	217.333	233.053
91	0	0.356863	-0.369171	217.333	232.528
92	0	0.360784	-0.358459	217.333	232.005
93	0	0.364706	-0.347787	217.333	231.484
94	0	0.368627	-0.337155	217.333	230.964
95	0	0.372549	-0.326561	217.333	230.447
96	0	0.376471	-0.316004	217.333	229.932
97	0	0.380392	-0.305481	217.333	229.418
98	0	0.384314	-0.294992	217.333	228.905
99	0	0.388235	-0.284535	217.333	228.395
100	0	0.392157	-0.27411	217.333	227.886
101	0	0.396078	-0.263715	217.333	227.378
102	0	0.4	-0.253347	217.333	226.872
103	0	0.403922	-0.24559	217.333	226.493
104	0	0.407843	-0.235269	217.333	225.989
105	0	0.411765	-0.224974	217.333	225.486
106	0	0.415686	-0.214702	217.333	224.985
107	0	0.419608	-0.204452	217.333	224.484
108	0	0.423529	-0.194225	217.333	223.985
109	0	0.427451	-0.184017	217.333	223.486
110	0	0.431373	-0.173829	217.333	222.989

111	0	0.435294	-0.163659	217.333	222.492
112	0	0.439216	-0.153505	217.333	221.996
113	0	0.443137	-0.143367	217.333	221.501
114	0	0.447059	-0.133244	217.333	221.007
115	0	0.45098	-0.125661	217.333	220.636
116	0	0.454902	-0.115562	217.333	220.143
117	0	0.458824	-0.105474	217.333	219.651
118	0	0.462745	-0.0953969	217.333	219.159
119	0	0.466667	-0.0853288	217.333	218.667
120	0	0.470588	-0.0752698	217.333	218.176
121	0	0.47451	-0.0652187	217.333	217.685
122	0	0.478431	-0.0551734	217.333	217.194
123	0	0.482353	-0.0451348	217.333	216.704
124	0	0.486275	-0.0350997	217.333	216.214
125	0	0.490196	-0.0250691	217.333	215.724
126	0	0.494118	-0.0150408	217.333	215.234
127	0	0.498039	-0.00501359	217.333	214.745
128	0	0.501961	0.00501359	217.333	214.255
129	0	0.505882	0.0150408	217.333	213.766
130	0	0.509804	0.0250691	217.333	213.276
131	0	0.513725	0.0350997	217.333	212.786
132	0	0.517647	0.0451348	217.333	212.296
133	0	0.521569	0.0551734	217.333	211.806
134	0	0.52549	0.0652187	217.333	211.315
135	0	0.529412	0.0752698	217.333	210.824
136	0	0.533333	0.0853288	217.333	210.333
137	0	0.537255	0.0953969	217.333	209.841
138	0	0.541176	0.105474	217.333	209.349
139	0	0.545098	0.115562	217.333	208.857
140	0	0.54902	0.125661	217.333	208.364
141	0	0.552941	0.133244	217.333	207.993
142	0	0.556863	0.143367	217.333	207.499
143	0	0.560784	0.153505	217.333	207.004
144	0	0.564706	0.163659	217.333	206.508
145	0	0.568627	0.173829	217.333	206.011
146	0	0.572549	0.184017	217.333	205.514
147	0	0.576471	0.194225	217.333	205.015
148	0	0.580392	0.204452	217.333	204.516
149	0	0.584314	0.214702	217.333	204.015
150	0	0.588235	0.224974	217.333	203.514
151	0	0.592157	0.235269	217.333	203.011
152	0	0.596078	0.24559	217.333	202.507
153	0	0.6	0.253347	217.333	202.128
154	0	0.603922	0.263715	217.333	201.622
155	0	0.607843	0.27411	217.333	201.114
156	0	0.611765	0.284535	217.333	200.605
157	0	0.615686	0.294992	217.333	200.095
158	0	0.619608	0.305481	217.333	199.582
159	0	0.623529	0.316004	217.333	199.068
160	0	0.627451	0.326561	217.333	198.553
161	0	0.631373	0.337155	217.333	198.036
162	0	0.635294	0.347787	217.333	197.516
163	0	0.639216	0.358459	217.333	196.995
164	0	0.643137	0.369171	217.333	196.472
165	0	0.647059	0.379927	217.333	195.947
166	0	0.65098	0.388022	217.333	195.552
167	0	0.654902	0.398855	217.333	195.023
168	0	0.658824	0.409735	217.333	194.491
169	0	0.662745	0.420664	217.333	193.958
170	0	0.666667	0.431644	217.333	193.421
171	0	0.670588	0.442676	217.333	192.883
172	0	0.67451	0.453763	217.333	192.341

173	0	0.678431	0.464904	217.333	191.797	
174	0	0.682353	0.476105	217.333	191.25	
175	0	0.686275	0.487364	217.333	190.7	
176	0	0.690196	0.498687	217.333	190.147	
177	0	0.694118	0.510074	217.333	189.591	
178	0	0.698039	0.521527	217.333	189.032	
179	0	0.701961	0.530162	217.333	188.61	
180	0	0.705882	0.541736	217.333	188.045	
181	0	0.709804	0.553384	217.333	187.476	
182	0	0.713725	0.565108	217.333	186.904	
183	0	0.717647	0.576911	217.333	186.328	
184	0	0.721569	0.588793	217.333	185.747	
185	0	0.72549	0.60076	217.333	185.163	
186	0	0.729412	0.612813	217.333	184.574	
187	0	0.733333	0.624956	217.333	183.981	
188	0	0.737255	0.637192	217.333	183.384	
189	0	0.741176	0.649522	217.333	182.782	
190	0	0.745098	0.661955	217.333	182.175	
191	0	0.74902	0.67449	217.333	181.562	
192	0	0.752941	0.68396	217.333	181.1	
193	0	0.756863	0.696684	217.333	180.479	
194	0	0.760784	0.709522	217.333	179.852	
195	0	0.764706	0.722479	217.333	179.219	
196	0	0.768627	0.735557	217.333	178.58	
197	0	0.772549	0.748762	217.333	177.935	
198	0	0.776471	0.7621	217.333	177.284	
199	0	0.780392	0.775574	217.333	176.626	
200	0	0.784314	0.789191	217.333	175.961	
201	0.00995033	0.788235	0.802956	217.925	175.289	
202	0.0953102	0.792157	0.816874	222.999	174.609	
203	0.139762	0.796078	0.830953	225.641	173.922	
204	0.239017	0.8	0.841621	231.542	173.401	
205	0.24686	0.803922	0.855996	232.008	172.699	
206	0.262364	0.807843	0.87055	232.929	171.988	
207	0.262364	0.811765	0.885291	232.929	171.268	
208	0.336472	0.815686	0.900227	237.335	170.539	
209	0.336472	0.819608	0.915365	237.335	169.8	
210	0.336472	0.823529	0.930718	237.335	169.05	
211	0.336472	0.827451	0.946291	237.335	168.289	
212	0.405465	0.831373	0.9621	241.436	167.517	
213	0.470004	0.835294	0.97815	245.272	166.734	
214	0.641854	0.839216	0.994457	255.488	165.937	
215	0.693147	0.843137	1.01104	258.537	165.128	
216	0.693147	0.847059	1.02789	258.537	164.305	
217	0.693147	0.85098	1.04073	258.537	163.678	
218	0.760806	0.854902	1.05812	262.559	162.828	
219	0.788457	0.858824	1.07584	264.203	161.963	
220	0.797507	0.862745	1.0939	264.741	161.081	
221	0.828552	0.866667	1.11232	266.586	160.182	
222	0.832909	0.870588	1.13113	266.845	159.263	
223	0.832909	0.87451	1.15035	266.845	158.325	
224	0.955511	0.878431	1.17	274.133	157.365	
225	1.09861	0.882353	1.19012	282.64	156.383	
226	1.09861	0.886275	1.21073	282.64	155.376	
227	1.10194	0.890196	1.23187	282.838	154.344	
228	1.16315	0.894118	1.25357	286.476	153.284	
229	1.25276	0.898039	1.27588	291.803	152.195	
230	1.26413	0.901961	1.29303	292.479	151.357	
231	1.43031	0.905882	1.31652	302.357	150.21	
232	1.50408	0.909804	1.34075	306.742	149.026	
233	1.62924	0.913725	1.36581	314.183	147.803	
234	1.64866	0.917647	1.39175	315.337	146.536	

235	1.79176	0.921569		1.41865	323.843	145.222
236	1.80829	0.92549	1.44663	324.826	143.856	
237	1.89612	0.929412		1.47579	330.047	142.432
238	1.94591	0.933333		1.50626	333.007	140.944
239	2.07944	0.937255		1.5382	340.945	139.385
240	2.17475	0.941176		1.57179	346.61	137.744
241	2.18605	0.945098		1.60725	347.282	136.013
242	2.19722	0.94902	1.64485	347.946	134.176	
243	2.70805	0.952941		1.67466	378.312	132.721
244	2.94444	0.956863		1.71688	392.364	130.659
245	4.34899	0.960784		1.76241	475.856	128.436
246	4.78749	0.964706		1.81191	501.923	126.018
247	4.78749	0.968627		1.86629	501.923	123.363
248	5.01064	0.972549		1.92684	515.188	120.406
249	5.01064	0.976471		1.99539	515.188	117.058
250	5.07517	0.980392		2.07485	519.024	113.178
251	5.24702	0.984314		2.17009	529.24	108.527
252	5.56068	0.988235		2.29036	547.885	102.654
253	5.63479	0.992157		2.45727	552.29	94.5032
254	5.70378	0.996078		2.74777	556.392	80.3175

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	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<-2.73337	77.5
	11/16/2009	ND<-2.73337	77.5
	6/30/2010	ND<-2.73337	77.5
	11/12/2010	ND<-2.73337 U	77.5
	7/5/2011	ND<-2.73337 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-7	7/20/1995	0.0953102	202
	8/24/1995	-0.223144 J	187
	9/28/1995	-0.105361 J	194
	10/26/1995	0 J	198
	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<-2.73337		77.5
	11/16/2009	ND<-2.73337		77.5
	6/30/2010	ND<-2.73337		77.5
	11/12/2010	ND<-2.73337 U		77.5
	7/5/2011	ND<-2.73337 U	77.5	
	11/22/2011	ND<-2.73337 U		77.5
	11/22/2011	ND<-2.73337 U		77.5
	6/5/2012	ND<-2.73337 U	77.5	

Rank Sum = 2951
Rank Mean = 92.2188

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<-2.73337		77.5
	11/16/2009	ND<-2.73337		77.5
	6/30/2010	ND<-2.73337		77.5
	11/12/2010	ND<-2.73337 U		77.5
	7/5/2011	ND<-2.73337 U	77.5	
	11/22/2011	ND<-2.73337 U		77.5
	11/22/2011	ND<-2.73337 U		77.5
	6/5/2012	ND<-2.73337 U	77.5	

Rank Sum = 2480
Rank Mean = 77.5

MW-9	7/20/1995	-1.10866 J		162
	8/24/1995	-0.693147 J		171
	9/28/1995	-0.223144 J		188
	10/26/1995	0 J	199	
	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	-0.356675 J	183	
	10/25/2005	-0.634878 J		173
	4/29/2006	-0.798508 J		167
	11/18/2006	-0.84397 J		166
	5/23/2007	-0.510826 J		178
	11/28/2007	-0.301105 J		186
	6/5/2008	ND<0	77.5	
	11/20/2008	-0.510826 J		179
	6/11/2009	-0.400478 J		181
	11/16/2009	-0.314711 J		185
	6/30/2010	-0.385662 J		182
	11/12/2010	-0.34249 J		184
	7/5/2011	-0.867501 J	165	
	11/22/2011	-0.798508 J		168
	11/22/2011	-0.798508 J		169
	6/5/2012	-1.10866 J	163	

Rank Sum = 4356.5
Rank Mean = 136.141

MW-8	7/20/1995	2.94444		244
	8/24/1995	5.70378		254
	9/28/1995	5.24702		251
	10/26/1995	2.70805		243
	11/19/1996	ND<0	77.5	
	12/19/1996	5.63479		253
	3/24/1997	5.56068		252
	9/24/1997	5.01064		248
	4/7/1998	4.78749	246	
	9/23/1998	5.01064		249
	3/16/1999	4.78749		247
	9/23/1999	4.34899		245
	3/15/2000	5.07517		250
	9/24/2003	ND<0	77.5	
	3/11/2004	2.18605		241
	10/12/2004	ND<0	77.5	
	4/1/2005	0.828552	221	
	10/25/2005	1.89612		237
	4/29/2006	0.797507		220
	11/18/2006	1.26413		230
	5/23/2007	0.470004		213
	11/28/2007	1.43031		231
	6/5/2008	ND<0 J	77.5	
	11/20/2008	0.262364 J		206
	6/11/2009	0.262364		207
	6/30/2010	-0.139262 J		190
	11/12/2010	0.641854		214
	7/5/2011	0.955511	224	
	11/22/2011	0.693147		215
	11/22/2011	0.693147		216
	6/5/2012	0.832909	222	

Rank Sum = 6579
Rank Mean = 212.226

MW-10	7/20/1995	-0.544727 J		175
	8/24/1995	0.788457		219
	9/28/1995	1.09861		225
	10/26/1995	1.09861		226
	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	1.16315		228
	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	-0.127833	J	191
	10/25/2005	0.139762	J	203
	4/29/2006	0.239017	J	204
	11/18/2006	-0.116534	J	193
	5/23/2007	ND<0		77.5
	11/28/2007	0	J	200
	6/5/2008	ND<0		77.5
	11/20/2008	-0.0943107	J	195
	6/11/2009	-0.527633	J	176
	11/16/2009	-0.0618754	J	196
	6/30/2010	-0.653926	J	172
	11/12/2010	-0.150823	J	189
	7/5/2011	0.336472		208
	11/22/2011	0.336472		209
	11/22/2011	0.336472		210
	6/5/2012	-0.127833	J	192

Rank Sum = 4818.5
Rank Mean = 150.578

MW-11R	7/20/1995	1.25276		229
	8/24/1995	2.17475		240
	9/28/1995	1.79176		235
	10/26/1995	2.07944		239
	11/19/1996	ND<0		77.5
	12/19/1996	2.19722		242
	3/24/1997	1.94591		238
	9/24/1997	ND<0		77.5
	4/7/1998	ND<0		77.5
	9/23/1998	ND<0		77.5
	3/16/1999	1.62924		233
	9/23/1999	0.832909		223
	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	1.10194		227
	10/25/2005	0.24686	J	205
	4/29/2006	-0.527633	J	177
	11/18/2006	-0.040822	J	197
	5/23/2007	0.693147		217
	11/28/2007	0.00995033	J	201
	6/5/2008	ND<0		77.5
	11/20/2008	-1.23787	J	161
	6/11/2009	0.405465		212
	11/16/2009	-1.51413	J	158
	6/30/2010	0.336472		211
	11/12/2010	ND<-2.73337	U	77.5
	7/5/2011	-1.60944	J	157
	11/22/2011	ND<-2.73337	U	77.5
	11/22/2011	ND<-2.73337	U	77.5
	6/5/2012	-1.83258	J	156

Rank Sum = 5088

Rank Mean = 159

MW-12BR	3/16/1999	1.80829	236
	9/23/1999	1.50408	232
	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	0.760806	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<-2.73337	77.5
	11/16/2009	ND<-2.73337	77.5
	6/30/2010	ND<-2.73337	77.5
	11/12/2010	ND<-2.73337 U	77.5
	7/5/2011	ND<-2.73337 U	77.5
	11/22/2011	ND<-2.73337 U	77.5
	11/22/2011	ND<-2.73337 U	77.5
	6/5/2012	ND<-2.73337 U	77.5

Rank Sum = 2158.5
Rank Mean = 98.1136

MW-12AR	3/16/1999	ND<0	77.5
	9/23/1999	ND<0	77.5
	3/15/2000	ND<0	77.5
	9/24/2003	1.64866	234
	3/11/2004	ND<0	77.5
	10/12/2004	ND<0	77.5
	4/1/2005	ND<0	77.5
	10/25/2005	-0.446287 J	180
	4/29/2006	-0.597837 J	174
	11/18/2006	-1.04982 J	164
	5/23/2007	ND<0	77.5
	11/28/2007	-0.798508 J	170
	6/5/2008	ND<0	77.5
	11/20/2008	-1.46968 J	159
	6/11/2009	ND<-2.73337	77.5
	11/16/2009	-2.04022 J	155
	6/30/2010	ND<-2.73337	77.5
	11/12/2010	-1.30933 J	160
	7/5/2011	ND<-2.73337 U	77.5
	11/22/2011	ND<-2.73337 U	77.5
	11/22/2011	ND<-2.73337 U	77.5
	6/5/2012	ND<-2.73337 U	77.5

Rank Sum = 2481
Rank Mean = 112.773

Calculation Results:

Kruskal-Wallis H Statistic = 86.1175
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 110.815
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
86.1175 > 15.5073 indicating a significant group difference at 5% significance level
110.815 > 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-7	**92.2188**	**14.7188**	**49.4998**
MW-6	**77.5**	**0**	**49.4998**
MW-9	**136.141**	**58.6406**	**49.4998**
MW-8	**212.226**	**134.726**	**49.7963**
MW-10	**150.578**	**73.0781**	**49.4998**
MW-11R	**159**	**81.5**	**49.4998**
MW-12BR	**98.1136**	**20.6136**	**53.5271**
MW-12AR	**112.773**	**35.2727**	**53.5271**

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-7	**92.2188**	**14.7188**	**53.453**
MW-6	**77.5**	**0**	**53.453**
MW-9	**136.141**	**58.6406**	**53.453**
MW-8	**212.226**	**134.726**	**53.7733**
MW-10	**150.578**	**73.0781**	**53.453**
MW-11R	**159**	**81.5**	**53.453**
MW-12BR	**98.1136**	**20.6136**	**57.802**
MW-12AR	**112.773**	**35.2727**	**57.802**

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	-0.0413518
4/1/2005	-0.356675	0	-0.0413518
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	-0.0107743	
11/12/2010	-0.342490	-0.0107743	
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	
6/5/2012	-1.108660	-1.6624		
6/5/2012	-1.108660	-1.6624		

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
6/5/2012	0.832909	0	-1.27497
6/5/2012	0.832909	0	-1.27497

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
6/5/2012	-0.127833	0	-0.781671
6/5/2012	-0.127833	0	-0.781671

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
6/5/2012	-1.83258	0	-4.00689
6/5/2012	-1.83258	0	-4.00689

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
-1.10866 J (6/5/2012) -1.10866 J (7/20/1995) (-1.10866 - -1.10866)/(31 - 1)
0

-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
-1.10866 J (6/5/2012) -0.693147 J (8/24/1995) (-1.10866 - -0.693147)/(31 - 2)
-0.0143281

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
-1.10866 J (6/5/2012)	-0.223144 J (9/28/1995)	(-1.10866 - -0.223144)/(31 - 3)	-0.0316257

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
-1.10866 J (6/5/2012)	0 J (10/26/1995)	(-1.10866 - 0)/(31 - 4)		-0.0410616

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			
-1.10866 J (6/5/2012)	ND<0 (11/19/1996)	(-1.10866 - 0)/(31 - 5)	
-0.0426409			
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			
-1.10866 J (6/5/2012)	ND<0 (12/19/1996)	(-1.10866 - 0)/(31 - 6)	
-0.0443465			
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) -0.0356675	ND<0 (3/24/1997)	(-0.356675 - 0)/(17 - 7)	
-0.634878 J (10/25/2005) -0.0577162	ND<0 (3/24/1997)	(-0.634878 - 0)/(18 - 7)	
-0.798508 J (4/29/2006) -0.0665423	ND<0 (3/24/1997)	(-0.798508 - 0)/(19 - 7)	
-0.84397 J (11/18/2006) -0.0649208	ND<0 (3/24/1997)	(-0.84397 - 0)/(20 - 7)	
-0.510826 J (5/23/2007) -0.0364875	ND<0 (3/24/1997)	(-0.510826 - 0)/(21 - 7)	
-0.301105 J (11/28/2007) -0.0200737	ND<0 (3/24/1997)	(-0.301105 - 0)/(22 - 7)	
ND<0 (6/5/2008)	ND<0 (3/24/1997)	(0 - 0)/(23 - 7)	0
-0.510826 J (11/20/2008) -0.0300486	ND<0 (3/24/1997)	(-0.510826 - 0)/(24 - 7)	
-0.400478 J (6/11/2009) -0.0222488	ND<0 (3/24/1997)	(-0.400478 - 0)/(25 - 7)	
-0.314711 J (11/16/2009) -0.0165637	ND<0 (3/24/1997)	(-0.314711 - 0)/(26 - 7)	
-0.385662 J (6/30/2010) -0.0192831	ND<0 (3/24/1997)	(-0.385662 - 0)/(27 - 7)	
-0.34249 J (11/12/2010) -0.0163091	ND<0 (3/24/1997)	(-0.34249 - 0)/(28 - 7)	
-0.867501 J (7/5/2011) -0.0394318	ND<0 (3/24/1997)	(-0.867501 - 0)/(29 - 7)	
-0.798508 J (11/22/2011) -0.0347177	ND<0 (3/24/1997)	(-0.798508 - 0)/(30 - 7)	
-0.798508 J (11/22/2011) -0.0347177	ND<0 (3/24/1997)	(-0.798508 - 0)/(30 - 7)	
-1.10866 J (6/5/2012) -0.0461943	ND<0 (3/24/1997)	(-1.10866 - 0)/(31 - 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
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) -0.0396305	ND<0 (9/24/1997)	(-0.356675 - 0)/(17 - 8)	
-0.634878 J (10/25/2005) -0.0634878	ND<0 (9/24/1997)	(-0.634878 - 0)/(18 - 8)	
-0.798508 J (4/29/2006) -0.0725916	ND<0 (9/24/1997)	(-0.798508 - 0)/(19 - 8)	
-0.84397 J (11/18/2006) -0.0703308	ND<0 (9/24/1997)	(-0.84397 - 0)/(20 - 8)	
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-0.301105 J (11/28/2007) -0.0215075	ND<0 (9/24/1997)	(-0.301105 - 0)/(22 - 8)	
ND<0 (6/5/2008)	ND<0 (9/24/1997)	(0 - 0)/(23 - 8)	0
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-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)	
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-0.867501 J (7/5/2011)	ND<0	(9/24/1997)	(-0.867501 - 0)/(29 - 8)	
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-0.798508 J (11/22/2011)	ND<0	(9/24/1997)	(-0.798508 - 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
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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-0.634878 J (10/25/2005)	ND<0	(4/7/1998)	(-0.634878 - 0)/(18 - 9)	
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-0.798508 J (4/29/2006)	ND<0	(4/7/1998)	(-0.798508 - 0)/(19 - 9)	
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-0.84397 J (11/18/2006)	ND<0	(4/7/1998)	(-0.84397 - 0)/(20 - 9)	
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ND<0 (6/5/2008)	ND<0	(4/7/1998)	(0 - 0)/(23 - 9)	0
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-0.400478 J (6/11/2009)	ND<0	(4/7/1998)	(-0.400478 - 0)/(25 - 9)	
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-0.314711 J (11/16/2009)	ND<0	(4/7/1998)	(-0.314711 - 0)/(26 - 9)	
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-0.385662 J (6/30/2010)	ND<0	(4/7/1998)	(-0.385662 - 0)/(27 - 9)	
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-0.34249 J (11/12/2010)	ND<0	(4/7/1998)	(-0.34249 - 0)/(28 - 9)	
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-0.867501 J (7/5/2011)	ND<0	(4/7/1998)	(-0.867501 - 0)/(29 - 9)	
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-0.798508 J (11/22/2011)	ND<0	(4/7/1998)	(-0.798508 - 0)/(30 - 9)	
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-0.798508 J (11/22/2011)	ND<0	(4/7/1998)	(-0.798508 - 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
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
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-0.798508 J (4/29/2006) ND<0 (9/23/1998) (-0.798508 - 0)/(19 - 10)
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-0.301105 J (11/28/2007) ND<0 (9/23/1998) (-0.301105 - 0)/(22 - 10)
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-0.400478 J (6/11/2009) ND<0 (9/23/1998) (-0.400478 - 0)/(25 - 10)
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-0.385662 J (6/30/2010) ND<0 (9/23/1998) (-0.385662 - 0)/(27 - 10)
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-0.867501 J (7/5/2011) ND<0 (9/23/1998) (-0.867501 - 0)/(29 - 10)
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-0.798508 J (11/22/2011) ND<0 (9/23/1998) (-0.798508 - 0)/(30 - 10)
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-0.0527935

ND<0 (9/23/1999) ND<0 (3/16/1999) (0 - 0)/(12 - 11) 0
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-0.34249 J (11/12/2010) ND<0 (3/16/1999) (-0.34249 - 0)/(28 - 11)
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-0.867501 J (7/5/2011) ND<0 (3/16/1999) (-0.867501 - 0)/(29 - 11)
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-0.798508 J (11/22/2011) ND<0 (3/16/1999) (-0.798508 - 0)/(30 - 11)
-0.0420267

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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
-0.356675 J (4/1/2005)	ND<0	(9/23/1999)	(-0.356675 - 0)/(17 - 12)	
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-0.634878 J (10/25/2005)	ND<0	(9/23/1999)	(-0.634878 - 0)/(18 - 12)	
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-0.798508 J (4/29/2006)	ND<0	(9/23/1999)	(-0.798508 - 0)/(19 - 12)	
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-0.84397 J (11/18/2006)	ND<0	(9/23/1999)	(-0.84397 - 0)/(20 - 12)	
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-0.510826 J (5/23/2007)	ND<0	(9/23/1999)	(-0.510826 - 0)/(21 - 12)	
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-0.301105 J (11/28/2007)	ND<0	(9/23/1999)	(-0.301105 - 0)/(22 - 12)	
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ND<0 (10/12/2004)	ND<0	(3/15/2000)	(0 - 0)/(16 - 13)	0
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-0.634878 J (10/25/2005)	ND<0	(3/15/2000)	(-0.634878 - 0)/(18 - 13)	
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-0.84397 J (11/18/2006)	ND<0	(3/15/2000)	(-0.84397 - 0)/(20 - 13)	
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-0.510826 J (5/23/2007)	ND<0	(3/15/2000)	(-0.510826 - 0)/(21 - 13)	
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-0.0333731				

-0.314711 J (11/16/2009)	ND<0	(3/15/2000)	(-0.314711 - 0)/(26 - 13)		
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ND<0 (10/12/2004)	ND<0	(9/24/2003)	(0 - 0)/(16 - 14)	0	
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-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)
-0.0532338
-0.798508 J (11/22/2011) ND<0 (3/11/2004) (-0.798508 - 0)/(30 - 15)
-0.0532338
-1.10866 J (6/5/2012) ND<0 (3/11/2004) (-1.10866 - 0)/(31 - 15)
-0.0692914

-0.356675 J (4/1/2005) ND<0 (10/12/2004) (-0.356675 - 0)/(17 - 16)
-0.356675
-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)
-0.0285409
-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)
-0.0570363
-0.798508 J (11/22/2011) ND<0 (10/12/2004) (-0.798508 - 0)/(30 - 16)
-0.0570363
-1.10866 J (6/5/2012) ND<0 (10/12/2004) (-1.10866 - 0)/(31 - 16)
-0.0739108

-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)
0.0594458		
-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		
-0.34249 J (11/12/2010)	-0.356675 J (4/1/2005)	(-0.34249 - -0.356675)/(28 - 17)
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		
-1.10866 J (6/5/2012)	-0.356675 J (4/1/2005)	(-1.10866 - -0.356675)/(31 - 17)
-0.0537134		
-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)
0.0413509		
-0.301105 J (11/28/2007)	-0.634878 J (10/25/2005)	(-0.301105 - -0.634878)/(22 - 18)
0.0834433		
ND<0 (6/5/2008)	-0.634878 J (10/25/2005)	(0 - -0.634878)/(23 - 18)
0.126976		
-0.510826 J (11/20/2008)	-0.634878 J (10/25/2005)	(-0.510826 - -0.634878)/(24 - 18)
0.0206754		
-0.400478 J (6/11/2009)	-0.634878 J (10/25/2005)	(-0.400478 - -0.634878)/(25 - 18)
0.0334858		
-0.314711 J (11/16/2009)	-0.634878 J (10/25/2005)	(-0.314711 - -0.634878)/(26 - 18)
0.0400209		
-0.385662 J (6/30/2010)	-0.634878 J (10/25/2005)	(-0.385662 - -0.634878)/(27 - 18)
0.0276906		
-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		
-1.10866 J (6/5/2012)	-0.634878 J (10/25/2005)	(-1.10866 - -0.634878)/(31 - 18)
-0.036445		
-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		
-0.301105 J (11/28/2007)	-0.798508 J (4/29/2006)	(-0.301105 - -0.798508)/(22 - 19)
0.165801		
ND<0 (6/5/2008)	-0.798508 J (4/29/2006)	(0 - -0.798508)/(23 - 19)
0.199627		
-0.510826 J (11/20/2008)	-0.798508 J (4/29/2006)	(-0.510826 - -0.798508)/(24 - 19)
0.0575364		
-0.400478 J (6/11/2009)	-0.798508 J (4/29/2006)	(-0.400478 - -0.798508)/(25 - 19)
0.0663384		

-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)	-0.00689929
-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
-1.10866 J (6/5/2012)	-0.798508 J (4/29/2006)	(-1.10866 - -0.798508)/(31 - 19)	-0.0258462
-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)	0.281323
-0.510826 J (11/20/2008)	-0.84397 J (11/18/2006)	(-0.510826 - -0.84397)/(24 - 20)	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
-0.34249 J (11/12/2010)	-0.84397 J (11/18/2006)	(-0.34249 - -0.84397)/(28 - 20)	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
-1.10866 J (6/5/2012)	-0.84397 J (11/18/2006)	(-1.10866 - -0.84397)/(31 - 20)	-0.024063
-0.301105 J (11/28/2007)	-0.510826 J (5/23/2007)	(-0.301105 - -0.510826)/(22 - 21)	0.209721
ND<0 (6/5/2008)	-0.510826 J (5/23/2007)	(0 - -0.510826)/(23 - 21)	0.255413
-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)	0.027587
-0.314711 J (11/16/2009)	-0.510826 J (5/23/2007)	(-0.314711 - -0.510826)/(26 - 21)	0.039223
-0.385662 J (6/30/2010)	-0.510826 J (5/23/2007)	(-0.385662 - -0.510826)/(27 - 21)	0.0208605
-0.34249 J (11/12/2010)	-0.510826 J (5/23/2007)	(-0.34249 - -0.510826)/(28 - 21)	0.0240479
-0.867501 J (7/5/2011)	-0.510826 J (5/23/2007)	(-0.867501 - -0.510826)/(29 - 21)	-0.0445844
-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)	-0.0319647
-1.10866 J (6/5/2012)	-0.510826 J (5/23/2007)	(-1.10866 - -0.510826)/(31 - 21)	-0.0597837

ND<0 (6/5/2008)	-0.301105 J (11/28/2007)	(0 - -0.301105)/(23 - 22)	0.301105
-0.510826 J (11/20/2008)	-0.301105 J (11/28/2007)	(-0.510826 - -0.301105)/(24 - 22)	-0.10486
-0.400478 J (6/11/2009)	-0.301105 J (11/28/2007)	(-0.400478 - -0.301105)/(25 - 22)	-0.0331242
-0.314711 J (11/16/2009)	-0.301105 J (11/28/2007)	(-0.314711 - -0.301105)/(26 - 22)	-0.00340141
-0.385662 J (6/30/2010)	-0.301105 J (11/28/2007)	(-0.385662 - -0.301105)/(27 - 22)	-0.0169115
-0.34249 J (11/12/2010)	-0.301105 J (11/28/2007)	(-0.34249 - -0.301105)/(28 - 22)	-0.00689754
-0.867501 J (7/5/2011)	-0.301105 J (11/28/2007)	(-0.867501 - -0.301105)/(29 - 22)	-0.0809136
-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)	-0.0621753
-1.10866 J (6/5/2012)	-0.301105 J (11/28/2007)	(-1.10866 - -0.301105)/(31 - 22)	-0.0897286
-0.510826 J (11/20/2008)	ND<0 (6/5/2008)	(-0.510826 - 0)/(24 - 23)	-0.510826
-0.400478 J (6/11/2009)	ND<0 (6/5/2008)	(-0.400478 - 0)/(25 - 23)	-0.200239
-0.314711 J (11/16/2009)	ND<0 (6/5/2008)	(-0.314711 - 0)/(26 - 23)	-0.104904
-0.385662 J (6/30/2010)	ND<0 (6/5/2008)	(-0.385662 - 0)/(27 - 23)	-0.0964156
-0.34249 J (11/12/2010)	ND<0 (6/5/2008)	(-0.34249 - 0)/(28 - 23)	-0.0684981
-0.867501 J (7/5/2011)	ND<0 (6/5/2008)	(-0.867501 - 0)/(29 - 23)	-0.144583
-0.798508 J (11/22/2011)	ND<0 (6/5/2008)	(-0.798508 - 0)/(30 - 23)	-0.114073
-0.798508 J (11/22/2011)	ND<0 (6/5/2008)	(-0.798508 - 0)/(30 - 23)	-0.114073
-1.10866 J (6/5/2012)	ND<0 (6/5/2008)	(-1.10866 - 0)/(31 - 23)	-0.138583
-0.400478 J (6/11/2009)	-0.510826 J (11/20/2008)	(-0.400478 - -0.510826)/(25 - 24)	0.110348
-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
-0.34249 J (11/12/2010)	-0.510826 J (11/20/2008)	(-0.34249 - -0.510826)/(28 - 24)	0.0420838
-0.867501 J (7/5/2011)	-0.510826 J (11/20/2008)	(-0.867501 - -0.510826)/(29 - 24)	-0.071335
-0.798508 J (11/22/2011)	-0.510826 J (11/20/2008)	(-0.798508 - -0.510826)/(30 - 24)	-0.047947
-0.798508 J (11/22/2011)	-0.510826 J (11/20/2008)	(-0.798508 - -0.510826)/(30 - 24)	-0.047947
-1.10866 J (6/5/2012)	-0.510826 J (11/20/2008)	(-1.10866 - -0.510826)/(31 - 24)	-0.0854053
-0.314711 J (11/16/2009)	-0.400478 J (6/11/2009)	(-0.314711 - -0.400478)/(26 - 25)	0.0857668
-0.385662 J (6/30/2010)	-0.400478 J (6/11/2009)	(-0.385662 - -0.400478)/(27 - 25)	0.00740754

-0.34249 J (11/12/2010)	-0.400478 J (6/11/2009)	(-0.34249 - -0.400478)/(28 - 25)
0.0193291		
-0.867501 J (7/5/2011)	-0.400478 J (6/11/2009)	(-0.867501 - -0.400478)/(29 - 25)
-0.116756		
-0.798508 J (11/22/2011)	-0.400478 J (6/11/2009)	(-0.798508 - -0.400478)/(30 - 25)
-0.079606		
-0.798508 J (11/22/2011)	-0.400478 J (6/11/2009)	(-0.798508 - -0.400478)/(30 - 25)
-0.079606		
-1.10866 J (6/5/2012)	-0.400478 J (6/11/2009)	(-1.10866 - -0.400478)/(31 - 25)
-0.118031		
-0.385662 J (6/30/2010)	-0.314711 J (11/16/2009)	(-0.385662 - -0.314711)/(27 - 26)
-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		
-1.10866 J (6/5/2012)	-0.314711 J (11/16/2009)	(-1.10866 - -0.314711)/(31 - 26)
-0.15879		
-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		
-1.10866 J (6/5/2012)	-0.385662 J (6/30/2010)	(-1.10866 - -0.385662)/(31 - 27)
-0.18075		
-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		
-1.10866 J (6/5/2012)	-0.34249 J (11/12/2010)	(-1.10866 - -0.34249)/(31 - 28)
-0.255391		
-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		
-1.10866 J (6/5/2012)	-0.867501 J (7/5/2011)	(-1.10866 - -0.867501)/(31 - 29)
-0.120581		
-0.798508 J (11/22/2011)	-0.798508 J (11/22/2011)	(-0.798508 - -0.798508)/(30 - 30)
Same Date		
-1.10866 J (6/5/2012)	-0.798508 J (11/22/2011)	(-1.10866 - -0.798508)/(31 - 30)
-0.310155		
-1.10866 J (6/5/2012)	-0.798508 J (11/22/2011)	(-1.10866 - -0.798508)/(31 - 30)
-0.310155		

Number of Q values = 495

Ordered Q Values

n	Q
1	-0.52501
2	-0.510826
3	-0.356675
4	-0.317439
5	-0.310155
6	-0.310155
7	-0.278203
8	-0.266169
9	-0.255391
10	-0.240919
11	-0.228009
12	-0.228009
13	-0.220916
14	-0.211626
15	-0.210993
16	-0.200239
17	-0.199627
18	-0.184263
19	-0.18075
20	-0.178337
21	-0.168794
22	-0.163629
23	-0.162432
24	-0.159702
25	-0.15879
26	-0.15872
27	-0.144583
28	-0.140662
29	-0.138583
30	-0.137615
31	-0.137615
32	-0.133085
33	-0.126976
34	-0.120949
35	-0.120949
36	-0.120581
37	-0.120567
38	-0.118892
39	-0.118031
40	-0.116756
41	-0.114073
42	-0.114073
43	-0.114073
44	-0.105813
45	-0.105496
46	-0.104904
47	-0.10486
48	-0.104546
49	-0.102165
50	-0.0998135
51	-0.0964156
52	-0.0937745
53	-0.0906969
54	-0.0897286
55	-0.0891687
56	-0.0887231
57	-0.0854053
58	-0.0851376
59	-0.084397

60	-0.0809136
61	-0.0798508
62	-0.079606
63	-0.079606
64	-0.0793598
65	-0.0767246
66	-0.0739108
67	-0.0729751
68	-0.0725916
69	-0.071335
70	-0.071335
71	-0.0709517
72	-0.070542
73	-0.0703308
74	-0.0692914
75	-0.0684981
76	-0.0667308
77	-0.0665423
78	-0.0652154
79	-0.0649208
80	-0.0638532
81	-0.0638532
82	-0.0634878
83	-0.0621753
84	-0.0621753
85	-0.0619643
86	-0.0615924
87	-0.0614237
88	-0.0602836
89	-0.0597837
90	-0.0594458
91	-0.0583507
92	-0.0578334
93	-0.0577162
94	-0.0570363
95	-0.0570363
96	-0.0570363
97	-0.0567584
98	-0.0567584
99	-0.0562647
100	-0.0554331
101	-0.0542188
102	-0.0537134
103	-0.0532338
104	-0.0532338
105	-0.0532338
106	-0.0529065
107	-0.0527935
108	-0.0527481
109	-0.0510826
110	-0.0510826
111	-0.0510294
112	-0.0509536
113	-0.0503938
114	-0.0501842
115	-0.0499067
116	-0.0499067
117	-0.0488368
118	-0.0482027
119	-0.0481945
120	-0.047947
121	-0.047947

122	-0.046971
123	-0.046971
124	-0.0464387
125	-0.0464387
126	-0.0461943
127	-0.0456579
128	-0.0454624
129	-0.0453484
130	-0.0445844
131	-0.0445844
132	-0.0444975
133	-0.0443615
134	-0.0443615
135	-0.0443465
136	-0.043375
137	-0.043015
138	-0.0426409
139	-0.0425688
140	-0.0425688
141	-0.0425688
142	-0.0420267
143	-0.0420267
144	-0.0413096
145	-0.0410616
146	-0.0400478
147	-0.0399254
148	-0.0399254
149	-0.0396305
150	-0.0394318
151	-0.0392943
152	-0.0392943
153	-0.0385377
154	-0.0380242
155	-0.0380242
156	-0.0377174
157	-0.0376381
158	-0.0365192
159	-0.0364875
160	-0.0364875
161	-0.036445
162	-0.0364071
163	-0.0362958
164	-0.0362958
165	-0.0361459
166	-0.0359603
167	-0.0356675
168	-0.0350602
169	-0.0347177
170	-0.0347177
171	-0.0347
172	-0.034055
173	-0.034055
174	-0.0339871
175	-0.0339871
176	-0.0334561
177	-0.0333731
178	-0.0332712
179	-0.0332712
180	-0.0331242
181	-0.032425
182	-0.0321385
183	-0.0319647

184	-0.0319647
185	-0.0319403
186	-0.0319403
187	-0.0319266
188	-0.0319266
189	-0.0316257
190	-0.0314711
191	-0.030806
192	-0.0307118
193	-0.0307118
194	-0.0301105
195	-0.0300486
196	-0.0300486
197	-0.0297229
198	-0.0296663
199	-0.0286101
200	-0.0286055
201	-0.0285409
202	-0.0283792
203	-0.0275473
204	-0.027449
205	-0.0274365
206	-0.0273732
207	-0.0268856
208	-0.0266985
209	-0.0263454
210	-0.0262259
211	-0.0258462
212	-0.0257108
213	-0.0255413
214	-0.0250921
215	-0.0250298
216	-0.024783
217	-0.0244636
218	-0.0242085
219	-0.0241039
220	-0.024063
221	-0.0235575
222	-0.0231619
223	-0.0228327
224	-0.022686
225	-0.0224793
226	-0.0222488
227	-0.0220215
228	-0.0215075
229	-0.0214257
230	-0.0214056
231	-0.0213098
232	-0.0213098
233	-0.0211475
234	-0.0210778
235	-0.0209807
236	-0.020298
237	-0.0201465
238	-0.0200737
239	-0.0200239
240	-0.0196694
241	-0.0192831
242	-0.0190704
243	-0.0190272
244	-0.0188191
245	-0.0185124

246	-0.0183649
247	-0.0180258
248	-0.0177121
249	-0.0175301
250	-0.0174839
251	-0.0171245
252	-0.0169115
253	-0.0167679
254	-0.0167281
255	-0.0165637
256	-0.0163091
257	-0.0159823
258	-0.0157355
259	-0.0155677
260	-0.0149862
261	-0.0148909
262	-0.0143281
263	-0.014305
264	-0.0142704
265	-0.0138898
266	-0.0136991
267	-0.0136358
268	-0.0136358
269	-0.00953796
270	-0.00837905
271	-0.00806064
272	-0.00689929
273	-0.00689754
274	-0.00677162
275	-0.00645753
276	-0.00619768
277	-0.00547533
278	-0.00477387
279	-0.00410324
280	-0.00398118
281	-0.00376288
282	-0.00376288
283	-0.00340141
284	-0.00289875
285	-0.0026145
286	0
287	0
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291	0
292	0
293	0
294	0
295	0
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297	0
298	0
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370	0
371	0
372	0
373	0
374	0
375	0
376	0
377	0
378	0
379	0
380	0
381	0.00128951
382	0.00364181
383	0.00454624
384	0.00454624
385	0.00466269
386	0.00740754
387	0.00828734
388	0.00861293
389	0.00959587
390	0.010695
391	0.010695
392	0.011114
393	0.0111572
394	0.0122994
395	0.0127248
396	0.0134868
397	0.0139312
398	0.0157682
399	0.0171649
400	0.0172308
401	0.0185953
402	0.0193291
403	0.0196021
404	0.0202858
405	0.0206754
406	0.0208605
407	0.0223144
408	0.0224315
409	0.0240479
410	0.0247937
411	0.0259929
412	0.027587
413	0.0276906
414	0.0278077
415	0.0278697
416	0.0278929
417	0.0283768
418	0.0292388
419	0.0295077
420	0.0298919
421	0.0317581
422	0.0318777
423	0.033007
424	0.0334858
425	0.0371906
426	0.0384551
427	0.039223
428	0.0400209
429	0.0413509
430	0.041721
431	0.0420838

432	0.0431722
433	0.0446287
434	0.0469992
435	0.0495105
436	0.0503938
437	0.0506686
438	0.0516057
439	0.053319
440	0.0557859
441	0.0575364
442	0.0577623
443	0.0594458
444	0.062685
445	0.0630134
446	0.0654725
447	0.0663384
448	0.0689929
449	0.0689929
450	0.0691139
451	0.0693147
452	0.0739108
453	0.0743812
454	0.0770164
455	0.0791902
456	0.0832861
457	0.0834433
458	0.0852817
459	0.0857668
460	0.0866434
461	0.0882099
462	0.0886985
463	0.0923886
464	0.0980574
465	0.099021
466	0.100788
467	0.110348
468	0.110866
469	0.111572
470	0.115525
471	0.123185
472	0.126976
473	0.138583
474	0.138629
475	0.143841
476	0.15838
477	0.165801
478	0.173287
479	0.184777
480	0.199627
481	0.209721
482	0.221733
483	0.223144
484	0.231049
485	0.255413
486	0.271432
487	0.277166
488	0.281323
489	0.301105
490	0.333144
491	0.346574
492	0.369554
493	0.415515

494	0.44276
495	0.470004

Sen's Estimator (Median Q) is -0.0177121

Tied Group	Value	Members
1	-1.108662	
2	0	14
3	-0.798508	3
4	-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
6/5/2012	1	

There are 1 time periods with multiple data

A = 6108
B = 18
C = 2190
D = 0
E = 192
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3462.53
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.7885
M1 = (495 - 96.7885)/2.0 = 199.106
M2 = (495 + 96.7885)/2.0 + 1 = 296.894
Lower limit is -0.0286101 = Q(199)
Upper limit is 0 = Q(297)
-0.0286101 < 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				
0.832909 (6/5/2012)	2.94444 (7/20/1995)	(0.832909 - 2.94444)/(30 - 1)		
-0.0728114				
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				
0.832909 (6/5/2012)	5.70378 (8/24/1995)	(0.832909 - 5.70378)/(30 - 2)		
-0.17396				

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				
0.832909 (6/5/2012)	5.24702	(9/28/1995)	(0.832909 - 5.24702)/(30 - 3)	
-0.163486				
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			
0.832909 (6/5/2012)	2.70805 (10/26/1995)	(0.832909 - 2.70805)/(30 - 4)	
-0.0721208			

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					
0.832909	(6/5/2012)	ND<0	(11/19/1996)	(0.832909 - 0)/(30 - 5)	
0.0333164					
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			
0.832909 (6/5/2012)	5.63479	(12/19/1996)	(0.832909 - 5.63479)/(30 - 6)
-0.200078			
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
0.832909 (6/5/2012)	5.56068 (3/24/1997)	(0.832909 - 5.56068)/(30 - 7)	-0.205555
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
0.832909 (6/5/2012)	5.01064 (9/24/1997)	(0.832909 - 5.01064)/(30 - 8)	-0.189897
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				
0.832909 (6/5/2012)	4.78749	(4/7/1998)	(0.832909 - 4.78749)/(30 - 9)	
-0.188313				
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				
0.832909 (6/5/2012)	5.01064	(9/23/1998)	(0.832909 - 5.01064)/(30 - 10)	
-0.208886				
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				
0.832909 (6/5/2012)	4.78749	(3/16/1999)	(0.832909 - 4.78749)/(30 - 11)	
-0.208136				
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				
0.832909 (6/5/2012)	4.34899	(9/23/1999)	(0.832909 - 4.34899)/(30 - 12)	
-0.195338				
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					
0.832909 (6/5/2012)	5.07517 (3/15/2000)	(0.832909 - 5.07517)/(30 - 13)			
-0.249545					
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					
0.832909 (6/5/2012)	ND<0 (9/24/2003)	(0.832909 - 0)/(30 - 14)			
0.0520568					
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				
0.832909 (6/5/2012)	2.18605 (3/11/2004)	(0.832909 - 2.18605)/(30 - 15)		
-0.0902095				
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				
0.832909 (6/5/2012)	ND<0 (10/12/2004)	(0.832909 - 0)/(30 - 16)		
0.0594935				
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				

0.832909	(6/5/2012)	0.828552	(4/1/2005)	(0.832909 - 0.828552)/(30 - 17)
0.000335177				
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				
0.832909	(6/5/2012)	1.89612	(10/25/2005)	(0.832909 - 1.89612)/(30 - 18)
-0.0886009				
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				
0.832909	(6/5/2012)	0.797507	(4/29/2006)	(0.832909 - 0.797507)/(30 - 19)
0.00321836				
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			
0.832909 (6/5/2012)	1.26413 (11/18/2006)	(0.832909 - 1.26413)/(30 - 20)	
-0.0431218			
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			
0.832909 (6/5/2012)	0.470004 (5/23/2007)	(0.832909 - 0.470004)/(30 - 21)	
0.0403228			
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			
0.832909 (6/5/2012)	1.43031 (11/28/2007)	(0.832909 - 1.43031)/(30 - 22)	
-0.0746753			
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
0.832909 (6/5/2012)	ND<0 J (6/5/2008)	(0.832909 - 0)/(30 - 23)	0.118987
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
0.832909 (6/5/2012)	0.262364 J (11/20/2008)	(0.832909 - 0.262364)/(30 - 24)	0.0950908
-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
0.832909 (6/5/2012)	0.262364 (6/11/2009)	(0.832909 - 0.262364)/(30 - 25)	0.114109
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
0.832909 (6/5/2012)	-0.139262 J (6/30/2010)	(0.832909 - -0.139262)/(30 - 26)	0.243043
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
0.832909 (6/5/2012)	0.641854 (11/12/2010)	(0.832909 - 0.641854)/(30 - 27)	0.0636851
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				
0.832909	(6/5/2012)	0.955511	(7/5/2011)	(0.832909 - 0.955511)/(30 - 28)	
	-0.0613012				
0.693147	(11/22/2011)	0.693147	(11/22/2011)	(0.693147 - 0.693147)/(29 - 29)	
	Same Date				
0.832909	(6/5/2012)	0.693147	(11/22/2011)	(0.832909 - 0.693147)/(30 - 29)	
	0.139762				
0.832909	(6/5/2012)	0.693147	(11/22/2011)	(0.832909 - 0.693147)/(30 - 29)	
	0.139762				

Number of Q values = 464

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	-0.249545
161	-0.247337
162	-0.247142
163	-0.246648
164	-0.245941
165	-0.24346
166	-0.242339
167	-0.237979

168	-0.237759
169	-0.237365
170	-0.236583
171	-0.235002
172	-0.234288
173	-0.234186
174	-0.233898
175	-0.233394
176	-0.230313
177	-0.229936
178	-0.227464
179	-0.227464
180	-0.227236
181	-0.227236
182	-0.226575
183	-0.226495
184	-0.225671
185	-0.225411
186	-0.225285
187	-0.223394
188	-0.223144
189	-0.223144
190	-0.221252
191	-0.221252
192	-0.219294
193	-0.215049
194	-0.215049
195	-0.214854
196	-0.214854
197	-0.2143
198	-0.213743
199	-0.213674
200	-0.212694
201	-0.212092
202	-0.211392
203	-0.208886
204	-0.208136
205	-0.205595
206	-0.205595
207	-0.205555
208	-0.204717
209	-0.204717
210	-0.202756
211	-0.202477
212	-0.201683
213	-0.20088
214	-0.200813
215	-0.200352
216	-0.200078
217	-0.199377
218	-0.196296
219	-0.195338
220	-0.193297
221	-0.192369
222	-0.191882
223	-0.189897
224	-0.188313
225	-0.185579
226	-0.185579
227	-0.184385
228	-0.183349
229	-0.182626

230	-0.175149
231	-0.175149
232	-0.17396
233	-0.171661
234	-0.16946
235	-0.165412
236	-0.163752
237	-0.163486
238	-0.157691
239	-0.156039
240	-0.146168
241	-0.144577
242	-0.142529
243	-0.139363
244	-0.138092
245	-0.13548
246	-0.133838
247	-0.133824
248	-0.132243
249	-0.13165
250	-0.130899
251	-0.129423
252	-0.128683
253	-0.12737
254	-0.123722
255	-0.123348
256	-0.122284
257	-0.121853
258	-0.119274
259	-0.116612
260	-0.116461
261	-0.116452
262	-0.115525
263	-0.111753
264	-0.109361
265	-0.109361
266	-0.107963
267	-0.107535
268	-0.107029
269	-0.106636
270	-0.106636
271	-0.105309
272	-0.105309
273	-0.10181
274	-0.0997819
275	-0.0966439
276	-0.0946569
277	-0.0940608
278	-0.0902452
279	-0.0902095
280	-0.0898346
281	-0.089637
282	-0.0891905
283	-0.0888961
284	-0.0886009
285	-0.088561
286	-0.0884375
287	-0.0866434
288	-0.080918
289	-0.0808839
290	-0.0805961
291	-0.0805961

292	-0.0804033
293	-0.0804033
294	-0.0799451
295	-0.0791333
296	-0.0787963
297	-0.0765887
298	-0.0746753
299	-0.0743812
300	-0.074108
301	-0.073664
302	-0.0730224
303	-0.0728114
304	-0.0721208
305	-0.0721013
306	-0.0709855
307	-0.0707734
308	-0.0692131
309	-0.0634422
310	-0.0634422
311	-0.0616659
312	-0.0613012
313	-0.0579951
314	-0.0574415
315	-0.0571462
316	-0.0541706
317	-0.0519098
318	-0.0474544
319	-0.0472778
320	-0.0464207
321	-0.0431218
322	-0.0385769
323	-0.0337698
324	-0.0286202
325	-0.0194567
326	-0.0186698
327	-0.0172482
328	-0.017185
329	-0.0155223
330	-0.0139262
331	-0.0116052
332	-0.0112837
333	-0.0112837
334	-0.010436
335	-0.010436
336	-0.00663153
337	0
338	0
339	0
340	0
341	0
342	0
343	0
344	0
345	0
346	0.000335177
347	0.00321836
348	0.0115418
349	0.0129077
350	0.0131182
351	0.0138086
352	0.017556
353	0.0215128

354	0.0238513
355	0.0256466
356	0.0256466
357	0.0262364
358	0.0278929
359	0.0278929
360	0.0286417
361	0.0288811
362	0.0288811
363	0.0291516
364	0.0291752
365	0.0293752
366	0.0327955
367	0.0333164
368	0.0403228
369	0.041544
370	0.0462098
371	0.0462098
372	0.0493734
373	0.0520568
374	0.053319
375	0.053319
376	0.0569648
377	0.0583504
378	0.0594935
379	0.0636851
380	0.0671434
381	0.0682508
382	0.069046
383	0.0693583
384	0.0719205
385	0.0784144
386	0.079626
387	0.0830923
388	0.084136
389	0.0842751
390	0.0861566
391	0.0861566
392	0.0940007
393	0.0950908
394	0.107696
395	0.107696
396	0.114109
397	0.115525
398	0.115525
399	0.118987
400	0.120352
401	0.126497
402	0.127686
403	0.129255
404	0.131182
405	0.139762
406	0.139762
407	0.143841
408	0.145192
409	0.145855
410	0.159501
411	0.160463
412	0.173287
413	0.177561
414	0.178789
415	0.184305

416	0.189745
417	0.191102
418	0.205117
419	0.210688
420	0.210935
421	0.218605
422	0.223144
423	0.229577
424	0.230382
425	0.231049
426	0.238385
427	0.243043
428	0.262364
429	0.263014
430	0.265836
431	0.276184
432	0.27747
433	0.27747
434	0.295171
435	0.297063
436	0.313658
437	0.316032
438	0.383764
439	0.415888
440	0.43604
441	0.46662
442	0.47403
443	0.53807
444	0.547387
445	0.575646
446	0.621284
447	0.634397
448	0.726187
449	0.781116
450	0.797915
451	0.828552
452	0.94806
453	0.950877
454	0.960308
455	1.00213
456	1.06757
457	1.15129
458	1.19687
459	1.46337
460	1.67021
461	2.18605
462	2.75934
463	2.78034
464	5.63479

Sen's Estimator (Median Q) is -0.17281

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 228
B = 18
C = 24
D = 0
E = 20
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3448.02
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.5855
M1 = (464 - 96.5855)/2.0 = 183.707
M2 = (464 + 96.5855)/2.0 + 1 = 281.293
Lower limit is -0.225671 = Q(184)
Upper limit is -0.089637 = Q(281)
-0.089637 < 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
-0.127833 J (6/5/2012) -0.544727 J (7/20/1995) (-0.127833 - -0.544727)/(31 - 1)
0.0138965

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
-0.127833 J (6/5/2012) 0.788457 (8/24/1995) (-0.127833 - 0.788457)/(31 - 2)
-0.0315962

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)
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-0.127833 J (6/5/2012) 1.09861 (9/28/1995) (-0.127833 - 1.09861)/(31 - 3)
-0.0438016

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)
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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
-0.127833 J (6/5/2012) 1.09861 (10/26/1995) (-0.127833 - 1.09861)/(31 - 4)
-0.0454239

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)
0.0107509
0.239017 J (4/29/2006) ND<0 (11/19/1996) (0.239017 - 0)/(19 - 5)
0.0170726
-0.116534 J (11/18/2006) ND<0 (11/19/1996) (-0.116534 - 0)/(20 - 5)
-0.00776892
ND<0 (5/23/2007) ND<0 (11/19/1996) (0 - 0)/(21 - 5) 0
0 J (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
-0.0943107 J (11/20/2008) ND<0 (11/19/1996) (-0.0943107 - 0)/(24 - 5)
-0.00496372
-0.527633 J (6/11/2009) ND<0 (11/19/1996) (-0.527633 - 0)/(25 - 5)
-0.0263816
-0.0618754 J (11/16/2009) ND<0 (11/19/1996) (-0.0618754 - 0)/(26 - 5)
-0.00294645
-0.653926 J (6/30/2010) ND<0 (11/19/1996) (-0.653926 - 0)/(27 - 5)
-0.0297239
-0.150823 J (11/12/2010) ND<0 (11/19/1996) (-0.150823 - 0)/(28 - 5)
-0.00655752
0.336472 (7/5/2011) ND<0 (11/19/1996) (0.336472 - 0)/(29 - 5)
0.0140197
0.336472 (11/22/2011) ND<0 (11/19/1996) (0.336472 - 0)/(30 - 5)
0.0134589
0.336472 (11/22/2011) ND<0 (11/19/1996) (0.336472 - 0)/(30 - 5)
0.0134589
-0.127833 J (6/5/2012) ND<0 (11/19/1996) (-0.127833 - 0)/(31 - 5)
-0.00491667

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
1.16315 (3/16/1999) ND<0 (12/19/1996) (1.16315 - 0)/(11 - 6) 0.23263
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
-0.127833 J (4/1/2005) ND<0 (12/19/1996) (-0.127833 - 0)/(17 - 6)
-0.0116212
0.139762 J (10/25/2005) ND<0 (12/19/1996) (0.139762 - 0)/(18 - 6)
0.0116468
0.239017 J (4/29/2006) ND<0 (12/19/1996) (0.239017 - 0)/(19 - 6)
0.0183859
-0.116534 J (11/18/2006) ND<0 (12/19/1996) (-0.116534 - 0)/(20 - 6)
-0.00832384
ND<0 (5/23/2007) ND<0 (12/19/1996) (0 - 0)/(21 - 6) 0
0 J (11/28/2007) ND<0 (12/19/1996) (0 - 0)/(22 - 6) 0
ND<0 (6/5/2008) ND<0 (12/19/1996) (0 - 0)/(23 - 6) 0

-0.0943107 J (11/20/2008) ND<0 (12/19/1996) (-0.0943107 - 0)/(24 - 6)
-0.00523948
-0.527633 J (6/11/2009) ND<0 (12/19/1996) (-0.527633 - 0)/(25 - 6)
-0.0277701
-0.0618754 J (11/16/2009) ND<0 (12/19/1996) (-0.0618754 - 0)/(26 - 6)
-0.00309377
-0.653926 J (6/30/2010) ND<0 (12/19/1996) (-0.653926 - 0)/(27 - 6)
-0.0311394
-0.150823 J (11/12/2010) ND<0 (12/19/1996) (-0.150823 - 0)/(28 - 6)
-0.00685559
0.336472 (7/5/2011) ND<0 (12/19/1996) (0.336472 - 0)/(29 - 6)
0.0146292
0.336472 (11/22/2011) ND<0 (12/19/1996) (0.336472 - 0)/(30 - 6)
0.0140197
0.336472 (11/22/2011) ND<0 (12/19/1996) (0.336472 - 0)/(30 - 6)
0.0140197
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-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
0.336472 (7/5/2011) ND<0 (10/12/2004) (0.336472 - 0)/(29 - 16)
0.0258825
0.336472 (11/22/2011) ND<0 (10/12/2004) (0.336472 - 0)/(30 - 16)
0.0240337
0.336472 (11/22/2011) ND<0 (10/12/2004) (0.336472 - 0)/(30 - 16)
0.0240337

-0.127833 J (6/5/2012) ND<0 (10/12/2004) (-0.127833 - 0)/(31 - 16)
-0.00852222

0.139762 J (10/25/2005) -0.127833 J (4/1/2005) (0.139762 - -0.127833)/(18 - 17)
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)
0.0213056
-0.0943107 J (11/20/2008) -0.127833 J (4/1/2005) (-0.0943107 - -0.127833)/(24 - 17)
0.00478896
-0.527633 J (6/11/2009) -0.127833 J (4/1/2005) (-0.527633 - -0.127833)/(25 - 17)
-0.0499749
-0.0618754 J (11/16/2009) -0.127833 J (4/1/2005) (-0.0618754 - -0.127833)/(26 - 17)
0.00732866
-0.653926 J (6/30/2010) -0.127833 J (4/1/2005) (-0.653926 - -0.127833)/(27 - 17)
-0.0526093
-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)
0.0386921
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
-0.127833 J (6/5/2012) -0.127833 J (4/1/2005) (-0.127833 - -0.127833)/(31 - 17)
0

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
ND<0 (5/23/2007) 0.139762 J (10/25/2005) (0 - 0.139762)/(21 - 18)
-0.0465873
0 J (11/28/2007) 0.139762 J (10/25/2005) (0 - 0.139762)/(22 - 18) -0.0349405
ND<0 (6/5/2008) 0.139762 J (10/25/2005) (0 - 0.139762)/(23 - 18)
-0.0279524
-0.0943107 J (11/20/2008) 0.139762 J (10/25/2005) (-0.0943107 - 0.139762)/(24 - 18)
-0.0390121
-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
-0.127833 J (6/5/2012) 0.139762 J (10/25/2005) (-0.127833 - 0.139762)/(31 - 18)
-0.0205843

-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
0 J (11/28/2007) 0.239017 J (4/29/2006) (0 - 0.239017)/(22 - 19) -0.0796723
ND<0 (6/5/2008) 0.239017 J (4/29/2006) (0 - 0.239017)/(23 - 19)
-0.0597542
-0.0943107 J (11/20/2008) 0.239017 J (4/29/2006) (-0.0943107 - 0.239017)/(24 - 19)
-0.0666655
-0.527633 J (6/11/2009) 0.239017 J (4/29/2006) (-0.527633 - 0.239017)/(25 - 19)
-0.127775
-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
-0.150823 J (11/12/2010) 0.239017 J (4/29/2006) (-0.150823 - 0.239017)/(28 - 19)
-0.0433155
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
-0.127833 J (6/5/2012) 0.239017 J (4/29/2006) (-0.127833 - 0.239017)/(31 - 19)
-0.0305709

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
-0.0943107 J (11/20/2008) -0.116534 J (11/18/2006) (-0.0943107 - -0.116534)/(24 - 20)
0.00555578
-0.527633 J (6/11/2009) -0.116534 J (11/18/2006) (-0.527633 - -0.116534)/(25 - 20)
-0.0822198
-0.0618754 J (11/16/2009) -0.116534 J (11/18/2006) (-0.0618754 - -0.116534)/(26 - 20)
0.00910974
-0.653926 J (6/30/2010) -0.116534 J (11/18/2006) (-0.653926 - -0.116534)/(27 - 20)
-0.0767704
-0.150823 J (11/12/2010) -0.116534 J (11/18/2006) (-0.150823 - -0.116534)/(28 - 20)
-0.00428613
0.336472 (7/5/2011) -0.116534 J (11/18/2006) (0.336472 - -0.116534)/(29 - 20)
0.050334
0.336472 (11/22/2011) -0.116534 J (11/18/2006) (0.336472 - -0.116534)/(30 - 20)
0.0453006
0.336472 (11/22/2011) -0.116534 J (11/18/2006) (0.336472 - -0.116534)/(30 - 20)
0.0453006
-0.127833 J (6/5/2012) -0.116534 J (11/18/2006) (-0.127833 - -0.116534)/(31 - 20)
-0.00102723

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

0.336472 (7/5/2011)	ND<0 (5/23/2007)	(0.336472 - 0)/(29 - 21)	0.042059
0.336472 (11/22/2011)	ND<0 (5/23/2007)	(0.336472 - 0)/(30 - 21)	0.0373858
0.336472 (11/22/2011)	ND<0 (5/23/2007)	(0.336472 - 0)/(30 - 21)	0.0373858
-0.127833 J (6/5/2012)	ND<0 (5/23/2007)	(-0.127833 - 0)/(31 - 21)	-0.0127833

ND<0 (6/5/2008)	0 J (11/28/2007)	(0 - 0)/(23 - 22)	0
-0.0943107 J (11/20/2008)	0 J (11/28/2007)	(-0.0943107 - 0)/(24 - 22)	-0.0471553
-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
-0.653926 J (6/30/2010)	0 J (11/28/2007)	(-0.653926 - 0)/(27 - 22)	-0.130785
-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
-0.127833 J (6/5/2012)	0 J (11/28/2007)	(-0.127833 - 0)/(31 - 22)	-0.0142037

-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)	-0.0301646
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
-0.127833 J (6/5/2012)	ND<0 (6/5/2008)	(-0.127833 - 0)/(31 - 23)	-0.0159792

-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
-0.127833 J (6/5/2012)	-0.0943107 J (11/20/2008)	(-0.127833 - -0.0943107)/(31 - 24)	-0.00478896

-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)	-0.0631469
-0.150823 J (11/12/2010)	-0.527633 J (6/11/2009)	(-0.150823 - -0.527633)/(28 - 25)	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
-0.127833 J (6/5/2012)	-0.527633 J (6/11/2009)	(-0.127833 - -0.527633)/(31 - 25)	0.0666332
-0.653926 J (6/30/2010)	-0.0618754 J (11/16/2009)	(-0.653926 - -0.0618754)/(27 - 26)	-0.592051
-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)	0.132783
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
-0.127833 J (6/5/2012)	-0.0618754 J (11/16/2009)	(-0.127833 - -0.0618754)/(31 - 26)	-0.0131916
-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
-0.127833 J (6/5/2012)	-0.653926 J (6/30/2010)	(-0.127833 - -0.653926)/(31 - 27)	0.131523
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
-0.127833 J (6/5/2012)	-0.150823 J (11/12/2010)	(-0.127833 - -0.150823)/(31 - 28)	0.00766317
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
-0.127833 J (6/5/2012)	0.336472 (7/5/2011)	(-0.127833 - 0.336472)/(31 - 29)	-0.232153
0.336472 (11/22/2011)	0.336472 (11/22/2011)	(0.336472 - 0.336472)/(30 - 30)	Same Date
-0.127833 J (6/5/2012)	0.336472 (11/22/2011)	(-0.127833 - 0.336472)/(31 - 30)	-0.464306
-0.127833 J (6/5/2012)	0.336472 (11/22/2011)	(-0.127833 - 0.336472)/(31 - 30)	-0.464306

Number of Q values = 495

Ordered Q Values

n	Q
1	-1.16315
2	-1.09861
3	-0.592051
4	-0.581575
5	-0.549306
6	-0.549306
7	-0.464306
8	-0.464306
9	-0.433322
10	-0.387717
11	-0.366204
12	-0.366204
13	-0.355551
14	-0.290788
15	-0.274653
16	-0.274653
17	-0.263816
18	-0.262819
19	-0.23263
20	-0.232153
21	-0.219722
22	-0.219722
23	-0.215164
24	-0.197114
25	-0.186539
26	-0.183102
27	-0.183102
28	-0.175878
29	-0.163482
30	-0.157691
31	-0.156945
32	-0.146198
33	-0.142187
34	-0.137327
35	-0.131908
36	-0.13141
37	-0.130785
38	-0.128148
39	-0.127833
40	-0.127775
41	-0.122068
42	-0.122068
43	-0.12077
44	-0.119508
45	-0.116315
46	-0.115517
47	-0.113567
48	-0.112637
49	-0.111618
50	-0.109861
51	-0.109861
52	-0.108988
53	-0.105741
54	-0.0998738
55	-0.0998738
56	-0.0985572
57	-0.0969292
58	-0.0967278
59	-0.0953421
60	-0.094342
61	-0.0943107

62	-0.091551
63	-0.091551
64	-0.0881876
65	-0.0876033
66	-0.0845086
67	-0.0822198
68	-0.0816684
69	-0.0796723
70	-0.0788457
71	-0.0774402
72	-0.0772926
73	-0.0767704
74	-0.0761973
75	-0.0759466
76	-0.0739202
77	-0.0730224
78	-0.0716779
79	-0.0714792
80	-0.0684893
81	-0.0666655
82	-0.0657048
83	-0.0646243
84	-0.0645492
85	-0.0639234
86	-0.0639167
87	-0.0631469
88	-0.061086
89	-0.061034
90	-0.061034
91	-0.0606506
92	-0.0597542
93	-0.0596461
94	-0.0594479
95	-0.0586259
96	-0.0578217
97	-0.0578217
98	-0.0576954
99	-0.0573064
100	-0.0572213
101	-0.0568059
102	-0.0563184
103	-0.0549306
104	-0.0544939
105	-0.0537247
106	-0.0527633
107	-0.0527494
108	-0.0526093
109	-0.0520598
110	-0.050456
111	-0.050302
112	-0.0502773
113	-0.0499774
114	-0.0499749
115	-0.0479666
116	-0.0471553
117	-0.046709
118	-0.0465873
119	-0.0459266
120	-0.0454239
121	-0.0444737
122	-0.0439694
123	-0.0438016

124	-0.0435951
125	-0.0435094
126	-0.0435094
127	-0.0433155
128	-0.0429846
129	-0.0426111
130	-0.0414978
131	-0.0405871
132	-0.0405435
133	-0.0401258
134	-0.0394229
135	-0.0390121
136	-0.0384663
137	-0.0375456
138	-0.0363292
139	-0.0361262
140	-0.0354305
141	-0.0351755
142	-0.0349405
143	-0.0344172
144	-0.032977
145	-0.0326963
146	-0.03232
147	-0.0319583
148	-0.0315962
149	-0.0314369
150	-0.0311394
151	-0.0310372
152	-0.0305709
153	-0.0304856
154	-0.0301646
155	-0.0297239
156	-0.0293131
157	-0.0293131
158	-0.0293131
159	-0.0293129
160	-0.0291335
161	-0.0290585
162	-0.0282274
163	-0.0282274
164	-0.0279524
165	-0.0277701
166	-0.0263816
167	-0.0255667
168	-0.0252047
169	-0.0251371
170	-0.0233068
171	-0.0215461
172	-0.0206251
173	-0.0205843
174	-0.0194223
175	-0.0182619
176	-0.0167402
177	-0.0166477
178	-0.0161423
179	-0.0161423
180	-0.0159792
181	-0.0159792
182	-0.0154689
183	-0.0145667
184	-0.0142037
185	-0.0142037

186	-0.0141281
187	-0.0131916
188	-0.0127833
189	-0.0127833
190	-0.0125686
191	-0.0123751
192	-0.0117888
193	-0.0116534
194	-0.0116212
195	-0.0116018
196	-0.0107731
197	-0.0106528
198	-0.010594
199	-0.010479
200	-0.0100549
201	-0.00971115
202	-0.00943107
203	-0.00942643
204	-0.00896414
205	-0.0085737
206	-0.00852222
207	-0.00837905
208	-0.00832384
209	-0.00798959
210	-0.00793805
211	-0.00785922
212	-0.00776892
213	-0.00754114
214	-0.00751961
215	-0.00718204
216	-0.00710185
217	-0.00685559
218	-0.00673648
219	-0.00672807
220	-0.00655752
221	-0.00628738
222	-0.00618754
223	-0.0060873
224	-0.00589442
225	-0.00581061
226	-0.00562504
227	-0.00555797
228	-0.00554769
229	-0.00532639
230	-0.00523948
231	-0.00515628
232	-0.00511333
233	-0.00496372
234	-0.00491667
235	-0.00478896
236	-0.00475965
237	-0.00441967
238	-0.00428613
239	-0.00419997
240	-0.00386721
241	-0.00363973
242	-0.00343752
243	-0.0032566
244	-0.00309377
245	-0.00294645
246	-0.00208996
247	-0.00102723

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326	0
327	0
328	0
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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	0.000712268
344	0.00376652
345	0.00478896
346	0.00555578
347	0.00732866
348	0.00766317
349	0.00806732
350	0.00885958
351	0.00885958
352	0.00910974
353	0.00921979
354	0.00974553
355	0.0107509
356	0.0116468
357	0.0127056
358	0.0134589
359	0.0134589
360	0.0138965
361	0.0139762
362	0.0140197
363	0.0140197
364	0.0140197
365	0.014589
366	0.0146292
367	0.0146292
368	0.0146292
369	0.0152942
370	0.0152942
371	0.0152942

372	0.0155291
373	0.0160225
374	0.0160225
375	0.0160225
376	0.0162176
377	0.0163925
378	0.0163925
379	0.0168236
380	0.0168236
381	0.0168236
382	0.0170726
383	0.0174702
384	0.0177091
385	0.0178828
386	0.0183859
387	0.0186929
388	0.0186929
389	0.0193141
390	0.0195833
391	0.0197925
392	0.0197925
393	0.0197925
394	0.0199181
395	0.0210295
396	0.0210295
397	0.0210295
398	0.0213056
399	0.0217288
400	0.0224315
401	0.0224315
402	0.0224315
403	0.0225365
404	0.0232937
405	0.0239017
406	0.0240337
407	0.0240337
408	0.0240337
409	0.0247603
410	0.0255667
411	0.0258825
412	0.0259394
413	0.0260559
414	0.0265574
415	0.0272364
416	0.0279524
417	0.0303862
418	0.0303862
419	0.0314714
420	0.0319583
421	0.0341453
422	0.0349405
423	0.0357158
424	0.0357158
425	0.0363151
426	0.0373858
427	0.0373858
428	0.0386921
429	0.0388446
430	0.0389091
431	0.0398362
432	0.0402641
433	0.0416326

434	0.0419021
435	0.042059
436	0.042059
437	0.042059
438	0.0435413
439	0.0453006
440	0.0453006
441	0.0453939
442	0.0465873
443	0.0478034
444	0.0480675
445	0.0480675
446	0.0480675
447	0.0495207
448	0.050334
449	0.0560787
450	0.0582669
451	0.0597542
452	0.0605252
453	0.0666332
454	0.0680909
455	0.069881
456	0.0717972
457	0.0717972
458	0.0778182
459	0.0796723
460	0.0861566
461	0.0907879
462	0.099255
463	0.0995869
464	0.0995869
465	0.108945
466	0.116534
467	0.125603
468	0.131523
469	0.132783
470	0.136182
471	0.155077
472	0.170788
473	0.172821
474	0.172821
475	0.183425
476	0.193858
477	0.216026
478	0.23263
479	0.243648
480	0.243648
481	0.267595
482	0.290788
483	0.310155
484	0.330133
485	0.330133
486	0.387717
487	0.465757
488	0.487295
489	0.495199
490	0.503104
491	0.54778
492	0.581575
493	0.82167
494	1.16315
495	1.33318

Sen's Estimator (Median Q) is 0

Tied Group	Value	Members
1	1.09861	2
2	0	14
3	-0.127833	2
4	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
6/5/2012	1

There are 1 time periods with multiple data

A = 6108
B = 18
C = 2190
D = 0
E = 192
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3462.53
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.7885
M1 = (495 - 96.7885)/2.0 = 199.106
M2 = (495 + 96.7885)/2.0 + 1 = 296.894
Lower limit is -0.010479 = Q(199)
Upper limit is 0 = Q(297)
-0.010479 < 0 < 0 indicating no trend in data.

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
-1.83258 J (6/5/2012) 1.25276 (7/20/1995) (-1.83258 - 1.25276)/(31 - 1)
-0.102845

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
-1.83258 J (6/5/2012) 2.17475 (8/24/1995) (-1.83258 - 2.17475)/(31 - 2)
-0.138184

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
-1.83258 J (6/5/2012) 1.79176 (9/28/1995) (-1.83258 - 1.79176)/(31 - 3)
-0.129441

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)
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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
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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)		
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ND<0 (4/7/1998) ND<0 (9/24/1997) (0 - 0)/(9 - 8) 0
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ND<0 (9/24/2003) ND<0 (9/24/1997) (0 - 0)/(14 - 8) 0
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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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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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-0.173091

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-0.832909
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0.24686 J (10/25/2005) 0.832909 (9/23/1999) (0.24686 - 0.832909)/(18 - 12)
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-0.198127
ND<-2.73337 U (11/22/2011) 0.832909 (9/23/1999) (-2.73337 - 0.832909)/(30 - 12)
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-0.140289

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ND<-2.73337 U (11/22/2011) ND<0 (3/15/2000) (-2.73337 - 0)/(30 - 13)
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ND<-2.73337 U (11/22/2011) ND<0 (9/24/2003) (-2.73337 - 0)/(30 - 14)
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ND<-2.73337 U (11/12/2010) ND<0 (3/11/2004) (-2.73337 - 0)/(28 - 15)
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-0.182225
ND<-2.73337 U (11/22/2011) ND<0 (3/11/2004) (-2.73337 - 0)/(30 - 15)
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-0.114536

1.10194 (4/1/2005) ND<0 (10/12/2004) (1.10194 - 0)/(17 - 16) 1.10194
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ND<-2.73337 U (11/22/2011) ND<0 (10/12/2004) (-2.73337 - 0)/(30 - 16)
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ND<-2.73337 U (11/22/2011) 0.693147 (5/23/2007) (-2.73337 - 0.693147)/(30 - 21)
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0.0653044

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ND<-2.73337 U (11/22/2011) 0.00995033 J (11/28/2007) (-2.73337 - 0.00995033)/(30 - 22) -0.342915
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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
-1.83258 J (6/5/2012) ND<0 (6/5/2008) (-1.83258 - 0)/(31 - 23) -0.229073

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
-1.83258 J (6/5/2012) -1.23787 J (11/20/2008) (-1.83258 - -1.23787)/(31 - 24) -0.0849582

-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
-1.83258 J (6/5/2012) 0.405465 (6/11/2009) (-1.83258 - 0.405465)/(31 - 25) -0.373008

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
-1.83258 J (6/5/2012) -1.51413 J (11/16/2009) (-1.83258 - -1.51413)/(31 - 26)
-0.0636907

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
-1.83258 J (6/5/2012) 0.336472 (6/30/2010) (-1.83258 - 0.336472)/(31 - 27)
-0.542263

-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
-1.83258 J (6/5/2012) ND<-2.73337 U (11/12/2010) (-1.83258 - -2.73337)/(31 - 28)
0.300262

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
-1.83258 J (6/5/2012) -1.60944 J (7/5/2011) (-1.83258 - -1.60944)/(31 - 29)
-0.111572

ND<-2.73337 U (11/22/2011) ND<-2.73337 U (11/22/2011) (-2.73337 - -2.73337)/(30 -
30) Same Date
-1.83258 J (6/5/2012) ND<-2.73337 U (11/22/2011) (-1.83258 - -2.73337)/(31 - 30)
0.900787

-1.83258 J (6/5/2012) ND<-2.73337 U (11/22/2011) (-1.83258 - -2.73337)/(31 - 30)
0.900787

Number of Q values = 495

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	-0.542263
34	-0.51986
35	-0.504709
36	-0.503726
37	-0.489502
38	-0.45722
39	-0.441455
40	-0.416455
41	-0.415888
42	-0.40731
43	-0.390481
44	-0.390481
45	-0.382992
46	-0.38102
47	-0.380921
48	-0.380724
49	-0.380724
50	-0.373873
51	-0.373008
52	-0.362459
53	-0.358352
54	-0.348664
55	-0.346574
56	-0.346574
57	-0.342915
58	-0.342915
59	-0.336568
60	-0.334259
61	-0.325848
62	-0.324318
63	-0.313889
64	-0.313191
65	-0.310679
66	-0.30481
67	-0.30481
68	-0.299263
69	-0.298627
70	-0.298023
71	-0.295024
72	-0.295024

73	-0.290674
74	-0.287823
75	-0.277987
76	-0.277636
77	-0.274653
78	-0.271844
79	-0.269609
80	-0.269255
81	-0.269255
82	-0.26824
83	-0.256624
84	-0.255966
85	-0.252573
86	-0.251314
87	-0.249249
88	-0.249249
89	-0.248352
90	-0.248352
91	-0.247456
92	-0.245551
93	-0.245082
94	-0.244136
95	-0.243239
96	-0.231341
97	-0.231049
98	-0.229611
99	-0.229611
100	-0.229073
101	-0.227781
102	-0.227386
103	-0.225948
104	-0.224118
105	-0.222892
106	-0.222823
107	-0.2226
108	-0.220547
109	-0.220123
110	-0.219722
111	-0.218398
112	-0.216212
113	-0.210259
114	-0.209609
115	-0.209604
116	-0.209558
117	-0.208227
118	-0.207944
119	-0.206129
120	-0.205441
121	-0.205441
122	-0.204726
123	-0.203447
124	-0.203447
125	-0.200534
126	-0.200521
127	-0.200521
128	-0.198127
129	-0.198127
130	-0.197705
131	-0.197483
132	-0.195241
133	-0.195241
134	-0.195241

135	-0.194363
136	-0.190839
137	-0.18904
138	-0.188774
139	-0.187281
140	-0.185568
141	-0.185563
142	-0.185108
143	-0.185108
144	-0.183657
145	-0.182225
146	-0.182225
147	-0.182225
148	-0.182107
149	-0.181229
150	-0.181005
151	-0.179927
152	-0.179176
153	-0.178966
154	-0.175878
155	-0.17529
156	-0.17529
157	-0.174291
158	-0.173805
159	-0.173287
160	-0.173091
161	-0.172565
162	-0.170836
163	-0.170836
164	-0.168754
165	-0.167645
166	-0.167597
167	-0.167597
168	-0.167289
169	-0.165866
170	-0.165507
171	-0.163344
172	-0.162887
173	-0.162887
174	-0.16253
175	-0.161607
176	-0.161192
177	-0.160786
178	-0.160786
179	-0.159957
180	-0.15986
181	-0.158964
182	-0.157437
183	-0.156595
184	-0.155817
185	-0.155339
186	-0.155119
187	-0.154734
188	-0.154459
189	-0.153703
190	-0.152826
191	-0.151854
192	-0.151413
193	-0.149313
194	-0.147634
195	-0.147555
196	-0.147208

197	-0.144962
198	-0.14489
199	-0.144268
200	-0.143861
201	-0.143841
202	-0.143734
203	-0.143667
204	-0.142048
205	-0.140928
206	-0.140289
207	-0.140155
208	-0.139196
209	-0.138184
210	-0.138127
211	-0.137828
212	-0.137648
213	-0.137542
214	-0.137453
215	-0.137453
216	-0.136705
217	-0.136668
218	-0.136668
219	-0.136668
220	-0.13577
221	-0.134184
222	-0.132516
223	-0.131908
224	-0.130899
225	-0.130815
226	-0.13016
227	-0.13016
228	-0.129441
229	-0.129249
230	-0.129064
231	-0.126177
232	-0.124244
233	-0.124244
234	-0.123803
235	-0.123787
236	-0.123087
237	-0.122172
238	-0.121619
239	-0.120493
240	-0.118842
241	-0.116471
242	-0.114972
243	-0.11496
244	-0.114536
245	-0.113597
246	-0.112534
247	-0.111572
248	-0.110676
249	-0.109444
250	-0.109335
251	-0.109335
252	-0.109216
253	-0.108746
254	-0.108289
255	-0.10824
256	-0.108181
257	-0.107799
258	-0.107799

259	-0.107296
260	-0.106539
261	-0.105527
262	-0.104397
263	-0.10356
264	-0.102993
265	-0.102845
266	-0.102221
267	-0.102198
268	-0.10181
269	-0.10059
270	-0.100272
271	-0.0995713
272	-0.0989109
273	-0.0976748
274	-0.0963664
275	-0.094633
276	-0.0943031
277	-0.0937794
278	-0.0936093
279	-0.089588
280	-0.0894831
281	-0.0894831
282	-0.0890663
283	-0.0886073
284	-0.0884196
285	-0.0879388
286	-0.0878834
287	-0.0874125
288	-0.0872658
289	-0.0870594
290	-0.0855803
291	-0.0849582
292	-0.0847073
293	-0.084397
294	-0.0841182
295	-0.0835175
296	-0.0832992
297	-0.082525
298	-0.0822959
299	-0.0815467
300	-0.080798
301	-0.0804719
302	-0.0804719
303	-0.0797132
304	-0.0796775
305	-0.0791674
306	-0.0779792
307	-0.0773671
308	-0.0769255
309	-0.0766399
310	-0.0765468
311	-0.0757813
312	-0.075719
313	-0.0751924
314	-0.0743127
315	-0.0735312
316	-0.0721013
317	-0.0719205
318	-0.0715208
319	-0.0704839
320	-0.0680834

321	-0.0670599
322	-0.0651513
323	-0.0643144
324	-0.0636907
325	-0.0630134
326	-0.061034
327	-0.060637
328	-0.0606124
329	-0.0594458
330	-0.0592274
331	-0.0591816
332	-0.0591708
333	-0.0586259
334	-0.0569438
335	-0.0527633
336	-0.049372
337	-0.0492728
338	-0.0479666
339	-0.0476551
340	-0.0457683
341	-0.0445105
342	-0.0381685
343	-0.0376881
344	-0.0353041
345	-0.035242
346	-0.0344964
347	-0.0330958
348	-0.0328803
349	-0.0317701
350	-0.0279808
351	-0.0203149
352	-0.0155291
353	-0.0102055
354	-0.00995033
355	-0.00942643
356	-0.0081644
357	-0.00680367
358	-0.00583171
359	-0.0040822
360	-0.00371109
361	-0.00340183
362	-0.00272147
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	0.000585314
402	0.000710738
403	0.00076541
404	0.000829194
405	0.00110559
406	0.00124379
407	0.00142148
408	0.00165839
409	0.00561821
410	0.00995691
411	0.0136073
412	0.0152942
413	0.0177091
414	0.0186929
415	0.0189892
416	0.0197925
417	0.0202733
418	0.0226579
419	0.0238509
420	0.0240337
421	0.024686
422	0.0253416
423	0.0253862
424	0.0258825
425	0.027031
426	0.0274289
427	0.0280394
428	0.0305884
429	0.0308575
430	0.0337888
431	0.0368605
432	0.0376478
433	0.0385377
434	0.0405465
435	0.0433217
436	0.0450517
437	0.049372
438	0.053319
439	0.0538062
440	0.0538992
441	0.0577623
442	0.0588915
443	0.061715
444	0.0630134

445	0.0653044
446	0.0822867
447	0.0841181
448	0.0866434
449	0.0892574
450	0.0918283
451	0.099021
452	0.108013
453	0.115525
454	0.115525
455	0.118987
456	0.122438
457	0.12343
458	0.131838
459	0.131908
460	0.135155
461	0.137743
462	0.138629
463	0.148762
464	0.155516
465	0.15742
466	0.179194
467	0.188892
468	0.202733
469	0.208227
470	0.269498
471	0.27154
472	0.275485
473	0.27556
474	0.277636
475	0.287682
476	0.300262
477	0.367313
478	0.416455
479	0.486811
480	0.524782
481	0.54308
482	0.55097
483	0.61039
484	0.733969
485	0.81462
486	0.900787
487	0.900787
488	0.921989
489	0.972955
490	1.10194
491	1.12393
492	1.62924
493	1.64334
494	1.8506
495	2.19722

Sen's Estimator (Median Q) is -0.110676

Tied Group	Value	Members
1	0	9
2	-2.733373	

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
6/5/2012	1	

There are 1 time periods with multiple data

A = 1722
B = 18
C = 510
D = 0
E = 78
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3706.08
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 100.135
M1 = (495 - 100.135)/2.0 = 197.433
M2 = (495 + 100.135)/2.0 + 1 = 298.567
Lower limit is -0.144962 = Q(197)
Upper limit is -0.0815467 = Q(299)
-0.0815467 < 0 indicating a downward trend in data.

Concentrations (ppb)

Parameter: Vanadium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 248
Total Non-Detect: 185
Percent Non-Detects: 74.5968%
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-10	31	17 (54.8387%)	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	
			6/5/2012	1.9 J	1.9 J	
MW-7	31	13 (41.9355%)	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	
			6/5/2012	2.9 J	2.9 J	
MW-8	30	15 (50%)	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
			6/5/2012	2 J	2 J
MW-9	32	27 (84.375%)	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
			6/5/2012	ND<1.4 U	ND<1.4 U
MW-6	31	30 (96.7742%)	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
			6/5/2012	ND<1.4 U	ND<1.4 U
MW-11R	32	30 (93.75%)	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
			6/5/2012	ND<1.4 U	ND<1.4 U
MW-12BR	21	20 (95.2381%)	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		
		6/5/2012	ND<1.4 U	ND<1.4 U		
MW-12AR	21	16 (76.1905%)	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		
		6/5/2012	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 = 248

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	-1.91103	34.3095	-10.7833
8	0.7	-1.85218	37.7401	-12.0798
9	0.7	-1.79912	40.9769	-13.3392
10	0.7	-1.75069	44.0418	-14.5647
11	0.7	-1.70604	46.9524	-15.7589
12	0.7	-1.66456	49.7231	-16.9241
13	0.7	-1.62576	52.3662	-18.0621
14	0.7	-1.58927	54.892	-19.1746
15	0.7	-1.55477	57.3093	-20.263
16	0.7	-1.52203	59.6259	-21.3284
17	0.7	-1.49085	61.8486	-22.372
18	0.7	-1.46106	63.9833	-23.3947
19	0.7	-1.4325	66.0353	-24.3975
20	0.7	-1.40507	68.0096	-25.381
21	0.7	-1.37866	69.9102	-26.3461
22	0.7	-1.35317	71.7413	-27.2933
23	0.7	-1.32854	73.5063	-28.2233
24	0.7	-1.30469	75.2086	-29.1366
25	0.7	-1.28155	76.8509	-30.0337
26	0.7	-1.25908	78.4362	-30.915
27	0.7	-1.23724	79.967	-31.7811
28	0.7	-1.21596	81.4455	-32.6322
29	0.7	-1.19522	82.8741	-33.4689
30	0.7	-1.17499	84.2547	-34.2914
31	0.7	-1.15522	85.5892	-35.1
32	0.7	-1.1359	86.8795	-35.8952
33	0.7	-1.11699	88.1271	-36.6771
34	0.7	-1.09847	89.3338	-37.446
35	0.7	-1.08032	90.5009	-38.2022
36	0.7	-1.06252	91.6298	-38.946
37	0.7	-1.04505	92.7219	-39.6775
38	0.7	-1.02789	93.7785	-40.397
39	0.7	-1.01104	94.8007	-41.1048
40	0.7	-0.994457	95.7896	-41.8009
41	0.7	-0.97815	96.7464	-42.4856
42	0.7	-0.9621	97.6721	-43.1591
43	0.7	-0.946291	98.5675	-43.8215
44	0.7	-0.930718	99.4338	-44.473
45	1.4	-0.915365	100.272	-45.7545
46	1.5	-0.900227	101.082	-47.1048
47	1.5	-0.885291	101.866	-48.4328
48	1.5	-0.87055	102.624	-49.7386
49	1.5	-0.855996	103.356	-51.0226
50	1.6	-0.841621	104.065	-52.3692
51	1.8	-0.827417	104.749	-53.8585

52	1.9	-0.813379	105.411	-55.4039
53	1.9	-0.7995	106.05	-56.923
54	1.9	-0.785774	106.668	-58.416
55	1.9	-0.772193	107.264	-59.8831
56	2	-0.758753	107.84	-61.4006
57	2	-0.745449	108.395	-62.8915
58	2.1	-0.732275	108.931	-64.4293
59	2.5	-0.719228	109.449	-66.2274
60	2.8	-0.706302	109.948	-68.205
61	2.9	-0.693493	110.429	-70.2162
62	2.94	-0.680797	110.892	-72.2177
63	3.07	-0.665079	111.334	-74.2595
64	3.77	-0.652622	111.76	-76.7199
65	4	-0.640266	112.17	-79.2809
66	4.3	-0.628006	112.565	-81.9814
67	4.47	-0.615839	112.944	-84.7342
68	4.7	-0.603765	113.308	-87.5719
69	5.32	-0.591776	113.659	-90.7201
70	6	-0.579873	113.995	-94.1994
71	6	-0.568052	114.318	-97.6077
72	7	-0.556308	114.627	-101.502
73	8.33	-0.544642	114.924	-106.039
74	9	-0.533048	115.208	-110.836
75	9	-0.521527	115.48	-115.53
76	9	-0.510074	115.74	-120.121
77	10	-0.498687	115.989	-125.107
78	10	-0.487364	116.226	-129.981
79	10	-0.476105	116.453	-134.742
80	10	-0.464904	116.669	-139.391
81	10	-0.453763	116.875	-143.929
82	10	-0.442676	117.071	-148.356
83	10	-0.431644	117.257	-152.672
84	10	-0.420664	117.434	-156.879
85	10	-0.409735	117.602	-160.976
86	10	-0.398855	117.761	-164.965
87	10	-0.388022	117.912	-168.845
88	10	-0.377233	118.054	-172.617
89	10	-0.36649	118.188	-176.282
90	10	-0.355788	118.315	-179.84
91	10	-0.345126	118.434	-183.291
92	10	-0.334503	118.546	-186.636
93	10	-0.323919	118.651	-189.875
94	10	-0.31337	118.749	-193.009
95	10	-0.302855	118.841	-196.038
96	10	-0.292375	118.926	-198.961
97	10	-0.281926	119.006	-201.781
98	10	-0.271509	119.079	-204.496
99	10	-0.26112	119.148	-207.107
100	10	-0.250759	119.21	-209.614
101	10	-0.240426	119.268	-212.019
102	10	-0.230118	119.321	-214.32
103	10	-0.219834	119.37	-216.518
104	10	-0.209575	119.413	-218.614
105	10	-0.199336	119.453	-220.607
106	10	-0.189118	119.489	-222.499
107	10	-0.17892	119.521	-224.288
108	10	-0.168741	119.549	-225.975
109	10	-0.158579	119.575	-227.561
110	10	-0.148434	119.597	-229.045
111	10	-0.138305	119.616	-230.428
112	10	-0.128189	119.632	-231.71
113	10	-0.118085	119.646	-232.891

114	10	-0.107995	119.658	-233.971
115	10	-0.0979139	119.667	-234.95
116	10	-0.0878447	119.675	-235.829
117	10	-0.0777834	119.681	-236.606
118	10	-0.0677301	119.686	-237.284
119	10	-0.0576847	119.689	-237.861
120	10	-0.0476439	119.691	-238.337
121	10	-0.0376076	119.693	-238.713
122	10	-0.0275759	119.694	-238.989
123	10	-0.0175476	119.694	-239.164
124	10	-0.00751925	119.694	-239.24
125	10	0.00751925	119.694	-239.164
126	10	0.0175476	119.694	-238.989
127	10	0.0275759	119.695	-238.713
128	10	0.0376076	119.696	-238.337
129	10	0.0476439	119.699	-237.861
130	10	0.0576847	119.702	-237.284
131	10	0.0677301	119.707	-236.606
132	10	0.0777834	119.713	-235.829
133	10	0.0878447	119.72	-234.95
134	10	0.0979139	119.73	-233.971
135	10	0.107995	119.742	-232.891
136	10	0.118085	119.756	-231.71
137	10	0.128189	119.772	-230.428
138	10	0.138305	119.791	-229.045
139	10	0.148434	119.813	-227.561
140	10	0.158579	119.838	-225.975
141	10	0.168741	119.867	-224.288
142	10	0.17892	119.899	-222.499
143	10	0.189118	119.935	-220.607
144	10	0.199336	119.974	-218.614
145	10	0.209575	120.018	-216.518
146	10	0.219834	120.067	-214.32
147	10	0.230118	120.119	-212.019
148	10	0.240426	120.177	-209.614
149	10	0.250759	120.24	-207.107
150	10	0.26112	120.308	-204.496
151	10	0.271509	120.382	-201.781
152	10	0.281926	120.462	-198.961
153	10	0.292375	120.547	-196.038
154	10	0.302855	120.639	-193.009
155	10	0.31337	120.737	-189.875
156	10	0.323919	120.842	-186.636
157	10	0.334503	120.954	-183.291
158	10	0.345126	121.073	-179.84
159	10	0.355788	121.199	-176.282
160	10	0.36649	121.334	-172.617
161	10	0.377233	121.476	-168.845
162	10	0.388022	121.627	-164.965
163	10	0.398855	121.786	-160.976
164	10	0.409735	121.954	-156.879
165	10	0.420664	122.131	-152.672
166	10	0.431644	122.317	-148.356
167	10	0.442676	122.513	-143.929
168	10	0.453763	122.719	-139.391
169	10	0.464904	122.935	-134.742
170	10	0.476105	123.162	-129.981
171	10	0.487364	123.399	-125.107
172	10	0.498687	123.648	-120.121
173	10	0.510074	123.908	-115.02
174	10	0.521527	124.18	-109.805
175	10	0.533048	124.464	-104.474

176	10	0.544642		124.761	-99.0276
177	10	0.556308		125.07	-93.4645
178	10	0.568052		125.393	-87.784
179	10	0.579873		125.729	-81.9853
180	10	0.591776		126.079	-76.0675
181	10	0.603765		126.444	-70.0299
182	10	0.615839		126.823	-63.8715
183	10	0.628006		127.218	-57.5914
184	10	0.640266		127.627	-51.1888
185	10	0.652622		128.053	-44.6625
186	10	0.665079		128.496	-38.0118
187	10	0.680797		128.959	-31.2038
188	10	0.693493		129.44	-24.2689
189	10	0.706302		129.939	-17.2058
190	10	0.719228		130.456	-10.0135
191	10	0.732275		130.993	-2.6908
192	10	0.745449		131.548	4.7637
193	10	0.758753		132.124	12.3512
194	10	0.772193		132.72	20.0732
195	10	0.785774		133.338	27.9309
196	10	0.7995	133.977	35.9259	
197	10	0.813379		134.638	44.0597
198	10	0.827417		135.323	52.3339
199	10	0.841621		136.031	60.7501
200	10	0.855996		136.764	69.31
201	10	0.87055	137.522	78.0155	
202	10	0.885291		138.306	86.8684
203	10	0.900227		139.116	95.8707
204	10	0.915365		139.954	105.024
205	10	0.930718		140.82	114.332
206	10	0.946291		141.716	123.794
207	10	0.9621	142.641	133.415	
208	10	0.97815	143.598	143.197	
209	10	0.994457		144.587	153.142
210	10	1.01104	145.609	163.252	
211	10	1.02789	146.666	173.531	
212	10	1.04505	147.758	183.981	
213	10	1.06252	148.887	194.607	
214	10	1.08032	150.054	205.41	
215	10	1.09847	151.261	216.394	
216	10	1.11699	152.508	227.564	
217	10	1.1359	153.799	238.923	
218	11	1.15522	155.133	251.631	
219	12	1.17499	156.514	265.731	
220	16	1.19522	157.942	284.854	
221	21.2	1.21596	159.421	310.632	
222	22	1.23724	160.952	337.852	
223	22	1.25908	162.537	365.551	
224	25	1.28155	164.179	397.59	
225	27	1.30469	165.881	432.817	
226	39	1.32854	167.646	484.63	
227	41	1.35317	169.477	540.11	
228	42	1.37866	171.378	598.014	
229	43	1.40507	173.352	658.432	
230	44	1.4325	175.404	721.462	
231	44	1.46106	177.539	785.748	
232	50	1.49085	179.762	860.291	
233	52	1.52203	182.078	939.437	
234	52	1.55477	184.496	1020.29	
235	62	1.58927	187.022	1118.82	
236	64	1.62576	189.665	1222.87	
237	73	1.66456	192.435	1344.38	

238	76	1.70604	195.346	1474.04
239	96	1.75069	198.411	1642.11
240	110	1.79912	201.648	1840.01
241	120	1.85218	205.078	2062.27
242	122	1.91103	208.73	2295.42
243	160	1.97737	212.64	2611.8
244	164	2.05375	216.858	2948.61
245	178	2.14441	221.457	3330.31
246	245	2.25713	226.551	3883.31
247	270	2.40892	232.354	4533.72
248	274	2.65209	239.388	5260.39

Data Set Standard Deviation = 36.5208
Numerator = 2.76717e+007
Denominator = 7.8864e+007
W Statistic = 0.350879 = 2.76717e+007 / 7.8864e+007

5% Critical value of 0.976 exceeds 0.350879
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.350879
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 = 0.599914
0.599914 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.7	0.00401606	-2.65209	40.2483	344.01	
2	0.7	0.00803213	-2.40892	40.2483	332.136	
3	0.7	0.0120482	-2.25713	40.2483	324.723	
4	0.7	0.0160643	-2.14441	40.2483	319.219	
5	0.7	0.0200803	-2.05375	40.2483	314.791	
6	0.7	0.0240964	-1.97737	40.2483	311.062	
7	0.7	0.0281124	-1.91103	40.2483	307.822	
8	0.7	0.0321285	-1.85218	40.2483	304.948	
9	0.7	0.0361446	-1.79912	40.2483	302.357	
10	0.7	0.0401606	-1.75069	40.2483	299.992	
11	0.7	0.0441767	-1.70604	40.2483	297.812	
12	0.7	0.0481928	-1.66456	40.2483	295.786	
13	0.7	0.0522088	-1.62576	40.2483	293.891	
14	0.7	0.0562249	-1.58927	40.2483	292.109	
15	0.7	0.060241	-1.55477	40.2483	290.425	
16	0.7	0.064257	-1.52203	40.2483	288.826	
17	0.7	0.0682731	-1.49085	40.2483	287.303	
18	0.7	0.0722892	-1.46106	40.2483	285.848	
19	0.7	0.0763052	-1.4325	40.2483	284.454	
20	0.7	0.0803213	-1.40507	40.2483	283.114	
21	0.7	0.0843373	-1.37866	40.2483	281.824	
22	0.7	0.0883534	-1.35317	40.2483	280.58	
23	0.7	0.0923695	-1.32854	40.2483	279.377	
24	0.7	0.0963855	-1.30469	40.2483	278.212	
25	0.7	0.100402	-1.28155	40.2483	277.082	
26	0.7	0.104418	-1.25908	40.2483	275.985	
27	0.7	0.108434	-1.23724	40.2483	274.918	
28	0.7	0.11245	-1.21596	40.2483	273.879	
29	0.7	0.116466	-1.19522	40.2483	272.867	
30	0.7	0.120482	-1.17499	40.2483	271.879	
31	0.7	0.124498	-1.15522	40.2483	270.913	
32	0.7	0.128514	-1.1359	40.2483	269.97	
33	0.7	0.13253	-1.11699	40.2483	269.046	
34	0.7	0.136546	-1.09847	40.2483	268.142	
35	0.7	0.140562	-1.08032	40.2483	267.256	
36	0.7	0.144578	-1.06252	40.2483	266.386	
37	0.7	0.148594	-1.04505	40.2483	265.533	
38	0.7	0.15261	-1.02789	40.2483	264.695	
39	0.7	0.156627	-1.01104	40.2483	263.872	
40	0.7	0.160643	-0.994457	40.2483	263.063	
41	0.7	0.164659	-0.97815	40.2483	262.266	
42	0.7	0.168675	-0.9621	40.2483	261.483	
43	0.7	0.172691	-0.946291	40.2483	260.711	
44	0.7	0.176707	-0.930718	40.2483	259.95	
45	1.4	0.180723	-0.915365	41.4967	259.2	
46	1.5	0.184739	-0.900227	41.675	258.461	
47	1.5	0.188755	-0.885291	41.675	257.732	
48	1.5	0.192771	-0.87055	41.675	257.012	

49	1.5	0.196787	-0.855996	41.675	256.301
50	1.6	0.200803	-0.841621	41.8533	255.599
51	1.8	0.204819	-0.827417	42.21	254.906
52	1.9	0.208835	-0.813379	42.3883	254.22
53	1.9	0.212851	-0.7995	42.3883	253.542
54	1.9	0.216867	-0.785774	42.3883	252.872
55	1.9	0.220884	-0.772193	42.3883	252.209
56	2	0.2249	-0.758753	42.5667	251.552
57	2	0.228916	-0.745449	42.5667	250.903
58	2.1	0.232932	-0.732275	42.745	250.259
59	2.5	0.236948	-0.719228	43.4583	249.622
60	2.8	0.240964	-0.706302	43.9933	248.991
61	2.9	0.24498	-0.693493	44.1717	248.366
62	2.94	0.248996	-0.680797	44.243	247.746
63	3.07	0.253012	-0.665079	44.4748	246.978
64	3.77	0.257028	-0.652622	45.7232	246.37
65	4	0.261044	-0.640266	46.1333	245.766
66	4.3	0.26506	-0.628006	46.6683	245.168
67	4.47	0.269076	-0.615839	46.9715	244.573
68	4.7	0.273092	-0.603765	47.3817	243.984
69	5.32	0.277108	-0.591776	48.4873	243.398
70	6	0.281124	-0.579873	49.7	242.817
71	6	0.285141	-0.568052	49.7	242.24
72	7	0.289157	-0.556308	51.4833	241.666
73	8.33	0.293173	-0.544642	53.8552	241.097
74	9	0.297189	-0.533048	55.05	240.531
75	9	0.301205	-0.521527	55.05	239.968
76	9	0.305221	-0.510074	55.05	239.409
77	10	0.309237	-0.498687	56.8333	238.853
78	10	0.313253	-0.487364	56.8333	238.3
79	10	0.317269	-0.476105	56.8333	237.75
80	10	0.321285	-0.464904	56.8333	237.203
81	10	0.325301	-0.453763	56.8333	236.659
82	10	0.329317	-0.442676	56.8333	236.117
83	10	0.333333	-0.431644	56.8333	235.579
84	10	0.337349	-0.420664	56.8333	235.042
85	10	0.341365	-0.409735	56.8333	234.509
86	10	0.345382	-0.398855	56.8333	233.977
87	10	0.349398	-0.388022	56.8333	233.448
88	10	0.353414	-0.377233	56.8333	232.922
89	10	0.35743	-0.3664	56.8333	232.397
90	10	0.361446	-0.355788	56.8333	231.874
91	10	0.365462	-0.345126	56.8333	231.354
92	10	0.369478	-0.334503	56.8333	230.835
93	10	0.373494	-0.323919	56.8333	230.318
94	10	0.37751	-0.3133	56.8333	229.803
95	10	0.381526	-0.302855	56.8333	229.289
96	10	0.385542	-0.292375	56.8333	228.778
97	10	0.389558	-0.281926	56.8333	228.267
98	10	0.393574	-0.271509	56.8333	227.759
99	10	0.39759	-0.2611	56.8333	227.251
100	10	0.401606	-0.250759	56.8333	226.745
101	10	0.405622	-0.240426	56.8333	226.241
102	10	0.409639	-0.230118	56.8333	225.737
103	10	0.413655	-0.219834	56.8333	225.235
104	10	0.417671	-0.209575	56.8333	224.734
105	10	0.421687	-0.199336	56.8333	224.234
106	10	0.425703	-0.189118	56.8333	223.735
107	10	0.429719	-0.1789	56.8333	223.237
108	10	0.433735	-0.168741	56.8333	222.74
109	10	0.437751	-0.158579	56.8333	222.244
110	10	0.441767	-0.148434	56.8333	221.749

111	10	0.445783	-0.138305	56.8333	221.254
112	10	0.449799	-0.128189	56.8333	220.76
113	10	0.453815	-0.118085	56.8333	220.267
114	10	0.457831	-0.107995	56.8333	219.774
115	10	0.461847	-0.0979139	56.8333	219.281
116	10	0.465863	-0.0878447	56.8333	218.79
117	10	0.46988	-0.0777834	56.8333	218.298
118	10	0.473896	-0.0677301	56.8333	217.807
119	10	0.477912	-0.0576847	56.8333	217.317
120	10	0.481928	-0.0476439	56.8333	216.827
121	10	0.485944	-0.0376076	56.8333	216.337
122	10	0.48996	-0.0275759	56.8333	215.847
123	10	0.493976	-0.0175476	56.8333	215.357
124	10	0.497992	-0.00751925	56.8333	214.867
125	10	0.502008	0.00751925	56.8333	214.133
126	10	0.506024	0.0175476	56.8333	213.643
127	10	0.51004	0.0275759	56.8333	213.153
128	10	0.514056	0.0376076	56.8333	212.663
129	10	0.518072	0.0476439	56.8333	212.173
130	10	0.522088	0.0576847	56.8333	211.683
131	10	0.526104	0.0677301	56.8333	211.193
132	10	0.53012	0.0777834	56.8333	210.702
133	10	0.534137	0.0878447	56.8333	210.21
134	10	0.538153	0.0979139	56.8333	209.719
135	10	0.542169	0.107995	56.8333	209.226
136	10	0.546185	0.118085	56.8333	208.733
137	10	0.550201	0.128189	56.8333	208.24
138	10	0.554217	0.138305	56.8333	207.746
139	10	0.558233	0.148434	56.8333	207.251
140	10	0.562249	0.158579	56.8333	206.756
141	10	0.566265	0.168741	56.8333	206.26
142	10	0.570281	0.17892	56.8333	205.763
143	10	0.574297	0.189118	56.8333	205.265
144	10	0.578313	0.199336	56.8333	204.766
145	10	0.582329	0.209575	56.8333	204.266
146	10	0.586345	0.219834	56.8333	203.765
147	10	0.590361	0.230118	56.8333	203.263
148	10	0.594378	0.240426	56.8333	202.759
149	10	0.598394	0.250759	56.8333	202.255
150	10	0.60241	0.26112	56.8333	201.749
151	10	0.606426	0.271509	56.8333	201.241
152	10	0.610442	0.281926	56.8333	200.733
153	10	0.614458	0.292375	56.8333	200.222
154	10	0.618474	0.302855	56.8333	199.711
155	10	0.62249	0.31337	56.8333	199.197
156	10	0.626506	0.323919	56.8333	198.682
157	10	0.630522	0.334503	56.8333	198.165
158	10	0.634538	0.345126	56.8333	197.646
159	10	0.638554	0.355788	56.8333	197.126
160	10	0.64257	0.36649	56.8333	196.603
161	10	0.646586	0.377233	56.8333	196.078
162	10	0.650602	0.388022	56.8333	195.552
163	10	0.654618	0.398855	56.8333	195.023
164	10	0.658635	0.409735	56.8333	194.491
165	10	0.662651	0.420664	56.8333	193.958
166	10	0.666667	0.431644	56.8333	193.421
167	10	0.670683	0.442676	56.8333	192.883
168	10	0.674699	0.453763	56.8333	192.341
169	10	0.678715	0.464904	56.8333	191.797
170	10	0.682731	0.476105	56.8333	191.25
171	10	0.686747	0.487364	56.8333	190.7
172	10	0.690763	0.498687	56.8333	190.147

173	10	0.694779	0.510074	56.8333	189.591
174	10	0.698795	0.521527	56.8333	189.032
175	10	0.702811	0.533048	56.8333	188.469
176	10	0.706827	0.544642	56.8333	187.903
177	10	0.710843	0.556308	56.8333	187.334
178	10	0.714859	0.568052	56.8333	186.76
179	10	0.718876	0.579873	56.8333	186.183
180	10	0.722892	0.591776	56.8333	185.602
181	10	0.726908	0.603765	56.8333	185.016
182	10	0.730924	0.615839	56.8333	184.427
183	10	0.73494	0.628006	56.8333	183.832
184	10	0.738956	0.640266	56.8333	183.234
185	10	0.742972	0.652622	56.8333	182.63
186	10	0.746988	0.665079	56.8333	182.022
187	10	0.751004	0.680797	56.8333	181.254
188	10	0.75502	0.693493	56.8333	180.634
189	10	0.759036	0.706302	56.8333	180.009
190	10	0.763052	0.719228	56.8333	179.378
191	10	0.767068	0.732275	56.8333	178.741
192	10	0.771084	0.745449	56.8333	178.097
193	10	0.7751	0.758753	56.8333	177.448
194	10	0.779116	0.772193	56.8333	176.791
195	10	0.783133	0.785774	56.8333	176.128
196	10	0.787149	0.7995	56.8333	175.458
197	10	0.791165	0.813379	56.8333	174.78
198	10	0.795181	0.827417	56.8333	174.094
199	10	0.799197	0.841621	56.8333	173.401
200	10	0.803213	0.855996	56.8333	172.699
201	10	0.807229	0.87055	56.8333	171.988
202	10	0.811245	0.885291	56.8333	171.268
203	10	0.815261	0.900227	56.8333	170.539
204	10	0.819277	0.915365	56.8333	169.8
205	10	0.823293	0.930718	56.8333	169.05
206	10	0.827309	0.946291	56.8333	168.289
207	10	0.831325	0.9621	56.8333	167.517
208	10	0.835341	0.97815	56.8333	166.734
209	10	0.839357	0.994457	56.8333	165.937
210	10	0.843373	1.01104	56.8333	165.128
211	10	0.84739	1.02789	56.8333	164.305
212	10	0.851406	1.04505	56.8333	163.467
213	10	0.855422	1.06252	56.8333	162.614
214	10	0.859438	1.08032	56.8333	161.744
215	10	0.863454	1.09847	56.8333	160.858
216	10	0.86747	1.11699	56.8333	159.954
217	10	0.871486	1.1359	56.8333	159.03
218	11	0.875502	1.15522	58.6167	158.087
219	12	0.879518	1.17499	60.4	157.121
220	16	0.883534	1.19522	67.5333	156.133
221	21.2	0.88755	1.21596	76.8067	155.121
222	22	0.891566	1.23724	78.2333	154.082
223	22	0.895582	1.25908	78.2333	153.015
224	25	0.899598	1.28155	83.5833	151.918
225	27	0.903614	1.30469	87.15	150.788
226	39	0.907631	1.32854	108.55	149.623
227	41	0.911647	1.35317	112.117	148.42
228	42	0.915663	1.37866	113.9	147.176
229	43	0.919679	1.40507	115.683	145.886
230	44	0.923695	1.4325	117.467	144.546
231	44	0.927711	1.46106	117.467	143.152
232	50	0.931727	1.49085	128.167	141.697
233	52	0.935743	1.52203	131.733	140.174
234	52	0.939759	1.55477	131.733	138.575

235	62	0.943775	1.58927	149.567	136.891
236	64	0.947791	1.62576	153.133	135.109
237	73	0.951807	1.66456	169.183	133.214
238	76	0.955823	1.70604	174.533	131.188
239	96	0.959839	1.75069	210.2	129.008
240	110	0.963855	1.79912	235.167	126.643
241	120	0.967871	1.85218	253	124.052
242	122	0.971888	1.91103	256.567	121.178
243	160	0.975904	1.97737	324.333	117.938
244	164	0.97992	2.05375	331.467	114.209
245	178	0.983936	2.14441	356.433	109.781
246	245	0.987952	2.25713	475.917	104.277
247	270	0.991968	2.40892	520.5	96.8642
248	274	0.995984	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 = 248

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	-1.91103	34.3095	5.49447
8	-0.356675	-1.85218	37.7401	6.15509
9	-0.356675	-1.79912	40.9769	6.79679
10	-0.356675	-1.75069	44.0418	7.42122
11	-0.356675	-1.70604	46.9524	8.02972
12	-0.356675	-1.66456	49.7231	8.62343
13	-0.356675	-1.62576	52.3662	9.2033
14	-0.356675	-1.58927	54.892	9.77015
15	-0.356675	-1.55477	57.3093	10.3247
16	-0.356675	-1.52203	59.6259	10.8676
17	-0.356675	-1.49085	61.8486	11.3993
18	-0.356675	-1.46106	63.9833	11.9204
19	-0.356675	-1.4325	66.0353	12.4314
20	-0.356675	-1.40507	68.0096	12.9325
21	-0.356675	-1.37866	69.9102	13.4243
22	-0.356675	-1.35317	71.7413	13.9069
23	-0.356675	-1.32854	73.5063	14.3808
24	-0.356675	-1.30469	75.2086	14.8461
25	-0.356675	-1.28155	76.8509	15.3032
26	-0.356675	-1.25908	78.4362	15.7523
27	-0.356675	-1.23724	79.967	16.1936
28	-0.356675	-1.21596	81.4455	16.6273
29	-0.356675	-1.19522	82.8741	17.0536
30	-0.356675	-1.17499	84.2547	17.4727
31	-0.356675	-1.15522	85.5892	17.8847
32	-0.356675	-1.1359	86.8795	18.2899
33	-0.356675	-1.11699	88.1271	18.6883
34	-0.356675	-1.09847	89.3338	19.0801
35	-0.356675	-1.08032	90.5009	19.4654
36	-0.356675	-1.06252	91.6298	19.8444
37	-0.356675	-1.04505	92.7219	20.2171
38	-0.356675	-1.02789	93.7785	20.5837
39	-0.356675	-1.01104	94.8007	20.9443
40	-0.356675	-0.994457	95.7896	21.299
41	-0.356675	-0.97815	96.7464	21.6479
42	-0.356675	-0.9621	97.6721	21.9911
43	-0.356675	-0.946291	98.5675	22.3286
44	-0.356675	-0.930718	99.4338	22.6606
45	0.336472	-0.915365	100.272	22.3526
46	0.405465	-0.900227	101.082	21.9876
47	0.405465	-0.885291	101.866	21.6286
48	0.405465	-0.87055	102.624	21.2756
49	0.405465	-0.855996	103.356	20.9285
50	0.470004	-0.841621	104.065	20.533
51	0.587787	-0.827417	104.749	20.0466

52	0.641854	-0.813379	105.411	19.5246
53	0.641854	-0.7995	106.05	19.0114
54	0.641854	-0.785774	106.668	18.5071
55	0.641854	-0.772193	107.264	18.0114
56	0.693147	-0.758753	107.84	17.4855
57	0.693147	-0.745449	108.395	16.9688
58	0.741937	-0.732275	108.931	16.4255
59	0.916291	-0.719228	109.449	15.7665
60	1.02962	-0.706302	109.948	15.0392
61	1.06471	-0.693493	110.429	14.3009
62	1.07841	-0.680797	110.892	13.5667
63	1.12168	-0.665079	111.334	12.8207
64	1.32708	-0.652622	111.76	11.9546
65	1.38629	-0.640266	112.17	11.067
66	1.45862	-0.628006	112.565	10.151
67	1.49739	-0.615839	112.944	9.22884
68	1.54756	-0.603765	113.308	8.29448
69	1.67147	-0.591776	113.659	7.30534
70	1.79176	-0.579873	113.995	6.26635
71	1.79176	-0.568052	114.318	5.24853
72	1.94591	-0.556308	114.627	4.16601
73	2.11986	-0.544642	114.924	3.01144
74	2.19722	-0.533048	115.208	1.84021
75	2.19722	-0.521527	115.48	0.694302
76	2.19722	-0.510074	115.74	-0.426446
77	2.30259	-0.498687	115.989	-1.57472
78	2.30259	-0.487364	116.226	-2.69691
79	2.30259	-0.476105	116.453	-3.79318
80	2.30259	-0.464904	116.669	-4.86367
81	2.30259	-0.453763	116.875	-5.90849
82	2.30259	-0.442676	117.071	-6.92779
83	2.30259	-0.431644	117.257	-7.92169
84	2.30259	-0.420664	117.434	-8.8903
85	2.30259	-0.409735	117.602	-9.83375
86	2.30259	-0.398855	117.761	-10.7522
87	2.30259	-0.388022	117.912	-11.6456
88	2.30259	-0.377233	118.054	-12.5142
89	2.30259	-0.36649	118.188	-13.3581
90	2.30259	-0.355788	118.315	-14.1773
91	2.30259	-0.345126	118.434	-14.972
92	2.30259	-0.334503	118.546	-15.7422
93	2.30259	-0.323919	118.651	-16.4881
94	2.30259	-0.31337	118.749	-17.2096
95	2.30259	-0.302855	118.841	-17.907
96	2.30259	-0.292375	118.926	-18.5802
97	2.30259	-0.281926	119.006	-19.2294
98	2.30259	-0.271509	119.079	-19.8545
99	2.30259	-0.26112	119.148	-20.4558
100	2.30259	-0.250759	119.21	-21.0332
101	2.30259	-0.240426	119.268	-21.5868
102	2.30259	-0.230118	119.321	-22.1167
103	2.30259	-0.219834	119.37	-22.6228
104	2.30259	-0.209575	119.413	-23.1054
105	2.30259	-0.199336	119.453	-23.5644
106	2.30259	-0.189118	119.489	-23.9999
107	2.30259	-0.17892	119.521	-24.4118
108	2.30259	-0.168741	119.549	-24.8004
109	2.30259	-0.158579	119.575	-25.1655
110	2.30259	-0.148434	119.597	-25.5073
111	2.30259	-0.138305	119.616	-25.8258
112	2.30259	-0.128189	119.632	-26.1209
113	2.30259	-0.118085	119.646	-26.3928

114	2.30259	-0.107995	119.658	-26.6415
115	2.30259	-0.0979139	119.667	-26.8669
116	2.30259	-0.0878447	119.675	-27.0692
117	2.30259	-0.0777834	119.681	-27.2483
118	2.30259	-0.0677301	119.686	-27.4043
119	2.30259	-0.0576847	119.689	-27.5371
120	2.30259	-0.0476439	119.691	-27.6468
121	2.30259	-0.0376076	119.693	-27.7334
122	2.30259	-0.0275759	119.694	-27.7969
123	2.30259	-0.0175476	119.694	-27.8373
124	2.30259	-0.00751925	119.694	-27.8546
125	2.30259	0.00751925	119.694	-27.8373
126	2.30259	0.0175476	119.694	-27.7969
127	2.30259	0.0275759	119.695	-27.7334
128	2.30259	0.0376076	119.696	-27.6468
129	2.30259	0.0476439	119.699	-27.5371
130	2.30259	0.0576847	119.702	-27.4043
131	2.30259	0.0677301	119.707	-27.2483
132	2.30259	0.0777834	119.713	-27.0692
133	2.30259	0.0878447	119.72	-26.8669
134	2.30259	0.0979139	119.73	-26.6415
135	2.30259	0.107995	119.742	-26.3928
136	2.30259	0.118085	119.756	-26.1209
137	2.30259	0.128189	119.772	-25.8258
138	2.30259	0.138305	119.791	-25.5073
139	2.30259	0.148434	119.813	-25.1655
140	2.30259	0.158579	119.838	-24.8004
141	2.30259	0.168741	119.867	-24.4118
142	2.30259	0.17892	119.899	-23.9999
143	2.30259	0.189118	119.935	-23.5644
144	2.30259	0.199336	119.974	-23.1054
145	2.30259	0.209575	120.018	-22.6228
146	2.30259	0.219834	120.067	-22.1167
147	2.30259	0.230118	120.119	-21.5868
148	2.30259	0.240426	120.177	-21.0332
149	2.30259	0.250759	120.24	-20.4558
150	2.30259	0.26112	120.308	-19.8545
151	2.30259	0.271509	120.382	-19.2294
152	2.30259	0.281926	120.462	-18.5802
153	2.30259	0.292375	120.547	-17.907
154	2.30259	0.302855	120.639	-17.2096
155	2.30259	0.31337	120.737	-16.4881
156	2.30259	0.323919	120.842	-15.7422
157	2.30259	0.334503	120.954	-14.972
158	2.30259	0.345126	121.073	-14.1773
159	2.30259	0.355788	121.199	-13.3581
160	2.30259	0.36649	121.334	-12.5142
161	2.30259	0.377233	121.476	-11.6456
162	2.30259	0.388022	121.627	-10.7522
163	2.30259	0.398855	121.786	-9.83375
164	2.30259	0.409735	121.954	-8.8903
165	2.30259	0.420664	122.131	-7.92169
166	2.30259	0.431644	122.317	-6.92779
167	2.30259	0.442676	122.513	-5.90849
168	2.30259	0.453763	122.719	-4.86367
169	2.30259	0.464904	122.935	-3.79318
170	2.30259	0.476105	123.162	-2.69691
171	2.30259	0.487364	123.399	-1.57472
172	2.30259	0.498687	123.648	-0.426446
173	2.30259	0.510074	123.908	0.748043
174	2.30259	0.521527	124.18	1.9489
175	2.30259	0.533048	124.464	3.17629

176	2.30259	0.544642		124.761	4.43038
177	2.30259	0.556308		125.07	5.71132
178	2.30259	0.568052		125.393	7.01931
179	2.30259	0.579873		125.729	8.35452
180	2.30259	0.591776		126.079	9.71714
181	2.30259	0.603765		126.444	11.1074
182	2.30259	0.615839		126.823	12.5254
183	2.30259	0.628006		127.218	13.9714
184	2.30259	0.640266		127.627	15.4457
185	2.30259	0.652622		128.053	16.9484
186	2.30259	0.665079		128.496	18.4798
187	2.30259	0.680797		128.959	20.0474
188	2.30259	0.693493		129.44	21.6442
189	2.30259	0.706302		129.939	23.2705
190	2.30259	0.719228		130.456	24.9266
191	2.30259	0.732275		130.993	26.6128
192	2.30259	0.745449		131.548	28.3292
193	2.30259	0.758753		132.124	30.0763
194	2.30259	0.772193		132.72	31.8543
195	2.30259	0.785774		133.338	33.6637
196	2.30259	0.7995	133.977	35.5046	
197	2.30259	0.813379		134.638	37.3774
198	2.30259	0.827417		135.323	39.2826
199	2.30259	0.841621		136.031	41.2206
200	2.30259	0.855996		136.764	43.1916
201	2.30259	0.87055	137.522	45.1961	
202	2.30259	0.885291		138.306	47.2345
203	2.30259	0.900227		139.116	49.3074
204	2.30259	0.915365		139.954	51.4151
205	2.30259	0.930718		140.82	53.5581
206	2.30259	0.946291		141.716	55.7371
207	2.30259	0.9621	142.641	57.9524	
208	2.30259	0.97815	143.598	60.2046	
209	2.30259	0.994457		144.587	62.4945
210	2.30259	1.01104	145.609	64.8225	
211	2.30259	1.02789	146.666	67.1893	
212	2.30259	1.04505	147.758	69.5956	
213	2.30259	1.06252	148.887	72.0421	
214	2.30259	1.08032	150.054	74.5297	
215	2.30259	1.09847	151.261	77.059	
216	2.30259	1.11699	152.508	79.6309	
217	2.30259	1.1359	153.799	82.2464	
218	2.3979	1.15522	155.133	85.0165	
219	2.48491	1.17499	156.514	87.9363	
220	2.77259	1.19522	157.942	91.2501	
221	3.054	1.21596	159.421	94.9637	
222	3.09104	1.23724	160.952	98.788	
223	3.09104	1.25908	162.537	102.68	
224	3.21888	1.28155	164.179	106.805	
225	3.29584	1.30469	165.881	111.105	
226	3.66356	1.32854	167.646	115.972	
227	3.71357	1.35317	169.477	120.997	
228	3.73767	1.37866	171.378	126.15	
229	3.7612	1.40507	173.352	131.435	
230	3.78419	1.4325	175.404	136.856	
231	3.78419	1.46106	177.539	142.385	
232	3.91202	1.49085	179.762	148.217	
233	3.95124	1.52203	182.078	154.231	
234	3.95124	1.55477	184.496	160.374	
235	4.12713	1.58927	187.022	166.933	
236	4.15888	1.62576	189.665	173.695	
237	4.29046	1.66456	192.435	180.837	

238	4.33073	1.70604	195.346	188.225
239	4.56435	1.75069	198.411	196.216
240	4.70048	1.79912	201.648	204.672
241	4.78749	1.85218	205.078	213.54
242	4.80402	1.91103	208.73	222.72
243	5.07517	1.97737	212.64	232.756
244	5.09987	2.05375	216.858	243.23
245	5.18178	2.14441	221.457	254.342
246	5.50126	2.25713	226.551	266.759
247	5.59842	2.40892	232.354	280.245
248	5.61313	2.65209	239.388	295.131

Data Set Standard Deviation = 1.34188
Numerator = 87102.5
Denominator = 106470
W Statistic = 0.818094 = 87102.5 / 106470

5% Critical value of 0.976 exceeds 0.818094
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.818094
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 = 0.904335
0.904335 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.356675	0.00401606	-2.65209	88.1684	344.01
2	-0.356675	0.00803213	-2.40892	88.1684	332.136
3	-0.356675	0.0120482	-2.25713	88.1684	324.723
4	-0.356675	0.0160643	-2.14441	88.1684	319.219
5	-0.356675	0.0200803	-2.05375	88.1684	314.791
6	-0.356675	0.0240964	-1.97737	88.1684	311.062
7	-0.356675	0.0281124	-1.91103	88.1684	307.822
8	-0.356675	0.0321285	-1.85218	88.1684	304.948
9	-0.356675	0.0361446	-1.79912	88.1684	302.357
10	-0.356675	0.0401606	-1.75069	88.1684	299.992
11	-0.356675	0.0441767	-1.70604	88.1684	297.812
12	-0.356675	0.0481928	-1.66456	88.1684	295.786
13	-0.356675	0.0522088	-1.62576	88.1684	293.891
14	-0.356675	0.0562249	-1.58927	88.1684	292.109
15	-0.356675	0.060241	-1.55477	88.1684	290.425
16	-0.356675	0.064257	-1.52203	88.1684	288.826
17	-0.356675	0.0682731	-1.49085	88.1684	287.303
18	-0.356675	0.0722892	-1.46106	88.1684	285.848
19	-0.356675	0.0763052	-1.4325	88.1684	284.454
20	-0.356675	0.0803213	-1.40507	88.1684	283.114
21	-0.356675	0.0843373	-1.37866	88.1684	281.824
22	-0.356675	0.0883534	-1.35317	88.1684	280.58
23	-0.356675	0.0923695	-1.32854	88.1684	279.377
24	-0.356675	0.0963855	-1.30469	88.1684	278.212
25	-0.356675	0.100402	-1.28155	88.1684	277.082
26	-0.356675	0.104418	-1.25908	88.1684	275.985
27	-0.356675	0.108434	-1.23724	88.1684	274.918
28	-0.356675	0.11245	-1.21596	88.1684	273.879
29	-0.356675	0.116466	-1.19522	88.1684	272.867
30	-0.356675	0.120482	-1.17499	88.1684	271.879
31	-0.356675	0.124498	-1.15522	88.1684	270.913
32	-0.356675	0.128514	-1.1359	88.1684	269.97
33	-0.356675	0.13253	-1.11699	88.1684	269.046
34	-0.356675	0.136546	-1.09847	88.1684	268.142
35	-0.356675	0.140562	-1.08032	88.1684	267.256
36	-0.356675	0.144578	-1.06252	88.1684	266.386
37	-0.356675	0.148594	-1.04505	88.1684	265.533
38	-0.356675	0.15261	-1.02789	88.1684	264.695
39	-0.356675	0.156627	-1.01104	88.1684	263.872
40	-0.356675	0.160643	-0.994457	88.1684	263.063
41	-0.356675	0.164659	-0.97815	88.1684	262.266
42	-0.356675	0.168675	-0.9621	88.1684	261.483
43	-0.356675	0.172691	-0.946291	88.1684	260.711
44	-0.356675	0.176707	-0.930718	88.1684	259.95
45	0.336472	0.180723	-0.915365	141.145	259.2
46	0.405465	0.184739	-0.900227	146.418	258.461
47	0.405465	0.188755	-0.885291	146.418	257.732
48	0.405465	0.192771	-0.87055	146.418	257.012

49	0.405465	0.196787	-0.855996	146.418	256.301
50	0.470004	0.200803	-0.841621	151.35	255.599
51	0.587787	0.204819	-0.827417	160.352	254.906
52	0.641854	0.208835	-0.813379	164.485	254.22
53	0.641854	0.212851	-0.7995	164.485	253.542
54	0.641854	0.216867	-0.785774	164.485	252.872
55	0.641854	0.220884	-0.772193	164.485	252.209
56	0.693147	0.2249	-0.758753	168.405	251.552
57	0.693147	0.228916	-0.745449	168.405	250.903
58	0.741937	0.232932	-0.732275	172.134	250.259
59	0.916291	0.236948	-0.719228	185.459	249.622
60	1.02962	0.240964	-0.706302	194.121	248.991
61	1.06471	0.24498	-0.693493	196.803	248.366
62	1.07841	0.248996	-0.680797	197.85	247.746
63	1.12168	0.253012	-0.665079	201.157	246.978
64	1.32708	0.257028	-0.652622	216.855	246.37
65	1.38629	0.261044	-0.640266	221.381	245.766
66	1.45862	0.26506	-0.628006	226.908	245.168
67	1.49739	0.269076	-0.615839	229.872	244.573
68	1.54756	0.273092	-0.603765	233.707	243.984
69	1.67147	0.277108	-0.591776	243.177	243.398
70	1.79176	0.281124	-0.579873	252.37	242.817
71	1.79176	0.285141	-0.568052	252.37	242.24
72	1.94591	0.289157	-0.556308	264.152	241.666
73	2.11986	0.293173	-0.544642	277.447	241.097
74	2.19722	0.297189	-0.533048	283.359	240.531
75	2.19722	0.301205	-0.521527	283.359	239.968
76	2.19722	0.305221	-0.510074	283.359	239.409
77	2.30259	0.309237	-0.498687	291.412	238.853
78	2.30259	0.313253	-0.487364	291.412	238.3
79	2.30259	0.317269	-0.476105	291.412	237.75
80	2.30259	0.321285	-0.464904	291.412	237.203
81	2.30259	0.325301	-0.453763	291.412	236.659
82	2.30259	0.329317	-0.442676	291.412	236.117
83	2.30259	0.333333	-0.431644	291.412	235.579
84	2.30259	0.337349	-0.420664	291.412	235.042
85	2.30259	0.341365	-0.409735	291.412	234.509
86	2.30259	0.345382	-0.398855	291.412	233.977
87	2.30259	0.349398	-0.388022	291.412	233.448
88	2.30259	0.353414	-0.377233	291.412	232.922
89	2.30259	0.35743	-0.36649	291.412	232.397
90	2.30259	0.361446	-0.355788	291.412	231.874
91	2.30259	0.365462	-0.345126	291.412	231.354
92	2.30259	0.369478	-0.334503	291.412	230.835
93	2.30259	0.373494	-0.323919	291.412	230.318
94	2.30259	0.37751	-0.31337	291.412	229.803
95	2.30259	0.381526	-0.302855	291.412	229.289
96	2.30259	0.385542	-0.292375	291.412	228.778
97	2.30259	0.389558	-0.281926	291.412	228.267
98	2.30259	0.393574	-0.271509	291.412	227.759
99	2.30259	0.39759	-0.26112	291.412	227.251
100	2.30259	0.401606	-0.250759	291.412	226.745
101	2.30259	0.405622	-0.240426	291.412	226.241
102	2.30259	0.409639	-0.230118	291.412	225.737
103	2.30259	0.413655	-0.219834	291.412	225.235
104	2.30259	0.417671	-0.209575	291.412	224.734
105	2.30259	0.421687	-0.199336	291.412	224.234
106	2.30259	0.425703	-0.189118	291.412	223.735
107	2.30259	0.429719	-0.17892	291.412	223.237
108	2.30259	0.433735	-0.168741	291.412	222.74
109	2.30259	0.437751	-0.158579	291.412	222.244
110	2.30259	0.441767	-0.148434	291.412	221.749

111	2.30259	0.445783	-0.138305	291.412	221.254
112	2.30259	0.449799	-0.128189	291.412	220.76
113	2.30259	0.453815	-0.118085	291.412	220.267
114	2.30259	0.457831	-0.107995	291.412	219.774
115	2.30259	0.461847	-0.0979139	291.412	219.281
116	2.30259	0.465863	-0.0878447	291.412	218.79
117	2.30259	0.46988	-0.0777834	291.412	218.298
118	2.30259	0.473896	-0.0677301	291.412	217.807
119	2.30259	0.477912	-0.0576847	291.412	217.317
120	2.30259	0.481928	-0.0476439	291.412	216.827
121	2.30259	0.485944	-0.0376076	291.412	216.337
122	2.30259	0.48996	-0.0275759	291.412	215.847
123	2.30259	0.493976	-0.0175476	291.412	215.357
124	2.30259	0.497992	-0.00751925	291.412	214.867
125	2.30259	0.502008	0.00751925	291.412	214.133
126	2.30259	0.506024	0.0175476	291.412	213.643
127	2.30259	0.51004	0.0275759	291.412	213.153
128	2.30259	0.514056	0.0376076	291.412	212.663
129	2.30259	0.518072	0.0476439	291.412	212.173
130	2.30259	0.522088	0.0576847	291.412	211.683
131	2.30259	0.526104	0.0677301	291.412	211.193
132	2.30259	0.53012	0.0777834	291.412	210.702
133	2.30259	0.534137	0.0878447	291.412	210.21
134	2.30259	0.538153	0.0979139	291.412	209.719
135	2.30259	0.542169	0.107995	291.412	209.226
136	2.30259	0.546185	0.118085	291.412	208.733
137	2.30259	0.550201	0.128189	291.412	208.24
138	2.30259	0.554217	0.138305	291.412	207.746
139	2.30259	0.558233	0.148434	291.412	207.251
140	2.30259	0.562249	0.158579	291.412	206.756
141	2.30259	0.566265	0.168741	291.412	206.26
142	2.30259	0.570281	0.17892	291.412	205.763
143	2.30259	0.574297	0.189118	291.412	205.265
144	2.30259	0.578313	0.199336	291.412	204.766
145	2.30259	0.582329	0.209575	291.412	204.266
146	2.30259	0.586345	0.219834	291.412	203.765
147	2.30259	0.590361	0.230118	291.412	203.263
148	2.30259	0.594378	0.240426	291.412	202.759
149	2.30259	0.598394	0.250759	291.412	202.255
150	2.30259	0.60241	0.26112	291.412	201.749
151	2.30259	0.606426	0.271509	291.412	201.241
152	2.30259	0.610442	0.281926	291.412	200.733
153	2.30259	0.614458	0.292375	291.412	200.222
154	2.30259	0.618474	0.302855	291.412	199.711
155	2.30259	0.62249	0.31337	291.412	199.197
156	2.30259	0.626506	0.323919	291.412	198.682
157	2.30259	0.630522	0.334503	291.412	198.165
158	2.30259	0.634538	0.345126	291.412	197.646
159	2.30259	0.638554	0.355788	291.412	197.126
160	2.30259	0.64257	0.36649	291.412	196.603
161	2.30259	0.646586	0.377233	291.412	196.078
162	2.30259	0.650602	0.388022	291.412	195.552
163	2.30259	0.654618	0.398855	291.412	195.023
164	2.30259	0.658635	0.409735	291.412	194.491
165	2.30259	0.662651	0.420664	291.412	193.958
166	2.30259	0.666667	0.431644	291.412	193.421
167	2.30259	0.670683	0.442676	291.412	192.883
168	2.30259	0.674699	0.453763	291.412	192.341
169	2.30259	0.678715	0.464904	291.412	191.797
170	2.30259	0.682731	0.476105	291.412	191.25
171	2.30259	0.686747	0.487364	291.412	190.7
172	2.30259	0.690763	0.498687	291.412	190.147

173	2.30259	0.694779	0.510074	291.412	189.591
174	2.30259	0.698795	0.521527	291.412	189.032
175	2.30259	0.702811	0.533048	291.412	188.469
176	2.30259	0.706827	0.544642	291.412	187.903
177	2.30259	0.710843	0.556308	291.412	187.334
178	2.30259	0.714859	0.568052	291.412	186.76
179	2.30259	0.718876	0.579873	291.412	186.183
180	2.30259	0.722892	0.591776	291.412	185.602
181	2.30259	0.726908	0.603765	291.412	185.016
182	2.30259	0.730924	0.615839	291.412	184.427
183	2.30259	0.73494	0.628006	291.412	183.832
184	2.30259	0.738956	0.640266	291.412	183.234
185	2.30259	0.742972	0.652622	291.412	182.63
186	2.30259	0.746988	0.665079	291.412	182.022
187	2.30259	0.751004	0.680797	291.412	181.254
188	2.30259	0.75502	0.693493	291.412	180.634
189	2.30259	0.759036	0.706302	291.412	180.009
190	2.30259	0.763052	0.719228	291.412	179.378
191	2.30259	0.767068	0.732275	291.412	178.741
192	2.30259	0.771084	0.745449	291.412	178.097
193	2.30259	0.7751	0.758753	291.412	177.448
194	2.30259	0.779116	0.772193	291.412	176.791
195	2.30259	0.783133	0.785774	291.412	176.128
196	2.30259	0.787149	0.7995	291.412	175.458
197	2.30259	0.791165	0.813379	291.412	174.78
198	2.30259	0.795181	0.827417	291.412	174.094
199	2.30259	0.799197	0.841621	291.412	173.401
200	2.30259	0.803213	0.855996	291.412	172.699
201	2.30259	0.807229	0.87055	291.412	171.988
202	2.30259	0.811245	0.885291	291.412	171.268
203	2.30259	0.815261	0.900227	291.412	170.539
204	2.30259	0.819277	0.915365	291.412	169.8
205	2.30259	0.823293	0.930718	291.412	169.05
206	2.30259	0.827309	0.946291	291.412	168.289
207	2.30259	0.831325	0.9621	291.412	167.517
208	2.30259	0.835341	0.97815	291.412	166.734
209	2.30259	0.839357	0.994457	291.412	165.937
210	2.30259	0.843373	1.01104	291.412	165.128
211	2.30259	0.84739	1.02789	291.412	164.305
212	2.30259	0.851406	1.04505	291.412	163.467
213	2.30259	0.855422	1.06252	291.412	162.614
214	2.30259	0.859438	1.08032	291.412	161.744
215	2.30259	0.863454	1.09847	291.412	160.858
216	2.30259	0.86747	1.11699	291.412	159.954
217	2.30259	0.871486	1.1359	291.412	159.03
218	2.3979	0.875502	1.15522	298.696	158.087
219	2.48491	0.879518	1.17499	305.346	157.121
220	2.77259	0.883534	1.19522	327.334	156.133
221	3.054	0.88755	1.21596	348.842	155.121
222	3.09104	0.891566	1.23724	351.673	154.082
223	3.09104	0.895582	1.25908	351.673	153.015
224	3.21888	0.899598	1.28155	361.443	151.918
225	3.29584	0.903614	1.30469	367.325	150.788
226	3.66356	0.907631	1.32854	395.429	149.623
227	3.71357	0.911647	1.35317	399.252	148.42
228	3.73767	0.915663	1.37866	401.093	147.176
229	3.7612	0.919679	1.40507	402.892	145.886
230	3.78419	0.923695	1.4325	404.649	144.546
231	3.78419	0.927711	1.46106	404.649	143.152
232	3.91202	0.931727	1.49085	414.419	141.697
233	3.95124	0.935743	1.52203	417.416	140.174
234	3.95124	0.939759	1.55477	417.416	138.575

235	4.12713	0.943775		1.58927	430.86	136.891
236	4.15888	0.947791		1.62576	433.286	135.109
237	4.29046	0.951807		1.66456	443.342	133.214
238	4.33073	0.955823		1.70604	446.42	131.188
239	4.56435	0.959839		1.75069	464.275	129.008
240	4.70048	0.963855		1.79912	474.68	126.643
241	4.78749	0.967871		1.85218	481.33	124.052
242	4.80402	0.971888		1.91103	482.593	121.178
243	5.07517	0.975904		1.97737	503.317	117.938
244	5.09987	0.97992	2.05375	505.204	114.209	
245	5.18178	0.983936		2.14441	511.465	109.781
246	5.50126	0.987952		2.25713	535.882	104.277
247	5.59842	0.991968		2.40892	543.308	96.8642
248	5.61313	0.995984		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	93
	9/23/1999	2.3979 J	218
	3/15/2000	3.09104	222
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	ND<2.30259	93
	11/28/2007	ND<2.30259	93
	6/5/2008	ND<2.30259	93
	11/20/2008	ND<2.30259	93
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	ND<-0.356675 U	93
	7/5/2011	ND<-0.356675 U	93

Rank Sum = 2021
Rank Mean = 106.368

Background Rank Sum = 2021
Background Rank Mean = 106.368

Compliance Locations

Loc. ID	Date	Value	Rank
MW-10	7/20/1995	ND<2.30259	93
	8/24/1995	ND<2.30259	93
	9/28/1995	ND<2.30259	93
	10/26/1995	ND<2.30259	93
	11/19/1996	ND<2.30259	93
	12/19/1996	3.95124	233
	3/24/1997	ND<2.30259	93
	9/24/1997	3.91202	232
	4/7/1998	4.29046	237
	9/23/1998	ND<2.30259	93
	3/16/1999	ND<2.30259	93
	9/23/1999	1.79176 J	211
	3/15/2000	3.71357	227
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	1.32708 J	205

	11/28/2007	2.19722	J	215
	6/5/2008	ND<2.30259		93
	11/20/2008	3.66356		226
	6/11/2009	0.641854	J	193
	11/16/2009	0.405465	J	187
	6/30/2010	0.405465	J H	188
	11/12/2010	0.470004	J	191
	7/5/2011	ND<-0.356675	U	93
	11/22/2011	0.405465	J	189
	6/5/2012	0.641854	J	194

Rank Sum = 4509
Rank Mean = 145.452

MW-7	7/20/1995	1.38629	J	206
	8/24/1995	ND<2.30259		93
	9/28/1995	5.61313		248
	10/26/1995	4.80402		242
	11/19/1996	ND<2.30259		93
	12/19/1996	5.18178		245
	3/24/1997	4.78749		241
	9/24/1997	4.33073		238
	4/7/1998	5.07517		243
	9/23/1998	ND<2.30259		93
	3/16/1999	ND<2.30259		93
	9/23/1999	3.29584		225
	3/15/2000	4.12713		235
	9/24/2003	ND<2.30259		93
	3/11/2004	ND<2.30259		93
	10/12/2004	ND<2.30259		93
	4/1/2005	ND<2.30259		93
	10/25/2005	ND<2.30259		93
	4/29/2006	ND<2.30259		93
	11/18/2006	ND<2.30259		93
	5/23/2007	2.11986		214
	11/28/2007	ND<2.30259		93
	6/5/2008	0.916291	J	200
	11/20/2008	2.77259	J	220
	6/11/2009	1.45862	J	207
	11/16/2009	ND<-0.356675		93
	6/30/2010	1.54756	J H	209
	11/12/2010	0.641854	J	195
	7/5/2011	0.741937	J	199
	11/22/2011	1.02962	J	201
	6/5/2012	1.06471	J	202

Rank Sum = 5179
Rank Mean = 167.065

MW-8	7/20/1995	ND<2.30259		93
	8/24/1995	ND<2.30259		93
	9/28/1995	5.50126		246
	10/26/1995	ND<2.30259		93
	11/19/1996	ND<2.30259		93
	12/19/1996	5.09987		244
	3/24/1997	3.78419		230
	9/24/1997	ND<2.30259		93
	4/7/1998	3.78419		231
	9/23/1998	4.70048		240
	3/16/1999	ND<2.30259		93
	9/23/1999	1.79176	J	212
	3/15/2000	ND<2.30259		93
	9/24/2003	ND<2.30259		93
	3/11/2004	ND<2.30259		93

	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	1.49739 J	208
	5/23/2007	2.48491	219
	11/28/2007	3.054	221
	6/5/2008	1.07841 J	203
	11/20/2008	2.19722 J	216
	6/11/2009	0.336472 J	186
	6/30/2010	ND<-0.356675	93
	11/12/2010	0.641854 J	196
	7/5/2011	ND<-0.356675 U	93
	11/22/2011	0.693147 J	197
	6/5/2012	0.693147 J	198

Rank Sum = 4642
Rank Mean = 154.733

MW-9	7/20/1995	ND<2.30259	93
	8/24/1995	ND<2.30259	93
	9/28/1995	ND<2.30259	93
	10/26/1995	ND<2.30259	93
	11/19/1996	ND<2.30259	93
	12/19/1996	ND<2.30259	93
	3/24/1997	3.95124	234
	9/24/1997	ND<2.30259	93
	4/7/1998	ND<2.30259	93
	9/23/1998	ND<2.30259	93
	3/16/1999	ND<2.30259	93
	9/23/1999	ND<2.30259	93
	3/15/2000	3.73767	228
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	1.12168 J	204
	11/28/2007	1.94591 J	213
	6/5/2008	ND<2.30259	93
	11/20/2008	3.21888	224
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	ND<-0.356675 U	93
	7/5/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	6/5/2012	ND<-0.356675 U	93

Rank Sum = 3614
Rank Mean = 112.938

MW-6	7/20/1995	ND<2.30259	93
	8/24/1995	ND<2.30259	93
	9/28/1995	ND<2.30259	93
	10/26/1995	ND<2.30259	93
	11/19/1996	ND<2.30259	93
	12/19/1996	ND<2.30259	93
	3/24/1997	ND<2.30259	93
	9/24/1997	ND<2.30259	93
	4/7/1998	ND<2.30259	93

	9/23/1998	ND<2.30259	93
	3/16/1999	ND<2.30259	93
	9/23/1999	ND<2.30259	93
	3/15/2000	4.15888	236
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	ND<2.30259	93
	11/28/2007	ND<2.30259	93
	6/5/2008	ND<2.30259	93
	11/20/2008	ND<2.30259	93
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	ND<-0.356675 U	93
	7/5/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	6/5/2012	ND<-0.356675 U	93

Rank Sum = 3026
Rank Mean = 97.6129

MW-11R	7/20/1995	ND<2.30259	93
	8/24/1995	ND<2.30259	93
	9/28/1995	ND<2.30259	93
	10/26/1995	ND<2.30259	93
	11/19/1996	ND<2.30259	93
	12/19/1996	ND<2.30259	93
	3/24/1997	ND<2.30259	93
	9/24/1997	ND<2.30259	93
	4/7/1998	ND<2.30259	93
	9/23/1998	ND<2.30259	93
	3/16/1999	ND<2.30259	93
	9/23/1999	2.19722 J	217
	3/15/2000	ND<2.30259	93
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	1.67147	210
	11/28/2007	ND<2.30259	93
	6/5/2008	ND<2.30259	93
	11/20/2008	ND<2.30259	93
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	ND<-0.356675 U	93
	7/5/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	6/5/2012	ND<-0.356675 U	93

Rank Sum = 3217
Rank Mean = 100.531

MW-12BR	3/16/1999	ND<2.30259	93
	9/23/1999	3.09104	223

	3/15/2000	ND<2.30259	93
	9/24/2003	ND<2.30259	93
	3/11/2004	ND<2.30259	93
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	ND<2.30259	93
	11/28/2007	ND<2.30259	93
	6/5/2008	ND<2.30259	93
	11/20/2008	ND<2.30259	93
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	ND<-0.356675 U	93
	7/5/2011	ND<-0.356675 U	93
	11/22/2011	ND<-0.356675 U	93
	6/5/2012	ND<-0.356675 U	93

Rank Sum = 2083
Rank Mean = 99.1905

MW-12AR	3/16/1999	ND<2.30259	93
	9/23/1999	ND<2.30259	93
	3/15/2000	5.59842	247
	9/24/2003	3.7612	229
	3/11/2004	4.56435	239
	10/12/2004	ND<2.30259	93
	4/1/2005	ND<2.30259	93
	10/25/2005	ND<2.30259	93
	4/29/2006	ND<2.30259	93
	11/18/2006	ND<2.30259	93
	5/23/2007	ND<2.30259	93
	11/28/2007	ND<2.30259	93
	6/5/2008	ND<2.30259	93
	11/20/2008	ND<2.30259	93
	6/11/2009	ND<-0.356675	93
	11/16/2009	ND<-0.356675	93
	6/30/2010	ND<-0.356675	93
	11/12/2010	0.587787 J	192
	7/5/2011	0.405465 J	190
	11/22/2011	ND<-0.356675 U	93
	6/5/2012	ND<-0.356675 U	93

Rank Sum = 2585
Rank Mean = 123.095

Calculation Results:

Kruskal-Wallis H Statistic = 31.4819
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 53.8246
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
31.4819 > 15.5073 indicating a significant group difference at 5% significance level
53.8246 > 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 106.368

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**145.452**	**39.0832**	**48.6223**
MW-7	**167.065**	**60.6961**	**48.6223**

MW-8	**154.733**	**48.3649**	**48.9293**
MW-9	**112.938**	**6.56908**	**48.3328**
MW-6	**97.6129**	**-8.75552**	**48.6223**
MW-11R	**100.531**	**-5.83717**	**48.3328**
MW-12BR	**99.1905**	**-7.17794**	**52.8387**
MW-12AR	**123.095**	**16.7268**	**52.8387**

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 106.368

Well	Mean Rank	Dif from Bkg	Critical Value
MW-10	**145.452**	**39.0832**	**52.5055**
MW-7	**167.065**	**60.6961**	**52.5055**
MW-8	**154.733**	**48.3649**	**52.837**
MW-9	**112.938**	**6.56908**	**52.1928**
MW-6	**97.6129**	**-8.75552**	**52.5055**
MW-11R	**100.531**	**-5.83717**	**52.1928**
MW-12BR	**99.1905**	**-7.17794**	**57.0586**
MW-12AR	**123.095**	**16.7268**	**57.0586**

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
6/5/2012	1.06471	0	-1.40451
6/5/2012	1.06471	0	-1.40451

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
1.06471 J (6/5/2012) 1.38629 J (7/20/1995) (1.06471 - 1.38629)/(31 - 1)
-0.0107195

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
1.06471 J (6/5/2012) ND<2.30259 (8/24/1995) (1.06471 - 2.30259)/(31 - 2)
-0.0426853

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
1.06471 J (6/5/2012) 5.61313 (9/28/1995) (1.06471 - 5.61313)/(31 - 3)
-0.162443

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
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-0.260894
1.54756 J H (6/30/2010) 3.29584 (9/23/1999) (1.54756 - 3.29584)/(27 - 12)
-0.116552
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-0.165874
0.741937 J (7/5/2011) 3.29584 (9/23/1999) (0.741937 - 3.29584)/(29 - 12)
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1.02962 J (11/22/2011) 3.29584 (9/23/1999) (1.02962 - 3.29584)/(30 - 12)
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1.06471 J (6/5/2012) 3.29584 (9/23/1999) (1.06471 - 3.29584)/(31 - 12)
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0.641854 J (11/12/2010) 4.12713 (3/15/2000) (0.641854 - 4.12713)/(28 - 13)
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0.741937 J (7/5/2011) 4.12713 (3/15/2000) (0.741937 - 4.12713)/(29 - 13)
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1.02962 J (11/22/2011) 4.12713 (3/15/2000) (1.02962 - 4.12713)/(30 - 13)
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1.06471 J (6/5/2012) 4.12713 (3/15/2000) (1.06471 - 4.12713)/(31 - 13)
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ND<2.30259 (4/1/2005) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(17 - 14)
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ND<2.30259 (10/25/2005) ND<2.30259 (9/24/2003) (2.30259 - 2.30259)/(18 - 14)
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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)
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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)
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ND<2.30259 (10/25/2005) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(18 - 17)
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ND<2.30259 (4/29/2006) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(19 - 17)
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ND<2.30259 (11/18/2006) ND<2.30259 (4/1/2005) (2.30259 - 2.30259)/(20 - 17)
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ND<2.30259 (11/28/2007) ND<2.30259 (10/25/2005) (2.30259 - 2.30259)/(22 - 18) 0
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0.641854 J (11/12/2010) ND<2.30259 (4/29/2006) (0.641854 - 2.30259)/(28 - 19)
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1.02962 J (11/22/2011) ND<2.30259 (4/29/2006) (1.02962 - 2.30259)/(30 - 19)
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- 20) -0.44321
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1.02962 J (11/22/2011) ND<2.30259 (11/18/2006) (1.02962 - 2.30259)/(30 - 20)
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- 22) -0.664815
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1.06471 J (6/5/2012) 0.916291 J (6/5/2008) (1.06471 - 0.916291)/(31 - 23)
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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
1.06471 J (6/5/2012) 2.77259 J (11/20/2008) (1.06471 - 2.77259)/(31 - 24)
-0.243983

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

1.06471 J (6/5/2012)	1.45862 J (6/11/2009)	(1.06471 - 1.45862)/(31 - 25)	-0.0656507
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
1.06471 J (6/5/2012)	ND<-0.356675 (11/16/2009)	(1.06471 - -0.356675)/(31 - 26)	0.284277
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
1.06471 J (6/5/2012)	1.54756 J H (6/30/2010)	(1.06471 - 1.54756)/(31 - 27)	-0.120713
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
1.06471 J (6/5/2012)	0.641854 J (11/12/2010)	(1.06471 - 0.641854)/(31 - 28)	0.140952
1.02962 J (11/22/2011)	0.741937 J (7/5/2011)	(1.02962 - 0.741937)/(30 - 29)	0.287682
1.06471 J (6/5/2012)	0.741937 J (7/5/2011)	(1.06471 - 0.741937)/(31 - 29)	0.161387
1.06471 J (6/5/2012)	1.02962 J (11/22/2011)	(1.06471 - 1.02962)/(31 - 30)	0.0350913

Number of Q values = 465

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	-0.243983
95	-0.24195
96	-0.241751
97	-0.239933
98	-0.23701
99	-0.236467
100	-0.234842
101	-0.234577
102	-0.233333
103	-0.232352
104	-0.231049
105	-0.22763
106	-0.227403
107	-0.226035
108	-0.225901
109	-0.22535
110	-0.22295
111	-0.222377
112	-0.221605
113	-0.221477
114	-0.220703
115	-0.216662
116	-0.216322
117	-0.213276
118	-0.211575
119	-0.211144
120	-0.208453
121	-0.207591
122	-0.207076
123	-0.206909
124	-0.206409
125	-0.20636
126	-0.205657
127	-0.204617
128	-0.204128
129	-0.202815
130	-0.202728
131	-0.198851
132	-0.19865
133	-0.198042
134	-0.197411
135	-0.195978
136	-0.195956
137	-0.194738
138	-0.19407
139	-0.193037
140	-0.192645
141	-0.192418
142	-0.191147

143	-0.190545
144	-0.188842
145	-0.188523
146	-0.187353
147	-0.184938
148	-0.184526
149	-0.184444
150	-0.184377
151	-0.184255
152	-0.183889
153	-0.182722
154	-0.182294
155	-0.182207
156	-0.17995
157	-0.179169
158	-0.178674
159	-0.177284
160	-0.174239
161	-0.173424
162	-0.173405
163	-0.173287
164	-0.173058
165	-0.173007
166	-0.172648
167	-0.172241
168	-0.170895
169	-0.170135
170	-0.170067
171	-0.16976
172	-0.169399
173	-0.169012
174	-0.168948
175	-0.168794
176	-0.166762
177	-0.166204
178	-0.166073
179	-0.165874
180	-0.16566
181	-0.165542
182	-0.165312
183	-0.164683
184	-0.163386
185	-0.162483
186	-0.162443
187	-0.161996
188	-0.159305
189	-0.159121
190	-0.157892
191	-0.15634
192	-0.156065
193	-0.155116
194	-0.154033
195	-0.153506
196	-0.151005
197	-0.150976
198	-0.150664
199	-0.150229
200	-0.150051
201	-0.148599
202	-0.146483
203	-0.145169
204	-0.144868

205	-0.143782
206	-0.142001
207	-0.141893
208	-0.141877
209	-0.141585
210	-0.141325
211	-0.140662
212	-0.138969
213	-0.138493
214	-0.138394
215	-0.137542
216	-0.135264
217	-0.133844
218	-0.130664
219	-0.130054
220	-0.127749
221	-0.127297
222	-0.126631
223	-0.125901
224	-0.124156
225	-0.123141
226	-0.121138
227	-0.120713
228	-0.120567
229	-0.12005
230	-0.118624
231	-0.118524
232	-0.118322
233	-0.117428
234	-0.116552
235	-0.115724
236	-0.115525
237	-0.112534
238	-0.111475
239	-0.110803
240	-0.11006
241	-0.10786
242	-0.106638
243	-0.10608
244	-0.105515
245	-0.105496
246	-0.104043
247	-0.103156
248	-0.101572
249	-0.0993252
250	-0.0979204
251	-0.0976901
252	-0.097384
253	-0.0953835
254	-0.0952211
255	-0.0943778
256	-0.0937745
257	-0.0922628
258	-0.0913608
259	-0.0909261
260	-0.089659
261	-0.0884196
262	-0.0867027
263	-0.0857991
264	-0.0848644
265	-0.084397
266	-0.0838914

267	-0.082525
268	-0.0821394
269	-0.0795604
270	-0.0773671
271	-0.0770164
272	-0.0767246
273	-0.0755023
274	-0.0752096
275	-0.0728161
276	-0.0722057
277	-0.0697188
278	-0.0686384
279	-0.0669982
280	-0.066014
281	-0.0656507
282	-0.065027
283	-0.0638743
284	-0.0636483
285	-0.0629185
286	-0.0618937
287	-0.0609072
288	-0.0602836
289	-0.0589464
290	-0.0580787
291	-0.0578018
292	-0.0562647
293	-0.0548874
294	-0.0509186
295	-0.0476106
296	-0.0471889
297	-0.0456804
298	-0.0454631
299	-0.0444131
300	-0.043604
301	-0.0426853
302	-0.0421985
303	-0.0407198
304	-0.0366944
305	-0.0365443
306	-0.0355366
307	-0.0343192
308	-0.0304536
309	-0.0302009
310	-0.0290589
311	-0.0275719
312	-0.0261031
313	-0.0230128
314	-0.0213638
315	-0.0182722
316	-0.0166111
317	-0.0122991
318	-0.0114201
319	-0.0107195
320	-0.00961693
321	-0.00550977
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
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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	0.00301336
389	0.00620262
390	0.0161898

391	0.0185525
392	0.0213638
393	0.024737
394	0.0335717
395	0.0350913
396	0.0361541
397	0.0366785
398	0.0436329
399	0.0444737
400	0.0470004
401	0.0482258
402	0.050905
403	0.0522226
404	0.0538995
405	0.0542306
406	0.0572682
407	0.0587505
408	0.0602737
409	0.061086
410	0.0654493
411	0.0671434
412	0.0704839
413	0.0783339
414	0.0916291
415	0.0940007
416	0.0993252
417	0.100083
418	0.10181
419	0.117501
420	0.140952
421	0.141893
422	0.143841
423	0.157818
424	0.161387
425	0.165868
426	0.173595
427	0.182722
428	0.188881
429	0.193883
430	0.217575
431	0.228069
432	0.228403
433	0.229073
434	0.235002
435	0.271162
436	0.284277
437	0.287682
438	0.338025
439	0.346574
440	0.366204
441	0.396084
442	0.420634
443	0.46111
444	0.496626
445	0.496981
446	0.499264
447	0.566866
448	0.608183
449	0.676049
450	0.693147
451	0.7198
452	0.74444

453	0.759098
454	0.831298
455	0.912275
456	0.916291
457	0.993252
458	1.13924
459	1.24245
460	1.25072
461	1.8563
462	1.90424
463	2.11342
464	2.8792
465	3.31054

Sen's Estimator (Median Q) is -0.117428

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
6/5/2012	1	

There are 0 time periods with multiple data

A = 3828
B = 0
C = 1320
D = 0
E = 132
F = 0
a = 62310
b = 242730
c = 1860

Group Variance = 3249
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 93.7566
M1 = (465 - 93.7566)/2.0 = 185.622
M2 = (465 + 93.7566)/2.0 + 1 = 280.378
Lower limit is -0.162443 = Q(186)
Upper limit is -0.066014 = Q(280)
-0.066014 < 0 indicating a downward trend in data.

Concentrations (ppb)
Parameter: Vinyl Chloride
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 254
Total Non-Detect: 158
Percent Non-Detects: 62.2047%
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-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<0.18	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
			6/5/2012	ND<0.18 U	ND<0.18 U
MW-7	32	20 (62.5%)	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
			6/5/2012	0.43 J	0.43 J
MW-9	32	13 (40.625%)	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	
			6/5/2012	0.87 J	0.87 J	
MW-8	31	2 (6.45161%)	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	
			6/5/2012	12	12	
MW-10	32	14 (43.75%)	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	
			6/5/2012	2	2	
MW-11R	32	23 (71.875%)	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
			6/5/2012	ND<0.18 U	ND<0.18 U	
MW-12BR	22	20 (90.9091%)	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	
		6/5/2012	ND<0.18 U	ND<0.18 U		
MW-12AR	22	15 (68.1818%)	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	
		6/5/2012	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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.09	-2.747777	7.55021	-0.247299
2	0.09	-2.457271	13.5884	-0.468453
3	0.09	-2.290361	18.8342	-0.674586
4	0.09	-2.170092	23.5435	-0.869894
5	0.09	-2.074852	7.8485	-1.05663
6	0.09	-1.995393	31.8301	-1.23622
7	0.09	-1.926843	5.5428	-1.40963
8	0.09	-1.866293	9.0258	-1.5776
9	0.09	-1.811914	2.3088	-1.74067
10	0.09	-1.762414	5.4149	-1.89929
11	0.09	-1.716884	8.3626	-2.05381
12	0.09	-1.674665	1.1671	-2.20453
13	0.09	-1.644855	3.8726	-2.35256
14	0.09	-1.607255	6.4559	-2.49722
15	0.09	-1.571795	8.9264	-2.63868
16	0.09	-1.5382	61.2925	-2.77711
17	0.09	-1.506263	3.5613	-2.91268
18	0.09	-1.475796	5.7393	-3.0455
19	0.09	-1.446636	7.832	-3.1757
20	0.09	-1.418656	9.8446	-3.30337
21	0.09	-1.391757	1.7815	-3.42863
22	0.09	-1.365817	3.647	-3.55155
23	0.09	-1.340757	5.4446	-3.67222
24	0.09	-1.316527	7.1778	-3.79071
25	0.09	-1.293037	8.8498	-3.90708
26	0.09	-1.275888	0.4776	-4.02191
27	0.09	-1.253578	2.049	-4.13473
28	0.09	-1.231878	3.5665	-4.2456
29	0.09	-1.210738	5.0324	-4.35457
30	0.09	-1.190128	6.4488	-4.46168
31	0.09	-1.17	87.8177	-4.56698
32	0.09	-1.150358	9.141	-4.67051
33	0.09	-1.131139	0.4204	-4.77231
34	0.09	-1.112329	1.6577	-4.87242
35	0.09	-1.0939	92.8543	-4.97087
36	0.09	-1.075849	4.0117	-5.06769
37	0.09	-1.058129	5.1314	-5.16293
38	0.09	-1.040739	6.2145	-5.25659
39	0.09	-1.027899	7.271	-5.3491
40	0.09	-1.011049	8.2932	-5.44009
41	0.29	-0.994457	99.2822	-5.72849
42	0.35	-0.978151	00.239	-6.07084
43	0.36	-0.9621	101.165	-6.4172
44	0.43	-0.946291	102.06	-6.8241
45	0.44	-0.930718	102.926	-7.23362
46	0.44	-0.915365	103.764	-7.63638
47	0.47	-0.900227	104.575	-8.05948
48	0.48	-0.885291	105.358	-8.48442
49	0.52	-0.870551	06.116	-8.93711
50	0.52	-0.855996	106.849	-9.38223
51	0.58	-0.841621	107.557	-9.87037

52	0.58	-0.830953	108.248	-10.3523
53	0.58	-0.816874	108.915	-10.8261
54	0.64	-0.802956	109.56	-11.34
55	0.69	-0.789191	110.183	-11.8845
56	0.7	-0.775574	110.784	-12.4274
57	0.73	-0.7621	111.365	-12.9838
58	0.78	-0.748762	111.926	-13.5678
59	0.8	-0.735557	112.467	-14.1563
60	0.8	-0.722479	112.989	-14.7342
61	0.8	-0.709522	113.492	-15.3019
62	0.8	-0.696684	113.977	-15.8592
63	0.87	-0.68396	114.445	-16.4543
64	0.9	-0.67449	114.9	-17.0613
65	0.9	-0.661955	115.338	-17.6571
66	0.9	-0.649522	115.76	-18.2416
67	0.94	-0.637192	116.166	-18.8406
68	0.94	-0.624956	116.557	-19.428
69	0.97	-0.612813	116.932	-20.0225
70	1	-0.60076	117.293	-20.6232
71	1	-0.588793	117.64	-21.212
72	1	-0.576911	117.973	-21.7889
73	1	-0.565108	118.292	-22.354
74	1	-0.553384	118.598	-22.9074
75	1	-0.541736	118.892	-23.4492
76	1	-0.530162	119.173	-23.9793
77	1	-0.521527	119.445	-24.5008
78	1	-0.510074	119.705	-25.0109
79	1	-0.498687	119.954	-25.5096
80	1	-0.487364	120.191	-25.997
81	1	-0.476105	120.418	-26.4731
82	1	-0.464904	120.634	-26.938
83	1	-0.453763	120.84	-27.3917
84	1	-0.442676	121.036	-27.8344
85	1	-0.431644	121.222	-28.2661
86	1	-0.420664	121.399	-28.6867
87	1	-0.409735	121.567	-29.0965
88	1	-0.398855	121.726	-29.4953
89	1	-0.388022	121.877	-29.8833
90	1	-0.379927	122.021	-30.2633
91	1	-0.369171	122.157	-30.6324
92	1	-0.358459	122.286	-30.9909
93	1	-0.347787	122.407	-31.3387
94	1	-0.337155	122.52	-31.6758
95	1	-0.326561	122.627	-32.0024
96	1	-0.316004	122.727	-32.3184
97	1	-0.305481	122.82	-32.6239
98	1	-0.294992	122.907	-32.9189
99	1	-0.284535	122.988	-33.2034
100	1	-0.27411	123.063	-33.4775
101	1	-0.263715	123.133	-33.7412
102	1	-0.253347	123.197	-33.9946
103	1	-0.24559	123.257	-34.2402
104	1	-0.235269	123.313	-34.4754
105	1	-0.224974	123.363	-34.7004
106	1	-0.214702	123.409	-34.9151
107	1	-0.204452	123.451	-35.1196
108	1	-0.194225	123.489	-35.3138
109	1	-0.184017	123.523	-35.4978
110	1	-0.173829	123.553	-35.6716
111	1	-0.163659	123.58	-35.8353
112	1	-0.153505	123.603	-35.9888
113	1	-0.143367	123.624	-36.1322

114	1	-0.133244	123.642	-36.2654
115	1	-0.125661	123.658	-36.3911
116	1	-0.115562	123.671	-36.5066
117	1	-0.105474	123.682	-36.6121
118	1	-0.0953969	123.691	-36.7075
119	1	-0.0853288	123.698	-36.7928
120	1	-0.0752698	123.704	-36.8681
121	1	-0.0652187	123.708	-36.9333
122	1	-0.0551734	123.711	-36.9885
123	1	-0.0451348	123.713	-37.0336
124	1	-0.0350997	123.715	-37.0687
125	1	-0.0250691	123.715	-37.0938
126	1	-0.0150408	123.715	-37.1089
127	1	-0.00501359	123.715	-37.1139
128	1	0.00501359	123.716	-37.1089
129	1	0.0150408	123.716	-37.0938
130	1	0.0250691	123.716	-37.0687
131	1	0.0350997	123.718	-37.0336
132	1	0.0451348	123.72	-36.9885
133	1	0.0551734	123.723	-36.9333
134	1	0.0652187	123.727	-36.8681
135	1	0.0752698	123.733	-36.7928
136	1	0.0853288	123.74	-36.7075
137	1	0.0953969	123.749	-36.6121
138	1	0.105474	123.76	-36.5066
139	1	0.115562	123.773	-36.3911
140	1	0.125661	123.789	-36.2654
141	1	0.133244	123.807	-36.1322
142	1	0.143367	123.828	-35.9888
143	1	0.153505	123.851	-35.8353
144	1	0.163659	123.878	-35.6716
145	1	0.173829	123.908	-35.4978
146	1	0.184017	123.942	-35.3138
147	1	0.194225	123.98	-35.1196
148	1	0.204452	124.022	-34.9151
149	1	0.214702	124.068	-34.7004
150	1	0.224974	124.118	-34.4754
151	1	0.235269	124.174	-34.2402
152	1	0.24559	124.234	-33.9946
153	1	0.253347	124.298	-33.7412
154	1	0.263715	124.368	-33.4775
155	1	0.27411	124.443	-33.2034
156	1	0.284535	124.524	-32.9189
157	1	0.294992	124.611	-32.6239
158	1	0.305481	124.704	-32.3184
159	1	0.316004	124.804	-32.0024
160	1	0.326561	124.911	-31.6758
161	1	0.337155	125.024	-31.3387
162	1	0.347787	125.145	-30.9909
163	1	0.358459	125.274	-30.6324
164	1	0.369171	125.41	-30.2633
165	1	0.379927	125.554	-29.8833
166	1	0.388022	125.705	-29.4953
167	1	0.398855	125.864	-29.0965
168	1	0.409735	126.032	-28.6867
169	1	0.420664	126.209	-28.2661
170	1	0.431644	126.395	-27.8344
171	1	0.442676	126.591	-27.3917
172	1	0.453763	126.797	-26.938
173	1	0.464904	127.013	-26.4731
174	1	0.476105	127.24	-25.997
175	1	0.487364	127.477	-25.5096

176	1	0.498687		127.726	-25.0109
177	1	0.510074		127.986	-24.5008
178	1	0.521527		128.258	-23.9793
179	1	0.530162		128.539	-23.4492
180	1	0.541736		128.833	-22.9074
181	1	0.553384		129.139	-22.354
182	1	0.565108		129.458	-21.7889
183	1	0.576911		129.791	-21.212
184	1	0.588793		130.138	-20.6232
185	1	0.60076	130.499	-20.0225	
186	1	0.612813		130.874	-19.4097
187	1	0.624956		131.265	-18.7847
188	1.17	0.637192		131.671	-18.0392
189	1.2	0.649522		132.093	-17.2598
190	1.3	0.661955		132.531	-16.3992
191	1.41	0.67449	132.986	-15.4482	
192	1.45	0.68396	133.454	-14.4564	
193	1.5	0.696684		133.939	-13.4114
194	1.58	0.709522		134.442	-12.2904
195	1.6	0.722479		134.964	-11.1344
196	1.6	0.735557		135.505	-9.95751
197	1.65	0.748762		136.066	-8.72206
198	1.7	0.7621	136.647	-7.42649	
199	1.71	0.775574		137.248	-6.10026
200	1.9	0.789191		137.871	-4.60079
201	1.9	0.802956		138.516	-3.07518
202	1.91	0.816874		139.183	-1.51495
203	2	0.830953		139.874	0.14696
204	2	0.841621		140.582	1.8302
205	2.08	0.855996		141.315	3.61067
206	2.1	0.87055	142.073	5.43883	
207	2.2	0.885291		142.856	7.38647
208	2.2	0.900227		143.667	9.36697
209	2.4	0.915365		144.505	11.5638
210	2.4	0.930718		145.371	13.7976
211	2.44	0.946291		146.266	16.1065
212	2.48	0.9621	147.192	18.4925	
213	2.59	0.97815	148.149	21.0259	
214	2.6	0.994457		149.138	23.6115
215	2.7	1.01104	150.16	26.3413	
216	2.8	1.02789	151.217	29.2194	
217	2.81	1.04073	152.3	32.1439	
218	3	1.05812	153.419	35.3182	
219	3.57	1.07584	154.577	39.159	
220	3.6	1.0939	155.773	43.097	
221	4	1.11232	157.011	47.5463	
222	4	1.13113	158.29	52.0708	
223	4	1.15035	159.613	56.6722	
224	5	1.17	160.982	62.5222	
225	5.41	1.19012	162.399	68.9608	
226	7.2	1.21073	163.864	77.678	
227	10	1.23187	165.382	89.9967	
228	10	1.25357	166.953	102.532	
229	10.1	1.27588	168.581	115.419	
230	12	1.29303	170.253	130.935	
231	12	1.31652	171.986	146.733	
232	13	1.34075	173.784	164.163	
233	13	1.36581	175.649	181.919	
234	13.7	1.39175	177.586	200.986	
235	15.2	1.41865	179.599	222.549	
236	16	1.44663	181.692	245.695	
237	17	1.47579	183.87	270.784	

238	19	1.50626	186.139	299.403
239	21.8	1.5382	188.505	332.935
240	24.6	1.57179	190.975	371.601
241	25	1.60725	193.558	411.783
242	33.2	1.64485	196.264	466.392
243	36	1.67466	199.068	526.68
244	36.6	1.71688	202.016	589.518
245	37	1.76241	205.122	654.727
246	39	1.81191	208.405	725.391
247	46	1.86629	211.888	811.241
248	46	1.92684	215.601	899.875
249	48	1.99539	219.583	995.654
250	54.2	2.07485	223.888	1108.11
251	59	2.17009	228.597	1236.15
252	78	2.29036	233.843	1414.79
253	130	2.45727	239.881	1734.24
254	230	2.74777	247.431	2366.23

Data Set Standard Deviation = 19.1462
Numerator = 5.59903e+006
Denominator = 2.29477e+007
W Statistic = 0.24399 = 5.59903e+006 / 2.29477e+007

5% Critical value of 0.976 exceeds 0.24399
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.24399
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 = 0.499511
0.499511 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.09	0.00392157	-2.747	77	39.1605	348.683
2	0.09	0.00784314	-2.457	27	39.1605	334.497
3	0.09	0.0117647	-2.290	36	39.1605	326.346
4	0.09	0.0156863	-2.170	09	39.1605	320.473
5	0.09	0.0196078	-2.074	85	39.1605	315.822
6	0.09	0.0235294	-1.995	39	39.1605	311.942
7	0.09	0.027451	-1.926	84	39.1605	308.594
8	0.09	0.0313725	-1.866	29	39.1605	305.637
9	0.09	0.0352941	-1.811	91	39.1605	302.982
10	0.09	0.0392157	-1.762	41	39.1605	300.564
11	0.09	0.0431373	-1.716	88	39.1605	298.341
12	0.09	0.0470588	-1.674	66	39.1605	296.279
13	0.09	0.0509804	-1.644	85	39.1605	294.824
14	0.09	0.054902	-1.607	25	39.1605	292.987
15	0.09	0.0588235	-1.571	79	39.1605	291.256
16	0.09	0.0627451	-1.538	2	39.1605	289.615
17	0.09	0.0666667	-1.506	26	39.1605	288.056
18	0.09	0.0705882	-1.475	79	39.1605	286.568
19	0.09	0.0745098	-1.446	63	39.1605	285.144
20	0.09	0.0784314	-1.418	65	39.1605	283.778
21	0.09	0.0823529	-1.391	75	39.1605	282.464
22	0.09	0.0862745	-1.365	81	39.1605	281.197
23	0.09	0.0901961	-1.340	75	39.1605	279.974
24	0.09	0.0941176	-1.316	52	39.1605	278.79
25	0.09	0.0980392	-1.293	03	39.1605	277.643
26	0.09	0.101961	-1.275	88	39.1605	276.805
27	0.09	0.105882	-1.253	57	39.1605	275.716
28	0.09	0.109804	-1.231	87	39.1605	274.656
29	0.09	0.113725	-1.210	73	39.1605	273.624
30	0.09	0.117647	-1.190	12	39.1605	272.617
31	0.09	0.121569	-1.17		39.1605	271.635
32	0.09	0.12549	-1.150	35	39.1605	270.675
33	0.09	0.129412	-1.131	13	39.1605	269.737
34	0.09	0.133333	-1.112	32	39.1605	268.818
35	0.09	0.137255	-1.093	9	39.1605	267.919
36	0.09	0.141176	-1.075	84	39.1605	267.037
37	0.09	0.145098	-1.058	12	39.1605	266.172
38	0.09	0.14902	-1.040	73	39.1605	265.322
39	0.09	0.152941	-1.027	89	39.1605	264.695
40	0.09	0.156863	-1.011	04	39.1605	263.872
41	0.29	0.160784	-0.994457		39.5172	263.063
42	0.35	0.164706	-0.978	15	39.6242	262.266
43	0.36	0.168627	-0.962	1	39.642	261.483
44	0.43	0.172549	-0.946291		39.7668	260.711
45	0.44	0.176471	-0.930718		39.7847	259.95
46	0.44	0.180392	-0.915365		39.7847	259.2
47	0.47	0.184314	-0.900227		39.8382	258.461
48	0.48	0.188235	-0.885291		39.856	257.732

49	0.52	0.192157	-0.870553	9.9273	257.012	
50	0.52	0.196078	-0.855996	39.9273	256.301	
51	0.58	0.2	-0.841621	40.0343	255.599	
52	0.58	0.203922	-0.830953	40.0343	255.078	
53	0.58	0.207843	-0.816874	40.0343	254.391	
54	0.64	0.211765	-0.802956	40.1413	253.711	
55	0.69	0.215686	-0.789191	40.2305	253.039	
56	0.7	0.219608	-0.775574	40.2483	252.374	
57	0.73	0.223529	-0.7621	40.3018	251.716	
58	0.78	0.227451	-0.748762	40.391	251.065	
59	0.8	0.231373	-0.735557	40.4267	250.42	
60	0.8	0.235294	-0.722479	40.4267	249.781	
61	0.8	0.239216	-0.709522	40.4267	249.148	
62	0.8	0.243137	-0.696684	40.4267	248.521	
63	0.87	0.247059	-0.683964	0.5515	247.9	
64	0.9	0.25098	-0.674494	0.605	247.438	
65	0.9	0.254902	-0.661955	40.605	246.825	
66	0.9	0.258824	-0.649522	40.605	246.218	
67	0.94	0.262745	-0.637192	40.6763	245.616	
68	0.94	0.266667	-0.624956	40.6763	245.019	
69	0.97	0.270588	-0.612813	40.7298	244.426	
70	1	0.27451	-0.600764	0.7833	243.837	
71	1	0.278431	-0.588793	40.7833	243.253	
72	1	0.282353	-0.576911	40.7833	242.672	
73	1	0.286275	-0.565108	40.7833	242.096	
74	1	0.290196	-0.553384	40.7833	241.524	
75	1	0.294118	-0.541736	40.7833	240.955	
76	1	0.298039	-0.530162	40.7833	240.39	
77	1	0.301961	-0.521527	40.7833	239.968	
78	1	0.305882	-0.510074	40.7833	239.409	
79	1	0.309804	-0.498687	40.7833	238.853	
80	1	0.313725	-0.487364	40.7833	238.3	
81	1	0.317647	-0.476105	40.7833	237.75	
82	1	0.321569	-0.464904	40.7833	237.203	
83	1	0.32549	-0.453763	40.7833	236.659	
84	1	0.329412	-0.442676	40.7833	236.117	
85	1	0.333333	-0.431644	40.7833	235.579	
86	1	0.337255	-0.420664	40.7833	235.042	
87	1	0.341176	-0.409735	40.7833	234.509	
88	1	0.345098	-0.398855	40.7833	233.977	
89	1	0.34902	-0.388022	40.7833	233.448	
90	1	0.352941	-0.379927	40.7833	233.053	
91	1	0.356863	-0.369171	40.7833	232.528	
92	1	0.360784	-0.358459	40.7833	232.005	
93	1	0.364706	-0.347787	40.7833	231.484	
94	1	0.368627	-0.337155	40.7833	230.964	
95	1	0.372549	-0.326561	40.7833	230.447	
96	1	0.376471	-0.316004	40.7833	229.932	
97	1	0.380392	-0.305481	40.7833	229.418	
98	1	0.384314	-0.294992	40.7833	228.905	
99	1	0.388235	-0.284535	40.7833	228.395	
100	1	0.392157	-0.274114	0.7833	227.886	
101	1	0.396078	-0.263715	40.7833	227.378	
102	1	0.4	-0.253347	40.7833	226.872	
103	1	0.403922	-0.245594	0.7833	226.493	
104	1	0.407843	-0.235269	40.7833	225.989	
105	1	0.411765	-0.224974	40.7833	225.486	
106	1	0.415686	-0.214702	40.7833	224.985	
107	1	0.419608	-0.204452	40.7833	224.484	
108	1	0.423529	-0.194225	40.7833	223.985	
109	1	0.427451	-0.184017	40.7833	223.486	
110	1	0.431373	-0.173829	40.7833	222.989	

111	1	0.435294	-0.163659	40.7833	222.492
112	1	0.439216	-0.153505	40.7833	221.996
113	1	0.443137	-0.143367	40.7833	221.501
114	1	0.447059	-0.133244	40.7833	221.007
115	1	0.45098	-0.125661	40.7833	220.636
116	1	0.454902	-0.115562	40.7833	220.143
117	1	0.458824	-0.105474	40.7833	219.651
118	1	0.462745	-0.0953969	40.7833	219.159
119	1	0.466667	-0.0853288	40.7833	218.667
120	1	0.470588	-0.0752698	40.7833	218.176
121	1	0.47451	-0.0652187	40.7833	217.685
122	1	0.478431	-0.0551734	40.7833	217.194
123	1	0.482353	-0.0451348	40.7833	216.704
124	1	0.486275	-0.0350997	40.7833	216.214
125	1	0.490196	-0.0250691	40.7833	215.724
126	1	0.494118	-0.0150408	40.7833	215.234
127	1	0.498039	-0.00501359	40.7833	214.745
128	1	0.501961	0.00501359	40.7833	214.255
129	1	0.505882	0.0150408	40.7833	213.766
130	1	0.509804	0.0250691	40.7833	213.276
131	1	0.513725	0.0350997	40.7833	212.786
132	1	0.517647	0.0451348	40.7833	212.296
133	1	0.521569	0.0551734	40.7833	211.806
134	1	0.52549	0.0652187	40.7833	211.315
135	1	0.529412	0.0752698	40.7833	210.824
136	1	0.533333	0.0853288	40.7833	210.333
137	1	0.537255	0.0953969	40.7833	209.841
138	1	0.541176	0.105474	40.7833	209.349
139	1	0.545098	0.115562	40.7833	208.857
140	1	0.54902	0.125661	40.7833	208.364
141	1	0.552941	0.133244	40.7833	207.993
142	1	0.556863	0.143367	40.7833	207.499
143	1	0.560784	0.153505	40.7833	207.004
144	1	0.564706	0.163659	40.7833	206.508
145	1	0.568627	0.173829	40.7833	206.011
146	1	0.572549	0.184017	40.7833	205.514
147	1	0.576471	0.194225	40.7833	205.015
148	1	0.580392	0.204452	40.7833	204.516
149	1	0.584314	0.214702	40.7833	204.015
150	1	0.588235	0.224974	40.7833	203.514
151	1	0.592157	0.235269	40.7833	203.011
152	1	0.596078	0.24559	40.7833	202.507
153	1	0.6	0.253347	40.7833	202.128
154	1	0.603922	0.263715	40.7833	201.622
155	1	0.607843	0.27411	40.7833	201.114
156	1	0.611765	0.284535	40.7833	200.605
157	1	0.615686	0.294992	40.7833	200.095
158	1	0.619608	0.305481	40.7833	199.582
159	1	0.623529	0.316004	40.7833	199.068
160	1	0.627451	0.326561	40.7833	198.553
161	1	0.631373	0.337155	40.7833	198.036
162	1	0.635294	0.347787	40.7833	197.516
163	1	0.639216	0.358459	40.7833	196.995
164	1	0.643137	0.369171	40.7833	196.472
165	1	0.647059	0.379927	40.7833	195.947
166	1	0.65098	0.388022	40.7833	195.552
167	1	0.654902	0.398855	40.7833	195.023
168	1	0.658824	0.409735	40.7833	194.491
169	1	0.662745	0.420664	40.7833	193.958
170	1	0.666667	0.431644	40.7833	193.421
171	1	0.670588	0.442676	40.7833	192.883
172	1	0.67451	0.453763	40.7833	192.341

173	1	0.678431	0.464904	40.7833	191.797
174	1	0.682353	0.476105	40.7833	191.25
175	1	0.686275	0.487364	40.7833	190.7
176	1	0.690196	0.498687	40.7833	190.147
177	1	0.694118	0.510074	40.7833	189.591
178	1	0.698039	0.521527	40.7833	189.032
179	1	0.701961	0.530162	40.7833	188.61
180	1	0.705882	0.541736	40.7833	188.045
181	1	0.709804	0.553384	40.7833	187.476
182	1	0.713725	0.565108	40.7833	186.904
183	1	0.717647	0.576911	40.7833	186.328
184	1	0.721569	0.588793	40.7833	185.747
185	1	0.72549	0.60076	40.7833	185.163
186	1	0.729412	0.612813	40.7833	184.574
187	1	0.733333	0.624956	40.7833	183.981
188	1.17	0.737255	0.637192	41.0865	183.384
189	1.2	0.741176	0.649522	41.14	182.782
190	1.3	0.745098	0.661955	41.3183	182.175
191	1.41	0.74902	0.67449	41.5145	181.562
192	1.45	0.752941	0.68396	41.5858	181.1
193	1.5	0.756863	0.696684	41.675	180.479
194	1.58	0.760784	0.709522	41.8177	179.852
195	1.6	0.764706	0.722479	41.8533	179.219
196	1.6	0.768627	0.735557	41.8533	178.58
197	1.65	0.772549	0.748762	41.9425	177.935
198	1.7	0.776471	0.7621	42.0317	177.284
199	1.71	0.780392	0.775574	42.0495	176.626
200	1.9	0.784314	0.789191	42.3883	175.961
201	1.9	0.788235	0.802956	42.3883	175.289
202	1.91	0.792157	0.816874	42.4062	174.609
203	2	0.796078	0.830953	42.5667	173.922
204	2	0.8	0.841621	42.5667	173.401
205	2.08	0.803922	0.855996	42.7093	172.699
206	2.1	0.807843	0.87055	42.745	171.988
207	2.2	0.811765	0.885291	42.9233	171.268
208	2.2	0.815686	0.900227	42.9233	170.539
209	2.4	0.819608	0.915365	43.28	169.8
210	2.4	0.823529	0.930718	43.28	169.05
211	2.44	0.827451	0.946291	43.3513	168.289
212	2.48	0.831373	0.9621	43.4227	167.517
213	2.59	0.835294	0.97815	43.6188	166.734
214	2.6	0.839216	0.994457	43.6367	165.937
215	2.7	0.843137	1.01104	43.815	165.128
216	2.8	0.847059	1.02789	43.9933	164.305
217	2.81	0.85098	1.04073	44.0112	163.678
218	3	0.854902	1.05812	44.35	162.828
219	3.57	0.858824	1.07584	45.3665	161.963
220	3.6	0.862745	1.0939	45.42	161.081
221	4	0.866667	1.11232	46.1333	160.182
222	4	0.870588	1.13113	46.1333	159.263
223	4	0.87451	1.15035	46.1333	158.325
224	5	0.878431	1.17	47.9167	157.365
225	5.41	0.882353	1.19012	48.6478	156.383
226	7.2	0.886275	1.21073	51.84	155.376
227	10	0.890196	1.23187	56.8333	154.344
228	10	0.894118	1.25357	56.8333	153.284
229	10.1	0.898039	1.27588	57.0117	152.195
230	12	0.901961	1.29303	60.4	151.357
231	12	0.905882	1.31652	60.4	150.21
232	13	0.909804	1.34075	62.1833	149.026
233	13	0.913725	1.36581	62.1833	147.803
234	13.7	0.917647	1.39175	63.4317	146.536

235	15.2	0.921569		1.41865	66.1067	145.222
236	16	0.92549	1.44663	67.5333	143.856	
237	17	0.929412		1.47579	69.3167	142.432
238	19	0.933333		1.50626	72.8833	140.944
239	21.8	0.937255		1.5382	77.8767	139.385
240	24.6	0.941176		1.57179	82.87	137.744
241	25	0.945098		1.60725	83.5833	136.013
242	33.2	0.94902	1.64485	98.2067	134.176	
243	36	0.952941		1.67466	103.2	132.721
244	36.6	0.956863		1.71688	104.27	130.659
245	37	0.960784		1.76241	104.983	128.436
246	39	0.964706		1.81191	108.55	126.018
247	46	0.968627		1.86629	121.033	123.363
248	46	0.972549		1.92684	121.033	120.406
249	48	0.976471		1.99539	124.6	117.058
250	54.2	0.980392		2.07485	135.657	113.178
251	59	0.984314		2.17009	144.217	108.527
252	78	0.988235		2.29036	178.1	102.654
253	130	0.992157		2.45727	270.833	94.5032
254	230	0.996078		2.74777	449.167	80.3175

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 = 254

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.40795	-2.74777	7.55021	6.61647
2	-2.40795	-2.45727	13.5884	12.5334
3	-2.40795	-2.29036	18.8342	18.0485
4	-2.40795	-2.17009	23.5435	23.274
5	-2.40795	-2.07485	27.8485	28.2701
6	-2.40795	-1.99539	31.8301	33.0749
7	-2.40795	-1.92684	35.5428	37.7146
8	-2.40795	-1.86629	39.0258	42.2086
9	-2.40795	-1.81191	42.3088	46.5715
10	-2.40795	-1.76241	45.4149	50.8153
11	-2.40795	-1.71688	48.3626	54.9495
12	-2.40795	-1.67466	51.1671	58.982
13	-2.40795	-1.64485	53.8726	62.9427
14	-2.40795	-1.60725	56.4559	66.8129
15	-2.40795	-1.57179	58.9264	70.5977
16	-2.40795	-1.5382	61.2925	74.3016
17	-2.40795	-1.50626	63.5613	77.9286
18	-2.40795	-1.47579	65.7393	81.4822
19	-2.40795	-1.44663	67.832	84.9656
20	-2.40795	-1.41865	69.8446	88.3816
21	-2.40795	-1.39175	71.7815	91.7329
22	-2.40795	-1.36581	73.647	95.0217
23	-2.40795	-1.34075	75.4446	98.2501
24	-2.40795	-1.31652	77.1778	101.42
25	-2.40795	-1.29303	78.8498	104.534
26	-2.40795	-1.27588	80.4776	107.606
27	-2.40795	-1.25357	82.049	110.625
28	-2.40795	-1.23187	83.5665	113.591
29	-2.40795	-1.21073	85.0324	116.506
30	-2.40795	-1.19012	86.4488	119.372
31	-2.40795	-1.17	87.8177	122.189
32	-2.40795	-1.15035	89.141	124.959
33	-2.40795	-1.13113	90.4204	127.683
34	-2.40795	-1.11232	91.6577	130.361
35	-2.40795	-1.0939	92.8543	132.995
36	-2.40795	-1.07584	94.0117	135.586
37	-2.40795	-1.05812	95.1314	138.134
38	-2.40795	-1.04073	96.2145	140.64
39	-2.40795	-1.02789	97.271	143.115
40	-2.40795	-1.01104	98.2932	145.549
41	-1.23787	-0.994457	99.2822	146.78
42	-1.04982	-0.97815	100.239	147.807
43	-1.02165	-0.9621	101.165	148.79
44	-0.84397	-0.946291	102.06	149.589
45	-0.820981	-0.930718	102.926	150.353
46	-0.820981	-0.915365	103.764	151.105
47	-0.755023	-0.900227	104.575	151.784
48	-0.733969	-0.885291	105.358	152.434
49	-0.653926	-0.87055	106.116	153.003
50	-0.653926	-0.855996	106.849	153.563
51	-0.544727	-0.841621	107.557	154.021

52	-0.544727	-0.830953	108.248	154.474
53	-0.544727	-0.816874	108.915	154.919
54	-0.446287	-0.802956	109.56	155.277
55	-0.371064	-0.789191	110.183	155.57
56	-0.356675	-0.775574	110.784	155.847
57	-0.314711	-0.7621	111.365	156.087
58	-0.248461	-0.748762	111.926	156.273
59	-0.223144	-0.735557	112.467	156.437
60	-0.223144	-0.722479	112.989	156.598
61	-0.223144	-0.709522	113.492	156.756
62	-0.223144	-0.696684	113.977	156.912
63	-0.139262	-0.68396	114.445	157.007
64	-0.105361	-0.67449	114.9	157.078
65	-0.105361	-0.661955	115.338	157.148
66	-0.105361	-0.649522	115.76	157.216
67	-0.0618754	-0.637192	116.166	157.256
68	-0.0618754	-0.624956	116.557	157.295
69	-0.0304592	-0.612813	116.932	157.313
70	0	-0.60076	117.293	157.313
71	0	-0.588793	117.64	157.313
72	0	-0.576911	117.973	157.313
73	0	-0.565108	118.292	157.313
74	0	-0.553384	118.598	157.313
75	0	-0.541736	118.892	157.313
76	0	-0.530162	119.173	157.313
77	0	-0.521527	119.445	157.313
78	0	-0.510074	119.705	157.313
79	0	-0.498687	119.954	157.313
80	0	-0.487364	120.191	157.313
81	0	-0.476105	120.418	157.313
82	0	-0.464904	120.634	157.313
83	0	-0.453763	120.84	157.313
84	0	-0.442676	121.036	157.313
85	0	-0.431644	121.222	157.313
86	0	-0.420664	121.399	157.313
87	0	-0.409735	121.567	157.313
88	0	-0.398855	121.726	157.313
89	0	-0.388022	121.877	157.313
90	0	-0.379927	122.021	157.313
91	0	-0.369171	122.157	157.313
92	0	-0.358459	122.286	157.313
93	0	-0.347787	122.407	157.313
94	0	-0.337155	122.52	157.313
95	0	-0.326561	122.627	157.313
96	0	-0.316004	122.727	157.313
97	0	-0.305481	122.82	157.313
98	0	-0.294992	122.907	157.313
99	0	-0.284535	122.988	157.313
100	0	-0.27411	123.063	157.313
101	0	-0.263715	123.133	157.313
102	0	-0.253347	123.197	157.313
103	0	-0.24559	123.257	157.313
104	0	-0.235269	123.313	157.313
105	0	-0.224974	123.363	157.313
106	0	-0.214702	123.409	157.313
107	0	-0.204452	123.451	157.313
108	0	-0.194225	123.489	157.313
109	0	-0.184017	123.523	157.313
110	0	-0.173829	123.553	157.313
111	0	-0.163659	123.58	157.313
112	0	-0.153505	123.603	157.313
113	0	-0.143367	123.624	157.313

114	0	-0.133244	123.642	157.313
115	0	-0.125661	123.658	157.313
116	0	-0.115562	123.671	157.313
117	0	-0.105474	123.682	157.313
118	0	-0.0953969	123.691	157.313
119	0	-0.0853288	123.698	157.313
120	0	-0.0752698	123.704	157.313
121	0	-0.0652187	123.708	157.313
122	0	-0.0551734	123.711	157.313
123	0	-0.0451348	123.713	157.313
124	0	-0.0350997	123.715	157.313
125	0	-0.0250691	123.715	157.313
126	0	-0.0150408	123.715	157.313
127	0	-0.00501359	123.715	157.313
128	0	0.00501359	123.716	157.313
129	0	0.0150408	123.716	157.313
130	0	0.0250691	123.716	157.313
131	0	0.0350997	123.718	157.313
132	0	0.0451348	123.72	157.313
133	0	0.0551734	123.723	157.313
134	0	0.0652187	123.727	157.313
135	0	0.0752698	123.733	157.313
136	0	0.0853288	123.74	157.313
137	0	0.0953969	123.749	157.313
138	0	0.105474	123.76	157.313
139	0	0.115562	123.773	157.313
140	0	0.125661	123.789	157.313
141	0	0.133244	123.807	157.313
142	0	0.143367	123.828	157.313
143	0	0.153505	123.851	157.313
144	0	0.163659	123.878	157.313
145	0	0.173829	123.908	157.313
146	0	0.184017	123.942	157.313
147	0	0.194225	123.98	157.313
148	0	0.204452	124.022	157.313
149	0	0.214702	124.068	157.313
150	0	0.224974	124.118	157.313
151	0	0.235269	124.174	157.313
152	0	0.24559	124.234	157.313
153	0	0.253347	124.298	157.313
154	0	0.263715	124.368	157.313
155	0	0.27411	124.443	157.313
156	0	0.284535	124.524	157.313
157	0	0.294992	124.611	157.313
158	0	0.305481	124.704	157.313
159	0	0.316004	124.804	157.313
160	0	0.326561	124.911	157.313
161	0	0.337155	125.024	157.313
162	0	0.347787	125.145	157.313
163	0	0.358459	125.274	157.313
164	0	0.369171	125.41	157.313
165	0	0.379927	125.554	157.313
166	0	0.388022	125.705	157.313
167	0	0.398855	125.864	157.313
168	0	0.409735	126.032	157.313
169	0	0.420664	126.209	157.313
170	0	0.431644	126.395	157.313
171	0	0.442676	126.591	157.313
172	0	0.453763	126.797	157.313
173	0	0.464904	127.013	157.313
174	0	0.476105	127.24	157.313
175	0	0.487364	127.477	157.313

176	0	0.498687		127.726	157.313	
177	0	0.510074		127.986	157.313	
178	0	0.521527		128.258	157.313	
179	0	0.530162		128.539	157.313	
180	0	0.541736		128.833	157.313	
181	0	0.553384		129.139	157.313	
182	0	0.565108		129.458	157.313	
183	0	0.576911		129.791	157.313	
184	0	0.588793		130.138	157.313	
185	0	0.60076	130.499	157.313		
186	0	0.612813		130.874	157.313	
187	0	0.624956		131.265	157.313	
188	0.157004		0.637192		131.671	157.413
189	0.182322		0.649522		132.093	157.532
190	0.262364		0.661955		132.531	157.705
191	0.34359	0.67449	132.986	157.937		
192	0.371564		0.68396	133.454	158.191	
193	0.405465		0.696684		133.939	158.474
194	0.457425		0.709522		134.442	158.798
195	0.470004		0.722479		134.964	159.138
196	0.470004		0.735557		135.505	159.484
197	0.500775		0.748762		136.066	159.858
198	0.530628		0.7621	136.647	160.263	
199	0.536493		0.775574		137.248	160.679
200	0.641854		0.789191		137.871	161.186
201	0.641854		0.802956		138.516	161.701
202	0.647103		0.816874		139.183	162.23
203	0.693147		0.830953		139.874	162.805
204	0.693147		0.841621		140.582	163.389
205	0.732368		0.855996		141.315	164.016
206	0.741937		0.87055	142.073	164.662	
207	0.788457		0.885291		142.856	165.36
208	0.788457		0.900227		143.667	166.069
209	0.875469		0.915365		144.505	166.871
210	0.875469		0.930718		145.371	167.686
211	0.891998		0.946291		146.266	168.53
212	0.908259		0.9621	147.192	169.404	
213	0.951658		0.97815	148.149	170.334	
214	0.955511		0.994457		149.138	171.285
215	0.993252		1.01104	150.16	172.289	
216	1.02962	1.02789	151.217	173.347		
217	1.03318	1.04073	152.3	174.422		
218	1.09861	1.05812	153.419	175.585		
219	1.27257	1.07584	154.577	176.954		
220	1.28093	1.0939	155.773	178.355		
221	1.38629	1.11232	157.011	179.897		
222	1.38629	1.13113	158.29	181.465		
223	1.38629	1.15035	159.613	183.06		
224	1.60944	1.17	160.982	184.943		
225	1.68825	1.19012	162.399	186.952		
226	1.97408	1.21073	163.864	189.342		
227	2.30259	1.23187	165.382	192.179		
228	2.30259	1.25357	166.953	195.065		
229	2.31254	1.27588	168.581	198.016		
230	2.48491	1.29303	170.253	201.229		
231	2.48491	1.31652	171.986	204.5		
232	2.56495	1.34075	173.784	207.939		
233	2.56495	1.36581	175.649	211.442		
234	2.6174	1.39175	177.586	215.085		
235	2.7213	1.41865	179.599	218.946		
236	2.77259	1.44663	181.692	222.957		
237	2.83321	1.47579	183.87	227.138		

238	2.94444	1.50626	186.139	231.573
239	3.08191	1.5382	188.505	236.314
240	3.20275	1.57179	190.975	241.348
241	3.21888	1.60725	193.558	246.521
242	3.50255	1.64485	196.264	252.282
243	3.58352	1.67466	199.068	258.284
244	3.60005	1.71688	202.016	264.464
245	3.61092	1.76241	205.122	270.828
246	3.66356	1.81191	208.405	277.466
247	3.82864	1.86629	211.888	284.612
248	3.82864	1.92684	215.601	291.989
249	3.8712	1.99539	219.583	299.714
250	3.99268	2.07485	223.888	307.998
251	4.07754	2.17009	228.597	316.846
252	4.35671	2.29036	233.843	326.825
253	4.86753	2.45727	239.881	338.786
254	5.43808	2.74777	247.431	353.728

Data Set Standard Deviation = 1.5381
Numerator = 125124
Denominator = 148096
W Statistic = 0.844885 = 125124 / 148096

5% Critical value of 0.976 exceeds 0.844885
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.844885
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 = 0.919526
0.919526 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.40795	0.00392157	-2.74777	74.1943	348.683
2	-2.40795	0.00784314	-2.45727	74.1943	334.497
3	-2.40795	0.0117647	-2.29036	74.1943	326.346
4	-2.40795	0.0156863	-2.17009	74.1943	320.473
5	-2.40795	0.0196078	-2.07485	74.1943	315.822
6	-2.40795	0.0235294	-1.99539	74.1943	311.942
7	-2.40795	0.027451	-1.92684	74.1943	308.594
8	-2.40795	0.0313725	-1.86629	74.1943	305.637
9	-2.40795	0.0352941	-1.81191	74.1943	302.982
10	-2.40795	0.0392157	-1.76241	74.1943	300.564
11	-2.40795	0.0431373	-1.71688	74.1943	298.341
12	-2.40795	0.0470588	-1.67466	74.1943	296.279
13	-2.40795	0.0509804	-1.64485	74.1943	294.824
14	-2.40795	0.054902	-1.60725	74.1943	292.987
15	-2.40795	0.0588235	-1.57179	74.1943	291.256
16	-2.40795	0.0627451	-1.5382	74.1943	289.615
17	-2.40795	0.0666667	-1.50626	74.1943	288.056
18	-2.40795	0.0705882	-1.47579	74.1943	286.568
19	-2.40795	0.0745098	-1.44663	74.1943	285.144
20	-2.40795	0.0784314	-1.41865	74.1943	283.778
21	-2.40795	0.0823529	-1.39175	74.1943	282.464
22	-2.40795	0.0862745	-1.36581	74.1943	281.197
23	-2.40795	0.0901961	-1.34075	74.1943	279.974
24	-2.40795	0.0941176	-1.31652	74.1943	278.79
25	-2.40795	0.0980392	-1.29303	74.1943	277.643
26	-2.40795	0.101961	-1.27588	74.1943	276.805
27	-2.40795	0.105882	-1.25357	74.1943	275.716
28	-2.40795	0.109804	-1.23187	74.1943	274.656
29	-2.40795	0.113725	-1.21073	74.1943	273.624
30	-2.40795	0.117647	-1.19012	74.1943	272.617
31	-2.40795	0.121569	-1.17	74.1943	271.635
32	-2.40795	0.12549	-1.15035	74.1943	270.675
33	-2.40795	0.129412	-1.13113	74.1943	269.737
34	-2.40795	0.133333	-1.11232	74.1943	268.818
35	-2.40795	0.137255	-1.0939	74.1943	267.919
36	-2.40795	0.141176	-1.07584	74.1943	267.037
37	-2.40795	0.145098	-1.05812	74.1943	266.172
38	-2.40795	0.14902	-1.04073	74.1943	265.322
39	-2.40795	0.152941	-1.02789	74.1943	264.695
40	-2.40795	0.156863	-1.01104	74.1943	263.872
41	-1.23787	0.160784	-0.994457	143.749	263.063
42	-1.04982	0.164706	-0.97815	154.927	262.266
43	-1.02165	0.168627	-0.9621	156.602	261.483
44	-0.84397	0.172549	-0.946291	167.164	260.711
45	-0.820981	0.176471	-0.930718	168.531	259.95
46	-0.820981	0.180392	-0.915365	168.531	259.2
47	-0.755023	0.184314	-0.900227	172.451	258.461
48	-0.733969	0.188235	-0.885291	173.703	257.732

49	-0.653926	0.192157	-0.87055	178.461	257.012
50	-0.653926	0.196078	-0.855996	178.461	256.301
51	-0.544727	0.2	-0.841621	184.952	255.599
52	-0.544727	0.203922	-0.830953	184.952	255.078
53	-0.544727	0.207843	-0.816874	184.952	254.391
54	-0.446287	0.211765	-0.802956	190.804	253.711
55	-0.371064	0.215686	-0.789191	195.276	253.039
56	-0.356675	0.219608	-0.775574	196.131	252.374
57	-0.314711	0.223529	-0.7621	198.626	251.716
58	-0.248461	0.227451	-0.748762	202.564	251.065
59	-0.223144	0.231373	-0.735557	204.069	250.42
60	-0.223144	0.235294	-0.722479	204.069	249.781
61	-0.223144	0.239216	-0.709522	204.069	249.148
62	-0.223144	0.243137	-0.696684	204.069	248.521
63	-0.139262	0.247059	-0.68396	209.055	247.9
64	-0.105361	0.25098	-0.67449	211.07	247.438
65	-0.105361	0.254902	-0.661955	211.07	246.825
66	-0.105361	0.258824	-0.649522	211.07	246.218
67	-0.0618754	0.262745	-0.637192	213.655	245.616
68	-0.0618754	0.266667	-0.624956	213.655	245.019
69	-0.0304592	0.270588	-0.612813	215.523	244.426
70	0	0.27451	-0.60076	217.333	243.837
71	0	0.278431	-0.588793	217.333	243.253
72	0	0.282353	-0.576911	217.333	242.672
73	0	0.286275	-0.565108	217.333	242.096
74	0	0.290196	-0.553384	217.333	241.524
75	0	0.294118	-0.541736	217.333	240.955
76	0	0.298039	-0.530162	217.333	240.39
77	0	0.301961	-0.521527	217.333	239.968
78	0	0.305882	-0.510074	217.333	239.409
79	0	0.309804	-0.498687	217.333	238.853
80	0	0.313725	-0.487364	217.333	238.3
81	0	0.317647	-0.476105	217.333	237.75
82	0	0.321569	-0.464904	217.333	237.203
83	0	0.32549	-0.453763	217.333	236.659
84	0	0.329412	-0.442676	217.333	236.117
85	0	0.333333	-0.431644	217.333	235.579
86	0	0.337255	-0.420664	217.333	235.042
87	0	0.341176	-0.409735	217.333	234.509
88	0	0.345098	-0.398855	217.333	233.977
89	0	0.34902	-0.388022	217.333	233.448
90	0	0.352941	-0.379927	217.333	233.053
91	0	0.356863	-0.369171	217.333	232.528
92	0	0.360784	-0.358459	217.333	232.005
93	0	0.364706	-0.347787	217.333	231.484
94	0	0.368627	-0.337155	217.333	230.964
95	0	0.372549	-0.326561	217.333	230.447
96	0	0.376471	-0.316004	217.333	229.932
97	0	0.380392	-0.305481	217.333	229.418
98	0	0.384314	-0.294992	217.333	228.905
99	0	0.388235	-0.284535	217.333	228.395
100	0	0.392157	-0.27411	217.333	227.886
101	0	0.396078	-0.263715	217.333	227.378
102	0	0.4	-0.253347	217.333	226.872
103	0	0.403922	-0.24559	217.333	226.493
104	0	0.407843	-0.235269	217.333	225.989
105	0	0.411765	-0.224974	217.333	225.486
106	0	0.415686	-0.214702	217.333	224.985
107	0	0.419608	-0.204452	217.333	224.484
108	0	0.423529	-0.194225	217.333	223.985
109	0	0.427451	-0.184017	217.333	223.486
110	0	0.431373	-0.173829	217.333	222.989

111	0	0.435294	-0.163659	217.333	222.492
112	0	0.439216	-0.153505	217.333	221.996
113	0	0.443137	-0.143367	217.333	221.501
114	0	0.447059	-0.133244	217.333	221.007
115	0	0.45098	-0.125661	217.333	220.636
116	0	0.454902	-0.115562	217.333	220.143
117	0	0.458824	-0.105474	217.333	219.651
118	0	0.462745	-0.0953969	217.333	219.159
119	0	0.466667	-0.0853288	217.333	218.667
120	0	0.470588	-0.0752698	217.333	218.176
121	0	0.47451	-0.0652187	217.333	217.685
122	0	0.478431	-0.0551734	217.333	217.194
123	0	0.482353	-0.0451348	217.333	216.704
124	0	0.486275	-0.0350997	217.333	216.214
125	0	0.490196	-0.0250691	217.333	215.724
126	0	0.494118	-0.0150408	217.333	215.234
127	0	0.498039	-0.00501359	217.333	214.745
128	0	0.501961	0.00501359	217.333	214.255
129	0	0.505882	0.0150408	217.333	213.766
130	0	0.509804	0.0250691	217.333	213.276
131	0	0.513725	0.0350997	217.333	212.786
132	0	0.517647	0.0451348	217.333	212.296
133	0	0.521569	0.0551734	217.333	211.806
134	0	0.52549	0.0652187	217.333	211.315
135	0	0.529412	0.0752698	217.333	210.824
136	0	0.533333	0.0853288	217.333	210.333
137	0	0.537255	0.0953969	217.333	209.841
138	0	0.541176	0.105474	217.333	209.349
139	0	0.545098	0.115562	217.333	208.857
140	0	0.54902	0.125661	217.333	208.364
141	0	0.552941	0.133244	217.333	207.993
142	0	0.556863	0.143367	217.333	207.499
143	0	0.560784	0.153505	217.333	207.004
144	0	0.564706	0.163659	217.333	206.508
145	0	0.568627	0.173829	217.333	206.011
146	0	0.572549	0.184017	217.333	205.514
147	0	0.576471	0.194225	217.333	205.015
148	0	0.580392	0.204452	217.333	204.516
149	0	0.584314	0.214702	217.333	204.015
150	0	0.588235	0.224974	217.333	203.514
151	0	0.592157	0.235269	217.333	203.011
152	0	0.596078	0.24559	217.333	202.507
153	0	0.6	0.253347	217.333	202.128
154	0	0.603922	0.263715	217.333	201.622
155	0	0.607843	0.27411	217.333	201.114
156	0	0.611765	0.284535	217.333	200.605
157	0	0.615686	0.294992	217.333	200.095
158	0	0.619608	0.305481	217.333	199.582
159	0	0.623529	0.316004	217.333	199.068
160	0	0.627451	0.326561	217.333	198.553
161	0	0.631373	0.337155	217.333	198.036
162	0	0.635294	0.347787	217.333	197.516
163	0	0.639216	0.358459	217.333	196.995
164	0	0.643137	0.369171	217.333	196.472
165	0	0.647059	0.379927	217.333	195.947
166	0	0.65098	0.388022	217.333	195.552
167	0	0.654902	0.398855	217.333	195.023
168	0	0.658824	0.409735	217.333	194.491
169	0	0.662745	0.420664	217.333	193.958
170	0	0.666667	0.431644	217.333	193.421
171	0	0.670588	0.442676	217.333	192.883
172	0	0.67451	0.453763	217.333	192.341

173	0	0.678431	0.464904	217.333	191.797	
174	0	0.682353	0.476105	217.333	191.25	
175	0	0.686275	0.487364	217.333	190.7	
176	0	0.690196	0.498687	217.333	190.147	
177	0	0.694118	0.510074	217.333	189.591	
178	0	0.698039	0.521527	217.333	189.032	
179	0	0.701961	0.530162	217.333	188.61	
180	0	0.705882	0.541736	217.333	188.045	
181	0	0.709804	0.553384	217.333	187.476	
182	0	0.713725	0.565108	217.333	186.904	
183	0	0.717647	0.576911	217.333	186.328	
184	0	0.721569	0.588793	217.333	185.747	
185	0	0.72549	0.60076	217.333	185.163	
186	0	0.729412	0.612813	217.333	184.574	
187	0	0.733333	0.624956	217.333	183.981	
188	0.157004	0.737255	0.637192	226.666	183.384	
189	0.182322	0.741176	0.649522	228.171	182.782	
190	0.262364	0.745098	0.661955	232.929	182.175	
191	0.34359	0.74902	0.67449	237.758	181.562	
192	0.371564	0.752941	0.68396	239.421	181.1	
193	0.405465	0.756863	0.696684	241.436	180.479	
194	0.457425	0.760784	0.709522	244.525	179.852	
195	0.470004	0.764706	0.722479	245.272	179.219	
196	0.470004	0.768627	0.735557	245.272	178.58	
197	0.500775	0.772549	0.748762	247.102	177.935	
198	0.530628	0.776471	0.7621	248.876	177.284	
199	0.536493	0.780392	0.775574	249.225	176.626	
200	0.641854	0.784314	0.789191	255.488	175.961	
201	0.641854	0.788235	0.802956	255.488	175.289	
202	0.647103	0.792157	0.816874	255.8	174.609	
203	0.693147	0.796078	0.830953	258.537	173.922	
204	0.693147	0.8	0.841621	258.537	173.401	
205	0.732368	0.803922	0.855996	260.869	172.699	
206	0.741937	0.807843	0.87055	261.437	171.988	
207	0.788457	0.811765	0.885291	264.203	171.268	
208	0.788457	0.815686	0.900227	264.203	170.539	
209	0.875469	0.819608	0.915365	269.375	169.8	
210	0.875469	0.823529	0.930718	269.375	169.05	
211	0.891998	0.827451	0.946291	270.358	168.289	
212	0.908259	0.831373	0.9621	271.324	167.517	
213	0.951658	0.835294	0.97815	273.904	166.734	
214	0.955511	0.839216	0.994457	274.133	165.937	
215	0.993252	0.843137	1.01104	276.377	165.128	
216	1.02962	0.847059	1.02789	278.538	164.305	
217	1.03318	0.85098	1.04073	278.75	163.678	
218	1.09861	0.854902	1.05812	282.64	162.828	
219	1.27257	0.858824	1.07584	292.98	161.963	
220	1.28093	0.862745	1.0939	293.478	161.081	
221	1.38629	0.866667	1.11232	299.741	160.182	
222	1.38629	0.870588	1.13113	299.741	159.263	
223	1.38629	0.87451	1.15035	299.741	158.325	
224	1.60944	0.878431	1.17	313.005	157.365	
225	1.68825	0.882353	1.19012	317.69	156.383	
226	1.97408	0.886275	1.21073	334.681	155.376	
227	2.30259	0.890196	1.23187	354.209	154.344	
228	2.30259	0.894118	1.25357	354.209	153.284	
229	2.31254	0.898039	1.27588	354.801	152.195	
230	2.48491	0.901961	1.29303	365.047	151.357	
231	2.48491	0.905882	1.31652	365.047	150.21	
232	2.56495	0.909804	1.34075	369.805	149.026	
233	2.56495	0.913725	1.36581	369.805	147.803	
234	2.6174	0.917647	1.39175	372.923	146.536	

235	2.7213	0.921569		1.41865	379.099	145.222
236	2.77259	0.92549	1.44663	382.148	143.856	
237	2.83321	0.929412		1.47579	385.752	142.432
238	2.94444	0.933333		1.50626	392.364	140.944
239	3.08191	0.937255		1.5382	400.536	139.385
240	3.20275	0.941176		1.57179	407.719	137.744
241	3.21888	0.945098		1.60725	408.678	136.013
242	3.50255	0.94902	1.64485	425.54	134.176	
243	3.58352	0.952941		1.67466	430.354	132.721
244	3.60005	0.956863		1.71688	431.336	130.659
245	3.61092	0.960784		1.76241	431.982	128.436
246	3.66356	0.964706		1.81191	435.112	126.018
247	3.82864	0.968627		1.86629	444.925	123.363
248	3.82864	0.972549		1.92684	444.925	120.406
249	3.8712	0.976471		1.99539	447.455	117.058
250	3.99268	0.980392		2.07485	454.676	113.178
251	4.07754	0.984314		2.17009	459.72	108.527
252	4.35671	0.988235		2.29036	476.315	102.654
253	4.86753	0.992157		2.45727	506.681	94.5032
254	5.43808	0.996078		2.74777	540.597	80.3175

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	79.5
	9/23/1999	ND<0	79.5
	3/15/2000	ND<0	79.5
	9/24/2003	ND<0	79.5
	3/11/2004	ND<0	79.5
	10/12/2004	ND<0	79.5
	4/1/2005	ND<0	79.5
	10/25/2005	ND<0	79.5
	4/29/2006	ND<0	79.5
	11/18/2006	ND<0	79.5
	5/23/2007	ND<0	79.5
	11/28/2007	ND<0	79.5
	6/5/2008	ND<0	79.5
	11/20/2008	ND<0	79.5
	6/11/2009	ND<-2.40795	79.5
	11/16/2009	ND<-2.40795	79.5
	6/30/2010	ND<-2.40795	79.5
	11/12/2010	ND<-2.40795 U	79.5
	7/5/2011	ND<-2.40795 U	79.5

Rank Sum = 1510.5
Rank Mean = 79.5

Background Rank Sum = 1510.5
Background Rank Mean = 79.5

Compliance Locations

Loc. ID	Date	Value	Rank
MW-6	7/20/1995	ND<0	79.5
	8/24/1995	ND<0	79.5
	9/28/1995	ND<0	79.5
	10/26/1995	ND<0	79.5
	11/19/1996	ND<0	79.5
	12/19/1996	ND<0	79.5
	3/24/1997	ND<0	79.5
	9/24/1997	ND<0	79.5
	4/7/1998	ND<0	79.5
	9/23/1998	ND<0	79.5
	3/16/1999	ND<0	79.5
	9/23/1999	ND<0	79.5
	3/15/2000	ND<0	79.5
	9/24/2003	ND<0	79.5
	3/11/2004	ND<0	79.5
	10/12/2004	ND<0	79.5
	4/1/2005	ND<0	79.5
	10/25/2005	ND<0	79.5
	4/29/2006	ND<0	79.5
	11/18/2006	ND<0	79.5
	5/23/2007	ND<0	79.5

	11/28/2007	ND<0	79.5	
	6/5/2008	ND<0	79.5	
	11/20/2008	ND<0	79.5	
	6/11/2009	ND<-2.40795		79.5
	11/16/2009	ND<-2.40795		79.5
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	ND<-2.40795 U		79.5
	7/5/2011	ND<-2.40795 U	79.5	
	11/22/2011	ND<-2.40795 U		79.5
	11/22/2011	ND<-2.40795 U		79.5
	6/5/2012	ND<-2.40795 U	79.5	

Rank Sum = 2544
Rank Mean = 79.5

MW-7	7/20/1995	ND<0	79.5	
	8/24/1995	ND<0	79.5	
	9/28/1995	-0.356675 J		174
	10/26/1995	ND<0	79.5	
	11/19/1996	ND<0	79.5	
	12/19/1996	ND<0	79.5	
	3/24/1997	ND<0	79.5	
	9/24/1997	ND<0	79.5	
	4/7/1998	ND<0	79.5	
	9/23/1998	ND<0	79.5	
	3/16/1999	ND<0	79.5	
	9/23/1999	ND<0	79.5	
	3/15/2000	ND<0	79.5	
	9/24/2003	ND<0	79.5	
	3/11/2004	ND<0	79.5	
	10/12/2004	ND<0	79.5	
	4/1/2005	-0.653926 J	167	
	10/25/2005	-1.02165 J		161
	4/29/2006	-0.446287 J		172
	11/18/2006	-1.04982 J		160
	5/23/2007	ND<0	79.5	
	11/28/2007	ND<0	79.5	
	6/5/2008	-0.755023 J	165	
	11/20/2008	-0.544727 J		169
	6/11/2009	ND<-2.40795		79.5
	11/16/2009	ND<-2.40795		79.5
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	-1.23787 J		159
	7/5/2011	-0.544727 J	170	
	11/22/2011	-0.820981 J		163
	11/22/2011	-0.820981 J		164
	6/5/2012	-0.84397 J	162	

Rank Sum = 3576
Rank Mean = 111.75

MW-9	7/20/1995	ND<0	79.5	
	8/24/1995	ND<0	79.5	
	9/28/1995	-0.223144 J		177
	10/26/1995	-0.105361 J		182
	11/19/1996	ND<0	79.5	
	12/19/1996	ND<0	79.5	
	3/24/1997	ND<0	79.5	
	9/24/1997	ND<0	79.5	
	4/7/1998	ND<0	79.5	
	9/23/1998	ND<0	79.5	
	3/16/1999	0.993252		215
	9/23/1999	ND<0	79.5	
	3/15/2000	ND<0	79.5	

	9/24/2003	ND<0	79.5	
	3/11/2004	3.61092		245
	10/12/2004	ND<0	79.5	
	4/1/2005	1.03318	217	
	10/25/2005	0.371564 J		192
	4/29/2006	-0.371064 J		173
	11/18/2006	-0.314711 J		175
	5/23/2007	ND<0	79.5	
	11/28/2007	0.536493 J		199
	6/5/2008	0.470004 J	195	
	11/20/2008	0.34359 J		191
	6/11/2009	0.693147		203
	11/16/2009	0.182322		189
	6/30/2010	0.741937		206
	11/12/2010	0.641854		200
	7/5/2011	-0.105361 J M	183	
	11/22/2011	-0.0618754 J		185
	11/22/2011	-0.0618754 J		186
	6/5/2012	-0.139262 J	181	

Rank Sum = 4727.5
Rank Mean = 147.734

MW-8	7/20/1995	0.875469		209
	8/24/1995	3.82864		247
	9/28/1995	3.58352		243
	10/26/1995	1.38629		221
	11/19/1996	ND<0	79.5	
	12/19/1996	3.82864		248
	3/24/1997	3.8712	249	
	9/24/1997	3.21888		241
	4/7/1998	3.66356	246	
	9/23/1998	2.77259		236
	3/16/1999	2.6174	234	
	9/23/1999	2.7213	235	
	3/15/2000	ND<0	79.5	
	9/24/2003	5.43808		254
	3/11/2004	4.35671		252
	10/12/2004	4.86753		253
	4/1/2005	4.07754	251	
	10/25/2005	3.99268		250
	4/29/2006	3.20275		240
	11/18/2006	3.60005		244
	5/23/2007	2.94444		238
	11/28/2007	3.50255		242
	6/5/2008	3.08191	239	
	11/20/2008	2.31254		229
	6/11/2009	2.48491		230
	6/30/2010	2.30259		227
	11/12/2010	2.30259		228
	7/5/2011	2.83321	237	
	11/22/2011	2.56495		232
	11/22/2011	2.56495		233
	6/5/2012	2.48491	231	

Rank Sum = 7078
Rank Mean = 228.323

MW-10	7/20/1995	ND<0	79.5	
	8/24/1995	1.09861		218
	9/28/1995	1.38629		222
	10/26/1995	1.60944		224
	11/19/1996	ND<0	79.5	
	12/19/1996	ND<0	79.5	

	3/24/1997	ND<0		79.5
	9/24/1997	ND<0		79.5
	4/7/1998	ND<0		79.5
	9/23/1998	ND<0		79.5
	3/16/1999	1.28093		220
	9/23/1999	ND<0		79.5
	3/15/2000	ND<0		79.5
	9/24/2003	ND<0		79.5
	3/11/2004	ND<0		79.5
	10/12/2004	ND<0		79.5
	4/1/2005	0.647103	J	202
	10/25/2005	0.908259		212
	4/29/2006	1.02962		216
	11/18/2006	0.530628	J	198
	5/23/2007	ND<0		79.5
	11/28/2007	0.951658		213
	6/5/2008	0.500775	J	197
	11/20/2008	0.457425	J	194
	6/11/2009	0.262364		190
	11/16/2009	0.405465		193
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	0.470004		196
	7/5/2011	0.875469		210
	11/22/2011	0.788457		207
	11/22/2011	0.788457		208
	6/5/2012	0.693147		204

Rank Sum = 4837
Rank Mean = 151.156

MW-11R	7/20/1995	ND<0		79.5
	8/24/1995	0.641854	J	201
	9/28/1995	-0.223144	J	178
	10/26/1995	1.38629		223
	11/19/1996	ND<0		79.5
	12/19/1996	ND<0		79.5
	3/24/1997	ND<0		79.5
	9/24/1997	ND<0		79.5
	4/7/1998	ND<0		79.5
	9/23/1998	ND<0		79.5
	3/16/1999	0.955511		214
	9/23/1999	ND<0		79.5
	3/15/2000	ND<0		79.5
	9/24/2003	ND<0		79.5
	3/11/2004	ND<0		79.5
	10/12/2004	ND<0		79.5
	4/1/2005	1.27257		219
	10/25/2005	-0.105361	J	184
	4/29/2006	-0.248461	J	176
	11/18/2006	-0.223144	J	179
	5/23/2007	ND<0		79.5
	11/28/2007	-0.733969	J	166
	6/5/2008	ND<0		79.5
	11/20/2008	ND<0		79.5
	6/11/2009	ND<-2.40795		79.5
	11/16/2009	ND<-2.40795		79.5
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	ND<-2.40795	U	79.5
	7/5/2011	ND<-2.40795	U	79.5
	11/22/2011	ND<-2.40795	U	79.5
	11/22/2011	ND<-2.40795	U	79.5
	6/5/2012	ND<-2.40795	U	79.5

Rank Sum = 3568.5

Rank Mean = 111.516

MW-12BR	3/16/1999	1.97408		226
	9/23/1999	ND<0	79.5	
	3/15/2000	ND<0	79.5	
	9/24/2003	ND<0	79.5	
	3/11/2004	ND<0	79.5	
	10/12/2004	ND<0	79.5	
	4/1/2005	1.68825	225	
	10/25/2005	ND<0	79.5	
	4/29/2006	ND<0	79.5	
	11/18/2006	ND<0	79.5	
	5/23/2007	ND<0	79.5	
	11/28/2007	ND<0	79.5	
	6/5/2008	ND<0	79.5	
	11/20/2008	ND<0	79.5	
	6/11/2009	ND<-2.40795		79.5
	11/16/2009	ND<-2.40795		79.5
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	ND<-2.40795 U		79.5
	7/5/2011	ND<-2.40795 U	79.5	
	11/22/2011	ND<-2.40795 U		79.5
	11/22/2011	ND<-2.40795 U		79.5
	6/5/2012	ND<-2.40795 U	79.5	

Rank Sum = 2041
Rank Mean = 92.7727

MW-12AR	3/16/1999	ND<0	79.5	
	9/23/1999	ND<0	79.5	
	3/15/2000	ND<0	79.5	
	9/24/2003	ND<0	79.5	
	3/11/2004	ND<0	79.5	
	10/12/2004	ND<0	79.5	
	4/1/2005	ND<0	79.5	
	10/25/2005	0.732368		205
	4/29/2006	0.891998		211
	11/18/2006	0.157004 J		188
	5/23/2007	ND<0	79.5	
	11/28/2007	-0.0304592 J		187
	6/5/2008	-0.223144 J	180	
	11/20/2008	-0.653926 J		168
	6/11/2009	ND<-2.40795		79.5
	11/16/2009	ND<-2.40795		79.5
	6/30/2010	ND<-2.40795		79.5
	11/12/2010	-0.544727 J		171
	7/5/2011	ND<-2.40795 U	79.5	
	11/22/2011	ND<-2.40795 U		79.5
	11/22/2011	ND<-2.40795 U		79.5
	6/5/2012	ND<-2.40795 U	79.5	

Rank Sum = 2502.5
Rank Mean = 113.75

Calculation Results:

Kruskal-Wallis H Statistic = 94.5696
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 124.547
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
94.5696 > 15.5073 indicating a significant group difference at 5% significance level
124.547 > 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 79.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	79.5	0	49.4998
MW-7	111.75	32.25	49.4998
MW-9	147.734	68.2344	49.4998
MW-8	228.323	148.823	49.7963
MW-10	151.156	71.6563	49.4998
MW-11R	111.516	32.0156	49.4998
MW-12BR	92.7727	13.2727	53.5271
MW-12AR	113.75	34.25	53.5271

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 79.5

Well	Mean Rank	Dif from Bkg	Critical Value
MW-6	79.5	0	53.453
MW-7	111.75	32.25	53.453
MW-9	147.734	68.2344	53.453
MW-8	228.323	148.823	53.7733
MW-10	151.156	71.6563	53.453
MW-11R	111.516	32.0156	53.453
MW-12BR	92.7727	13.2727	57.802
MW-12AR	113.75	34.25	57.802

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
6/5/2012	2.48491	0	0.13788
6/5/2012	2.48491	0	0.13788

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
6/5/2012	-0.139262	84.4957	-0.912286
6/5/2012	-0.139262	84.4957	-0.912286

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	1.28093	0	0.782545
3/16/1999	1.28093	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	1.02962	0	0.453973
4/29/2006	1.02962	0	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	-2.40795	0	-4.04036
6/30/2010	-2.40795	0	-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
6/5/2012	0.693147	0	0.0140631
6/5/2012	0.693147	0	0.0140631

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					
2.48491	(6/5/2012)	0.875469	(7/20/1995)	(2.48491 - 0.875469)/(30 - 1)		
	0.0554979					
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					
2.48491	(6/5/2012)	3.82864	(8/24/1995)	(2.48491 - 3.82864)/(30 - 2)	
-0.0479905					
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					
2.48491	(6/5/2012)	3.58352	(9/28/1995)	(2.48491 - 3.58352)/(30 - 3)	
-0.0406893					
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						
2.48491	(6/5/2012)	1.38629	(10/26/1995)	(2.48491 - 1.38629)/(30 - 4)		
0.0422543						
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
2.48491	(6/5/2012)	ND<0	(11/19/1996)	(2.48491 - 0)/(30 - 5)	0.0993963

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						
2.48491	(6/5/2012)	3.82864	(12/19/1996)	(2.48491 - 3.82864)/(30 - 6)		
-0.0559889						
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
2.48491	(6/5/2012)	3.8712	(3/24/1997)	(2.48491 - 3.8712)/(30 - 7)	-0.0602737
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
2.48491	(6/5/2012)	3.21888	(9/24/1997)	(2.48491 - 3.21888)/(30 - 8)	-0.0333622
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					
2.48491	(6/5/2012)	3.66356	(4/7/1998)	(2.48491 - 3.66356)/(30 - 9)		
	-0.0561264					
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					
2.48491	(6/5/2012)	2.77259	(9/23/1998)	(2.48491 - 2.77259)/(30 - 10)		
	-0.0143841					
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					
2.48491	(6/5/2012)	2.6174	(3/16/1999)	(2.48491 - 2.6174)/(30 - 11)		
	-0.00697311					
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					
2.48491	(6/5/2012)	2.7213	(9/23/1999)	(2.48491 - 2.7213)/(30 - 12)	
-0.0131327					

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
2.48491	(6/5/2012)	ND<0	(3/15/2000)	(2.48491 - 0)/(30 - 13)	0.146171
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
2.48491	(6/5/2012)	5.43808	(9/24/2003)	(2.48491 - 5.43808)/(30 - 14)	-0.184573
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
2.48491	(6/5/2012)	4.35671	(3/11/2004)	(2.48491 - 4.35671)/(30 - 15)	-0.124787
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
2.48491	(6/5/2012)	4.86753	(10/12/2004)	(2.48491 - 4.86753)/(30 - 16)	-0.170188
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
2.48491	(6/5/2012)	4.07754	(4/1/2005)	(2.48491 - 4.07754)/(30 - 17)	-0.12251
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
2.48491	(6/5/2012)	3.99268	(10/25/2005)	(2.48491 - 3.99268)/(30 - 18)	-0.125648
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
2.48491	(6/5/2012)	3.20275	(4/29/2006)	(2.48491 - 3.20275)/(30 - 19)	-0.0652582

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
2.48491	(6/5/2012)	3.60005	(11/18/2006)	(2.48491 - 3.60005)/(30 - 20)	-0.111514
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
2.48491	(6/5/2012)	2.94444	(5/23/2007)	(2.48491 - 2.94444)/(30 - 21)	-0.0510591
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

2.48491	(6/5/2012)	3.50255	(11/28/2007)	(2.48491 - 3.50255)/(30 - 22)	-0.127205
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	(6/5/2012)	3.08191	(6/5/2008)	(2.48491 - 3.08191)/(30 - 23)	-0.0852862
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
2.48491	(6/5/2012)	2.31254	(11/20/2008)	(2.48491 - 2.31254)/(30 - 24)	0.0287285
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
2.48491	(6/5/2012)	2.48491	(6/11/2009)	(2.48491 - 2.48491)/(30 - 25)	0
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
2.48491	(6/5/2012)	2.30259	(6/30/2010)	(2.48491 - 2.30259)/(30 - 26)	0.0455804
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				
2.48491	(6/5/2012)	2.30259	(11/12/2010)	(2.48491 - 2.30259)/(30 - 27)
0.0607739				
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				
2.48491	(6/5/2012)	2.83321	(7/5/2011)	(2.48491 - 2.83321)/(30 - 28)
-0.174153				
2.56495	(11/22/2011)	2.56495	(11/22/2011)	(2.56495 - 2.56495)/(29 - 29)
Same Date				
2.48491	(6/5/2012)	2.56495	(11/22/2011)	(2.48491 - 2.56495)/(30 - 29)
-0.0800427				
2.48491	(6/5/2012)	2.56495	(11/22/2011)	(2.48491 - 2.56495)/(30 - 29)
-0.0800427				

Number of Q values = 464

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	-0.184573
91	-0.184558
92	-0.182322
93	-0.182154
94	-0.178042
95	-0.177495
96	-0.177122

97	-0.177122
98	-0.174153
99	-0.172713
100	-0.171177
101	-0.170188
102	-0.169527
103	-0.165938
104	-0.15935
105	-0.159163
106	-0.155193
107	-0.154033
108	-0.151332
109	-0.139586
110	-0.134583
111	-0.133943
112	-0.133943
113	-0.132007
114	-0.129794
115	-0.129794
116	-0.129154
117	-0.128594
118	-0.128371
119	-0.127983
120	-0.127983
121	-0.127205
122	-0.126049
123	-0.126049
124	-0.125648
125	-0.124787
126	-0.124395
127	-0.122533
128	-0.12251
129	-0.122023
130	-0.121343
131	-0.120765
132	-0.11964
133	-0.117192
134	-0.115947
135	-0.115847
136	-0.115011
137	-0.115011
138	-0.114998
139	-0.114883
140	-0.11312
141	-0.11252
142	-0.111556
143	-0.111514
144	-0.110735
145	-0.106976
146	-0.10382
147	-0.101628
148	-0.0958544
149	-0.0958026
150	-0.0916862
151	-0.0911608
152	-0.0900684
153	-0.0861601
154	-0.0861601
155	-0.0852862
156	-0.0848565
157	-0.0842281
158	-0.0825587

159	-0.0800574
160	-0.0800427
161	-0.0800427
162	-0.0784308
163	-0.0770164
164	-0.0763028
165	-0.0756098
166	-0.0736659
167	-0.0729557
168	-0.0729286
169	-0.0726693
170	-0.0707229
171	-0.0689139
172	-0.0661973
173	-0.0652582
174	-0.0637797
175	-0.0637797
176	-0.0635857
177	-0.0610423
178	-0.060523
179	-0.0602737
180	-0.0599269
181	-0.0593751
182	-0.0593751
183	-0.0589468
184	-0.0584232
185	-0.0566463
186	-0.0561264
187	-0.0559889
188	-0.0557045
189	-0.0556928
190	-0.0550266
191	-0.0549431
192	-0.0549431
193	-0.0549306
194	-0.0549306
195	-0.0533722
196	-0.0510591
197	-0.050905
198	-0.0499369
199	-0.0497393
200	-0.049428
201	-0.0493307
202	-0.0487492
203	-0.0482258
204	-0.0481458
205	-0.0479905
206	-0.0474362
207	-0.0474362
208	-0.0468034
209	-0.0468034
210	-0.046537
211	-0.0460815
212	-0.0452467
213	-0.0439254
214	-0.0437025
215	-0.0431747
216	-0.0415465
217	-0.0410592
218	-0.0406893
219	-0.0391758
220	-0.0391758

221	-0.0382857
222	-0.0368174
223	-0.0355586
224	-0.0355044
225	-0.0340633
226	-0.0333622
227	-0.0328609
228	-0.0311394
229	-0.0311394
230	-0.0302091
231	-0.0300122
232	-0.0299079
233	-0.0293752
234	-0.027914
235	-0.0276473
236	-0.0256466
237	-0.0250804
238	-0.0245767
239	-0.0237983
240	-0.0235828
241	-0.0234508
242	-0.0211105
243	-0.0209874
244	-0.0208579
245	-0.0203807
246	-0.0196757
247	-0.0192831
248	-0.0191788
249	-0.0181838
250	-0.0163281
251	-0.0163046
252	-0.0158894
253	-0.0143841
254	-0.0131327
255	-0.0126996
256	-0.0123855
257	-0.0109284
258	-0.0109284
259	-0.00946351
260	-0.00919683
261	-0.00919683
262	-0.00913106
263	-0.00697311
264	-0.00577395
265	-0.00497517
266	-0.00426153
267	-0.00331678
268	-0.00291369
269	-0.00291369
270	-0.00146631
271	0
272	0
273	0
274	0
275	0.000972312
276	0.00336803
277	0.00699487
278	0.00851192
279	0.0102525
280	0.0110436
281	0.0126951
282	0.0133405

283	0.01367
284	0.0156228
285	0.0165931
286	0.0200107
287	0.0200107
288	0.0202624
289	0.0206336
290	0.0226269
291	0.0237939
292	0.0247937
293	0.0272775
294	0.0287285
295	0.0317644
296	0.0327043
297	0.0327831
298	0.035287
299	0.0365688
300	0.0387095
301	0.0398387
302	0.0406206
303	0.0416496
304	0.0422543
305	0.0425596
306	0.0455804
307	0.0463121
308	0.0471462
309	0.0471462
310	0.0477953
311	0.0504828
312	0.0504828
313	0.051747
314	0.0523149
315	0.0548891
316	0.0554979
317	0.0570847
318	0.0586742
319	0.0602883
320	0.0603386
321	0.0603386
322	0.0606885
323	0.0607739
324	0.0608301
325	0.0624812
326	0.0644325
327	0.0670599
328	0.0687355
329	0.0687787
330	0.0719205
331	0.0725091
332	0.0731688
333	0.0742066
334	0.0773805
335	0.0781254
336	0.0804685
337	0.0817075
338	0.082746
339	0.0874548
340	0.0874548
341	0.0892429
342	0.0916556
343	0.0954068
344	0.0987704

345	0.0993963
346	0.0999345
347	0.100293
348	0.103449
349	0.103889
350	0.1039
351	0.104663
352	0.106873
353	0.106873
354	0.109184
355	0.109647
356	0.109844
357	0.110704
358	0.115525
359	0.116102
360	0.11757
361	0.121097
362	0.121712
363	0.123183
364	0.124245
365	0.125099
366	0.129293
367	0.130169
368	0.131182
369	0.131182
370	0.13412
371	0.13836
372	0.143399
373	0.146171
374	0.152512
375	0.160309
376	0.160309
377	0.162548
378	0.16447
379	0.166875
380	0.167802
381	0.168596
382	0.170275
383	0.171217
384	0.171996
385	0.172371
386	0.174193
387	0.175872
388	0.177122
389	0.183365
390	0.184027
391	0.18617
392	0.186421
393	0.188881
394	0.196469
395	0.200129
396	0.20118
397	0.206032
398	0.206082
399	0.207019
400	0.207076
401	0.21023
402	0.210791
403	0.211898
404	0.22384
405	0.228768
406	0.231049

407	0.240003
408	0.243357
409	0.24866
410	0.265314
411	0.266138
412	0.270038
413	0.271248
414	0.290103
415	0.307129
416	0.308191
417	0.316824
418	0.334772
419	0.339795
420	0.348512
421	0.349158
422	0.35097
423	0.354904
424	0.368055
425	0.369867
426	0.388756
427	0.389172
428	0.397302
429	0.405178
430	0.434828
431	0.435671
432	0.436233
433	0.442503
434	0.444686
435	0.450028
436	0.455453
437	0.458145
438	0.499289
439	0.510826
440	0.514293
441	0.530628
442	0.533791
443	0.53656
444	0.545138
445	0.554518
446	0.558111
447	0.590635
448	0.604231
449	0.666373
450	0.798536
451	0.828302
452	0.91589
453	0.940228
454	1.01938
455	1.07296
456	1.22117
457	1.35403
458	1.35839
459	1.62251
460	1.9356
461	2.17835
462	2.95317
463	3.82864
464	5.43808

Sen's Estimator (Median Q) is -0.0296416

Tied Group Value Members

1	3.82864	2

2	0	2
3	2.48491	2
4	2.30259	2
5	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
6/5/2012	1	

There are 1 time periods with multiple data

A = 90
B = 18
C = 0
D = 0
E = 10
F = 2
a = 62310
b = 242730
c = 1860
Group Variance = 3455.68
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 96.6927
M1 = (464 - 96.6927)/2.0 = 183.654
M2 = (464 + 96.6927)/2.0 + 1 = 281.346
Lower limit is -0.0584232 = Q(184)
Upper limit is 0.0126951 = Q(281)
-0.0584232 < 0 < 0.0126951 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
-0.139262 J (6/5/2012)	ND<0 (7/20/1995)	(-0.139262 - 0)/(31 - 1)	-0.00464207

-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			
-0.139262 J (6/5/2012)	ND<0 (8/24/1995)	(-0.139262 - 0)/(31 - 2)	
-0.00480214			

-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			
-0.139262 J	(6/5/2012)	-0.223144 J (9/28/1995)	(-0.139262 - -0.223144)/(31 - 3)
0.00299577			
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		
-0.139262 J (6/5/2012)	-0.105361 J (10/26/1995)	(-0.139262 - -0.105361)/(31 - 4)
-0.00125561		

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				
-0.139262 J (6/5/2012)	ND<0	(11/19/1996)	(-0.139262 - 0)/(31 - 5)	
-0.00535623				
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			
-0.139262 J (6/5/2012)	ND<0 (12/19/1996)	(-0.139262 - 0)/(31 - 6)	
-0.00557048			
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			
-0.139262 J (6/5/2012)	ND<0 (3/24/1997)	(-0.139262 - 0)/(31 - 7)	
-0.00580259			
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				
-0.139262 J (6/5/2012)	ND<0 (9/24/1997)	(-0.139262 - 0)/(31 - 8)		
-0.00605487				
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				
-0.139262 J (6/5/2012)	ND<0 (4/7/1998)	(-0.139262 - 0)/(31 - 9)		
-0.00633009				
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				
-0.139262 J (6/5/2012)	ND<0 (9/23/1998)	(-0.139262 - 0)/(31 - 10)		
-0.00663153				
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			
-0.139262 J (6/5/2012)	0.993252 (3/16/1999)	(-0.139262 - 0.993252)/(31 - 11)	
-0.0566257			

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				

-0.139262 J (6/5/2012)	ND<0	(9/23/1999)	(-0.139262 - 0)/(31 - 12)		
-0.00732958					
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					
-0.139262 J (6/5/2012)	ND<0	(3/15/2000)	(-0.139262 - 0)/(31 - 13)		
-0.00773678					
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			
-0.139262 J (6/5/2012)	ND<0 (9/24/2003)	(-0.139262 - 0)/(31 - 14)	
-0.00819189			
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			
-0.139262 J (6/5/2012)	3.61092 (3/11/2004)	(-0.139262 - 3.61092)/(31 - 15)	
-0.234386			
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
-0.139262 J (6/5/2012)	ND<0 (10/12/2004)	(-0.139262 - 0)/(31 - 16)	-0.00928414
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
-0.139262 J (6/5/2012)	1.03318 (4/1/2005)	(-0.139262 - 1.03318)/(31 - 17)	-0.0837462
-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
-0.139262 J (6/5/2012)	0.371564 J (10/25/2005)	(-0.139262 - 0.371564)/(31 - 18)	-0.0392943
-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
-0.139262 J (6/5/2012)	-0.371064 J (4/29/2006)	(-0.139262 - -0.371064)/(31 - 19)	0.0193168
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
-0.139262 J (6/5/2012)	-0.314711 J (11/18/2006)	(-0.139262 - -0.314711)/(31 - 20)	0.0159499

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			
-0.139262 J (6/5/2012)	ND<0 (5/23/2007)	(-0.139262 - 0)/(31 - 21)	
-0.0139262			
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			
-0.139262 J (6/5/2012)	0.536493 J (11/28/2007)	(-0.139262 - 0.536493)/(31 - 22)	
-0.0750839			
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			
-0.139262 J (6/5/2012)	0.470004 J (6/5/2008)	(-0.139262 - 0.470004)/(31 - 23)	
-0.0761582			

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
-0.139262 J (6/5/2012)	0.34359 J (11/20/2008)	(-0.139262 - 0.34359)/(31 - 24)	-0.0689788
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
-0.139262 J (6/5/2012)	0.693147 (6/11/2009)	(-0.139262 - 0.693147)/(31 - 25)	-0.138735
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
-0.139262 J (6/5/2012)	0.182322 (11/16/2009)	(-0.139262 - 0.182322)/(31 - 26)	-0.0643167
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
-0.139262 J (6/5/2012)	0.741937 (6/30/2010)	(-0.139262 - 0.741937)/(31 - 27)	-0.2203
-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		
-0.139262 J (6/5/2012)	0.641854 (11/12/2010)	(-0.139262 - 0.641854)/(31 - 28)
-0.260372		
-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		
-0.139262 J (6/5/2012)	-0.105361 J M (7/5/2011)	(-0.139262 - -0.105361)/(31 - 29)
-0.0169508		
-0.0618754 J (11/22/2011)	-0.0618754 J (11/22/2011)	(-0.0618754 - -0.0618754)/(30 - 30)
Same Date		
-0.139262 J (6/5/2012)	-0.0618754 J (11/22/2011)	(-0.139262 - -0.0618754)/(31 - 30)
-0.0773867		
-0.139262 J (6/5/2012)	-0.0618754 J (11/22/2011)	(-0.139262 - -0.0618754)/(31 - 30)
-0.0773867		

Number of Q values = 495

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	-0.260372
29	-0.258296
30	-0.244853
31	-0.244853
32	-0.239082
33	-0.234386
34	-0.22839
35	-0.223144
36	-0.2203

37	-0.199627
38	-0.19865
39	-0.170539
40	-0.151005
41	-0.151005
42	-0.145329
43	-0.138735
44	-0.126414
45	-0.123855
46	-0.123688
47	-0.111572
48	-0.100083
49	-0.0993382
50	-0.0993252
51	-0.0985135
52	-0.0964518
53	-0.095894
54	-0.095894
55	-0.095894
56	-0.0948787
57	-0.0945403
58	-0.0938635
59	-0.0916934
60	-0.08979
61	-0.0888126
62	-0.088543
63	-0.0842354
64	-0.0842354
65	-0.0837462
66	-0.0806341
67	-0.0786777
68	-0.0773867
69	-0.0773867
70	-0.0761582
71	-0.0759827
72	-0.0759827
73	-0.0750839
74	-0.0747961
75	-0.0747961
76	-0.0742127
77	-0.0689788
78	-0.0675775
79	-0.0675775
80	-0.0664897
81	-0.0643167
82	-0.0618439
83	-0.0610492
84	-0.0610492
85	-0.061034
86	-0.0566257
87	-0.055533
88	-0.055533
89	-0.054062
90	-0.0530091
91	-0.0526803
92	-0.0524518
93	-0.049974
94	-0.0449587
95	-0.043604
96	-0.0433567
97	-0.0425047
98	-0.0415235

99	-0.0412293
100	-0.0393388
101	-0.0392943
102	-0.0371064
103	-0.0361199
104	-0.0361199
105	-0.0355755
106	-0.0351202
107	-0.0337331
108	-0.0314711
109	-0.030922
110	-0.0291247
111	-0.0286101
112	-0.0285434
113	-0.0265045
114	-0.0262259
115	-0.0242085
116	-0.0236552
117	-0.0224793
118	-0.0218273
119	-0.021436
120	-0.0209807
121	-0.0206705
122	-0.0206146
123	-0.0177135
124	-0.0174839
125	-0.0170978
126	-0.0169508
127	-0.0165637
128	-0.0157072
129	-0.0139262
130	-0.0131701
131	-0.0130844
132	-0.00928414
133	-0.00924501
134	-0.00819189
135	-0.00810466
136	-0.00773678
137	-0.00732958
138	-0.00702403
139	-0.00687504
140	-0.00687504
141	-0.00663153
142	-0.00658503
143	-0.00633009
144	-0.00619768
145	-0.00605487
146	-0.00580259
147	-0.00557048
148	-0.00554529
149	-0.00538631
150	-0.00535623
151	-0.00526803
152	-0.00501717
153	-0.00480214
154	-0.00478911
155	-0.00466231
156	-0.00464207
157	-0.00458089
158	-0.00441967
159	-0.00441967
160	-0.00439002

161	-0.00390224
162	-0.00386721
163	-0.00386721
164	-0.00376288
165	-0.00363973
166	-0.00363973
167	-0.00343752
168	-0.00343752
169	-0.00309377
170	-0.00309377
171	-0.00294645
172	-0.00294645
173	-0.00281252
174	-0.00281252
175	-0.00269023
176	-0.00269023
177	-0.00257814
178	-0.00257814
179	-0.00247502
180	-0.00247502
181	-0.00220984
182	-0.00220984
183	-0.00213363
184	-0.00213363
185	-0.00125561
186	0
187	0
188	0
189	0
190	0
191	0
192	0
193	0
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256	0
257	0
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259	0
260	0
261	0
262	0
263	0
264	0
265	0.0016725
266	0.0016725
267	0.00299577
268	0.00453012
269	0.00597289
270	0.00597289
271	0.00619768
272	0.00665545
273	0.00729286
274	0.00759673
275	0.00868198
276	0.00878004
277	0.00911608
278	0.00959587
279	0.010129
280	0.0105361
281	0.0107248
282	0.0113951
283	0.0117067
284	0.0123969

285	0.013023
286	0.0130765
287	0.0131701
288	0.0140247
289	0.0149387
290	0.0151935
291	0.0156177
292	0.0159499
293	0.0171649
294	0.0175601
295	0.0175601
296	0.0176289
297	0.0180837
298	0.0182322
299	0.0190883
300	0.0193168
301	0.019688
302	0.0202112
303	0.0202858
304	0.0210721
305	0.0213638
306	0.0214744
307	0.0218567
308	0.0223144
309	0.0223811
310	0.0224475
311	0.022906
312	0.0232227
313	0.0232611
314	0.0237724
315	0.0243951
316	0.0245421
317	0.0246867
318	0.0247937
319	0.0252835
320	0.0252835
321	0.0255473
322	0.0261113
323	0.0263401
324	0.0265703
325	0.0268247
326	0.0269873
327	0.027029
328	0.0276473
329	0.0279067
330	0.028108
331	0.028108
332	0.0285361
333	0.0285818
334	0.0286325
335	0.0288811
336	0.0291752
337	0.0293752
338	0.0296775
339	0.0301368
340	0.0302823
341	0.0305645
342	0.0309636
343	0.0311339
344	0.0312354
345	0.0313336
346	0.0315584

347	0.0318777
348	0.0320927
349	0.0335308
350	0.0335717
351	0.0337244
352	0.0337785
353	0.0337818
354	0.034066
355	0.034359
356	0.0343701
357	0.0345999
358	0.0346574
359	0.0346574
360	0.0351202
361	0.0353303
362	0.0356585
363	0.0356585
364	0.0357662
365	0.0361541
366	0.0364643
367	0.0364814
368	0.036839
369	0.0370969
370	0.0371564
371	0.0371906
372	0.0380242
373	0.038321
374	0.0385082
375	0.0390493
376	0.0396471
377	0.0399809
378	0.0401159
379	0.0402117
380	0.0407734
381	0.0410888
382	0.0411526
383	0.0412187
384	0.0412325
385	0.0412687
386	0.0412848
387	0.0416496
388	0.0427276
389	0.0427903
390	0.0429487
391	0.0433217
392	0.0434851
393	0.0434851
394	0.0436434
395	0.0446287
396	0.0447078
397	0.0458467
398	0.0459405
399	0.0462098
400	0.0464454
401	0.0470004
402	0.0494625
403	0.0522179
404	0.0522226
405	0.0526803
406	0.0529955
407	0.053319
408	0.0534878

409	0.0536493
410	0.0557859
411	0.0563529
412	0.0570721
413	0.0577623
414	0.0596104
415	0.0619273
416	0.0630134
417	0.064574
418	0.0670617
419	0.0671434
420	0.0674488
421	0.0679834
422	0.068879
423	0.0743127
424	0.0743812
425	0.074566
426	0.0770164
427	0.079055
428	0.0828387
429	0.0860987
430	0.0875804
431	0.0894156
432	0.0897377
433	0.0916934
434	0.0928909
435	0.0939259
436	0.0993252
437	0.103318
438	0.105361
439	0.110361
440	0.111572
441	0.111572
442	0.112546
443	0.11453
444	0.114798
445	0.117783
446	0.119571
447	0.123656
448	0.129148
449	0.132783
450	0.139125
451	0.142931
452	0.147598
453	0.15095
454	0.152049
455	0.156945
456	0.164575
457	0.165542
458	0.173287
459	0.177368
460	0.185532
461	0.185782
462	0.19865
463	0.201572
464	0.206637
465	0.210267
466	0.229766
467	0.235002
468	0.248313
469	0.257923
470	0.258296

471	0.261571
472	0.277763
473	0.302519
474	0.314711
475	0.319505
476	0.331084
477	0.337843
478	0.344395
479	0.349557
480	0.361092
481	0.401213
482	0.425602
483	0.451365
484	0.496626
485	0.515845
486	0.536493
487	0.559616
488	0.60182
489	0.654417
490	0.722184
491	0.993252
492	1.03318
493	1.20364
494	1.80546
495	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
6/5/2012 1
There are 1 time periods with multiple data

A = 4872
B = 18
C = 1716
D = 0
E = 160
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3531.16
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 97.743
M1 = (495 - 97.743)/2.0 = 198.628
M2 = (495 + 97.743)/2.0 + 1 = 297.372
Lower limit is 0 = Q(199)
Upper limit is 0.0180837 = Q(297)
0 < 0 < 0.0180837 indicating no trend in data.

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					
0.693147	(6/5/2012)	ND<0 (7/20/1995)	(0.693147 - 0)/(31 - 1)		
0.0231049					

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			
0.693147 (6/5/2012)	1.09861	(8/24/1995)	(0.693147 - 1.09861)/(31 - 2)
-0.0139816			

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					
0.693147	(6/5/2012)	1.38629	(9/28/1995)	(0.693147 - 1.38629)/(31 - 3)	
-0.0247553					
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				
0.693147 (6/5/2012)	1.60944 (10/26/1995)	(0.693147 - 1.60944)/(31 - 4)		
-0.0339367				

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				
0.693147 (6/5/2012)	ND<0	(11/19/1996)	(0.693147 - 0)/(31 - 5)	
0.0266595				
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			
0.693147 (6/5/2012)	ND<0 (12/19/1996)	(0.693147 - 0)/(31 - 6)	
0.0277259			
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)	ND<0 (3/24/1997)	(1.28093 - 0)/(11 - 7)	
0.320233			
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)	ND<0 (3/24/1997)	(0.647103 - 0)/(17 - 7)	
0.0647103			
0.908259 (10/25/2005)	ND<0 (3/24/1997)	(0.908259 - 0)/(18 - 7)	
0.082569			
1.02962 (4/29/2006)	ND<0 (3/24/1997)	(1.02962 - 0)/(19 - 7)	
0.0858016			
0.530628 J (11/18/2006)	ND<0 (3/24/1997)	(0.530628 - 0)/(20 - 7)	
0.0408176			
ND<0 (5/23/2007)	ND<0 (3/24/1997)	(0 - 0)/(21 - 7)	0
0.951658 (11/28/2007)	ND<0 (3/24/1997)	(0.951658 - 0)/(22 - 7)	
0.0634439			
0.500775 J (6/5/2008)	ND<0 (3/24/1997)	(0.500775 - 0)/(23 - 7)	
0.0312985			
0.457425 J (11/20/2008)	ND<0 (3/24/1997)	(0.457425 - 0)/(24 - 7)	
0.0269073			
0.262364 (6/11/2009)	ND<0 (3/24/1997)	(0.262364 - 0)/(25 - 7)	
0.0145758			
0.405465 (11/16/2009)	ND<0 (3/24/1997)	(0.405465 - 0)/(26 - 7)	
0.0213403			
ND<-2.40795 (6/30/2010)	ND<0 (3/24/1997)	(-2.40795 - 0)/(27 - 7)	
-0.120397			
0.470004 (11/12/2010)	ND<0 (3/24/1997)	(0.470004 - 0)/(28 - 7)	
0.0223811			
0.875469 (7/5/2011)	ND<0 (3/24/1997)	(0.875469 - 0)/(29 - 7)	
0.039794			
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			
0.693147 (6/5/2012)	ND<0 (3/24/1997)	(0.693147 - 0)/(31 - 7)	
0.0288811			
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)	ND<0 (9/24/1997)	(1.28093 - 0)/(11 - 8)	
0.426978			
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) 0.033385	ND<0 (9/24/1997)	(0.500775 - 0)/(23 - 8)	
0.457425 J (11/20/2008) 0.0285891	ND<0 (9/24/1997)	(0.457425 - 0)/(24 - 8)	
0.262364 (6/11/2009) 0.0154332	ND<0 (9/24/1997)	(0.262364 - 0)/(25 - 8)	
0.405465 (11/16/2009) 0.0225258	ND<0 (9/24/1997)	(0.405465 - 0)/(26 - 8)	
ND<-2.40795 (6/30/2010) -0.126734	ND<0 (9/24/1997)	(-2.40795 - 0)/(27 - 8)	
0.470004 (11/12/2010) 0.0235002	ND<0 (9/24/1997)	(0.470004 - 0)/(28 - 8)	
0.875469 (7/5/2011) 0.041689	ND<0 (9/24/1997)	(0.875469 - 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)	
0.693147 (6/5/2012) 0.0301368	ND<0 (9/24/1997)	(0.693147 - 0)/(31 - 8)	
ND<0 (9/23/1998)	ND<0 (4/7/1998)	(0 - 0)/(10 - 9)	0
1.28093 (3/16/1999) 0.640467	ND<0 (4/7/1998)	(1.28093 - 0)/(11 - 9)	
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) 0.0808879	ND<0 (4/7/1998)	(0.647103 - 0)/(17 - 9)	
0.908259 (10/25/2005) 0.100918	ND<0 (4/7/1998)	(0.908259 - 0)/(18 - 9)	
1.02962 (4/29/2006) 0.102962	ND<0 (4/7/1998)	(1.02962 - 0)/(19 - 9)	
0.530628 J (11/18/2006) 0.0482389	ND<0 (4/7/1998)	(0.530628 - 0)/(20 - 9)	
ND<0 (5/23/2007)	ND<0 (4/7/1998)	(0 - 0)/(21 - 9)	0
0.951658 (11/28/2007) 0.0732045	ND<0 (4/7/1998)	(0.951658 - 0)/(22 - 9)	
0.500775 J (6/5/2008) 0.0357697	ND<0 (4/7/1998)	(0.500775 - 0)/(23 - 9)	
0.457425 J (11/20/2008) 0.030495	ND<0 (4/7/1998)	(0.457425 - 0)/(24 - 9)	
0.262364 (6/11/2009) 0.0163978	ND<0 (4/7/1998)	(0.262364 - 0)/(25 - 9)	
0.405465 (11/16/2009) 0.0238509	ND<0 (4/7/1998)	(0.405465 - 0)/(26 - 9)	

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				
0.693147 (6/5/2012)	ND<0 (4/7/1998)	(0.693147 - 0)/(31 - 9)		
0.0315067				
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				
0.693147 (6/5/2012)	ND<0 (9/23/1998)	(0.693147 - 0)/(31 - 10)		
0.033007				
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				
0.693147 (6/5/2012)	1.28093 (3/16/1999)	(0.693147 - 1.28093)/(31 - 11)		
-0.0293893				
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				
0.693147 (6/5/2012)	ND<0 (9/23/1999)	(0.693147 - 0)/(31 - 12)		
0.0364814				
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				
0.693147 (6/5/2012)	ND<0 (3/15/2000)	(0.693147 - 0)/(31 - 13)		
0.0385082				
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					
0.693147 (6/5/2012)	ND<0 (9/24/2003)	(0.693147 - 0)/(31 - 14)			
0.0407734					
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					
0.693147 (6/5/2012)	ND<0 (3/11/2004)	(0.693147 - 0)/(31 - 15)			
0.0433217					
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
0.693147 (6/5/2012)	ND<0 (10/12/2004)	(0.693147 - 0)/(31 - 16)	0.0462098
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
0.693147 (6/5/2012)	0.647103 J (4/1/2005)	(0.693147 - 0.647103)/(31 - 17)	0.00328885
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			
0.693147 (6/5/2012)	0.908259 (10/25/2005)	(0.693147 - 0.908259)/(31 - 18)	
-0.016547			
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			
0.693147 (6/5/2012)	1.02962 (4/29/2006)	(0.693147 - 1.02962)/(31 - 19)	
-0.0280394			
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			
0.693147 (6/5/2012)	0.530628 J (11/18/2006)	(0.693147 - 0.530628)/(31 - 20)	
0.0147744			

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
0.693147 (6/5/2012)	ND<0 (5/23/2007)	(0.693147 - 0)/(31 - 21)	0.0693147

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
0.693147 (6/5/2012)	0.951658 (11/28/2007)	(0.693147 - 0.951658)/(31 - 22)	-0.0287234

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
0.693147 (6/5/2012)	0.500775 J (6/5/2008)	(0.693147 - 0.500775)/(31 - 23)	0.0240465

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
0.693147 (6/5/2012)	0.457425 J (11/20/2008)	(0.693147 - 0.457425)/(31 - 24)	0.0336746
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
0.693147 (6/5/2012)	0.262364 (6/11/2009)	(0.693147 - 0.262364)/(31 - 25)	0.0717972
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
0.693147 (6/5/2012)	0.405465 (11/16/2009)	(0.693147 - 0.405465)/(31 - 26)	0.0575364
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
0.693147 (6/5/2012)	ND<-2.40795 (6/30/2010)	(0.693147 - -2.40795)/(31 - 27)	0.775273
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
0.693147	(6/5/2012)	0.470004	(11/12/2010)	(0.693147 - 0.470004)/(31 - 28)	0.0743812
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
0.693147	(6/5/2012)	0.875469	(7/5/2011)	(0.693147 - 0.875469)/(31 - 29)	-0.0911608
0.788457	(11/22/2011)	0.788457	(11/22/2011)	(0.788457 - 0.788457)/(30 - 30)	Same Date
0.693147	(6/5/2012)	0.788457	(11/22/2011)	(0.693147 - 0.788457)/(31 - 30)	-0.0953102
0.693147	(6/5/2012)	0.788457	(11/22/2011)	(0.693147 - 0.788457)/(31 - 30)	-0.0953102

Number of Q values = 495

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	-0.0953102
79	-0.0953102
80	-0.0946728
81	-0.0926133
82	-0.0922706
83	-0.091551
84	-0.0911608
85	-0.0891649
86	-0.0870114
87	-0.0870114
88	-0.0845086
89	-0.0833673
90	-0.0814967
91	-0.0802757
92	-0.0784723
93	-0.0770164
94	-0.075139
95	-0.0740257
96	-0.072755
97	-0.0674256
98	-0.0650132

99	-0.0641464
100	-0.0633468
101	-0.0628492
102	-0.0621795
103	-0.0583646
104	-0.0583507
105	-0.0578217
106	-0.0576007
107	-0.054726
108	-0.0536528
109	-0.0532393
110	-0.0527994
111	-0.0510877
112	-0.0503333
113	-0.0500842
114	-0.0480924
115	-0.0477018
116	-0.0474764
117	-0.0469292
118	-0.044276
119	-0.0442319
120	-0.0438255
121	-0.0433504
122	-0.0426448
123	-0.038825
124	-0.0386546
125	-0.0366516
126	-0.0365433
127	-0.0363586
128	-0.0339367
129	-0.0318691
130	-0.0317701
131	-0.0315762
132	-0.0315762
133	-0.0315547
134	-0.0314143
135	-0.0301006
136	-0.0299342
137	-0.0293893
138	-0.0293588
139	-0.0291449
140	-0.0288811
141	-0.0287234
142	-0.0284684
143	-0.0280394
144	-0.0270969
145	-0.0268487
146	-0.0259872
147	-0.0259799
148	-0.0259198
149	-0.0259198
150	-0.0247553
151	-0.024388
152	-0.0241773
153	-0.0228756
154	-0.0225258
155	-0.0222922
156	-0.0221421
157	-0.0221421
158	-0.0219238
159	-0.0219238
160	-0.0208605

161	-0.0204001
162	-0.0204001
163	-0.0196471
164	-0.0183009
165	-0.016547
166	-0.0161
167	-0.0154151
168	-0.0139816
169	-0.0131701
170	-0.0118971
171	-0.011077
172	-0.011077
173	-0.0108842
174	-0.00998343
175	-0.00998343
176	-0.00995099
177	-0.00826458
178	-0.00757808
179	-0.00734772
180	-0.00615433
181	-0.0040584
182	-0.00298089
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
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201	0
202	0
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204	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
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	0.0031447
262	0.00328885
263	0.0108498
264	0.0108734
265	0.0108734
266	0.0109318
267	0.0131182
268	0.0138086
269	0.0145758
270	0.0147744
271	0.0154332
272	0.0162186
273	0.0163978
274	0.0174075
275	0.017491
276	0.0190305
277	0.0193079
278	0.019888
279	0.0201819
280	0.020258
281	0.0202733
282	0.0204349
283	0.0213403
284	0.0213638

285	0.0218637
286	0.0223811
287	0.0225258
288	0.0227625
289	0.0231049
290	0.0235002
291	0.0238509
292	0.0238513
293	0.0240465
294	0.024075
295	0.024737
296	0.0253416
297	0.0254125
298	0.0257829
299	0.0257829
300	0.0261113
301	0.0262364
302	0.0266595
303	0.0269073
304	0.0271882
305	0.0271882
306	0.0277259
307	0.0278208
308	0.0279278
309	0.0285891
310	0.0288811
311	0.0289618
312	0.0291516
313	0.0293752
314	0.0294574
315	0.0301368
316	0.030495
317	0.0311896
318	0.0312667
319	0.0312985
320	0.0313336
321	0.0315067
322	0.0315383
323	0.0315383
324	0.0322693
325	0.0326732
326	0.0328524
327	0.0328524
328	0.033007
329	0.033385
330	0.0335717
331	0.0336746
332	0.0337888
333	0.0342808
334	0.0342808
335	0.0353752
336	0.0357697
337	0.035839
338	0.035839
339	0.0361541
340	0.0364779
341	0.0364814
342	0.0368605
343	0.0375456
344	0.0375456
345	0.037902
346	0.0380639

347	0.0381187
348	0.0383156
349	0.0385082
350	0.0385212
351	0.039167
352	0.0394229
353	0.0394229
354	0.039794
355	0.040444
356	0.0405465
357	0.0407734
358	0.0408176
359	0.0410974
360	0.0410974
361	0.0415841
362	0.041689
363	0.0433217
364	0.0437734
365	0.0438032
366	0.0438032
367	0.044219
368	0.045317
369	0.045525
370	0.0457425
371	0.0460773
372	0.0462098
373	0.0463798
374	0.0463798
375	0.0482389
376	0.0492786
377	0.0492786
378	0.0500775
379	0.050825
380	0.0514982
381	0.0525638
382	0.0525638
383	0.0530628
384	0.053427
385	0.0539253
386	0.0547168
387	0.0551721
388	0.0551721
389	0.0556417
390	0.0559799
391	0.0563184
392	0.0563184
393	0.0571781
394	0.0572011
395	0.0575364
396	0.0583646
397	0.0588276
398	0.0594786
399	0.0609109
400	0.0624489
401	0.0625335
402	0.0625969
403	0.0634439
404	0.0647103
405	0.0655911
406	0.0663285
407	0.0671434
408	0.0673437

409	0.0679756
410	0.0692131
411	0.0693147
412	0.069866
413	0.0715393
414	0.0717972
415	0.0719004
416	0.0732045
417	0.0735442
418	0.0743812
419	0.0756882
420	0.075804
421	0.0792015
422	0.0793048
423	0.0808879
424	0.081093
425	0.082569
426	0.0836088
427	0.0858016
428	0.0876064
429	0.0876064
430	0.088438
431	0.0908259
432	0.0924433
433	0.0936018
434	0.0951658
435	0.0957481
436	0.0957481
437	0.100918
438	0.102962
439	0.105219
440	0.105219
441	0.10574
442	0.106126
443	0.109434
444	0.113532
445	0.114402
446	0.118957
447	0.121361
448	0.128093
449	0.129421
450	0.132657
451	0.135951
452	0.143101
453	0.147088
454	0.151376
455	0.152475
456	0.153276
457	0.156668
458	0.15861
459	0.159227
460	0.159227
461	0.161776
462	0.171603
463	0.181652
464	0.191258
465	0.205924
466	0.210515
467	0.213489
468	0.215701
469	0.223144
470	0.227065

471	0.250388
472	0.255413
473	0.256187
474	0.257405
475	0.261155
476	0.287682
477	0.302753
478	0.320233
479	0.323552
480	0.343206
481	0.405465
482	0.426978
483	0.454129
484	0.536479
485	0.640467
486	0.647103
487	0.693147
488	0.775273
489	0.951658
490	1.06547
491	1.06547
492	1.09861
493	1.28093
494	1.64171
495	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
6/5/2012 1
There are 1 time periods with multiple data

A = 4854
B = 18
C = 1716
D = 0
E = 158
F = 2
a = 68448
b = 267840
c = 1984
Group Variance = 3532.16
For 90% confidence interval (two-tailed), Z at (1-0.9)/2 = 1.64485
C = 97.7569
M1 = (495 - 97.7569)/2.0 = 198.622
M2 = (495 + 97.7569)/2.0 + 1 = 297.378
Lower limit is 0 = Q(199)
Upper limit is 0.0254125 = Q(297)
0 < 0 < 0.0254125 indicating no trend in data.

Concentrations (ppb)

Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 240
Total Non-Detect: 131
Percent Non-Detects: 54.5833%
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-11R	31	16 (51.6129%)	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	
			6/5/2012	ND<2.6 U	ND<2.6 U	
MW-10	30	19 (63.3333%)	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	
			6/5/2012	5.1 J	5.1 J	
MW-8	30	15 (50%)	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
			6/5/2012	8 J	8 J
MW-9	31	17 (54.8387%)	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
			6/5/2012	ND<2.6 U	ND<2.6 U
MW-7	30	13 (43.3333%)	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	
			6/5/2012	8.2 J	8.2 J	
MW-6	30	18 (60%)	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	
			6/5/2012	ND<2.6 U	ND<2.6 U	
MW-12BR		20	12 (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	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	
			6/5/2012	8.2 J	8.2 J	
MW-12AR		20	12 (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		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
6/5/2012	5.5 J	5.5 J	

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 = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.3	-2.65209	7.03356	-3.44771
2	1.3	-2.40892	12.8365	-6.57931
3	1.3	-2.25713	17.9311	-9.51358
4	1.3	-2.14441	22.5296	-12.3013
5	2.7	-2.05375	26.7475	-17.8464
6	2.8	-1.97737	30.6575	-23.3831
7	3	-1.8957	34.2511	-29.0702
8	3.1	-1.83843	37.6309	-34.7693
9	3.2	-1.78661	40.8229	-40.4864
10	3.2	-1.7392	43.8477	-46.0519
11	3.6	-1.6954	46.7221	-52.1553
12	3.6	-1.65463	49.4599	-58.112
13	3.7	-1.61644	52.0728	-64.0928
14	3.9	-1.57179	54.5433	-70.2227
15	4.5	-1.5382	56.9093	-77.1446
16	4.5	-1.50626	59.1782	-83.9228
17	4.5	-1.47579	61.3561	-90.5639
18	4.6	-1.44663	63.4489	-97.2184
19	5	-1.41865	65.4614	-104.312
20	5	-1.39175	67.3984	-111.27
21	5	-1.35946	69.2465	-118.068
22	5	-1.33462	71.0278	-124.741
23	5.1	-1.31058	72.7454	-131.425
24	5.5	-1.28727	74.4024	-138.505
25	5.56	-1.26464	76.0018	-145.536
26	5.6	-1.24264	77.5459	-152.495
27	5.7	-1.21596	79.0245	-159.426
28	5.9	-1.19522	80.453	-166.478
29	6.1	-1.17499	81.8336	-173.645
30	6.33	-1.15522	83.1682	-180.958
31	6.4	-1.1359	84.4584	-188.227
32	6.59	-1.11699	85.7061	-195.588
33	6.6	-1.09847	86.9127	-202.838
34	6.9	-1.07584	88.0701	-210.262
35	7.2	-1.05812	89.1898	-217.88
36	7.99	-1.04073	90.2729	-226.195
37	8	-1.02365	91.3208	-234.385
38	8.1	-1.00687	92.3345	-242.54
39	8.2	-0.990356	93.3153	-250.661
40	8.2	-0.974114	94.2642	-258.649
41	8.3	-0.954165	95.1747	-266.569
42	8.3	-0.938476	96.0554	-274.358
43	8.7	-0.923014	96.9074	-282.388
44	8.8	-0.907769	97.7314	-290.376
45	8.8	-0.892733	98.5284	-298.233
46	9.5	-0.877897	99.2991	-306.573
47	9.6	-0.859618	100.038	-314.825
48	10.3	-0.845198	100.752	-323.53
49	10.8	-0.830953	101.443	-332.505
50	11	-0.816874	102.11	-341.49
51	11	-0.802956	102.755	-350.323

52	11.2	-0.789191	103.378	-359.162
53	11.6	-0.775574	103.979	-368.158
54	12.6	-0.758753	104.555	-377.719
55	13.1	-0.745449	105.111	-387.484
56	14	-0.732275	105.647	-397.736
57	15	-0.719228	106.164	-408.524
58	18	-0.706302	106.663	-421.238
59	19	-0.693493	107.144	-434.414
60	20	-0.680797	107.607	-448.03
61	21	-0.665079	108.05	-461.997
62	22	-0.652622	108.476	-476.354
63	22	-0.640266	108.886	-490.44
64	22	-0.628006	109.28	-504.256
65	26	-0.615839	109.659	-520.268
66	26	-0.603765	110.024	-535.966
67	27	-0.588793	110.37	-551.864
68	27	-0.576911	110.703	-567.44
69	28	-0.565108	111.023	-583.263
70	28	-0.553384	111.329	-598.758
71	30	-0.541736	111.622	-615.01
72	30	-0.530162	111.903	-630.915
73	30	-0.518658	112.172	-646.475
74	30	-0.504372	112.427	-661.606
75	30	-0.493018	112.67	-676.396
76	30	-0.481728	112.902	-690.848
77	30	-0.470498	113.123	-704.963
78	30	-0.459327	113.334	-718.743
79	30	-0.448213	113.535	-732.189
80	30	-0.437153	113.726	-745.304
81	30	-0.423405	113.906	-758.006
82	30	-0.412463	114.076	-770.38
83	30	-0.401571	114.237	-782.427
84	30	-0.390726	114.39	-794.149
85	30	-0.379927	114.534	-805.547
86	30	-0.369171	114.67	-816.622
87	30	-0.358459	114.799	-827.375
88	30	-0.345126	114.918	-837.729
89	30	-0.334503	115.03	-847.764
90	30	-0.323919	115.135	-857.482
91	30	-0.31337	115.233	-866.883
92	30	-0.302855	115.325	-875.969
93	30	-0.292375	115.41	-884.74
94	30	-0.279319	115.488	-893.119
95	30	-0.268908	115.56	-901.187
96	30	-0.258527	115.627	-908.943
97	30	-0.248174	115.689	-916.388
98	30	-0.237847	115.745	-923.523
99	30	-0.227545	115.797	-930.349
100	30	-0.217267	115.844	-936.868
101	30	-0.204452	115.886	-943.001
102	30	-0.194225	115.924	-948.828
103	30	-0.184017	115.958	-954.348
104	30	-0.173829	115.988	-959.563
105	30	-0.163659	116.015	-964.473
106	30	-0.153505	116.038	-969.078
107	30	-0.143367	116.059	-973.379
108	30	-0.130716	116.076	-977.301
109	30	-0.12061	116.091	-980.919
110	30	-0.110516	116.103	-984.234
111	30	-0.100433	116.113	-987.247
112	30	-0.0903606	116.121	-989.958
113	30	-0.0802981	116.127	-992.367

114	30	-0.0677301	116.132	-994.399
115	30	-0.0576847	116.135	-996.13
116	30	-0.0476439	116.138	-997.559
117	30	-0.0376076	116.139	-998.687
118	30	-0.0275759	116.14	-999.514
119	30	-0.0175476	116.14	-1000.04
120	30	-0.00751925	116.14	-1000.27
121	30	0.00751925	116.14	-1000.04
122	30	0.0175476	116.141	-999.514
123	30	0.0275759	116.141	-998.687
124	30	0.0376076	116.143	-997.559
125	30	0.0476439	116.145	-996.13
126	30	0.0576847	116.148	-994.399
127	30	0.0677301	116.153	-992.367
128	30	0.0802981	116.159	-989.958
129	30	0.0903606	116.167	-987.247
130	30	0.100433	116.178	-984.234
131	30	0.110516	116.19	-980.919
132	30	0.12061	116.204	-977.301
133	30	0.130716	116.221	-973.379
134	30	0.143367	116.242	-969.078
135	30	0.153505	116.266	-964.473
136	30	0.163659	116.292	-959.563
137	30	0.173829	116.323	-954.348
138	30	0.184017	116.356	-948.828
139	30	0.194225	116.394	-943.001
140	30	0.204452	116.436	-936.868
141	30	0.217267	116.483	-930.349
142	30	0.227545	116.535	-923.523
143	30	0.237847	116.591	-916.388
144	30	0.248174	116.653	-908.943
145	30	0.258527	116.72	-901.187
146	30	0.268908	116.792	-893.119
147	30	0.279319	116.87	-884.74
148	30	0.292375	116.956	-875.969
149	30	0.302855	117.047	-866.883
150	30	0.31337	117.146	-857.482
151	30	0.323919	117.251	-847.764
152	30	0.334503	117.362	-837.729
153	30	0.345126	117.482	-827.375
154	30	0.358459	117.61	-816.622
155	30	0.369171	117.746	-805.547
156	30	0.379927	117.891	-794.149
157	30	0.390726	118.043	-782.427
158	30	0.401571	118.205	-770.38
159	30	0.412463	118.375	-758.006
160	30	0.423405	118.554	-745.304
161	30	0.437153	118.745	-732.189
162	30	0.448213	118.946	-718.743
163	30	0.459327	119.157	-704.963
164	30	0.470498	119.378	-690.848
165	30	0.481728	119.61	-676.396
166	30	0.493018	119.853	-661.606
167	30	0.504372	120.108	-646.475
168	30	0.518658	120.377	-630.915
169	30	0.530162	120.658	-615.01
170	30	0.541736	120.951	-598.758
171	30	0.553384	121.258	-582.156
172	30	0.565108	121.577	-565.203
173	30	0.576911	121.91	-547.896
174	30	0.588793	122.257	-530.232
175	30	0.603765	122.621	-512.119

176	30	0.615839		123	-493.644
177	30	0.628006		123.395	-474.804
178	30	0.640266		123.805	-455.596
179	30	0.652622		124.231	-436.017
180	30	0.665079		124.673	-416.065
181	30	0.680797		125.136	-395.641
182	30	0.693493		125.617	-374.836
183	30	0.706302		126.116	-353.647
184	30	0.719228		126.633	-332.07
185	30	0.732275		127.17	-310.102
186	30	0.745449		127.725	-287.738
187	30	0.758753		128.301	-264.976
188	30	0.775574		128.903	-241.709
189	30	0.789191		129.525	-218.033
190	30	0.802956		130.17	-193.944
191	30	0.816874		130.837	-169.438
192	30	0.830953		131.528	-144.509
193	30	0.845198		132.242	-119.153
194	30	0.859618		132.981	-93.3649
195	30	0.877897		133.752	-67.028
196	30	0.892733		134.549	-40.246
197	30	0.907769		135.373	-13.013
198	30.5	0.923014		136.225	15.139
199	31	0.938476		137.106	44.2317
200	33.1	0.954165		138.016	75.8146
201	33.6	0.974114		138.965	108.545
202	34	0.990356		139.946	142.217
203	34.1	1.00687	140.96	176.551	
204	35	1.02365	142.007	212.379	
205	39.7	1.04073	143.091	253.696	
206	40	1.05812	144.21	296.021	
207	46	1.07584	145.368	345.509	
208	51.6	1.09847	146.574	402.19	
209	56.6	1.11699	147.822	465.412	
210	60	1.1359	149.112	533.565	
211	62	1.15522	150.447	605.189	
212	62.4	1.17499	151.827	678.508	
213	63	1.19522	153.256	753.807	
214	63	1.21596	154.734	830.413	
215	72	1.24264	156.279	919.883	
216	73.8	1.26464	157.878	1013.21	
217	75	1.28727	159.535	1109.76	
218	76	1.31058	161.253	1209.36	
219	79	1.33462	163.034	1314.8	
220	88	1.35946	164.882	1434.43	
221	92	1.39175	166.819	1562.47	
222	95	1.41865	168.831	1697.24	
223	96	1.44663	170.924	1836.12	
224	100	1.47579	173.102	1983.7	
225	110	1.50626	175.371	2149.39	
226	110	1.5382	177.737	2318.59	
227	110	1.57179	180.208	2491.49	
228	120	1.61644	182.82	2685.46	
229	120	1.65463	185.558	2884.01	
230	150	1.6954	188.433	3138.32	
231	150	1.7392	191.457	3399.2	
232	180	1.78661	194.649	3720.79	
233	200	1.83843	198.029	4088.48	
234	220	1.8957	201.623	4505.53	
235	250	1.97737	205.533	4999.87	
236	320	2.05375	209.751	5657.07	
237	330	2.14441	214.349	6364.73	

238	346	2.25713	219.444	7145.69
239	410	2.40892	225.247	8133.35
240	610	2.65209	232.28	9751.13

Data Set Standard Deviation = 64.546
Numerator = 9.50845e+007
Denominator = 2.31286e+008
W Statistic = 0.411113 = 9.50845e+007 / 2.31286e+008

5% Critical value of 0.976 exceeds 0.411113
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.411113
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 = 0.648472
0.648472 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.3	0.00414938	-2.652	0939.9936	344.01	
2	1.3	0.00829876	-2.408	9239.9936	332.136	
3	1.3	0.0124481	-2.257	1339.9936	324.723	
4	1.3	0.0165975	-2.144	4139.9936	319.219	
5	2.7	0.0207469	-2.053	7541.0636	314.791	
6	2.8	0.0248963	-1.977	3741.14	311.062	
7	3	0.0290456	-1.8957	41.2929	307.073	
8	3.1	0.033195	-1.838	4341.3693	304.276	
9	3.2	0.0373444	-1.786	6141.4457	301.746	
10	3.2	0.0414938	-1.7392	41.4457	299.431	
11	3.6	0.0456432	-1.6954	41.7514	297.292	
12	3.6	0.0497925	-1.654	6341.7514	295.301	
13	3.7	0.0539419	-1.616	4441.8279	293.436	
14	3.9	0.0580913	-1.571	7941.9807	291.256	
15	4.5	0.0622407	-1.5382	42.4393	289.615	
16	4.5	0.06639	-1.506	2642.4393	288.056	
17	4.5	0.0705394	-1.475	7942.4393	286.568	
18	4.6	0.0746888	-1.446	6342.5157	285.144	
19	5	0.0788382	-1.418	6542.8214	283.778	
20	5	0.0829876	-1.391	7542.8214	282.464	
21	5	0.0871369	-1.359	4642.8214	280.887	
22	5	0.0912863	-1.334	6242.8214	279.674	
23	5.1	0.0954357	-1.310	5842.8979	278.5	
24	5.5	0.0995851	-1.287	2743.2036	277.362	
25	5.56	0.103734	-1.264	6443.2494	276.257	
26	5.6	0.107884	-1.242	6443.28	275.182	
27	5.7	0.112033	-1.215	9643.3564	273.879	
28	5.9	0.116183	-1.195	2243.5093	272.867	
29	6.1	0.120332	-1.174	9943.6621	271.879	
30	6.33	0.124481	-1.155	2243.8379	270.913	
31	6.4	0.128631	-1.1359	43.8914	269.97	
32	6.59	0.13278	-1.116	9944.0366	269.046	
33	6.6	0.136929	-1.098	4744.0443	268.142	
34	6.9	0.141079	-1.075	8444.2736	267.037	
35	7.2	0.145228	-1.058	1244.5029	266.172	
36	7.99	0.149378	-1.040	7345.1066	265.322	
37	8	0.153527	-1.023	6545.1143	264.488	
38	8.1	0.157676	-1.006	8745.1907	263.669	
39	8.2	0.161826	-0.990356	45.2671	262.862	
40	8.2	0.165975	-0.974114	45.2671	262.069	
41	8.3	0.170124	-0.954165	45.3436	261.095	
42	8.3	0.174274	-0.938476	45.3436	260.329	
43	8.7	0.178423	-0.923014	45.6493	259.574	
44	8.8	0.182573	-0.907769	45.7257	258.829	
45	8.8	0.186722	-0.892733	45.7257	258.095	
46	9.5	0.190871	-0.877897	46.2607	257.371	
47	9.6	0.195021	-0.859618	46.3371	256.478	
48	10.3	0.19917	-0.845198	46.8721	255.774	

49	10.8	0.20332	-0.830953	47.2543	255.078
50	11	0.207469	-0.816874	47.4071	254.391
51	11	0.211618	-0.802956	47.4071	253.711
52	11.2	0.215768	-0.789191	47.56	253.039
53	11.6	0.219917	-0.775574	47.8657	252.374
54	12.6	0.224066	-0.758753	48.63	251.552
55	13.1	0.228216	-0.745449	49.0121	250.903
56	14	0.232365	-0.732275	49.7	250.259
57	15	0.236515	-0.719228	50.4643	249.622
58	18	0.240664	-0.706302	52.7571	248.991
59	19	0.244813	-0.693493	53.5214	248.366
60	20	0.248963	-0.680797	54.2857	247.746
61	21	0.253112	-0.665079	55.05	246.978
62	22	0.257261	-0.652622	55.8143	246.37
63	22	0.261411	-0.640266	55.8143	245.766
64	22	0.26556	-0.628006	55.8143	245.168
65	26	0.26971	-0.615839	58.8714	244.573
66	26	0.273859	-0.603765	58.8714	243.984
67	27	0.278008	-0.588793	59.6357	243.253
68	27	0.282158	-0.576911	59.6357	242.672
69	28	0.286307	-0.565108	60.4	242.096
70	28	0.290456	-0.553384	60.4	241.524
71	30	0.294606	-0.541736	61.9286	240.955
72	30	0.298755	-0.530162	61.9286	240.39
73	30	0.302905	-0.518658	61.9286	239.828
74	30	0.307054	-0.504372	61.9286	239.13
75	30	0.311203	-0.493018	61.9286	238.576
76	30	0.315353	-0.481728	61.9286	238.024
77	30	0.319502	-0.470498	61.9286	237.476
78	30	0.323651	-0.459327	61.9286	236.93
79	30	0.327801	-0.448213	61.9286	236.388
80	30	0.33195	-0.437153	61.9286	235.848
81	30	0.3361	-0.423405	61.9286	235.176
82	30	0.340249	-0.412463	61.9286	234.642
83	30	0.344398	-0.401571	61.9286	234.11
84	30	0.348548	-0.390726	61.9286	233.58
85	30	0.352697	-0.379927	61.9286	233.053
86	30	0.356846	-0.369171	61.9286	232.528
87	30	0.360996	-0.358459	61.9286	232.005
88	30	0.365145	-0.345126	61.9286	231.354
89	30	0.369295	-0.334503	61.9286	230.835
90	30	0.373444	-0.323919	61.9286	230.318
91	30	0.377593	-0.3133	61.9286	229.803
92	30	0.381743	-0.302855	61.9286	229.289
93	30	0.385892	-0.292375	61.9286	228.778
94	30	0.390041	-0.279319	61.9286	228.14
95	30	0.394191	-0.268908	61.9286	227.632
96	30	0.39834	-0.258527	61.9286	227.125
97	30	0.40249	-0.248174	61.9286	226.619
98	30	0.406639	-0.237847	61.9286	226.115
99	30	0.410788	-0.227545	61.9286	225.612
100	30	0.414938	-0.217267	61.9286	225.11
101	30	0.419087	-0.204452	61.9286	224.484
102	30	0.423237	-0.194225	61.9286	223.985
103	30	0.427386	-0.184017	61.9286	223.486
104	30	0.431535	-0.173829	61.9286	222.989
105	30	0.435685	-0.163659	61.9286	222.492
106	30	0.439834	-0.153505	61.9286	221.996
107	30	0.443983	-0.143367	61.9286	221.501
108	30	0.448133	-0.130716	61.9286	220.883
109	30	0.452282	-0.12061	61.9286	220.39
110	30	0.456432	-0.110516	61.9286	219.897

111	30	0.460581	-0.100433	61.9286	219.404
112	30	0.46473	-0.0903606	61.9286	218.913
113	30	0.46888	-0.0802981	61.9286	218.421
114	30	0.473029	-0.0677301	61.9286	217.807
115	30	0.477178	-0.0576847	61.9286	217.317
116	30	0.481328	-0.0476439	61.9286	216.827
117	30	0.485477	-0.0376076	61.9286	216.337
118	30	0.489627	-0.0275759	61.9286	215.847
119	30	0.493776	-0.0175476	61.9286	215.357
120	30	0.497925	-0.00751925	61.9286	214.867
121	30	0.502075	0.00751925	61.9286	214.133
122	30	0.506224	0.0175476	61.9286	213.643
123	30	0.510373	0.0275759	61.9286	213.153
124	30	0.514523	0.0376076	61.9286	212.663
125	30	0.518672	0.0476439	61.9286	212.173
126	30	0.522822	0.0576847	61.9286	211.683
127	30	0.526971	0.0677301	61.9286	211.193
128	30	0.53112	0.0802981	61.9286	210.579
129	30	0.53527	0.0903606	61.9286	210.087
130	30	0.539419	0.100433	61.9286	209.596
131	30	0.543568	0.110516	61.9286	209.103
132	30	0.547718	0.12061	61.9286	208.61
133	30	0.551867	0.130716	61.9286	208.117
134	30	0.556017	0.143367	61.9286	207.499
135	30	0.560166	0.153505	61.9286	207.004
136	30	0.564315	0.163659	61.9286	206.508
137	30	0.568465	0.173829	61.9286	206.011
138	30	0.572614	0.184017	61.9286	205.514
139	30	0.576763	0.194225	61.9286	205.015
140	30	0.580913	0.204452	61.9286	204.516
141	30	0.585062	0.217267	61.9286	203.89
142	30	0.589212	0.227545	61.9286	203.388
143	30	0.593361	0.237847	61.9286	202.885
144	30	0.59751	0.248174	61.9286	202.381
145	30	0.60166	0.258527	61.9286	201.875
146	30	0.605809	0.268908	61.9286	201.368
147	30	0.609959	0.279319	61.9286	200.86
148	30	0.614108	0.292375	61.9286	200.222
149	30	0.618257	0.302855	61.9286	199.711
150	30	0.622407	0.31337	61.9286	199.197
151	30	0.626556	0.323919	61.9286	198.682
152	30	0.630705	0.334503	61.9286	198.165
153	30	0.634855	0.345126	61.9286	197.646
154	30	0.639004	0.358459	61.9286	196.995
155	30	0.643154	0.369171	61.9286	196.472
156	30	0.647303	0.379927	61.9286	195.947
157	30	0.651452	0.390726	61.9286	195.42
158	30	0.655602	0.401571	61.9286	194.89
159	30	0.659751	0.412463	61.9286	194.358
160	30	0.6639	0.423405	61.9286	193.824
161	30	0.66805	0.437153	61.9286	193.152
162	30	0.672199	0.448213	61.9286	192.612
163	30	0.676349	0.459327	61.9286	192.07
164	30	0.680498	0.470498	61.9286	191.524
165	30	0.684647	0.481728	61.9286	190.976
166	30	0.688797	0.493018	61.9286	190.424
167	30	0.692946	0.504372	61.9286	189.87
168	30	0.697095	0.518658	61.9286	189.172
169	30	0.701245	0.530162	61.9286	188.61
170	30	0.705394	0.541736	61.9286	188.045
171	30	0.709544	0.553384	61.9286	187.476
172	30	0.713693	0.565108	61.9286	186.904

173	30	0.717842	0.576911	61.9286	186.328
174	30	0.721992	0.588793	61.9286	185.747
175	30	0.726141	0.603765	61.9286	185.016
176	30	0.73029	0.615839	61.9286	184.427
177	30	0.73444	0.628006	61.9286	183.832
178	30	0.738589	0.640266	61.9286	183.234
179	30	0.742739	0.652622	61.9286	182.63
180	30	0.746888	0.665079	61.9286	182.022
181	30	0.751037	0.680797	61.9286	181.254
182	30	0.755187	0.693493	61.9286	180.634
183	30	0.759336	0.706302	61.9286	180.009
184	30	0.763485	0.719228	61.9286	179.378
185	30	0.767635	0.732275	61.9286	178.741
186	30	0.771784	0.745449	61.9286	178.097
187	30	0.775934	0.758753	61.9286	177.448
188	30	0.780083	0.775574	61.9286	176.626
189	30	0.784232	0.789191	61.9286	175.961
190	30	0.788382	0.802956	61.9286	175.289
191	30	0.792531	0.816874	61.9286	174.609
192	30	0.79668	0.830953	61.9286	173.922
193	30	0.80083	0.845198	61.9286	173.226
194	30	0.804979	0.859618	61.9286	172.522
195	30	0.809129	0.877897	61.9286	171.629
196	30	0.813278	0.892733	61.9286	170.905
197	30	0.817427	0.907769	61.9286	170.171
198	30.5	0.821577	0.923014	62.3107	169.426
199	31	0.825726	0.938476	62.6929	168.671
200	33.1	0.829876	0.954165	64.2979	167.905
201	33.6	0.834025	0.974114	64.68	166.931
202	34	0.838174	0.990356	64.9857	166.138
203	34.1	0.842324	1.00687	65.0621	165.331
204	35	0.846473	1.02365	65.75	164.512
205	39.7	0.850622	1.04073	69.3421	163.678
206	40	0.854772	1.05812	69.5714	162.828
207	46	0.858921	1.07584	74.1571	161.963
208	51.6	0.863071	1.09847	78.4371	160.858
209	56.6	0.86722	1.11699	82.2586	159.954
210	60	0.871369	1.1359	84.8571	159.03
211	62	0.875519	1.15522	86.3857	158.087
212	62.4	0.879668	1.17499	86.6914	157.121
213	63	0.883817	1.19522	87.15	156.133
214	63	0.887967	1.21596	87.15	155.121
215	72	0.892116	1.24264	94.0286	153.818
216	73.8	0.896266	1.26464	95.4043	152.743
217	75	0.900415	1.28727	96.3214	151.638
218	76	0.904564	1.31058	97.0857	150.5
219	79	0.908714	1.33462	99.3786	149.326
220	88	0.912863	1.35946	106.257	148.113
221	92	0.917012	1.39175	109.314	146.536
222	95	0.921162	1.41865	111.607	145.222
223	96	0.925311	1.44663	112.371	143.856
224	100	0.929461	1.47579	115.429	142.432
225	110	0.93361	1.50626	123.071	140.944
226	110	0.937759	1.5382	123.071	139.385
227	110	0.941909	1.57179	123.071	137.744
228	120	0.946058	1.61644	130.714	135.564
229	120	0.950207	1.65463	130.714	133.699
230	150	0.954357	1.6954	153.643	131.708
231	150	0.958506	1.7392	153.643	129.569
232	180	0.962656	1.78661	176.571	127.254
233	200	0.966805	1.83843	191.857	124.724
234	220	0.970954	1.8957	207.143	121.927

235	250	0.975104	1.97737	230.071	117.938
236	320	0.979253	2.05375	283.571	114.209
237	330	0.983402	2.14441	291.214	109.781
238	346	0.987552	2.25713	303.443	104.277
239	410	0.991701	2.40892	352.357	96.8642
240	610	0.995851	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 = 240

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.262364	-2.65209	7.03356	-0.695813
2	0.262364	-2.40892	12.8365	-1.32783
3	0.262364	-2.25713	17.9311	-1.92002
4	0.262364	-2.14441	22.5296	-2.48263
5	0.993252	-2.05375	26.7475	-4.52252
6	1.02962	-1.97737	30.6575	-6.55846
7	1.09861	-1.8957	34.2511	-8.6411
8	1.1314	-1.83843	37.6309	-10.7211
9	1.16315	-1.78661	40.8229	-12.7992
10	1.16315	-1.7392	43.8477	-14.8221
11	1.28093	-1.6954	46.7221	-16.9938
12	1.28093	-1.65463	49.4599	-19.1133
13	1.30833	-1.61644	52.0728	-21.2281
14	1.36098	-1.57179	54.5433	-23.3673
15	1.50408	-1.5382	56.9093	-25.6809
16	1.50408	-1.50626	59.1782	-27.9464
17	1.50408	-1.47579	61.3561	-30.1661
18	1.52606	-1.44663	63.4489	-32.3738
19	1.60944	-1.41865	65.4614	-34.657
20	1.60944	-1.39175	67.3984	-36.8969
21	1.60944	-1.35946	69.2465	-39.0849
22	1.60944	-1.33462	71.0278	-41.2329
23	1.62924	-1.31058	72.7454	-43.3681
24	1.70475	-1.28727	74.4024	-45.5626
25	1.7156	-1.26464	76.0018	-47.7322
26	1.72277	-1.24264	77.5459	-49.873
27	1.74047	-1.21596	79.0245	-51.9893
28	1.77495	-1.19522	80.453	-54.1108
29	1.80829	-1.17499	81.8336	-56.2355
30	1.8453	-1.15522	83.1682	-58.3673
31	1.8563	-1.1359	84.4584	-60.4758
32	1.88555	-1.11699	85.7061	-62.582
33	1.88707	-1.09847	86.9127	-64.6548
34	1.93152	-1.07584	88.0701	-66.7328
35	1.97408	-1.05812	89.1898	-68.8217
36	2.07819	-1.04073	90.2729	-70.9845
37	2.07944	-1.02365	91.3208	-73.1131
38	2.09186	-1.00687	92.3345	-75.2194
39	2.10413	-0.990356	93.3153	-77.3032
40	2.10413	-0.974114	94.2642	-79.3529
41	2.11626	-0.954165	95.1747	-81.3721
42	2.11626	-0.938476	96.0554	-83.3582
43	2.16332	-0.923014	96.9074	-85.3549
44	2.17475	-0.907769	97.7314	-87.3291
45	2.17475	-0.892733	98.5284	-89.2706
46	2.25129	-0.877897	99.2991	-91.247
47	2.26176	-0.859618	100.038	-93.1912
48	2.33214	-0.845198	100.752	-95.1624
49	2.37955	-0.830953	101.443	-97.1397
50	2.3979	-0.816874	102.11	-99.0984
51	2.3979	-0.802956	102.755	-101.024

52	2.41591	-0.789191	103.378	-102.93
53	2.45101	-0.775574	103.979	-104.831
54	2.5337	-0.758753	104.555	-106.754
55	2.57261	-0.745449	105.111	-108.672
56	2.63906	-0.732275	105.647	-110.604
57	2.70805	-0.719228	106.164	-112.552
58	2.89037	-0.706302	106.663	-114.593
59	2.94444	-0.693493	107.144	-116.635
60	2.99573	-0.680797	107.607	-118.675
61	3.04452	-0.665079	108.05	-120.7
62	3.09104	-0.652622	108.476	-122.717
63	3.09104	-0.640266	108.886	-124.696
64	3.09104	-0.628006	109.28	-126.637
65	3.2581	-0.615839	109.659	-128.644
66	3.2581	-0.603765	110.024	-130.611
67	3.29584	-0.588793	110.37	-132.551
68	3.29584	-0.576911	110.703	-134.453
69	3.3322	-0.565108	111.023	-136.336
70	3.3322	-0.553384	111.329	-138.18
71	3.4012	-0.541736	111.622	-140.022
72	3.4012	-0.530162	111.903	-141.825
73	3.4012	-0.518658	112.172	-143.59
74	3.4012	-0.504372	112.427	-145.305
75	3.4012	-0.493018	112.67	-146.982
76	3.4012	-0.481728	112.902	-148.62
77	3.4012	-0.470498	113.123	-150.221
78	3.4012	-0.459327	113.334	-151.783
79	3.4012	-0.448213	113.535	-153.307
80	3.4012	-0.437153	113.726	-154.794
81	3.4012	-0.423405	113.906	-156.234
82	3.4012	-0.412463	114.076	-157.637
83	3.4012	-0.401571	114.237	-159.003
84	3.4012	-0.390726	114.39	-160.332
85	3.4012	-0.379927	114.534	-161.624
86	3.4012	-0.369171	114.67	-162.88
87	3.4012	-0.358459	114.799	-164.099
88	3.4012	-0.345126	114.918	-165.273
89	3.4012	-0.334503	115.03	-166.41
90	3.4012	-0.323919	115.135	-167.512
91	3.4012	-0.31337	115.233	-168.578
92	3.4012	-0.302855	115.325	-169.608
93	3.4012	-0.292375	115.41	-170.602
94	3.4012	-0.279319	115.488	-171.552
95	3.4012	-0.268908	115.56	-172.467
96	3.4012	-0.258527	115.627	-173.346
97	3.4012	-0.248174	115.689	-174.19
98	3.4012	-0.237847	115.745	-174.999
99	3.4012	-0.227545	115.797	-175.773
100	3.4012	-0.217267	115.844	-176.512
101	3.4012	-0.204452	115.886	-177.208
102	3.4012	-0.194225	115.924	-177.868
103	3.4012	-0.184017	115.958	-178.494
104	3.4012	-0.173829	115.988	-179.085
105	3.4012	-0.163659	116.015	-179.642
106	3.4012	-0.153505	116.038	-180.164
107	3.4012	-0.143367	116.059	-180.652
108	3.4012	-0.130716	116.076	-181.096
109	3.4012	-0.12061	116.091	-181.507
110	3.4012	-0.110516	116.103	-181.882
111	3.4012	-0.100433	116.113	-182.224
112	3.4012	-0.0903606	116.121	-182.531
113	3.4012	-0.0802981	116.127	-182.804

114	3.4012	-0.0677301	116.132	-183.035
115	3.4012	-0.0576847	116.135	-183.231
116	3.4012	-0.0476439	116.138	-183.393
117	3.4012	-0.0376076	116.139	-183.521
118	3.4012	-0.0275759	116.14	-183.615
119	3.4012	-0.0175476	116.14	-183.674
120	3.4012	-0.00751925	116.14	-183.7
121	3.4012	0.00751925	116.14	-183.674
122	3.4012	0.0175476	116.141	-183.615
123	3.4012	0.0275759	116.141	-183.521
124	3.4012	0.0376076	116.143	-183.393
125	3.4012	0.0476439	116.145	-183.231
126	3.4012	0.0576847	116.148	-183.035
127	3.4012	0.0677301	116.153	-182.804
128	3.4012	0.0802981	116.159	-182.531
129	3.4012	0.0903606	116.167	-182.224
130	3.4012	0.100433	116.178	-181.882
131	3.4012	0.110516	116.19	-181.507
132	3.4012	0.12061	116.204	-181.096
133	3.4012	0.130716	116.221	-180.652
134	3.4012	0.143367	116.242	-180.164
135	3.4012	0.153505	116.266	-179.642
136	3.4012	0.163659	116.292	-179.085
137	3.4012	0.173829	116.323	-178.494
138	3.4012	0.184017	116.356	-177.868
139	3.4012	0.194225	116.394	-177.208
140	3.4012	0.204452	116.436	-176.512
141	3.4012	0.217267	116.483	-175.773
142	3.4012	0.227545	116.535	-174.999
143	3.4012	0.237847	116.591	-174.19
144	3.4012	0.248174	116.653	-173.346
145	3.4012	0.258527	116.72	-172.467
146	3.4012	0.268908	116.792	-171.552
147	3.4012	0.279319	116.87	-170.602
148	3.4012	0.292375	116.956	-169.608
149	3.4012	0.302855	117.047	-168.578
150	3.4012	0.31337	117.146	-167.512
151	3.4012	0.323919	117.251	-166.41
152	3.4012	0.334503	117.362	-165.273
153	3.4012	0.345126	117.482	-164.099
154	3.4012	0.358459	117.61	-162.88
155	3.4012	0.369171	117.746	-161.624
156	3.4012	0.379927	117.891	-160.332
157	3.4012	0.390726	118.043	-159.003
158	3.4012	0.401571	118.205	-157.637
159	3.4012	0.412463	118.375	-156.234
160	3.4012	0.423405	118.554	-154.794
161	3.4012	0.437153	118.745	-153.307
162	3.4012	0.448213	118.946	-151.783
163	3.4012	0.459327	119.157	-150.221
164	3.4012	0.470498	119.378	-148.62
165	3.4012	0.481728	119.61	-146.982
166	3.4012	0.493018	119.853	-145.305
167	3.4012	0.504372	120.108	-143.59
168	3.4012	0.518658	120.377	-141.825
169	3.4012	0.530162	120.658	-140.022
170	3.4012	0.541736	120.951	-138.18
171	3.4012	0.553384	121.258	-136.298
172	3.4012	0.565108	121.577	-134.376
173	3.4012	0.576911	121.91	-132.413
174	3.4012	0.588793	122.257	-130.411
175	3.4012	0.603765	122.621	-128.357

176	3.4012	0.615839		123	-126.263
177	3.4012	0.628006		123.395	-124.127
178	3.4012	0.640266		123.805	-121.949
179	3.4012	0.652622		124.231	-119.729
180	3.4012	0.665079		124.673	-117.467
181	3.4012	0.680797		125.136	-115.152
182	3.4012	0.693493		125.617	-112.793
183	3.4012	0.706302		126.116	-110.391
184	3.4012	0.719228		126.633	-107.944
185	3.4012	0.732275		127.17	-105.454
186	3.4012	0.745449		127.725	-102.918
187	3.4012	0.758753		128.301	-100.338
188	3.4012	0.775574		128.903	-97.6999
189	3.4012	0.789191		129.525	-95.0157
190	3.4012	0.802956		130.17	-92.2847
191	3.4012	0.816874		130.837	-89.5063
192	3.4012	0.830953		131.528	-86.6801
193	3.4012	0.845198		132.242	-83.8054
194	3.4012	0.859618		132.981	-80.8817
195	3.4012	0.877897		133.752	-77.8958
196	3.4012	0.892733		134.549	-74.8594
197	3.4012	0.907769		135.373	-71.7719
198	3.41773	0.923014		136.225	-68.6173
199	3.43399	0.938476		137.106	-65.3946
200	3.49953	0.954165		138.016	-62.0555
201	3.51453	0.974114		138.965	-58.6319
202	3.52636	0.990356		139.946	-55.1396
203	3.5293	1.00687	140.96	-51.5861	
204	3.55535	1.02365	142.007	-47.9466	
205	3.68135	1.04073	143.091	-44.1153	
206	3.68888	1.05812	144.21	-40.212	
207	3.82864	1.07584	145.368	-36.093	
208	3.94352	1.09847	146.574	-31.7612	
209	4.03601	1.11699	147.822	-27.253	
210	4.09434	1.1359	149.112	-22.6023	
211	4.12713	1.15522	150.447	-17.8345	
212	4.13357	1.17499	151.827	-12.9776	
213	4.14313	1.19522	153.256	-8.02567	
214	4.14313	1.21596	154.734	-2.98778	
215	4.27667	1.24264	156.279	2.32658	
216	4.30136	1.26464	157.878	7.76626	
217	4.31749	1.28727	159.535	13.324	
218	4.33073	1.31058	161.253	18.9998	
219	4.36945	1.33462	163.034	24.8314	
220	4.47734	1.35946	164.882	30.9182	
221	4.52179	1.39175	166.819	37.2113	
222	4.55388	1.41865	168.831	43.6717	
223	4.56435	1.44663	170.924	50.2746	
224	4.60517	1.47579	173.102	57.0709	
225	4.70048	1.50626	175.371	64.1511	
226	4.70048	1.5382	177.737	71.3813	
227	4.70048	1.57179	180.208	78.7695	
228	4.78749	1.61644	182.82	86.5082	
229	4.78749	1.65463	185.558	94.4297	
230	5.01064	1.6954	188.433	102.925	
231	5.01064	1.7392	191.457	111.639	
232	5.19296	1.78661	194.649	120.917	
233	5.29832	1.83843	198.029	130.658	
234	5.39363	1.8957	201.623	140.882	
235	5.52146	1.97737	205.533	151.8	
236	5.76832	2.05375	209.751	163.647	
237	5.79909	2.14441	214.349	176.082	

238	5.84644	2.25713	219.444	189.279
239	6.01616	2.40892	225.247	203.771
240	6.41346	2.65209	232.28	220.78

Data Set Standard Deviation = 1.01134
Numerator = 48743.9
Denominator = 56780.8
W Statistic = 0.858458 = 48743.9 / 56780.8

5% Critical value of 0.976 exceeds 0.858458
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.858458
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 = 0.928396
0.928396 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.262364	0.00414938	-2.65209	59.0521	344.01
2	0.262364	0.00829876	-2.40892	59.0521	332.136
3	0.262364	0.0124481	-2.25713	59.0521	324.723
4	0.262364	0.0165975	-2.14441	59.0521	319.219
5	0.993252	0.0207469	-2.05375	114.913	314.791
6	1.02962	0.0248963	-1.97737	117.692	311.062
7	1.09861	0.0290456	-1.8957	122.965	307.073
8	1.1314	0.033195	-1.83843	125.471	304.276
9	1.16315	0.0373444	-1.78661	127.898	301.746
10	1.16315	0.0414938	-1.7392	127.898	299.431
11	1.28093	0.0456432	-1.6954	136.9	297.292
12	1.28093	0.0497925	-1.65463	136.9	295.301
13	1.30833	0.0539419	-1.61644	138.994	293.436
14	1.36098	0.0580913	-1.57179	143.017	291.256
15	1.50408	0.0622407	-1.5382	153.954	289.615
16	1.50408	0.06639	-1.50626	153.954	288.056
17	1.50408	0.0705394	-1.47579	153.954	286.568
18	1.52606	0.0746888	-1.44663	155.634	285.144
19	1.60944	0.0788382	-1.41865	162.007	283.778
20	1.60944	0.0829876	-1.39175	162.007	282.464
21	1.60944	0.0871369	-1.35946	162.007	280.887
22	1.60944	0.0912863	-1.33462	162.007	279.674
23	1.62924	0.0954357	-1.31058	163.521	278.5
24	1.70475	0.0995851	-1.28727	169.291	277.362
25	1.7156	0.103734	-1.26464	170.121	276.257
26	1.72277	0.107884	-1.24264	170.669	275.182
27	1.74047	0.112033	-1.21596	172.021	273.879
28	1.77495	0.116183	-1.19522	174.657	272.867
29	1.80829	0.120332	-1.17499	177.205	271.879
30	1.8453	0.124481	-1.15522	180.034	270.913
31	1.8563	0.128631	-1.1359	180.874	269.97
32	1.88555	0.13278	-1.11699	183.11	269.046
33	1.88707	0.136929	-1.09847	183.226	268.142
34	1.93152	0.141079	-1.07584	186.623	267.037
35	1.97408	0.145228	-1.05812	189.876	266.172
36	2.07819	0.149378	-1.04073	197.833	265.322
37	2.07944	0.153527	-1.02365	197.929	264.488
38	2.09186	0.157676	-1.00687	198.878	263.669
39	2.10413	0.161826	-0.990356	199.816	262.862
40	2.10413	0.165975	-0.974114	199.816	262.069
41	2.11626	0.170124	-0.954165	200.742	261.095
42	2.11626	0.174274	-0.938476	200.742	260.329
43	2.16332	0.178423	-0.923014	204.34	259.574
44	2.17475	0.182573	-0.907769	205.213	258.829
45	2.17475	0.186722	-0.892733	205.213	258.095
46	2.25129	0.190871	-0.877897	211.063	257.371
47	2.26176	0.195021	-0.859618	211.863	256.478
48	2.33214	0.19917	-0.845198	217.242	255.774

49	2.37955	0.20332	-0.830953	220.865	255.078	
50	2.3979	0.207469	-0.816874	222.268	254.391	
51	2.3979	0.211618	-0.802956	222.268	253.711	
52	2.41591	0.215768	-0.789191	223.645	253.039	
53	2.45101	0.219917	-0.775574	226.327	252.374	
54	2.5337	0.224066	-0.758753	232.647	251.552	
55	2.57261	0.228216	-0.745449	235.621	250.903	
56	2.63906	0.232365	-0.732275	240.699	250.259	
57	2.70805	0.236515	-0.719228	245.972	249.622	
58	2.89037	0.240664	-0.706302	259.907	248.991	
59	2.94444	0.244813	-0.693493	264.039	248.366	
60	2.99573	0.248963	-0.680797	267.96	247.746	
61	3.04452	0.253112	-0.665079	271.689	246.978	
62	3.09104	0.257261	-0.652622	275.244	246.37	
63	3.09104	0.261411	-0.640266	275.244	245.766	
64	3.09104	0.26556	-0.628006	275.244	245.168	
65	3.2581	0.26971	-0.615839	288.012	244.573	
66	3.2581	0.273859	-0.603765	288.012	243.984	
67	3.29584	0.278008	-0.588793	290.896	243.253	
68	3.29584	0.282158	-0.576911	290.896	242.672	
69	3.3322	0.286307	-0.565108	293.676	242.096	
70	3.3322	0.290456	-0.553384	293.676	241.524	
71	3.4012	0.294606	-0.541736	298.949	240.955	
72	3.4012	0.298755	-0.530162	298.949	240.39	
73	3.4012	0.302905	-0.518658	298.949	239.828	
74	3.4012	0.307054	-0.504372	298.949	239.13	
75	3.4012	0.311203	-0.493018	298.949	238.576	
76	3.4012	0.315353	-0.481728	298.949	238.024	
77	3.4012	0.319502	-0.470498	298.949	237.476	
78	3.4012	0.323651	-0.459327	298.949	236.93	
79	3.4012	0.327801	-0.448213	298.949	236.388	
80	3.4012	0.33195	-0.437153	298.949	235.848	
81	3.4012	0.3361	-0.423405	298.949	235.176	
82	3.4012	0.340249	-0.412463	298.949	234.642	
83	3.4012	0.344398	-0.401571	298.949	234.11	
84	3.4012	0.348548	-0.390726	298.949	233.58	
85	3.4012	0.352697	-0.379927	298.949	233.053	
86	3.4012	0.356846	-0.369171	298.949	232.528	
87	3.4012	0.360996	-0.358459	298.949	232.005	
88	3.4012	0.365145	-0.345126	298.949	231.354	
89	3.4012	0.369295	-0.334503	298.949	230.835	
90	3.4012	0.373444	-0.323919	298.949	230.318	
91	3.4012	0.377593	-0.31337	298.949	229.803	
92	3.4012	0.381743	-0.302855	298.949	229.289	
93	3.4012	0.385892	-0.292375	298.949	228.778	
94	3.4012	0.390041	-0.279319	298.949	228.14	
95	3.4012	0.394191	-0.268908	298.949	227.632	
96	3.4012	0.39834	-0.258527	298.949	227.125	
97	3.4012	0.40249	-0.248174	298.949	226.619	
98	3.4012	0.406639	-0.237847	298.949	226.115	
99	3.4012	0.410788	-0.227545	298.949	225.612	
100	3.4012	0.414938	-0.217267	298.949	225.11	
101	3.4012	0.419087	-0.204452	298.949	224.484	
102	3.4012	0.423237	-0.194225	298.949	223.985	
103	3.4012	0.427386	-0.184017	298.949	223.486	
104	3.4012	0.431535	-0.173829	298.949	222.989	
105	3.4012	0.435685	-0.163659	298.949	222.492	
106	3.4012	0.439834	-0.153505	298.949	221.996	
107	3.4012	0.443983	-0.143367	298.949	221.501	
108	3.4012	0.448133	-0.130716	298.949	220.883	
109	3.4012	0.452282	-0.12061	298.949	220.39	
110	3.4012	0.456432	-0.110516	298.949	219.897	

111	3.4012	0.460581	-0.100433	298.949	219.404
112	3.4012	0.46473	-0.0903606	298.949	218.913
113	3.4012	0.46888	-0.0802981	298.949	218.421
114	3.4012	0.473029	-0.0677301	298.949	217.807
115	3.4012	0.477178	-0.0576847	298.949	217.317
116	3.4012	0.481328	-0.0476439	298.949	216.827
117	3.4012	0.485477	-0.0376076	298.949	216.337
118	3.4012	0.489627	-0.0275759	298.949	215.847
119	3.4012	0.493776	-0.0175476	298.949	215.357
120	3.4012	0.497925	-0.00751925	298.949	214.867
121	3.4012	0.502075	0.00751925	298.949	214.133
122	3.4012	0.506224	0.0175476	298.949	213.643
123	3.4012	0.510373	0.0275759	298.949	213.153
124	3.4012	0.514523	0.0376076	298.949	212.663
125	3.4012	0.518672	0.0476439	298.949	212.173
126	3.4012	0.522822	0.0576847	298.949	211.683
127	3.4012	0.526971	0.0677301	298.949	211.193
128	3.4012	0.53112	0.0802981	298.949	210.579
129	3.4012	0.53527	0.0903606	298.949	210.087
130	3.4012	0.539419	0.100433	298.949	209.596
131	3.4012	0.543568	0.110516	298.949	209.103
132	3.4012	0.547718	0.12061	298.949	208.61
133	3.4012	0.551867	0.130716	298.949	208.117
134	3.4012	0.556017	0.143367	298.949	207.499
135	3.4012	0.560166	0.153505	298.949	207.004
136	3.4012	0.564315	0.163659	298.949	206.508
137	3.4012	0.568465	0.173829	298.949	206.011
138	3.4012	0.572614	0.184017	298.949	205.514
139	3.4012	0.576763	0.194225	298.949	205.015
140	3.4012	0.580913	0.204452	298.949	204.516
141	3.4012	0.585062	0.217267	298.949	203.89
142	3.4012	0.589212	0.227545	298.949	203.388
143	3.4012	0.593361	0.237847	298.949	202.885
144	3.4012	0.59751	0.248174	298.949	202.381
145	3.4012	0.60166	0.258527	298.949	201.875
146	3.4012	0.605809	0.268908	298.949	201.368
147	3.4012	0.609959	0.279319	298.949	200.86
148	3.4012	0.614108	0.292375	298.949	200.222
149	3.4012	0.618257	0.302855	298.949	199.711
150	3.4012	0.622407	0.31337	298.949	199.197
151	3.4012	0.626556	0.323919	298.949	198.682
152	3.4012	0.630705	0.334503	298.949	198.165
153	3.4012	0.634855	0.345126	298.949	197.646
154	3.4012	0.639004	0.358459	298.949	196.995
155	3.4012	0.643154	0.369171	298.949	196.472
156	3.4012	0.647303	0.379927	298.949	195.947
157	3.4012	0.651452	0.390726	298.949	195.42
158	3.4012	0.655602	0.401571	298.949	194.89
159	3.4012	0.659751	0.412463	298.949	194.358
160	3.4012	0.6639	0.423405	298.949	193.824
161	3.4012	0.66805	0.437153	298.949	193.152
162	3.4012	0.672199	0.448213	298.949	192.612
163	3.4012	0.676349	0.459327	298.949	192.07
164	3.4012	0.680498	0.470498	298.949	191.524
165	3.4012	0.684647	0.481728	298.949	190.976
166	3.4012	0.688797	0.493018	298.949	190.424
167	3.4012	0.692946	0.504372	298.949	189.87
168	3.4012	0.697095	0.518658	298.949	189.172
169	3.4012	0.701245	0.530162	298.949	188.61
170	3.4012	0.705394	0.541736	298.949	188.045
171	3.4012	0.709544	0.553384	298.949	187.476
172	3.4012	0.713693	0.565108	298.949	186.904

173	3.4012	0.717842	0.576911	298.949	186.328
174	3.4012	0.721992	0.588793	298.949	185.747
175	3.4012	0.726141	0.603765	298.949	185.016
176	3.4012	0.73029	0.615839	298.949	184.427
177	3.4012	0.73444	0.628006	298.949	183.832
178	3.4012	0.738589	0.640266	298.949	183.234
179	3.4012	0.742739	0.652622	298.949	182.63
180	3.4012	0.746888	0.665079	298.949	182.022
181	3.4012	0.751037	0.680797	298.949	181.254
182	3.4012	0.755187	0.693493	298.949	180.634
183	3.4012	0.759336	0.706302	298.949	180.009
184	3.4012	0.763485	0.719228	298.949	179.378
185	3.4012	0.767635	0.732275	298.949	178.741
186	3.4012	0.771784	0.745449	298.949	178.097
187	3.4012	0.775934	0.758753	298.949	177.448
188	3.4012	0.780083	0.775574	298.949	176.626
189	3.4012	0.784232	0.789191	298.949	175.961
190	3.4012	0.788382	0.802956	298.949	175.289
191	3.4012	0.792531	0.816874	298.949	174.609
192	3.4012	0.79668	0.830953	298.949	173.922
193	3.4012	0.80083	0.845198	298.949	173.226
194	3.4012	0.804979	0.859618	298.949	172.522
195	3.4012	0.809129	0.877897	298.949	171.629
196	3.4012	0.813278	0.892733	298.949	170.905
197	3.4012	0.817427	0.907769	298.949	170.171
198	3.41773	0.821577	0.923014	300.212	169.426
199	3.43399	0.825726	0.938476	301.455	168.671
200	3.49953	0.829876	0.954165	306.464	167.905
201	3.51453	0.834025	0.974114	307.61	166.931
202	3.52636	0.838174	0.990356	308.515	166.138
203	3.5293	0.842324	1.00687	308.739	165.331
204	3.55535	0.846473	1.02365	310.73	164.512
205	3.68135	0.850622	1.04073	320.36	163.678
206	3.68888	0.854772	1.05812	320.936	162.828
207	3.82864	0.858921	1.07584	331.618	161.963
208	3.94352	0.863071	1.09847	340.398	160.858
209	4.03601	0.86722	1.11699	347.466	159.954
210	4.09434	0.871369	1.1359	351.925	159.03
211	4.12713	0.875519	1.15522	354.431	158.087
212	4.13357	0.879668	1.17499	354.922	157.121
213	4.14313	0.883817	1.19522	355.654	156.133
214	4.14313	0.887967	1.21596	355.654	155.121
215	4.27667	0.892116	1.24264	365.859	153.818
216	4.30136	0.896266	1.26464	367.747	152.743
217	4.31749	0.900415	1.28727	368.979	151.638
218	4.33073	0.904564	1.31058	369.992	150.5
219	4.36945	0.908714	1.33462	372.951	149.326
220	4.47734	0.912863	1.35946	381.196	148.113
221	4.52179	0.917012	1.39175	384.594	146.536
222	4.55388	0.921162	1.41865	387.046	145.222
223	4.56435	0.925311	1.44663	387.847	143.856
224	4.60517	0.929461	1.47579	390.967	142.432
225	4.70048	0.93361	1.50626	398.251	140.944
226	4.70048	0.937759	1.5382	398.251	139.385
227	4.70048	0.941909	1.57179	398.251	137.744
228	4.78749	0.946058	1.61644	404.901	135.564
229	4.78749	0.950207	1.65463	404.901	133.699
230	5.01064	0.954357	1.6954	421.956	131.708
231	5.01064	0.958506	1.7392	421.956	129.569
232	5.19296	0.962656	1.78661	435.89	127.254
233	5.29832	0.966805	1.83843	443.943	124.724
234	5.39363	0.970954	1.8957	451.227	121.927

235	5.52146	0.975104	1.97737	460.997	117.938
236	5.76832	0.979253	2.05375	479.865	114.209
237	5.79909	0.983402	2.14441	482.216	109.781
238	5.84644	0.987552	2.25713	485.835	104.277
239	6.01616	0.991701	2.40892	498.806	96.8642
240	6.41346	0.995851	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	66
	9/23/1999	3.2581 J	192
	3/15/2000	4.56435	223
	9/24/2003	6.41346	240
	3/11/2004	ND<3.4012	66
	10/12/2004	ND<3.4012	66
	4/1/2005	ND<3.4012	66
	10/25/2005	ND<3.4012	66
	4/29/2006	ND<3.4012	66
	11/18/2006	2.33214 J	175
	5/23/2007	ND<3.4012	66
	11/28/2007	ND<3.4012	66
	6/5/2008	2.41591 J	179
	11/20/2008	ND<3.4012	66
	6/11/2009	2.63906	183
	6/30/2010	1.52606 J H	145
	11/12/2010	1.74047 J	154
	7/5/2011	1.16315 J	136

Rank Sum = 2221
Rank Mean = 123.389

Background Rank Sum = 2221
Background Rank Mean = 123.389

Compliance Locations

Loc. ID	Date	Value	Rank
MW-11R	7/20/1995	ND<3.4012	66
	8/24/1995	3.5293 J	203
	9/28/1995	3.41773	198
	10/26/1995	ND<3.4012	66
	11/19/1996	ND<3.4012	66
	12/19/1996	ND<3.4012	66
	3/24/1997	ND<3.4012	66
	9/24/1997	4.52179	221
	4/7/1998	5.79909	237
	9/23/1998	4.70048	225
	3/16/1999	ND<3.4012	66
	9/23/1999	3.29584 J	194
	3/15/2000	ND<3.4012	66
	9/24/2003	4.09434	210
	3/11/2004	ND<3.4012	66
	10/12/2004	ND<3.4012	66
	4/1/2005	ND<3.4012	66
	10/25/2005	ND<3.4012	66
	4/29/2006	2.99573 J	187
	11/18/2006	ND<3.4012	66
	5/23/2007	3.68135	205
	11/28/2007	ND<3.4012	66

	6/5/2008	ND<3.4012		66
	11/20/2008	ND<3.4012		66
	6/11/2009	3.82864		207
	6/30/2010	1.93152	J H	161
	11/12/2010	1.28093	J	138
	7/5/2011	1.88707	J	160
	11/22/2011	4.14313	J	213
	11/22/2011	4.14313	J	214
	6/5/2012	ND<0.262364	U	66

Rank Sum = 4029
Rank Mean = 129.968

MW-10	7/20/1995	ND<3.4012		66
	8/24/1995	ND<3.4012		66
	9/28/1995	ND<3.4012		66
	10/26/1995	ND<3.4012		66
	11/19/1996	ND<3.4012		66
	12/19/1996	ND<3.4012		66
	3/24/1997	4.70048		226
	9/24/1997	ND<3.4012		66
	4/7/1998	5.01064		230
	9/23/1998	ND<3.4012		66
	3/16/1999	ND<3.4012		66
	9/23/1999	ND<3.4012		66
	3/15/2000	ND<3.4012		66
	9/24/2003	ND<3.4012		66
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66
	10/25/2005	ND<3.4012		66
	4/29/2006	ND<3.4012		66
	11/18/2006	ND<3.4012		66
	5/23/2007	4.13357		212
	11/28/2007	6.01616		239
	6/5/2008	2.37955	J	176
	11/20/2008	ND<3.4012		66
	6/11/2009	3.3322		196
	6/30/2010	5.39363	H	234
	11/12/2010	1.97408	J	162
	7/5/2011	1.09861	J	134
	11/22/2011	1.72277	J	153
	6/5/2012	1.62924	J	150

Rank Sum = 3366
Rank Mean = 112.2

MW-8	7/20/1995	ND<3.4012		66
	8/24/1995	3.04452	J	188
	9/28/1995	3.51453	J	201
	10/26/1995	ND<3.4012		66
	11/19/1996	ND<3.4012		66
	12/19/1996	ND<3.4012		66
	3/24/1997	ND<3.4012		66
	9/24/1997	4.12713		211
	4/7/1998	5.01064		231
	9/23/1998	4.78749		228
	3/16/1999	ND<3.4012		66
	9/23/1999	ND<3.4012		66
	3/15/2000	ND<3.4012		66
	9/24/2003	ND<3.4012		66
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66

	10/25/2005	ND<3.4012		66
	4/29/2006	ND<3.4012		66
	11/18/2006	1.88555	J	159
	5/23/2007	3.94352		208
	11/28/2007	3.29584	J	195
	6/5/2008	2.16332	J	170
	11/20/2008	3.3322	J	197
	6/11/2009	ND<0.262364		66
	6/30/2010	1.80829	J H	156
	11/12/2010	1.16315	J	137
	7/5/2011	2.70805		184
	11/22/2011	2.94444		186
	6/5/2012	2.07944	J	164

Rank Sum = 3805
Rank Mean = 126.833

MW-9	7/20/1995	ND<3.4012		66
	8/24/1995	3.49953	J	200
	9/28/1995	ND<3.4012		66
	10/26/1995	ND<3.4012		66
	11/19/1996	ND<3.4012		66
	12/19/1996	ND<3.4012		66
	3/24/1997	4.70048		227
	9/24/1997	ND<3.4012		66
	4/7/1998	ND<3.4012		66
	9/23/1998	4.47734		220
	3/16/1999	ND<3.4012		66
	9/23/1999	1.60944	J	146
	3/15/2000	ND<3.4012		66
	9/24/2003	4.78749		229
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66
	10/25/2005	ND<3.4012		66
	4/29/2006	ND<3.4012		66
	11/18/2006	1.7156	J	152
	5/23/2007	4.03601		209
	11/28/2007	3.2581	J	193
	6/5/2008	ND<3.4012		66
	11/20/2008	ND<3.4012		66
	6/11/2009	3.09104		189
	6/30/2010	1.28093	J H	139
	11/12/2010	1.02962	J	133
	7/5/2011	2.11626	J	168
	11/22/2011	1.50408	J	142
	11/22/2011	1.50408	J	143
	6/5/2012	ND<0.262364	U	66

Rank Sum = 3612
Rank Mean = 116.516

MW-7	7/20/1995	ND<3.4012		66
	8/24/1995	3.68888	J	206
	9/28/1995	3.55535	J	204
	10/26/1995	ND<3.4012		66
	11/19/1996	ND<3.4012		66
	12/19/1996	ND<3.4012		66
	3/24/1997	ND<3.4012		66
	9/24/1997	4.36945		219
	4/7/1998	ND<3.4012		66
	9/23/1998	4.55388		222
	3/16/1999	ND<3.4012		66
	9/23/1999	1.60944	J	147

	3/15/2000	2.3979	J	177
	9/24/2003	5.19296		232
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66
	10/25/2005	ND<3.4012		66
	4/29/2006	ND<3.4012		66
	11/18/2006	1.60944	J	148
	5/23/2007	4.30136		216
	11/28/2007	ND<3.4012		66
	6/5/2008	2.45101	J	180
	11/20/2008	4.33073		218
	6/11/2009	1.36098	J	141
	6/30/2010	1.30833	J H	140
	11/12/2010	1.60944	J	149
	7/5/2011	2.17475	J	171
	11/22/2011	3.09104	J	190
	6/5/2012	2.10413	J	166

Rank Sum = 3984
Rank Mean = 132.8

MW-6	7/20/1995	ND<3.4012		66
	8/24/1995	5.84644		238
	9/28/1995	2.25129	J	173
	10/26/1995	ND<3.4012		66
	11/19/1996	ND<3.4012		66
	12/19/1996	ND<3.4012		66
	3/24/1997	ND<3.4012		66
	9/24/1997	4.27667		215
	4/7/1998	4.31749		217
	9/23/1998	5.29832		233
	3/16/1999	ND<3.4012		66
	9/23/1999	ND<3.4012		66
	3/15/2000	ND<3.4012		66
	9/24/2003	5.76832		236
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66
	10/25/2005	ND<3.4012		66
	4/29/2006	ND<3.4012		66
	11/18/2006	ND<3.4012		66
	5/23/2007	ND<3.4012		66
	11/28/2007	ND<3.4012		66
	6/5/2008	2.07819	J	163
	11/20/2008	ND<3.4012		66
	6/11/2009	2.89037		185
	6/30/2010	0.993252	J H	132
	11/12/2010	1.8563	J	158
	7/5/2011	3.09104	J	191
	11/22/2011	2.3979		178
	6/5/2012	ND<0.262364	U	66

Rank Sum = 3507
Rank Mean = 116.9

MW-12BR	3/16/1999	ND<3.4012		66
	9/23/1999	ND<3.4012		66
	3/15/2000	ND<3.4012		66
	9/24/2003	ND<3.4012		66
	3/11/2004	ND<3.4012		66
	10/12/2004	ND<3.4012		66
	4/1/2005	ND<3.4012		66
	10/25/2005	ND<3.4012		66

	4/29/2006	ND<3.4012	66
	11/18/2006	1.8453 J	157
	5/23/2007	ND<3.4012	66
	11/28/2007	ND<3.4012	66
	6/5/2008	2.57261 J	182
	11/20/2008	ND<3.4012	66
	6/11/2009	2.11626 J	169
	6/30/2010	3.52636	202
	11/12/2010	2.26176 J	174
	7/5/2011	4.60517	224
	11/22/2011	3.43399	199
	6/5/2012	2.10413 J	167

Rank Sum = 2266
Rank Mean = 113.3

MW-12AR	3/16/1999	ND<3.4012	66
	9/23/1999	ND<3.4012	66
	3/15/2000	ND<3.4012	66
	9/24/2003	5.52146	235
	3/11/2004	ND<3.4012	66
	10/12/2004	ND<3.4012	66
	4/1/2005	ND<3.4012	66
	10/25/2005	ND<3.4012	66
	4/29/2006	ND<3.4012	66
	11/18/2006	ND<3.4012	66
	5/23/2007	2.5337 J	181
	11/28/2007	ND<3.4012	66
	6/5/2008	ND<3.4012	66
	11/20/2008	ND<3.4012	66
	6/11/2009	1.50408 J	144
	6/30/2010	2.17475 J	172
	11/12/2010	1.1314 J	135
	7/5/2011	1.77495 J	155
	11/22/2011	2.09186 J	165
	6/5/2012	1.70475 J	151

Rank Sum = 2130
Rank Mean = 106.5

Calculation Results:

Kruskal-Wallis H Statistic = 3.43887
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 4.10668
95% Confidence comparison value is 15.5073 at 8 degrees of freedom
3.43887 < 15.5073 indicating no significant group difference at 5% significance level
4.10668 < 15.5073 indicating no significant group difference at 5% significance level when adjusted for ties